

|                                                                                                                                                                                                                                                                              |                               |                         |  |               |               |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------|--|---------------|---------------|-----|
| CONVERTER STATUS                                                                                                                                                                                                                                                             | 3x05051<br>4x05051<br>I:5050  | 0,0x0000<br>B:00 00     |  |               | UINT16<br>R/O |     |
| DIP SWITCH                                                                                                                                                                                                                                                                   | 3x10010<br>4x10010<br>I:10009 | 15,0x000F<br>B:00 0F    |  |               | UINT16<br>R/O |     |
| Returns the current setting of the Dip switches.<br>For ULTRA SLIM IOs<br>The current value of the DIP switches:<br>Bit 0: DIP Switch 1 (=0:OFF, =1:ON)<br>Bit 1: DIP Switch 2 (=0:OFF, =1:ON)<br>Bit 2: DIP Switch 3 (=0:OFF, =1:ON)<br>Bit 3: DIP Switch 4 (=0:OFF, =1:ON) |                               |                         |  |               |               |     |
| <b>SOFTWARE RESET</b>                                                                                                                                                                                                                                                        |                               |                         |  |               |               |     |
| RESET                                                                                                                                                                                                                                                                        | 1x06001<br>2x06001<br>I:6000  | 0,0x00<br>B:00          |  | N/A:NO CHANGE | BIT<br>R/W    | YES |
| Performs a software reset, whenever 1 is written to this register. If the host writes to this register 1, the module executes a soft reset (reboot).                                                                                                                         |                               |                         |  |               |               |     |
| RESET                                                                                                                                                                                                                                                                        | 3x06001<br>4x06001<br>I:6000  | 0,0x0000<br>B:00 00     |  | N/A:NO CHANGE | UINT16<br>R/W | YES |
| Performs a software reset, whenever 1 is written to this register. If the host writes to this register 1, the module executes a soft reset (reboot).                                                                                                                         |                               |                         |  |               |               |     |
| <b>PRODUCT DATA</b>                                                                                                                                                                                                                                                          |                               |                         |  |               |               |     |
| HW_GROUP                                                                                                                                                                                                                                                                     | 3x65201<br>4x65201<br>I:65200 | 8336,0x2090<br>B:20 90  |  |               | UINT16<br>R/O |     |
| This is the group of hardware of the current product                                                                                                                                                                                                                         |                               |                         |  |               |               |     |
| SW_GROUP                                                                                                                                                                                                                                                                     | 3x65202<br>4x65202<br>I:65201 | 4096,0x1000<br>B:10 00  |  |               | UINT16<br>R/O |     |
| This is the group of software of the current product                                                                                                                                                                                                                         |                               |                         |  |               |               |     |
| SW_VERSION                                                                                                                                                                                                                                                                   | 3x65203<br>4x65203<br>I:65202 | 4352,0x1100<br>B:11 00  |  |               | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                              |                               | SW VERSION:1.1.0        |  |               |               |     |
| This is the current software version of the firmware                                                                                                                                                                                                                         |                               |                         |  |               |               |     |
| SW_AUTHOR                                                                                                                                                                                                                                                                    | 3x65204<br>4x65204<br>I:65203 | 18771,0x4953<br>B:49 53 |  |               | UINT16<br>R/O |     |
| This is the current software author of the firmware                                                                                                                                                                                                                          |                               |                         |  |               |               |     |
| <b>MODBUS SETTINGS</b>                                                                                                                                                                                                                                                       |                               |                         |  |               |               |     |
| UNIT_ID                                                                                                                                                                                                                                                                      | 3x65222<br>4x65222<br>I:65221 | 65535,0xFFFF<br>B:FF FF |  | N/A:NO CHANGE | UINT16<br>R/W | NO  |
|                                                                                                                                                                                                                                                                              |                               | UNIT ID:255             |  |               |               |     |

If the host reads this register, the current programmed unit ID is returned. All values above unit ID 255 define also the unit ID 255.  
 If the host writes a new value into this register, the new value will be stored in the FLASH as the new unit ID. The new unit ID is activated after a power off/power on cycle or a software reboot of the module.  
 The host can execute a reboot in writing to the register RESET SYSTEM.  
 NOTE: DIP switch 4 must be set to OFF to activate this unit ID, otherwise the unit ID is 255.

**HINT: This settings will be active after you repower or reset your device !!**

|           |                               |                                        |       |                 |               |    |
|-----------|-------------------------------|----------------------------------------|-------|-----------------|---------------|----|
| BAUD_RATE | 3x65223<br>4x65223<br>I:65222 | 4294967295,0xFFFFFFFF<br>B:FF FF FF FF | 38400 | 38400           | UINT32<br>R/W | NO |
|           |                               | 57600Bd                                |       | ENTER BAUD RATE |               |    |

This is the current configured baud rate for DIP switch mode DIP1=ON, DIP2=ON (default is 57600bd)

DIP switch settings:  
 DIP1-DIP2  
 OFF-OFF:9600bd  
 ON-OFF:19200bd  
 OFF-ON:38400bd  
 ON-ON:default 57600bd or the defined baud rate

Valid baud rates are:

300bd  
 600bd  
 1200bd  
 2400bd  
 4800bd  
 9600bd  
 19200bd  
 38400bd  
 all other:57600bd

**HINT: This settings will be active after you repower or reset your device !!**

|        |                               |                         |  |               |               |    |
|--------|-------------------------------|-------------------------|--|---------------|---------------|----|
| PARITY | 3x65225<br>4x65225<br>I:65224 | 65535,0xFFFF<br>B:FF FF |  | N/A:NO CHANGE | UINT16<br>R/W | NO |
|        |                               | NO PARITY               |  | SELECT PARITY |               |    |

If the register is read out, the currently set parity of the serial interface is returned.

Writing a value to this register will change the new parity in FLASH. This will only take effect after a restart of the module. This can be triggered by writing to the RESET SYSTEM register.

Parity values are

0: no parity  
 1: even parity  
 2: odd parity

|           |                               |                         |  |                 |               |    |
|-----------|-------------------------------|-------------------------|--|-----------------|---------------|----|
| STOP BITS | 3x65226<br>4x65226<br>I:65225 | 65535,0xFFFF<br>B:FF FF |  | N/A:NO CHANGE   | UINT16<br>R/W | NO |
|           |                               | ONE STOPBIT             |  | SELECT STOPBITS |               |    |

If the register is read out, the currently set number of stop bits of the serial interface is returned.

Writing a value to this register will change the new number of stop bits in the FLASH. This will only take effect after a restart of the module. This can be triggered by writing to the RESET SYSTEM register.

Values for stop bits are

1: one stop bit  
 2: two stop bits

|                                                                                                                                                                             |                          |                                                                                          |       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------|-------|--|
| GET VERSION                                                                                                                                                                 | ASCII<br>READ<br>COMMAND | #VERSION<CR><br>#VER<CR><br>Result:<br>#VERSION:<VersionHi>,<VersionMed>,<VersionLo><CR> | ASCII |  |
|                                                                                                                                                                             | TX                       | #VERSION<CR>                                                                             |       |  |
|                                                                                                                                                                             | RX                       | #255,VERSION:1.1.0<CR>                                                                   |       |  |
|                                                                                                                                                                             |                          | Current SW version:1.1.0                                                                 |       |  |
| Returns the version number of the module<br>VersionHi: Version number high (1..255)<br>VersionMed: Version number medium (1..255)<br>VersionLo: Version number low (1..255) |                          |                                                                                          |       |  |
| GET TYPE                                                                                                                                                                    | ASCII<br>READ<br>COMMAND | #TYPE<CR><br>#TYP<CR><br>Result:<br>#TYPE:<Type><CR>                                     | ASCII |  |
|                                                                                                                                                                             | TX                       | #TYPE<CR>                                                                                |       |  |
|                                                                                                                                                                             | RX                       | #255,TYPE:RESI-1S0-SIO<CR>                                                               |       |  |
|                                                                                                                                                                             |                          | Current module type:RESI-1S0-SIO                                                         |       |  |
| Returns the current module type                                                                                                                                             |                          |                                                                                          |       |  |
| GET OWNER                                                                                                                                                                   | ASCII<br>READ<br>COMMAND | #OWNER<CR><br>#OWN<CR><br>Result:<br>#OWNER:<Owner><CR>                                  | ASCII |  |
|                                                                                                                                                                             | TX                       | #OWNER<CR>                                                                               |       |  |
|                                                                                                                                                                             | RX                       | #255,OWNER:RESI<CR>                                                                      |       |  |
|                                                                                                                                                                             |                          | Current owner:RESI                                                                       |       |  |
| Returns the current owner of the module                                                                                                                                     |                          |                                                                                          |       |  |
| GET CREATOR                                                                                                                                                                 | ASCII<br>READ<br>COMMAND | #CREATOR<CR><br>#CRE<CR><br>Result:<br>#CREATOR:<Creator><CR>                            | ASCII |  |
|                                                                                                                                                                             | TX                       | #CREATOR<CR>                                                                             |       |  |
|                                                                                                                                                                             | RX                       | #255,CREATOR:DI HC SIGL,MSC<CR>                                                          |       |  |
|                                                                                                                                                                             |                          | Current creator:DI HC SIGL,MSC                                                           |       |  |
| Returns the current creator of the module                                                                                                                                   |                          |                                                                                          |       |  |
| GET COPYRIGHT                                                                                                                                                               | ASCII<br>READ<br>COMMAND | #COPYRIGHT<CR><br>#COPY<CR><br>Result:<br>#COPYRIGHT:<Copyright><CR>                     | ASCII |  |
|                                                                                                                                                                             | TX                       | #COPYRIGHT<CR>                                                                           |       |  |
|                                                                                                                                                                             | RX                       | #255,COPYRIGHT:2016,2020 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC<CR>                      |       |  |
|                                                                                                                                                                             |                          | Current copyright:2016,2020 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC                       |       |  |
| Returns the current copyright of the module                                                                                                                                 |                          |                                                                                          |       |  |

|                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                 |       |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------|-------|----|
| GET DIP SWITCH                                                                                                                                                                                                                                                                                                                      | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DIP<CR><br>#GDIP<CR><br>Result:<br>#GDIP:<DIPSwitchDec>,<DIPSwitchHex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                     | <b>TX</b>                          | #GET DIP<CR>                                                                    |       |    |
|                                                                                                                                                                                                                                                                                                                                     | <b>RX</b>                          | #255,GDIP:15,0xF<CR>                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                     |                                    | Current DIP SWITCH settings:1111                                                |       |    |
| Returns the current setting of the Dip switches as decimal number and as hexadecimal number.<br>DIPSwitchDec<br>DIPSwitchHex<br>The current value of the DIP switches:<br>Bit 0: DIP Switch 1 (=0:OFF, =1:ON)<br>Bit 1: DIP Switch 2 (=0:OFF, =1:ON)<br>Bit 2: DIP Switch 3 (=0:OFF, =1:ON)<br>Bit 3: DIP Switch 4 (=0:OFF, =1:ON)  |                                    |                                                                                 |       |    |
| <b>ASCII COMMANDS</b>                                                                                                                                                                                                                                                                                                               |                                    |                                                                                 |       |    |
| SET MODBUS ADDRESS                                                                                                                                                                                                                                                                                                                  | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET MODBUS ADDRESS:<UNITID><CR><br>#SMBADR:<UNITID><CR><br>Result:<br>#OK<CR>  | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                     | <b>UNITID</b>                      | 1                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                     | <b>TX</b>                          | #SET MODBUS ADDRESS:1<CR>                                                       |       |    |
|                                                                                                                                                                                                                                                                                                                                     | <b>RX</b>                          | N/A                                                                             |       |    |
|                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                 |       |    |
| Redefines the unit ID of the module. This change will affect the MODBUS/RTU communication immediately. As a Unit IO you can use the values 0dec to 255dec.<br>HINT: The new settings are activated after a system reboot or power off on cycle!                                                                                     |                                    |                                                                                 |       |    |
| SET MODBUS BAUDRATE                                                                                                                                                                                                                                                                                                                 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET MODBUS BAUDRATE:<BAUD><CR><br>#SMBBAUD:<BAUD><CR><br>Result:<br>#OK<CR>    | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                     | <b>BAUD</b>                        | 57600:57600BD                                                                   |       |    |
|                                                                                                                                                                                                                                                                                                                                     | <b>TX</b>                          | #SET MODBUS BAUDRATE:57600<CR>                                                  |       |    |
|                                                                                                                                                                                                                                                                                                                                     | <b>RX</b>                          | N/A                                                                             |       |    |
|                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                 |       |    |
| Sets a new baudrate for the serial interface, if DIP Switches DIP1=ON and DIP2=ON.<br>The following baudrates are allowed:<br>300bd<br>600bd<br>1200bd<br>2400bd<br>4800bd<br>9600bd<br>19200bd<br>38400bd<br>all others are interpreted as 57600bd<br>HINT: The new setup parameters will be active after a restart of the module. |                                    |                                                                                 |       |    |

|                                                                                                                                                                                                         |                           |                                                                                                                                      |       |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------|----|
| SET MODBUS PARITY                                                                                                                                                                                       | ASCII<br>WRITE<br>COMMAND | #SET MODBUS PARITY:<PARITY><CR><br>#SMBPAR:<PARITY><CR><br>Result:<br>#OK<CR>                                                        | ASCII | NO |
|                                                                                                                                                                                                         | PARITY                    | NONE:NO PARITY                                                                                                                       |       |    |
|                                                                                                                                                                                                         | TX                        | #SET MODBUS PARITY:NONE<CR>                                                                                                          |       |    |
|                                                                                                                                                                                                         | RX                        | N/A                                                                                                                                  |       |    |
| Sets a new parity for the serial interface.<br>MBParity:<br>NONE: no parity<br>EVEN: even parity<br>ODD: odd parity<br><br>HINT: The new setup parameters will be active after a restart of the module. |                           |                                                                                                                                      |       |    |
| SET MODBUS STOPS                                                                                                                                                                                        | ASCII<br>WRITE<br>COMMAND | #SET MODBUS STOP:<STOPBIT><CR><br>#SETMBSTOP:<STOPBIT><CR><br>Result:<br>#OK<CR>                                                     | ASCII | NO |
|                                                                                                                                                                                                         | STOPBIT                   | ONE:ONE STOPBIT                                                                                                                      |       |    |
|                                                                                                                                                                                                         | TX                        | #SET MODBUS STOP:ONE<CR>                                                                                                             |       |    |
|                                                                                                                                                                                                         | RX                        | N/A                                                                                                                                  |       |    |
| Sets a new amount of stop bits for the serial interface.<br>MBStops<br>ONE: one stop bit<br>TWO: two stop bits<br><br>HINT: The new setup parameters will be active after a restart of the module.      |                           |                                                                                                                                      |       |    |
| SET MODBUS PARAMS                                                                                                                                                                                       | ASCII<br>WRITE<br>COMMAND | #SET MODBUS PARAMS:<UNITID>,<BAUD>,<PARITY>,<STOPBIT><CR><br>#SMBPARAMS:<UNITID>,<BAUD>,<PARITY>,<STOPBIT><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                         | UNITID                    | 1                                                                                                                                    |       |    |
|                                                                                                                                                                                                         | BAUD                      | 57600:57600BD                                                                                                                        |       |    |
|                                                                                                                                                                                                         | PARITY                    | NONE:NO PARITY                                                                                                                       |       |    |
|                                                                                                                                                                                                         | STOPBIT                   | ONE:ONE STOPBIT                                                                                                                      |       |    |
|                                                                                                                                                                                                         | TX                        | #SET MODBUS PARAMS:1,57600,NONE,ONE<CR>                                                                                              |       |    |
|                                                                                                                                                                                                         | RX                        | N/A                                                                                                                                  |       |    |
| Sets all parameters for serial interface                                                                                                                                                                |                           |                                                                                                                                      |       |    |
| GET MODBUS ADDRESS                                                                                                                                                                                      | ASCII<br>READ<br>COMMAND  | #GET MODBUS ADDRESS<CR><br>#GMBADR<CR><br>Result:<br>#GMBADR:<MBUnitDec>,<MBFLASHDec>,<MBUnitHex>,<MBFLASHHex><CR>                   | ASCII |    |
|                                                                                                                                                                                                         | TX                        | #GET MODBUS ADDRESS<CR>                                                                                                              |       |    |
|                                                                                                                                                                                                         | RX                        | #255,GMBADR:255,0xFF,65535,0xFFFF<CR>                                                                                                |       |    |
|                                                                                                                                                                                                         |                           | Current MODBUS unit ID for DIP4=OFF:255,0xFF,65535,0xFFFF                                                                            |       |    |

Shows the current used MODBUS/RTU or ASCII unit address and shows also the stored unit address in the FLASH memory, which is only used if the DIP switch for the bus address is set to 0.

MBUnitDec,MBUnitHex

The current used MODBUS/RTU unit or ASCII address for communication

MBFLASHDec,MBFLASHHex

The internal stored MODBUS/RTU unit address or ASCII address from the FLASH memory, if the DIP switch DIP3 is OFF.

|                     |                                   |                                                                                |       |  |
|---------------------|-----------------------------------|--------------------------------------------------------------------------------|-------|--|
| GET MODBUS BAUDRATE | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET MODBUS BAUDRATE<CR><br>#GMBBAUD<CR><br>Result:<br>#GMBBAUD:<BaudRate><CR> | ASCII |  |
|                     | <b>TX</b>                         | #GET MODBUS BAUDRATE<CR>                                                       |       |  |
|                     | <b>RX</b>                         | #255,GMBBAUD:57600<CR>                                                         |       |  |
|                     |                                   | Current baudrate for DIP1+2=ON:57600                                           |       |  |

Returns the current defined baud rate for the serial interface, if DIP switches DIP1=ON and DIP2=ON.

The following baudrates are allowed:

300bd  
600bd  
1200bd  
2400bd  
4800bd  
9600bd  
19200bd  
38400bd  
all others are interpreted as 57600bd

|                   |                                   |                                                                            |       |  |
|-------------------|-----------------------------------|----------------------------------------------------------------------------|-------|--|
| GET MODBUS PARITY | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET MODBUS PARITY<CR><br>#GMBPAR<CR><br>Result:<br>#GMBPAR:<MBParity><CR> | ASCII |  |
|                   | <b>TX</b>                         | #GET MODBUS PARITY<CR>                                                     |       |  |
|                   | <b>RX</b>                         | #255,GMBPAR:NONE<CR>                                                       |       |  |
|                   |                                   | Current parity:NONE                                                        |       |  |

Shows the current configured parity of the serial interface.

MBParity

NONE: no parity

EVEN: even parity

ODD: odd parity

|                 |                                   |                                                                          |       |  |
|-----------------|-----------------------------------|--------------------------------------------------------------------------|-------|--|
| GET MODBUS STOP | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET MODBUS STOP<CR><br>#GMBSTOP<CR><br>Result:<br>#GMBSTOP:<MBStop><CR> | ASCII |  |
|                 | <b>TX</b>                         | #GET MODBUS STOP<CR>                                                     |       |  |
|                 | <b>RX</b>                         | #255,GMBSTOP:ONE<CR>                                                     |       |  |
|                 |                                   | Current stopbit(s):ONE                                                   |       |  |

Returns the current configured amount of stop bits for the serial interface.

MBStops

ONE: one stop bit

TWO: two stop bits

|                                                                                                       |                                    |                                                                                                                                                                              |       |    |
|-------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----|
| GET MODBUS PARAMS                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET MODBUS PARAMS<CR><br>#GMBPARAMS<CR><br>Result:<br>#GMBPARAMS:<MBUnitDec>,<MBFLASHDec>,<MBUnitHex>,<MBFLASHHex>,<MBBaudrateDec>,<MBBaudrateHex>,<MBParity>,<MBStops><CR> | ASCII |    |
|                                                                                                       | <b>TX</b>                          | #GET MODBUS PARAMS<CR>                                                                                                                                                       |       |    |
|                                                                                                       | <b>RX</b>                          | #255,GMBPARAMS:255,0xFF,65535,0xFFFF,57600,0xE100,NONE,ONE<CR>                                                                                                               |       |    |
|                                                                                                       |                                    | Current MODBUS unit ID used:255                                                                                                                                              |       |    |
|                                                                                                       |                                    | Current MODBUS unit ID in FLASH:65535                                                                                                                                        |       |    |
|                                                                                                       |                                    | Current baudrate in FLASH:57600                                                                                                                                              |       |    |
|                                                                                                       |                                    | Current parity in FLASH:NONE                                                                                                                                                 |       |    |
|                                                                                                       |                                    | Current stopbit(s) in FLASH:ONE                                                                                                                                              |       |    |
| Returns the complete settings for serial interface                                                    |                                    |                                                                                                                                                                              |       |    |
| <b>ASCII COMMANDS</b>                                                                                 |                                    |                                                                                                                                                                              |       |    |
| RESET                                                                                                 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #RESET<CR><br>#RST<CR><br>Result:<br>#OK<CR>                                                                                                                                 | ASCII | NO |
|                                                                                                       | <b>TX</b>                          | #RESET<CR>                                                                                                                                                                   |       |    |
|                                                                                                       | <b>RX</b>                          | N/A                                                                                                                                                                          |       |    |
|                                                                                                       |                                    |                                                                                                                                                                              |       |    |
| Executes a software reset (Reboot) of the module.                                                     |                                    |                                                                                                                                                                              |       |    |
| FACTORY RESET                                                                                         | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #FACTORY RESET<CR><br>#FRST<CR><br>Result:<br>#OK<CR>                                                                                                                        | ASCII | NO |
|                                                                                                       | <b>TX</b>                          | #FACTORY RESET<CR>                                                                                                                                                           |       |    |
|                                                                                                       | <b>RX</b>                          | N/A                                                                                                                                                                          |       |    |
|                                                                                                       |                                    |                                                                                                                                                                              |       |    |
| Executes a factory reset of all parameters to default values within the module and reboots the module |                                    |                                                                                                                                                                              |       |    |

|                                                                                                                                              |                           |                                                   |  |                          |            |    |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------|--|--------------------------|------------|----|
| DO1                                                                                                                                          | 1x00001<br>2x00001<br>I:0 | 0,0x00<br>B:00                                    |  | 1                        | BIT<br>R/W | NO |
|                                                                                                                                              |                           | Current state of DO1:0=OFF                        |  | ENTER NEW STATE (0 or 1) |            |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON<br><br>Writing on this register changes the state of the digital output |                           |                                                   |  |                          |            |    |
| DO2                                                                                                                                          | 1x00002<br>2x00002<br>I:1 | 0,0x00<br>B:00                                    |  | 1                        | BIT<br>R/W | NO |
|                                                                                                                                              |                           | Current state of DO2:0=OFF                        |  | ENTER NEW STATE (0 or 1) |            |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON<br><br>Writing on this register changes the state of the digital output |                           |                                                   |  |                          |            |    |
| DO3                                                                                                                                          | 1x00003<br>2x00003<br>I:2 | 0,0x00<br>B:00                                    |  | 1                        | BIT<br>R/W | NO |
|                                                                                                                                              |                           | Current state of DO3:0=OFF                        |  | ENTER NEW STATE (0 or 1) |            |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON<br><br>Writing on this register changes the state of the digital output |                           |                                                   |  |                          |            |    |
| DO4                                                                                                                                          | 1x00004<br>2x00004<br>I:3 | 0,0x00<br>B:00                                    |  | 1                        | BIT<br>R/W | NO |
|                                                                                                                                              |                           | Current state of DO4:0=OFF                        |  | ENTER NEW STATE (0 or 1) |            |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON<br><br>Writing on this register changes the state of the digital output |                           |                                                   |  |                          |            |    |
| NEG OUTPUT DO1                                                                                                                               | 1x00005<br>2x00005<br>I:4 | 1,0x01<br>B:01                                    |  |                          | BIT<br>R/O |    |
|                                                                                                                                              |                           | Current negated status of digital output 1:1->OFF |  |                          |            |    |
| Current negated state of the digital output DO1<br>=0:DO is ON, =1:DO is OFF                                                                 |                           |                                                   |  |                          |            |    |
| NEG OUTPUT DO2                                                                                                                               | 1x00006<br>2x00006<br>I:5 | 1,0x01<br>B:01                                    |  |                          | BIT<br>R/O |    |
|                                                                                                                                              |                           | Current negated status of digital output 2:1->OFF |  |                          |            |    |
| Current negated state of the digital output DO2<br>=0:DO is ON, =1:DO is OFF                                                                 |                           |                                                   |  |                          |            |    |
| NEG OUTPUT DO3                                                                                                                               | 1x00007<br>2x00007<br>I:6 | 1,0x01<br>B:01                                    |  |                          | BIT<br>R/O |    |



|                                                                                   |                            |                                                        |  |  |            |  |
|-----------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------|--|--|------------|--|
|                                                                                   |                            | Current negated status of digital output 3:1->OFF      |  |  |            |  |
| Current negated state of the digital output DO3<br>=0:DO is ON, =1:DO is OFF      |                            |                                                        |  |  |            |  |
| NEG OUTPUT DO4                                                                    | 1x00008<br>2x00008<br>I:7  | 1,0x01<br>B:01                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current negated status of digital output 4:1->OFF      |  |  |            |  |
| Current negated state of the digital output DO4<br>=0:DO is ON, =1:DO is OFF      |                            |                                                        |  |  |            |  |
| REAL OUTPUT DO1                                                                   | 1x00009<br>2x00009<br>I:8  | 0,0x00<br>B:00                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current real status of digital output 1:0->OFF         |  |  |            |  |
| Current state of the true digital output DO1<br>=0:DO is OFF, =1:DO is ON         |                            |                                                        |  |  |            |  |
| REAL OUTPUT DO2                                                                   | 1x00010<br>2x00010<br>I:9  | 0,0x00<br>B:00                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current real status of digital output 2:0->OFF         |  |  |            |  |
| Current state of the true digital output DO2<br>=0:DO is OFF, =1:DO is ON         |                            |                                                        |  |  |            |  |
| REAL OUTPUT DO3                                                                   | 1x00011<br>2x00011<br>I:10 | 0,0x00<br>B:00                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current real status of digital output 3:0->OFF         |  |  |            |  |
| Current state of the true digital output DO3<br>=0:DO is OFF, =1:DO is ON         |                            |                                                        |  |  |            |  |
| REAL OUTPUT DO4                                                                   | 1x00012<br>2x00012<br>I:11 | 0,0x00<br>B:00                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current real status of digital output 4:0->OFF         |  |  |            |  |
| Current state of the true digital output DO4<br>=0:DO is OFF, =1:DO is ON         |                            |                                                        |  |  |            |  |
| NEG REAL OUTPUT DO1                                                               | 1x00013<br>2x00013<br>I:12 | 1,0x01<br>B:01                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current negated real status of digital output 1:1->OFF |  |  |            |  |
| Current negated state of the true digital output DO1<br>=0:DO is ON, =1:DO is OFF |                            |                                                        |  |  |            |  |
| NEG REAL OUTPUT DO2                                                               | 1x00014<br>2x00014<br>I:13 | 1,0x01<br>B:01                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current negated real status of digital output 2:1->OFF |  |  |            |  |
| Current negated state of the true digital output DO2<br>=0:DO is ON, =1:DO is OFF |                            |                                                        |  |  |            |  |
| NEG REAL OUTPUT DO3                                                               | 1x00015<br>2x00015<br>I:14 | 1,0x01<br>B:01                                         |  |  | BIT<br>R/O |  |
|                                                                                   |                            | Current negated real status of digital output 3:1->OFF |  |  |            |  |
| Current negated state of the true digital output DO3<br>=0:DO is ON, =1:DO is OFF |                            |                                                        |  |  |            |  |

|                                                                                                                                      |                            |                |  |  |            |  |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|--|--|------------|--|
| NEG REAL OUTPUT DO4                                                                                                                  | 1x00016<br>2x00016<br>I:15 | 1,0x01<br>B:01 |  |  | BIT<br>R/O |  |
| Current negated state of the true digital output DO4<br>=0:DO is ON, =1:DO is OFF                                                    |                            |                |  |  |            |  |
| OFFDELAY TIMER DO1                                                                                                                   | 1x00017<br>2x00017<br>I:16 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of off-delay timer for output 1:0->STOPPED                                                                             |                            |                |  |  |            |  |
| Current state of the Offdelay timer for digital output DO1<br>=0:Offdelay timer is OFF (Finished), =1:Offdelay timer is ON (Running) |                            |                |  |  |            |  |
| OFFDELAY TIMER DO2                                                                                                                   | 1x00018<br>2x00018<br>I:17 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of off-delay timer for output 2:0->STOPPED                                                                             |                            |                |  |  |            |  |
| Current state of the Offdelay timer for digital output DO2<br>=0:Offdelay timer is OFF (Finished), =1:Offdelay timer is ON (Running) |                            |                |  |  |            |  |
| OFFDELAY TIMER DO3                                                                                                                   | 1x00019<br>2x00019<br>I:18 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of off-delay timer for output 3:0->STOPPED                                                                             |                            |                |  |  |            |  |
| Current state of the Offdelay timer for digital output DO3<br>=0:Offdelay timer is OFF (Finished), =1:Offdelay timer is ON (Running) |                            |                |  |  |            |  |
| OFFDELAY TIMER DO4                                                                                                                   | 1x00020<br>2x00020<br>I:19 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of off-delay timer for output 4:0->STOPPED                                                                             |                            |                |  |  |            |  |
| Current state of the Offdelay timer for digital output DO4<br>=0:Offdelay timer is OFF (Finished), =1:Offdelay timer is ON (Running) |                            |                |  |  |            |  |
| BLINK TIMER DO1                                                                                                                      | 1x00021<br>2x00021<br>I:20 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of blink timer for output 1:0->STOPPED                                                                                 |                            |                |  |  |            |  |
| Current state of the blink timer for digital output DO1<br>=0:blink timer is OFF (deactivated), =1:blink timer is ON (Running)       |                            |                |  |  |            |  |
| BLINK TIMER DO2                                                                                                                      | 1x00022<br>2x00022<br>I:21 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of blink timer for output 2:0->STOPPED                                                                                 |                            |                |  |  |            |  |
| Current state of the blink timer for digital output DO2<br>=0:blink timer is OFF (deactivated), =1:blink timer is ON (Running)       |                            |                |  |  |            |  |
| BLINK TIMER DO3                                                                                                                      | 1x00023<br>2x00023<br>I:22 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |
| Current state of blink timer for output 3:0->STOPPED                                                                                 |                            |                |  |  |            |  |
| Current state of the blink timer for digital output DO3<br>=0:blink timer is OFF (deactivated), =1:blink timer is ON (Running)       |                            |                |  |  |            |  |
| BLINK TIMER DO4                                                                                                                      | 1x00024<br>2x00024<br>I:23 | 0,0x00<br>B:00 |  |  | BIT<br>R/O |  |

|                                                                                                                                |                            |                                                      |  |  |            |  |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------|--|--|------------|--|
|                                                                                                                                |                            | Current state of blink timer for output 4:0->STOPPED |  |  |            |  |
| Current state of the blink timer for digital output DO4<br>=0:blink timer is OFF (deactivated), =1:blink timer is ON (Running) |                            |                                                      |  |  |            |  |
| FLASH TIMER DO1                                                                                                                | 1x00025<br>2x00025<br>I:24 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of flash timer for output 2:0->STOPPED |  |  |            |  |
| Current state of the flash timer for digital output DO1<br>=0:flash timer is OFF (deactivated), =1:flash timer is ON (Running) |                            |                                                      |  |  |            |  |
| FLASH TIMER DO2                                                                                                                | 1x00026<br>2x00026<br>I:25 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of flash timer for output 2:0->STOPPED |  |  |            |  |
| Current state of the flash timer for digital output DO2<br>=0:flash timer is OFF (deactivated), =1:flash timer is ON (Running) |                            |                                                      |  |  |            |  |
| FLASH TIMER DO3                                                                                                                | 1x00027<br>2x00027<br>I:26 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of flash timer for output 3:0->STOPPED |  |  |            |  |
| Current state of the flash timer for digital output DO3<br>=0:flash timer is OFF (deactivated), =1:flash timer is ON (Running) |                            |                                                      |  |  |            |  |
| FLASH TIMER DO4                                                                                                                | 1x00028<br>2x00028<br>I:27 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of flash timer for output 4:0->STOPPED |  |  |            |  |
| Current state of the flash timer for digital output DO4<br>=0:flash timer is OFF (deactivated), =1:flash timer is ON (Running) |                            |                                                      |  |  |            |  |
| PWM TIMER DO1                                                                                                                  | 1x00029<br>2x00029<br>I:28 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of PWM timer for output 1:0->STOPPED   |  |  |            |  |
| Current state of the PWM timer for digital output DO1<br>=0:PWM timer is OFF (deactivated), =1:PWM timer is ON (Running)       |                            |                                                      |  |  |            |  |
| PWM TIMER DO2                                                                                                                  | 1x00030<br>2x00030<br>I:29 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of PWM timer for output 2:0->STOPPED   |  |  |            |  |
| Current state of the PWM timer for digital output DO2<br>=0:PWM timer is OFF (deactivated), =1:PWM timer is ON (Running)       |                            |                                                      |  |  |            |  |
| PWM TIMER DO3                                                                                                                  | 1x00031<br>2x00031<br>I:30 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of PWM timer for output 3:0->STOPPED   |  |  |            |  |
| Current state of the PWM timer for digital output DO3<br>=0:PWM timer is OFF (deactivated), =1:PWM timer is ON (Running)       |                            |                                                      |  |  |            |  |
| PWM TIMER DO4                                                                                                                  | 1x00032<br>2x00032<br>I:31 | 0,0x00<br>B:00                                       |  |  | BIT<br>R/O |  |
|                                                                                                                                |                            | Current state of PWM timer for output 4:0->STOPPED   |  |  |            |  |
| Current state of the PWM timer for digital output DO4<br>=0:PWM timer is OFF (deactivated), =1:PWM timer is ON (Running)       |                            |                                                      |  |  |            |  |

|                                                                              |                           |                                                   |  |                          |               |    |
|------------------------------------------------------------------------------|---------------------------|---------------------------------------------------|--|--------------------------|---------------|----|
| DO1                                                                          | 3x00001<br>4x00001<br>I:0 | 0,0x0000<br>B:00 00                               |  | 1                        | UINT16<br>R/W | NO |
|                                                                              |                           | Current state of DO1:0=OFF                        |  | ENTER NEW STATE (0 or 1) |               |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON         |                           |                                                   |  |                          |               |    |
| Writing on this register changes the state of the digital output             |                           |                                                   |  |                          |               |    |
| DO2                                                                          | 3x00002<br>4x00002<br>I:1 | 0,0x0000<br>B:00 00                               |  | 1                        | UINT16<br>R/W | NO |
|                                                                              |                           | Current state of DO2:0=OFF                        |  | ENTER NEW STATE (0 or 1) |               |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON         |                           |                                                   |  |                          |               |    |
| Writing on this register changes the state of the digital output             |                           |                                                   |  |                          |               |    |
| DO3                                                                          | 3x00003<br>4x00003<br>I:2 | 0,0x0000<br>B:00 00                               |  | 1                        | UINT16<br>R/W | NO |
|                                                                              |                           | Current state of DO3:0=OFF                        |  | ENTER NEW STATE (0 or 1) |               |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON         |                           |                                                   |  |                          |               |    |
| Writing on this register changes the state of the digital output             |                           |                                                   |  |                          |               |    |
| DO4                                                                          | 3x00004<br>4x00004<br>I:3 | 0,0x0000<br>B:00 00                               |  | 1                        | UINT16<br>R/W | NO |
|                                                                              |                           | Current state of DO4:0=OFF                        |  | ENTER NEW STATE (0 or 1) |               |    |
| Current state of the digital output DOx<br>=0:DO is OFF, =1:DO is ON         |                           |                                                   |  |                          |               |    |
| Writing on this register changes the state of the digital output             |                           |                                                   |  |                          |               |    |
| NEG OUTPUT DO1                                                               | 3x00005<br>4x00005<br>I:4 | 1,0x0001<br>B:00 01                               |  |                          | UINT16<br>R/O |    |
|                                                                              |                           | Current negated status of digital output 1:1->OFF |  |                          |               |    |
| Current negated state of the digital output DO1<br>=0:DO is ON, =1:DO is OFF |                           |                                                   |  |                          |               |    |
| NEG OUTPUT DO2                                                               | 3x00006<br>4x00006<br>I:5 | 1,0x0001<br>B:00 01                               |  |                          | UINT16<br>R/O |    |
|                                                                              |                           | Current negated status of digital output 2:1->OFF |  |                          |               |    |
| Current negated state of the digital output DO2<br>=0:DO is ON, =1:DO is OFF |                           |                                                   |  |                          |               |    |
| NEG OUTPUT DO3                                                               | 3x00007<br>4x00007<br>I:6 | 1,0x0001<br>B:00 01                               |  |                          | UINT16<br>R/O |    |
|                                                                              |                           | Current negated status of digital output 3:1->OFF |  |                          |               |    |
| Current negated state of the digital output DO3<br>=0:DO is ON, =1:DO is OFF |                           |                                                   |  |                          |               |    |

|                                                                              |                            |                     |  |  |               |  |
|------------------------------------------------------------------------------|----------------------------|---------------------|--|--|---------------|--|
| NEG OUTPUT DO4                                                               | 3x00008<br>4x00008<br>I:7  | 1,0x0001<br>B:00 01 |  |  | UINT16<br>R/O |  |
| Current negated state of the digital output DO4<br>=0:DO is ON, =1:DO is OFF |                            |                     |  |  |               |  |
| REAL OUTPUT DO1                                                              | 3x00009<br>4x00009<br>I:8  | 0,0x0000<br>B:00 00 |  |  | UINT16<br>R/O |  |
| Current real status of digital output 1:0->OFF                               |                            |                     |  |  |               |  |
| REAL OUTPUT DO2                                                              | 3x00010<br>4x00010<br>I:9  | 0,0x0000<br>B:00 00 |  |  | UINT16<br>R/O |  |
| Current real status of digital output 2:0->OFF                               |                            |                     |  |  |               |  |
| REAL OUTPUT DO3                                                              | 3x00011<br>4x00011<br>I:10 | 0,0x0000<br>B:00 00 |  |  | UINT16<br>R/O |  |
| Current real status of digital output 3:0->OFF                               |                            |                     |  |  |               |  |
| REAL OUTPUT DO4                                                              | 3x00012<br>4x00012<br>I:11 | 0,0x0000<br>B:00 00 |  |  | UINT16<br>R/O |  |
| Current real status of digital output 4:0->OFF                               |                            |                     |  |  |               |  |
| NEG REAL OUTPUT DO1                                                          | 3x00013<br>4x00013<br>I:12 | 1,0x0001<br>B:00 01 |  |  | UINT16<br>R/O |  |
| Current negated real status of digital output 1:1->OFF                       |                            |                     |  |  |               |  |
| NEG REAL OUTPUT DO2                                                          | 3x00014<br>4x00014<br>I:13 | 1,0x0001<br>B:00 01 |  |  | UINT16<br>R/O |  |
| Current negated real status of digital output 2:1->OFF                       |                            |                     |  |  |               |  |
| NEG REAL OUTPUT DO3                                                          | 3x00015<br>4x00015<br>I:14 | 1,0x0001<br>B:00 01 |  |  | UINT16<br>R/O |  |
| Current negated real status of digital output 3:1->OFF                       |                            |                     |  |  |               |  |
| NEG REAL OUTPUT DO4                                                          | 3x00016<br>4x00016<br>I:15 | 1,0x0001<br>B:00 01 |  |  | UINT16<br>R/O |  |
| Current negated real status of digital output 4:1->OFF                       |                            |                     |  |  |               |  |

|                                                                                                                                                                                                                                                                                                             |                            |                     |      |       |               |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------|------|-------|---------------|----|
| Current negated state of the true digital output DO4<br>=0:DO is ON, =1:DO is OFF                                                                                                                                                                                                                           |                            |                     |      |       |               |    |
| OFFDELAY TIMER DO1                                                                                                                                                                                                                                                                                          | 3x00017<br>4x00017<br>I:16 | 0,0x0000<br>B:00 00 | 5000 | 5,000 | UINT16<br>R/W | NO |
| Current remaining time of off-delay timer for digital output 1:0->0s                                                                                                                                                                                                                                        |                            |                     |      |       |               |    |
| Current remaining time of the offdelay timer function in milliseconds for digital output DO1<br>Remaining time of the offdelay timer<br><br>If you write to this register, you will trigger the offdelay timer with the give value in milliseconds. A timeout between 0 and 65.535 seconds is configurable. |                            |                     |      |       |               |    |
| OFFDELAY TIMER DO2                                                                                                                                                                                                                                                                                          | 3x00018<br>4x00018<br>I:17 | 0,0x0000<br>B:00 00 | 5000 | 5,000 | UINT16<br>R/W | NO |
| Current remaining time of off-delay timer for digital output 2:0->0s                                                                                                                                                                                                                                        |                            |                     |      |       |               |    |
| Current remaining time of the offdelay timer function in milliseconds for digital output DO2<br>Remaining time of the offdelay timer<br><br>If you write to this register, you will trigger the offdelay timer with the give value in milliseconds. A timeout between 0 and 65.535 seconds is configurable. |                            |                     |      |       |               |    |
| OFFDELAY TIMER DO3                                                                                                                                                                                                                                                                                          | 3x00019<br>4x00019<br>I:18 | 0,0x0000<br>B:00 00 | 5000 | 5,000 | UINT16<br>R/W | NO |
| Current remaining time of off-delay timer for digital output 3:0->0s                                                                                                                                                                                                                                        |                            |                     |      |       |               |    |
| Current remaining time of the offdelay timer function in milliseconds for digital output DO3<br>Remaining time of the offdelay timer<br><br>If you write to this register, you will trigger the offdelay timer with the give value in milliseconds. A timeout between 0 and 65.535 seconds is configurable. |                            |                     |      |       |               |    |
| OFFDELAY TIMER DO4                                                                                                                                                                                                                                                                                          | 3x00020<br>4x00020<br>I:19 | 0,0x0000<br>B:00 00 | 5000 | 5,000 | UINT16<br>R/W | NO |
| Current remaining time of off-delay timer for digital output 4:0->0s                                                                                                                                                                                                                                        |                            |                     |      |       |               |    |
| Current remaining time of the offdelay timer function in milliseconds for digital output DO4<br>Remaining time of the offdelay timer<br><br>If you write to this register, you will trigger the offdelay timer with the give value in milliseconds. A timeout between 0 and 65.535 seconds is configurable. |                            |                     |      |       |               |    |
| BLINK TIMER DO1                                                                                                                                                                                                                                                                                             | 3x00021<br>4x00021<br>I:20 | 0,0x0000<br>B:00 00 | 0    | 0,0   | UINT16<br>R/W | NO |
| Current time span for blink timer for digital output 1:0->0s                                                                                                                                                                                                                                                |                            |                     |      |       |               |    |
| Returns the current setup time span for blink timer in 100ms for digital output DO1<br>If you write to this register, you will start the blink timer function on the digital output 1. A blink time span between 0 and 6553.5 seconds is configurable.<br>=0:the blink function is not used.                |                            |                     |      |       |               |    |
| BLINK TIMER DO2                                                                                                                                                                                                                                                                                             | 3x00022<br>4x00022<br>I:21 | 0,0x0000<br>B:00 00 | 0    | 0,0   | UINT16<br>R/W | NO |
| Current time span for blink timer for digital output 2:0->0s                                                                                                                                                                                                                                                |                            |                     |      |       |               |    |
| Returns the current setup time span for blink timer in 100ms for digital output DO2<br>If you write to this register, you will start the blink timer function on the digital output 1. A blink time span between 0 and 6553.5 seconds is configurable.<br>=0:the blink function is not used.                |                            |                     |      |       |               |    |
| BLINK TIMER DO3                                                                                                                                                                                                                                                                                             | 3x00023<br>4x00023<br>I:22 | 0,0x0000<br>B:00 00 | 0    | 0,0   | UINT16<br>R/W | NO |

|                                                                                                                                                                                                                                                                                                                                                         |                            |                                                                  |   |     |               |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------|---|-----|---------------|----|
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current time span for blink timer for digital output 3:0->0s     |   |     |               |    |
| Returns the current setup time span for blink timer in 100ms for digital output DO3<br>If you write to this register, you will start the blink timer function on the digital output 1. A blink time span between 0 and 6553.5 seconds is configurable.<br>=0:the blink function is not used.                                                            |                            |                                                                  |   |     |               |    |
| BLINK TIMER DO4                                                                                                                                                                                                                                                                                                                                         | 3x00024<br>4x00024<br>I:23 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current time span for blink timer for digital output 4:0->0s     |   |     |               |    |
| Returns the current setup time span for blink timer in 100ms for digital output DO4<br>If you write to this register, you will start the blink timer function on the digital output 1. A blink time span between 0 and 6553.5 seconds is configurable.<br>=0:the blink function is not used.                                                            |                            |                                                                  |   |     |               |    |
| FLASH TIMER ON DO1                                                                                                                                                                                                                                                                                                                                      | 3x00025<br>4x00025<br>I:24 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current ON time span for flash timer for digital output 1:0->0s  |   |     |               |    |
| Returns the current setup time span for the ON time span of the flash timer in 100ms for digital output DO1<br>If you write to this register, you will start the flash timer function on the digital output 1. An ON time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used.   |                            |                                                                  |   |     |               |    |
| FLASH TIMER OFF DO1                                                                                                                                                                                                                                                                                                                                     | 3x00026<br>4x00026<br>I:25 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current OFF time span for flash timer for digital output 1:0->0s |   |     |               |    |
| Returns the current setup time span for the OFF time span of the flash timer in 100ms for digital output DO1<br>If you write to this register, you will start the flash timer function on the digital output 1. An OFF time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used. |                            |                                                                  |   |     |               |    |
| FLASH TIMER ON DO2                                                                                                                                                                                                                                                                                                                                      | 3x00027<br>4x00027<br>I:26 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current ON time span for flash timer for digital output 2:0->0s  |   |     |               |    |
| Returns the current setup time span for the ON time span of the flash timer in 100ms for digital output DO1<br>If you write to this register, you will start the flash timer function on the digital output 1. An ON time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used.   |                            |                                                                  |   |     |               |    |
| FLASH TIMER OFF DO2                                                                                                                                                                                                                                                                                                                                     | 3x00028<br>4x00028<br>I:27 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current OFF time span for flash timer for digital output 2:0->0s |   |     |               |    |
| Returns the current setup time span for the OFF time span of the flash timer in 100ms for digital output DO2<br>If you write to this register, you will start the flash timer function on the digital output 2. An OFF time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used. |                            |                                                                  |   |     |               |    |
| FLASH TIMER ON DO3                                                                                                                                                                                                                                                                                                                                      | 3x00029<br>4x00029<br>I:28 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current ON time span for flash timer for digital output 3:0->0s  |   |     |               |    |
| Returns the current setup time span for the ON time span of the flash timer in 100ms for digital output DO3<br>If you write to this register, you will start the flash timer function on the digital output 1. An ON time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used.   |                            |                                                                  |   |     |               |    |
| FLASH TIMER OFF DO3                                                                                                                                                                                                                                                                                                                                     | 3x00030<br>4x00030<br>I:29 | 0,0x0000<br>B:00 00                                              | 0 | 0,0 | UINT16<br>R/W | NO |

|                                                                                                                                                                                                                                                                                                                                                         |                            |                                                                  |      |       |               |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------|------|-------|---------------|----|
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current OFF time span for flash timer for digital output 3:0->0s |      |       |               |    |
| Returns the current setup time span for the OFF time span of the flash timer in 100ms for digital output DO3<br>If you write to this register, you will start the flash timer function on the digital output 1. An OFF time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used. |                            |                                                                  |      |       |               |    |
| FLASH TIMER ON DO4                                                                                                                                                                                                                                                                                                                                      | 3x00031<br>4x00031<br>I:30 | 0,0x0000<br>B:00 00                                              | 0    | 0,0   | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current ON time span for flash timer for digital output 4:0->0s  |      |       |               |    |
| Returns the current setup time span for the ON time span of the flash timer in 100ms for digital output DO4<br>If you write to this register, you will start the flash timer function on the digital output 1. An ON time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used.   |                            |                                                                  |      |       |               |    |
| FLASH TIMER OFF DO4                                                                                                                                                                                                                                                                                                                                     | 3x00032<br>4x00032<br>I:31 | 0,0x0000<br>B:00 00                                              | 0    | 0,0   | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current OFF time span for flash timer for digital output 4:0->0s |      |       |               |    |
| Returns the current setup time span for the OFF time span of the flash timer in 100ms for digital output DO4<br>If you write to this register, you will start the flash timer function on the digital output 2. An OFF time span between 0 and 6553.5 seconds is configurable.<br>FLASH_TIMER_ON=0 AND FLASHTIMER_OFF=0:the flash function is not used. |                            |                                                                  |      |       |               |    |
| PWM MAXIMUM TIME DO1                                                                                                                                                                                                                                                                                                                                    | 3x00033<br>4x00033<br>I:32 | 0,0x0000<br>B:00 00                                              | 50   | 5,0   | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current OFF time span for flash timer for digital output 1:0->0s |      |       |               |    |
| Returns the current PWM time span in 100ms units for digital output DO1<br>If you write to this register, you will start the PWM timer function on the digital output. An time span between 0 and 6553.5 seconds is configurable.<br>=0:the PWM function is not used.                                                                                   |                            |                                                                  |      |       |               |    |
| PWM PERCENT DO1                                                                                                                                                                                                                                                                                                                                         | 3x00034<br>4x00034<br>I:33 | 0,0x0000<br>B:00 00                                              | 5000 | 50,00 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current duty cycle for PWM on digital output 1:0->0%             |      |       |               |    |
| Returns the current percent for the duty cycle of then PWM in percent.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO1.<br>A value between 0..10000 defines a percent value between 0% and 100.00%.                                                                                      |                            |                                                                  |      |       |               |    |
| PWM CURRENT DO1                                                                                                                                                                                                                                                                                                                                         | 3x00035<br>4x00035<br>I:34 | 0,0x0000<br>B:00 00                                              | 25   | 2,5   | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current duty cycle for PWM on digital output 1:0->0s             |      |       |               |    |
| Returns the current time span for the duty cycle of then PWM in 100ms units.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO1.<br>A value between 0 and PWM_MAXIMUM1 is allowed.                                                                                                          |                            |                                                                  |      |       |               |    |
| PWM MAXIMUM TIME DO2                                                                                                                                                                                                                                                                                                                                    | 3x00036<br>4x00036<br>I:35 | 0,0x0000<br>B:00 00                                              | 50   | 5,0   | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current OFF time span for flash timer for digital output 2:0->0s |      |       |               |    |
| Returns the current PWM time span in 100ms units for digital output DO2<br>If you write to this register, you will start the PWM timer function on the digital output. An time span between 0 and 6553.5 seconds is configurable.<br>=0:the PWM function is not used.                                                                                   |                            |                                                                  |      |       |               |    |
| PWM PERCENT DO2                                                                                                                                                                                                                                                                                                                                         | 3x00037<br>4x00037<br>I:36 | 0,0x0000<br>B:00 00                                              | 5000 | 50,00 | UINT16<br>R/W | NO |
|                                                                                                                                                                                                                                                                                                                                                         |                            | Current duty cycle for PWM on digital output 2:0->0%             |      |       |               |    |



|                                                                                                                                                                                                                                                                       |                            |                     |      |       |               |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------|------|-------|---------------|----|
| Returns the current percent for the duty cycle of then PWM in percent.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO2.<br>A value between 0..10000 defines a percent value between 0% and 100.00%.    |                            |                     |      |       |               |    |
| PWM CURRENT DO2                                                                                                                                                                                                                                                       | 3x00038<br>4x00038<br>I:37 | 0,0x0000<br>B:00 00 | 15   | 1,5   | UINT16<br>R/W | NO |
| Current duty cycle for PWM on digital output 2:0->0s                                                                                                                                                                                                                  |                            |                     |      |       |               |    |
| Returns the current time span for the duty cycle of then PWM in 100ms units.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO2.<br>A value between 0 and PWM_MAXIMUM1 is allowed.                        |                            |                     |      |       |               |    |
| PWM MAXIMUM TIME DO3                                                                                                                                                                                                                                                  | 3x00039<br>4x00039<br>I:38 | 0,0x0000<br>B:00 00 | 50   | 5,0   | UINT16<br>R/W | NO |
| Current OFF time span for flash timer for digital output 3:0->0s                                                                                                                                                                                                      |                            |                     |      |       |               |    |
| Returns the current PWM time span in 100ms units for digital output DO3<br>If you write to this register, you will start the PWM timer function on the digital output. An time span between 0 and 6553.5 seconds is configurable.<br>=0:the PWM function is not used. |                            |                     |      |       |               |    |
| PWM PERCENT DO3                                                                                                                                                                                                                                                       | 3x00040<br>4x00040<br>I:39 | 0,0x0000<br>B:00 00 | 5000 | 50,00 | UINT16<br>R/W | NO |
| Current duty cycle for PWM on digital output 3:0->0%                                                                                                                                                                                                                  |                            |                     |      |       |               |    |
| Returns the current percent for the duty cycle of then PWM in percent.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO3.<br>A value between 0..10000 defines a percent value between 0% and 100.00%.    |                            |                     |      |       |               |    |
| PWM CURRENT DO3                                                                                                                                                                                                                                                       | 3x00041<br>4x00041<br>I:40 | 0,0x0000<br>B:00 00 | 25   | 2,5   | UINT16<br>R/W | NO |
| Current duty cycle for PWM on digital output 3:0->0s                                                                                                                                                                                                                  |                            |                     |      |       |               |    |
| Returns the current time span for the duty cycle of then PWM in 100ms units.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO3.<br>A value between 0 and PWM_MAXIMUM1 is allowed.                        |                            |                     |      |       |               |    |
| PWM MAXIMUM TIME DO4                                                                                                                                                                                                                                                  | 3x00042<br>4x00042<br>I:41 | 0,0x0000<br>B:00 00 | 50   | 5,0   | UINT16<br>R/W | NO |
| Current OFF time span for flash timer for digital output 4:0->0s                                                                                                                                                                                                      |                            |                     |      |       |               |    |
| Returns the current PWM time span in 100ms units for digital output DO4<br>If you write to this register, you will start the PWM timer function on the digital output. An time span between 0 and 6553.5 seconds is configurable.<br>=0:the PWM function is not used. |                            |                     |      |       |               |    |
| PWM PERCENT DO4                                                                                                                                                                                                                                                       | 3x00043<br>4x00043<br>I:42 | 0,0x0000<br>B:00 00 | 5000 | 50,00 | UINT16<br>R/W | NO |
| Current duty cycle for PWM on digital output 4:0->0%                                                                                                                                                                                                                  |                            |                     |      |       |               |    |
| Returns the current percent for the duty cycle of then PWM in percent.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO4.<br>A value between 0..10000 defines a percent value between 0% and 100.00%.    |                            |                     |      |       |               |    |
| PWM CURRENT DO4                                                                                                                                                                                                                                                       | 3x00044<br>4x00044<br>I:43 | 0,0x0000<br>B:00 00 | 15   | 1,5   | UINT16<br>R/W | NO |
| Current duty cycle for PWM on digital output 4:0->0s                                                                                                                                                                                                                  |                            |                     |      |       |               |    |
| Returns the current time span for the duty cycle of then PWM in 100ms units.<br>If you write to this register, you will set a new duty cycle for the PWM function on the digital output DO4.<br>A value between 0 and PWM_MAXIMUM1 is allowed.                        |                            |                     |      |       |               |    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                                            |     |            |               |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------|-----|------------|---------------|-----|
| DO12 MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3x00045<br>4x00045<br>I:44 | 0,0x0000<br>B:00 00                        |     | 0:DISABLED | UINT16<br>R/W | YES |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Current mode for DO1+2:0->DISABLED         |     |            |               |     |
| Sets the mode for digital outputs 1+2. The following modes are available:<br>0=FUNCTION is deactivated<br>10=Set DO1=OFF, DO2=OFF immediately<br>11=Set DO1=ON, DO2=OFF immediately<br>12=Set DO1=OFF, DO2=ON immediately<br><br>20=Set DO1=ON, DO2=ON immediately<br>21=Set DO1=OFF, DO2=ON immediately<br>22=Set DO1=ON, DO2=OFF immediately<br><br>30=Set DO1=OFF, DO2=OFF; but keep pause of DO12_TIME_PAUSE between the switching of the outputs<br>31=Set DO1=ON, DO2=OFF; but keep pause of DO12_TIME_PAUSE between the switching of the outputs<br>32=Set DO1=OFF, DO2=ON; but keep pause of DO12_TIME_PAUSE between the switching of the outputs<br><br>40=Set DO1=ON, DO2=ON; but keep pause of DO12_TIME_PAUSE between the switching of the outputs<br>41=Set DO1=OFF, DO2=ON; but keep pause of DO12_TIME_PAUSE between the switching of the outputs<br>42=Set DO1=ON, DO2=OFF; but keep pause of DO12_TIME_PAUSE between the switching of the outputs<br>The follwing function keep the pause between output switching configured with DO12_TIME_PAUSE and the outputs are time limited by DO12_TIME_DO1_MAX and DO12_TIME_DO2_MAX<br>50=Set DO1=OFF, DO2=OFF<br>51=Set DO1=ON, DO2=OFF<br>52=Set DO1=OFF, DO2=ON<br><br>60=Set DO1=ON, DO2=ON<br>61=Set DO1=OFF, DO2=ON<br>62=Set DO1=ON, DO2=OFF |                            |                                            |     |            |               |     |
| DO12 MAXIMUM TIME DO1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3x00046<br>4x00046<br>I:45 | 0,0x0000<br>B:00 00                        | 100 | 10,0       | UINT16<br>R/W | NO  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Maximum on time for digital output 1:0->0s |     |            |               |     |
| Sets and returns the maximum on time for DO1 in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                            |     |            |               |     |
| DO12 MAXIMUM TIME DO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3x00047<br>4x00047<br>I:46 | 0,0x0000<br>B:00 00                        | 100 | 10,0       | UINT16<br>R/W | NO  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Maximum on time for digital output 2:0->0s |     |            |               |     |
| Sets and returns the maximum on time for DO2 in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                            |     |            |               |     |
| DO12 PAUSE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3x00048<br>4x00048<br>I:47 | 0,0x0000<br>B:00 00                        | 100 | 10,0       | UINT16<br>R/W | NO  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Pause time between switching DO1+DO2:0->0s |     |            |               |     |
| Sets and returns the pause time between output switching in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                                            |     |            |               |     |
| DO12 STATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3x00049<br>4x00049<br>I:48 | 0,0x0000<br>B:00 00                        |     |            | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Current state for DO1+DO2:0                |     |            |               |     |
| Returns the current state for the DO12 handling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                                            |     |            |               |     |
| DO12 COUNTER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3x00050<br>4x00050<br>I:49 | 0,0x0000<br>B:00 00                        |     |            | UINT16<br>R/O |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                                                         |     |            |               |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------|-----|------------|---------------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Current counter for DO1+DO2:0->0s                       |     |            |               |     |
| Returns the current timer of DO12 functions in 100ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                                                         |     |            |               |     |
| DO12 POSITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3x00051<br>4x00051<br>I:50 | 0,0x0000<br>B:00 00                                     |     |            | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Current position of digital outputs 1+2:0->BOTH DOS OFF |     |            |               |     |
| Current position of DO12:<br>0=OFF<br>1=DO1 is activated<br>11=DO1 is activated but DO12_TIME_DO1_MAX is finished<br>2=DO2 is activated<br>12=DO2 is activated but DO12_TIME_DO1_MAX is finished                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                         |     |            |               |     |
| DO34 MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3x00052<br>4x00052<br>I:51 | 0,0x0000<br>B:00 00                                     |     | 0:DISABLED | UINT16<br>R/W | YES |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Current mode for DO3+4:0->DISABLED                      |     |            |               |     |
| Sets the mode for digital outputs 1+2. The following modes are available:<br>0=FUNCTION is deactivated<br>10=Set DO3=OFF, DO4=OFF immediately<br>11=Set DO3=ON, DO4=OFF immediately<br>12=Set DO3=OFF, DO4=ON immediately<br><br>20=Set DO3=ON, DO4=ON immediately<br>21=Set DO3=OFF, DO4=ON immediately<br>22=Set DO3=ON, DO4=OFF immediately<br><br>30=Set DO3=OFF, DO4=OFF; but keep pause of DO32_TIME_PAUSE between the switching of the outputs<br>31=Set DO3=ON, DO4=OFF; but keep pause of DO32_TIME_PAUSE between the switching of the outputs<br>32=Set DO3=OFF, DO4=ON; but keep pause of DO32_TIME_PAUSE between the switching of the outputs<br><br>40=Set DO3=ON, DO4=ON; but keep pause of DO32_TIME_PAUSE between the switching of the outputs<br>41=Set DO3=OFF, DO4=ON; but keep pause of DO32_TIME_PAUSE between the switching of the outputs<br>42=Set DO3=ON, DO4=OFF; but keep pause of DO32_TIME_PAUSE between the switching of the outputs<br>The follwing function keep the pause between output switching configured with DO32_TIME_PAUSE and the outputs are time limited by DO32_TIME_DO3_MAX and DO32_TIME_DO4_MAX<br>50=Set DO3=OFF, DO4=OFF<br>51=Set DO3=ON, DO4=OFF<br>52=Set DO3=OFF, DO4=ON<br><br>60=Set DO3=ON, DO4=ON<br>61=Set DO3=OFF, DO4=ON<br>62=Set DO3=ON, DO4=OFF |                            |                                                         |     |            |               |     |
| DO34 MAXIMUM TIME DO3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3x00053<br>4x00053<br>I:52 | 0,0x0000<br>B:00 00                                     | 100 | 10,0       | UINT16<br>R/W | NO  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Maximum on time for digital output 3:0->0s              |     |            |               |     |
| Sets and returns the maximum on time for DO3 in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                                         |     |            |               |     |
| DO34 MAXIMUM TIME DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3x00054<br>4x00054<br>I:53 | 0,0x0000<br>B:00 00                                     | 100 | 10,0       | UINT16<br>R/W | NO  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            | Maximum on time for digital output 4:0->0s              |     |            |               |     |
| Sets and returns the maximum on time for DO4 in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                                         |     |            |               |     |
| DO34 PAUSE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3x00055<br>4x00055<br>I:54 | 0,0x0000<br>B:00 00                                     | 100 | 10,0       | UINT16<br>R/W | NO  |

|                                                                                                                                                                                                                                                                                          |                             |                                                         |  |                                |               |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------|--|--------------------------------|---------------|-----|
|                                                                                                                                                                                                                                                                                          |                             | Pause time between switching DO3+DO4:0->0s              |  |                                |               |     |
| Sets and returns the pause time between output switching in 100ms units.                                                                                                                                                                                                                 |                             |                                                         |  |                                |               |     |
| DO34 STATE                                                                                                                                                                                                                                                                               | 3x00056<br>4x00056<br>I:55  | 0,0x0000<br>B:00 00                                     |  |                                | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                          |                             | Current state for DO3+DO4:0                             |  |                                |               |     |
| Returns the current state for the DO34 handling                                                                                                                                                                                                                                          |                             |                                                         |  |                                |               |     |
| DO34 COUNTER                                                                                                                                                                                                                                                                             | 3x00057<br>4x00057<br>I:56  | 0,0x0000<br>B:00 00                                     |  |                                | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                          |                             | Current counter for DO3+DO4:0->0s                       |  |                                |               |     |
| Returns the current timer of DO34 functions in 100ms                                                                                                                                                                                                                                     |                             |                                                         |  |                                |               |     |
| DO34 POSITION                                                                                                                                                                                                                                                                            | 3x00058<br>4x00058<br>I:57  | 0,0x0000<br>B:00 00                                     |  |                                | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                          |                             | Current position of digital outputs 3+4:0->BOTH DOS OFF |  |                                |               |     |
| Current position of DO34:<br>0=OFF<br>1=DO3 is activated<br>11=DO3 is activated but DO34_TIME_DO3_MAX is finished<br>2=DO4 is activated<br>12=DO4 is activated but DO34_TIME_DO3_MAX is finished                                                                                         |                             |                                                         |  |                                |               |     |
| OUTPUTS DO1+DO2+DO3+DO4                                                                                                                                                                                                                                                                  | 3x00101<br>4x00101<br>I:100 | 0,0x0000<br>B:00 00                                     |  | 15:DO1=ON,DO2=ON,DO3=ON,DO4=ON | UINT16<br>R/W | YES |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 1:0->OFF               |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 2:0->OFF               |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 3:0->OFF               |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 4:0->OFF               |  |                                |               |     |
| Returns the current state of all digital outputs. Each bit stands for a digital output:<br>Bit 0: DO1 (=0:DO is OFF, =1:DO is ON)<br>Bit 1: DO2 (=0:DO is OFF, =1:DO is ON)<br>Bit 2: DO3 (=0:DO is OFF, =1:DO is ON)<br>Bit 3: DO4 (=0:DO is OFF, =1:DO is ON)                          |                             |                                                         |  |                                |               |     |
| REAL OUTPUTS DO1+DO2+DO3+DO4                                                                                                                                                                                                                                                             | 3x00102<br>4x00102<br>I:101 | 0,0x0000<br>B:00 00                                     |  |                                | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of real digital output 1:0->OFF          |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of real digital output 2:0->OFF          |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of real digital output 3:0->OFF          |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of real digital output 4:0->OFF          |  |                                |               |     |
| Returns the current state of all real digital outputs. Each bit stands for a digital output:<br>Bit 0: Real DO1 (=0:DO is OFF, =1:DO is ON)<br>Bit 1: Real DO2 (=0:DO is OFF, =1:DO is ON)<br>Bit 2: Real DO3 (=0:DO is OFF, =1:DO is ON)<br>Bit 3: Real DO4 (=0:DO is OFF, =1:DO is ON) |                             |                                                         |  |                                |               |     |
| LOGIC+REAL OUTPUTS DO1+DO2+DO3+DO4                                                                                                                                                                                                                                                       | 3x00103<br>4x00103<br>I:102 | 0,0x0000<br>B:00 00                                     |  |                                | UINT16<br>R/O |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 1:0->OFF               |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 2:0->OFF               |  |                                |               |     |
|                                                                                                                                                                                                                                                                                          |                             | Current status of digital output 3:0->OFF               |  |                                |               |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |                                                        |  |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------|--|---------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current status of digital output 4:0->OFF              |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current status of real digital output 1:0->OFF         |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current status of real digital output 2:0->OFF         |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current status of real digital output 3:0->OFF         |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current status of real digital output 4:0->OFF         |  |               |
| Returns the current state of all digital outputs and real digital outputs. Each bit stands for a digital output:<br>Bit 0: DO1 (=0:DO is OFF, =1:DO is ON)<br>Bit 1: DO2 (=0:DO is OFF, =1:DO is ON)<br>Bit 2: DO3 (=0:DO is OFF, =1:DO is ON)<br>Bit 3: DO4 (=0:DO is OFF, =1:DO is ON)<br>Bit 4: DO1 (=0:real DO is OFF, =1:real DO is ON)<br>Bit 5: DO2 (=0:real DO is OFF, =1:real DO is ON)<br>Bit 6: DO3 (=0:real DO is OFF, =1:real DO is ON)<br>Bit 7: DO4 (=0:real DO is OFF, =1:real DO is ON)<br><b>NEGATED LOGIC+REAL</b>                      |                             |                                                        |  |               |
| OUTPUTS DO1+DO2+DO3+DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3x00104<br>4x00104<br>I:103 | 65535,0xFFFF<br>B:FF FF                                |  | UINT16<br>R/O |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of digital output 1:1->OFF      |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of digital output 2:1->OFF      |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of digital output 3:1->OFF      |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of digital output 4:0->ON       |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of real digital output 1:1->OFF |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of real digital output 2:1->OFF |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of real digital output 3:1->OFF |  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current negated status of real digital output 4:1->OFF |  |               |
| Returns the negated current state of all digital outputs and real digital outputs. Each bit stands for a digital output:<br>Bit 0: DO1 (=0:DO is ON, =1:DO is OFF)<br>Bit 1: DO2 (=0:DO is ON, =1:DO is OFF)<br>Bit 2: DO3 (=0:DO is ON, =1:DO is OFF)<br>Bit 3: DO4 (=0:DO is ON, =1:DO is OFF)<br>Bit 4: DO1 (=0:real DO is ON, =1:real DO is OFF)<br>Bit 5: DO2 (=0:real DO is ON, =1:real DO is OFF)<br>Bit 6: DO3 (=0:real DO is ON, =1:real DO is OFF)<br>Bit 7: DO4 (=0:real DO is ON, =1:real DO is OFF)<br><b>THERMAL WARNING DIGITAL OUTPUTS</b> |                             |                                                        |  |               |
| THERMAL WARNING DO1-DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3x00105<br>4x00105<br>I:104 | 0,0x0000<br>B:00 00                                    |  | UINT16<br>R/O |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current thermal warning of DO1-DO4:0=OK                |  |               |
| The current thermal warning state for the digital output group<br>=0:No thermal warning, =1:Thermal warning                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |                                                        |  |               |
| <b>POWER SUPPLY MONITORING DIGITAL OUTPUTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |                                                        |  |               |
| POWER SUPPLY MONITORING DO1-DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3x00106<br>4x00106<br>I:105 | 0,0x0000<br>B:00 00                                    |  | UINT16<br>R/O |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current power supply monitoring for DO1-DO4:0=NO FAULT |  |               |
| The current monitoring state of the power supply for the digital output group<br>=0:No fault, =1:Fault                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                                        |  |               |
| <b>SPI COMMUNICATION DIGITAL OUTPUTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                                                        |  |               |
| SPI COMMUNICATION DO1-DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3x00107<br>4x00107<br>I:106 | 0,0x0000<br>B:00 00                                    |  | UINT16<br>R/O |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             | Current SPI monitoring for DO1-DO4:0=NO FAULT          |  |               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                                            |  |  |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------|--|--|---------------|
| The current monitoring state of the SPI communication for the digital output group<br>=0:No fault, =1:Fault                                                                                                                                                                                                                                                                                                                                                                            |                             |                                            |  |  |               |
| DIAGNOSTIC STATUS DIGITAL OUTPUTS                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             |                                            |  |  |               |
| DIAGNOSTIC STATE DO1-DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3x00108<br>4x00108<br>I:107 | 0,0x0000<br>B:00 00                        |  |  | UINT16<br>R/O |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             | Current diagnostic state of DO1:0=NO FAULT |  |  |               |
| The current state of the diagnostic feature for the digital output DOx. Each output uses 2 bits (Source and drain drivers)<br>Bit 0: DO1 Source: =0:No fault, =1:Fault<br>Bit 1: DO1 Drain: =0:No fault, =1:Fault<br>Bit 2: DO2 Source: =0:No fault, =1:Fault<br>Bit 3: DO2 Drain: =0:No fault, =1:Fault<br>Bit 4: DO3 Source: =0:No fault, =1:Fault<br>Bit 5: DO3 Drain: =0:No fault, =1:Fault<br>Bit 6: DO4 Source: =0:No fault, =1:Fault<br>Bit 7: DO4 Drain: =0:No fault, =1:Fault |                             |                                            |  |  |               |

| DIGITAL OUTPUTS                                                                                                   |                           |                                                                     |       |    |
|-------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-------|----|
| SET DO1                                                                                                           | ASCII<br>WRITE<br>COMMAND | #SET DO1:<DO1><CR><br>#SDO1:<DO1><CR><br>Result:<br>#OK<CR>         | ASCII | NO |
|                                                                                                                   | DO1                       | 1:ON                                                                |       |    |
|                                                                                                                   | TX                        | #SET DO1:1<CR>                                                      |       |    |
|                                                                                                                   | RX                        | N/A                                                                 |       |    |
| Sets a new state for the digital output DOx of the module:<br>=0:digital output is OFF<br>=1:digital output is ON |                           |                                                                     |       |    |
| SET DO2                                                                                                           | ASCII<br>WRITE<br>COMMAND | #SET DO2:<DO2><CR><br>#SDO2:<DO2><CR><br>Result:<br>#OK<CR>         | ASCII | NO |
|                                                                                                                   | DO2                       | 1:ON                                                                |       |    |
|                                                                                                                   | TX                        | #SET DO2:1<CR>                                                      |       |    |
|                                                                                                                   | RX                        | N/A                                                                 |       |    |
| Sets a new state for the digital output DOx of the module:<br>=0:digital output is OFF<br>=1:digital output is ON |                           |                                                                     |       |    |
| SET DO3                                                                                                           | ASCII<br>WRITE<br>COMMAND | #SET DO3:<DO3><CR><br>#SDO3:<DO3><CR><br>Result:<br>#OK<CR>         | ASCII | NO |
|                                                                                                                   | DO3                       | 1:ON                                                                |       |    |
|                                                                                                                   | TX                        | #SET DO3:1<CR>                                                      |       |    |
|                                                                                                                   | RX                        | N/A                                                                 |       |    |
| Sets a new state for the digital output DOx of the module:<br>=0:digital output is OFF<br>=1:digital output is ON |                           |                                                                     |       |    |
| SET DO4                                                                                                           | ASCII<br>WRITE<br>COMMAND | #SET DO4:<DO4><CR><br>#SDO4:<DO4><CR><br>Result:<br>#OK<CR>         | ASCII | NO |
|                                                                                                                   | DO4                       | 1:ON                                                                |       |    |
|                                                                                                                   | TX                        | #SET DO4:1<CR>                                                      |       |    |
|                                                                                                                   | RX                        | N/A                                                                 |       |    |
| Sets a new state for the digital output DOx of the module:<br>=0:digital output is OFF<br>=1:digital output is ON |                           |                                                                     |       |    |
| GET DO1                                                                                                           | ASCII<br>READ<br>COMMAND  | #GET DO1<CR><br>#GDO1<CR><br>Result:<br>#GDO1:<DO1Dec>,<DO1Hex><CR> | ASCII |    |
|                                                                                                                   | TX                        | #GET DO1<CR>                                                        |       |    |
|                                                                                                                   | RX                        | #255,GDO1:0,0x00<CR>                                                |       |    |
|                                                                                                                   |                           | Current status of digital output DO1:0->OFF                         |       |    |

Returns the current state of the digital output DOx of the module as decimal and hexadecimal number

DO1: The current state of the digital output 1:  
 =0:digital output is OFF  
 =1:digital output is ON

|         |                                   |                                                                     |       |  |
|---------|-----------------------------------|---------------------------------------------------------------------|-------|--|
| GET DO2 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET DO2<CR><br>#GDO2<CR><br>Result:<br>#GDO2:<DO2Dec>,<DO2Hex><CR> | ASCII |  |
|         | <b>TX</b>                         | #GET DO2<CR>                                                        |       |  |
|         | <b>RX</b>                         | #255,GDO2:0,0x00<CR>                                                |       |  |
|         |                                   | Current status of digital output DO2:0->OFF                         |       |  |

Returns the current state of the digital output DOx of the module as decimal and hexadecimal number

DO2: The current state of the digital output 2:  
 =0:digital output is OFF  
 =1:digital output is ON

|         |                                   |                                                                     |       |  |
|---------|-----------------------------------|---------------------------------------------------------------------|-------|--|
| GET DO3 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET DO3<CR><br>#GDO3<CR><br>Result:<br>#GDO3:<DO3Dec>,<DO3Hex><CR> | ASCII |  |
|         | <b>TX</b>                         | #GET DO3<CR>                                                        |       |  |
|         | <b>RX</b>                         | #255,GDO3:0,0x00<CR>                                                |       |  |
|         |                                   | Current status of digital output DO3:0->OFF                         |       |  |

Returns the current state of the digital output DOx of the module as decimal and hexadecimal number

DO3: The current state of the digital output 3:  
 =0:digital output is OFF  
 =1:digital output is ON

|         |                                   |                                                                     |       |  |
|---------|-----------------------------------|---------------------------------------------------------------------|-------|--|
| GET DO4 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET DO4<CR><br>#GDO4<CR><br>Result:<br>#GDO4:<DO4Dec>,<DO4Hex><CR> | ASCII |  |
|         | <b>TX</b>                         | #GET DO4<CR>                                                        |       |  |
|         | <b>RX</b>                         | #255,GDO4:0,0x00<CR>                                                |       |  |
|         |                                   | Current status of digital output DO4:0->OFF                         |       |  |

Returns the current state of the digital output DOx of the module as decimal and hexadecimal number

DO4: The current state of the digital output 4:  
 =0:digital output is OFF  
 =1:digital output is ON

|         |                                   |                                                                     |       |  |
|---------|-----------------------------------|---------------------------------------------------------------------|-------|--|
| GET DOS | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET DOS<CR><br>#GDOS<CR><br>Result:<br>#GDOS:<DOSDec>,<DOSHex><CR> | ASCII |  |
|         | <b>TX</b>                         | #GET DOS<CR>                                                        |       |  |
|         | <b>RX</b>                         | #255,GDOS:0,0x00<CR>                                                |       |  |
|         |                                   | Current status of digital output 1:0->OFF                           |       |  |
|         |                                   | Current status of digital output 2:0->OFF                           |       |  |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                              |       |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------|-------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current status of digital output 3:0->OFF                                    |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current status of digital output 4:0->OFF                                    |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output 1:0->OFF                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output 2:0->OFF                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output 3:0->OFF                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output 4:0->OFF                               |       |  |
| Returns the current state of all digital outputs as decimal and hexadecimal number                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                              |       |  |
| DOS: The current state of all digital outputs:<br>Bit 0: State of digital output DO1 (=0:OFF, =1:ON)<br>Bit 1: State of digital output DO2 (=0:OFF, =1:ON)<br>Bit 2: State of digital output DO3 (=0:OFF, =1:ON)<br>Bit 3: State of digital output DO4 (=0:OFF, =1:ON)<br>Bit 4: State of the real digital output DO1 (=0:OFF, =1:ON)<br>Bit 5: State of the real digital output DO2 (=0:OFF, =1:ON)<br>Bit 6: State of the real digital output DO3 (=0:OFF, =1:ON)<br>Bit 7: State of the real digital output DO4 (=0:OFF, =1:ON) |                          |                                                                              |       |  |
| The real digital output state is the current state of the output including offdelay timers or blinking timers in the module.                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                              |       |  |
| GET TRUE DO1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ASCII<br>READ<br>COMMAND | #GET TRUE DO1<CR><br>#GTDO1<CR><br>Result:<br>#GTDO1:<TDO1Dec>,<TDO1Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TX                       | #GET TRUE DO1<CR>                                                            |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RX                       | #255,GTDO1:0,0x00<CR>                                                        |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output DO1:0->OFF                             |       |  |
| Returns the true state of the real digital output DOx of the module as decimal and hexadecimal number. This function includes all offdelay timers or internal timings of the output.                                                                                                                                                                                                                                                                                                                                               |                          |                                                                              |       |  |
| TDO1: The current state of the real digital output 1:<br>=0:digital output is OFF<br>=1:digital output is ON                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                              |       |  |
| GET TRUE DO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ASCII<br>READ<br>COMMAND | #GET TRUE DO2<CR><br>#GTDO2<CR><br>Result:<br>#GTDO2:<TDO2Dec>,<TDO2Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TX                       | #GET TRUE DO2<CR>                                                            |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RX                       | #255,GTDO2:0,0x00<CR>                                                        |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output DO2:0->OFF                             |       |  |
| Returns the true state of the real digital output DOx of the module as decimal and hexadecimal number. This function includes all offdelay timers or internal timings of the output.                                                                                                                                                                                                                                                                                                                                               |                          |                                                                              |       |  |
| TDO2: The current state of the real digital output 2:<br>=0:digital output is OFF<br>=1:digital output is ON                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                              |       |  |
| GET TRUE DO3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ASCII<br>READ<br>COMMAND | #GET TRUE DO3<CR><br>#GTDO3<CR><br>Result:<br>#GTDO3:<TDO3Dec>,<TDO3Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TX                       | #GET TRUE DO3<CR>                                                            |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RX                       | #255,GTDO3:0,0x00<CR>                                                        |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Current real status of digital output DO3:0->OFF                             |       |  |

Returns the true state of the real digital output DOx of the module as decimal and hexadecimal number. This function includes all offdelay timers or internal timings of the output.

TDO3: The current state of the real digital output 3:

=0:digital output is OFF

=1:digital output is ON

|              |                                   |                                                                              |       |  |
|--------------|-----------------------------------|------------------------------------------------------------------------------|-------|--|
| GET TRUE DO4 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET TRUE DO4<CR><br>#GTDO4<CR><br>Result:<br>#GTDO4:<TDO4Dec>,<TDO4Hex><CR> | ASCII |  |
|              | <b>TX</b>                         | #GET TRUE DO4<CR>                                                            |       |  |
|              | <b>RX</b>                         | #255,GTDO4:0,0x00<CR>                                                        |       |  |
|              |                                   | Current real status of digital output DO4:0->OFF                             |       |  |

Returns the true state of the real digital output DOx of the module as decimal and hexadecimal number. This function includes all offdelay timers or internal timings of the output.

TDO4: The current state of the real digital output 4:

=0:digital output is OFF

=1:digital output is ON

|                 |                                   |                                                                             |       |  |
|-----------------|-----------------------------------|-----------------------------------------------------------------------------|-------|--|
| GET NEGATED DO1 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET NEG DO1<CR><br>#GNDO1<CR><br>Result:<br>#GNDO1:<NDO1Dec>,<NDO1Hex><CR> | ASCII |  |
|                 | <b>TX</b>                         | #GET NEG DO1<CR>                                                            |       |  |
|                 | <b>RX</b>                         | #255,GNDO1:1,0x01<CR>                                                       |       |  |
|                 |                                   | Current negated status of digital output DO1:1->OFF                         |       |  |

Returns the current negated state of the digital output DO as decimal and hexadecimal number

NDO1: The current negated state of the digital output 1:

=0:digital output is OFF

=1:digital output is ON

|                 |                                   |                                                                             |       |  |
|-----------------|-----------------------------------|-----------------------------------------------------------------------------|-------|--|
| GET NEGATED DO2 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET NEG DO2<CR><br>#GNDO2<CR><br>Result:<br>#GNDO2:<NDO2Dec>,<NDO2Hex><CR> | ASCII |  |
|                 | <b>TX</b>                         | #GET NEG DO2<CR>                                                            |       |  |
|                 | <b>RX</b>                         | #255,GNDO2:1,0x01<CR>                                                       |       |  |
|                 |                                   | Current negated status of digital output DO2:1->OFF                         |       |  |

Returns the current negated state of the digital output DO as decimal and hexadecimal number

NDO2: The current negated state of the digital output 2:

=0:digital output is OFF

=1:digital output is ON

|                 |                                   |                                                                             |       |  |
|-----------------|-----------------------------------|-----------------------------------------------------------------------------|-------|--|
| GET NEGATED DO3 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET NEG DO3<CR><br>#GNDO3<CR><br>Result:<br>#GNDO3:<NDO3Dec>,<NDO3Hex><CR> | ASCII |  |
|                 | <b>TX</b>                         | #GET NEG DO3<CR>                                                            |       |  |
|                 | <b>RX</b>                         | #255,GNDO3:1,0x01<CR>                                                       |       |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                                 |       |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------|-------|----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated status of digital output DO3:1->OFF                             |       |    |
| Returns the current negated state of the digital output DO as decimal and hexadecimal number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                                 |       |    |
| NDO3: The current negated state of the digital output 3:<br>=0:digital output is OFF<br>=1:digital output is ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                                 |       |    |
| GET NEGATED DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ASCII<br>READ<br>COMMAND  | #GET NEG DO4<CR><br>#GNDO4<CR><br>Result:<br>#GNDO4:<NDO4Dec>,<NDO4Hex><CR>     | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TX                        | #GET NEG DO4<CR>                                                                |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RX                        | #255,GNDO4:1,0x01<CR>                                                           |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated status of digital output DO4:1->OFF                             |       |    |
| Returns the current negated state of the digital output DO as decimal and hexadecimal number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                                 |       |    |
| NDO4: The current negated state of the digital output 4:<br>=0:digital output is OFF<br>=1:digital output is ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                                 |       |    |
| GET NEGATED DOS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ASCII<br>READ<br>COMMAND  | #GET NEG DOS<CR><br>#GNDOS<CR><br>Result:<br>#GNDOS:<NDOSDec>,<NDOSHex><CR>     | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TX                        | #GET NEG DOS<CR>                                                                |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RX                        | #255,GNDOS:/,0xFFFFFFFF<CR>                                                     |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated status of digital output 1:0->ON                                |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated status of digital output 2:0->ON                                |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated status of digital output 3:0->ON                                |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated status of digital output 4:0->ON                                |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated real status of digital output 1:0->ON                           |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated real status of digital output 2:0->ON                           |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated real status of digital output 3:0->ON                           |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Current negated real status of digital output 4:0->ON                           |       |    |
| Returns the negated current state of all digital outputs as decimal and hexadecimal number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                                 |       |    |
| DOS: The current state of all digital outputs:<br>Bit 0: Negated state of digital output DO1 (=0:ON, =1:OFF)<br>Bit 1: Negated state of digital output DO2 (=0:ON, =1:OFF)<br>Bit 2: Negated state of digital output DO3 (=0:ON, =1:OFF)<br>Bit 3: Negated state of digital output DO4 (=0:ON, =1:OFF)<br>Bit 4: Negated state of the real digital output DO1 (=0:ON, =1:OFF)<br>Bit 5: Negated state of the real digital output DO2 (=0:ON, =1:OFF)<br>Bit 6: Negated state of the real digital output DO3 (=0:ON, =1:OFF)<br>Bit 7: Negated state of the real digital output DO4 (=0:ON, =1:OFF) |                           |                                                                                 |       |    |
| The real digital output state is the current state of the output including offdelay timers or blinking timers in the module.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                                 |       |    |
| SET OFFDELAY1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ASCII<br>WRITE<br>COMMAND | #SET OFFDELAY1:<OFFDELAY><CR><br>#SOFFDLY1:<OFFDELAY><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | OFFDELAY                  | 1000                                                                            |       |    |

|                                                                                                                                                                                                                                                                                                                                                                             |                                    |                                                                                 |       |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------|-------|----|
|                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #SET OFFDELAY1:1000<CR>                                                         |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | N/A                                                                             |       |    |
| Sets the internal offdelay timer for digital output 1 to the timer value OFFDLY in milliseconds.                                                                                                                                                                                                                                                                            |                                    |                                                                                 |       |    |
| OFFDLY: The new time value for the offdelay timer function in milliseconds.                                                                                                                                                                                                                                                                                                 |                                    |                                                                                 |       |    |
| This function offers a watchdog feature: If you execute this command (e.g.: with the value 5000), the module activates the output for 5 seconds. If the module again receives this command within this 5 seconds, the internal timer is reset to the given time and the output is still on. If no command is received within 5 seconds, the module switches off the output. |                                    |                                                                                 |       |    |
| SET OFFDELAY2                                                                                                                                                                                                                                                                                                                                                               | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET OFFDELAY2:<OFFDELAY><CR><br>#SOFFDLY2:<OFFDELAY><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>OFFDELAY</b>                    | 2000                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #SET OFFDELAY2:2000<CR>                                                         |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | N/A                                                                             |       |    |
| Sets the internal offdelay timer for digital output 2 to the timer value OFFDLY in milliseconds.                                                                                                                                                                                                                                                                            |                                    |                                                                                 |       |    |
| OFFDLY: The new time value for the offdelay timer function in milliseconds.                                                                                                                                                                                                                                                                                                 |                                    |                                                                                 |       |    |
| This function offers a watchdog feature: If you execute this command (e.g.: with the value 5000), the module activates the output for 5 seconds. If the module again receives this command within this 5 seconds, the internal timer is reset to the given time and the output is still on. If no command is received within 5 seconds, the module switches off the output. |                                    |                                                                                 |       |    |
| SET OFFDELAY3                                                                                                                                                                                                                                                                                                                                                               | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET OFFDELAY3:<OFFDELAY><CR><br>#SOFFDLY3:<OFFDELAY><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>OFFDELAY</b>                    | 1000                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #SET OFFDELAY3:1000<CR>                                                         |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | N/A                                                                             |       |    |
| Sets the internal offdelay timer for digital output 3 to the timer value OFFDLY in milliseconds.                                                                                                                                                                                                                                                                            |                                    |                                                                                 |       |    |
| OFFDLY: The new time value for the offdelay timer function in milliseconds.                                                                                                                                                                                                                                                                                                 |                                    |                                                                                 |       |    |
| This function offers a watchdog feature: If you execute this command (e.g.: with the value 5000), the module activates the output for 5 seconds. If the module again receives this command within this 5 seconds, the internal timer is reset to the given time and the output is still on. If no command is received within 5 seconds, the module switches off the output. |                                    |                                                                                 |       |    |
| SET OFFDELAY4                                                                                                                                                                                                                                                                                                                                                               | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET OFFDELAY4:<OFFDELAY><CR><br>#SOFFDLY4:<OFFDELAY><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>OFFDELAY</b>                    | 2000                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #SET OFFDELAY4:2000<CR>                                                         |       |    |
|                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | N/A                                                                             |       |    |
| Sets the internal offdelay timer for digital output 4 to the timer value OFFDLY in milliseconds.                                                                                                                                                                                                                                                                            |                                    |                                                                                 |       |    |
| OFFDLY: The new time value for the offdelay timer function in milliseconds.                                                                                                                                                                                                                                                                                                 |                                    |                                                                                 |       |    |
| This function offers a watchdog feature: If you execute this command (e.g.: with the value 5000), the module activates the output for 5 seconds. If the module again receives this command within this 5 seconds, the internal timer is reset to the given time and the output is still on. If no command is received within 5 seconds, the module switches off the output. |                                    |                                                                                 |       |    |

|                                                                                                                                                                                                                                                         |                                    |                                                                                           |       |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------|-------|----|
| GET OFFDELAY1                                                                                                                                                                                                                                           | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET OFFDELAY1<CR><br>#GOFFDLY1<CR><br>Result:<br>#GOFFDLY1:<OFFDLY1Dec>,<OFFDLY1Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                         | <b>TX</b>                          | #GET OFFDELAY1<CR>                                                                        |       |    |
|                                                                                                                                                                                                                                                         | <b>RX</b>                          | #255,GOFFDLY1:0,0x0<CR>                                                                   |       |    |
|                                                                                                                                                                                                                                                         |                                    | Current off-delay timer for digital output 1:0->0,000s                                    |       |    |
| Returns the current value of the offdelay timer for DO1. The value is a time in milliseconds. If this value is not zero, the output is on, If this value is 0, the output is off.<br>OFFDLY1: The remaining time of the offdelay timer in milliseconds. |                                    |                                                                                           |       |    |
| GET OFFDELAY2                                                                                                                                                                                                                                           | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET OFFDELAY2<CR><br>#GOFFDLY2<CR><br>Result:<br>#GOFFDLY2:<OFFDLY2Dec>,<OFFDLY2Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                         | <b>TX</b>                          | #GET OFFDELAY2<CR>                                                                        |       |    |
|                                                                                                                                                                                                                                                         | <b>RX</b>                          | #255,GOFFDLY2:0,0x0<CR>                                                                   |       |    |
|                                                                                                                                                                                                                                                         |                                    | Current off-delay timer for digital output 2:0->0,000s                                    |       |    |
| Returns the current value of the offdelay timer for DO2. The value is a time in milliseconds. If this value is not zero, the output is on, If this value is 0, the output is off.<br>OFFDLY2: The remaining time of the offdelay timer in milliseconds. |                                    |                                                                                           |       |    |
| GET OFFDELAY3                                                                                                                                                                                                                                           | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET OFFDELAY1<CR><br>#GOFFDLY1<CR><br>Result:<br>#GOFFDLY1:<OFFDLY1Dec>,<OFFDLY1Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                         | <b>TX</b>                          | #GET OFFDELAY1<CR>                                                                        |       |    |
|                                                                                                                                                                                                                                                         | <b>RX</b>                          | #255,GOFFDLY1:0,0x0<CR>                                                                   |       |    |
|                                                                                                                                                                                                                                                         |                                    | Current off-delay timer for digital output 1:0->0,000s                                    |       |    |
| Returns the current value of the offdelay timer for DO3. The value is a time in milliseconds. If this value is not zero, the output is on, If this value is 0, the output is off.<br>OFFDLY3: The remaining time of the offdelay timer in milliseconds. |                                    |                                                                                           |       |    |
| GET OFFDELAY4                                                                                                                                                                                                                                           | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET OFFDELAY4<CR><br>#GOFFDLY4<CR><br>Result:<br>#GOFFDLY4:<OFFDLY4Dec>,<OFFDLY4Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                         | <b>TX</b>                          | #GET OFFDELAY4<CR>                                                                        |       |    |
|                                                                                                                                                                                                                                                         | <b>RX</b>                          | #255,GOFFDLY4:0,0x0<CR>                                                                   |       |    |
|                                                                                                                                                                                                                                                         |                                    | Current off-delay timer for digital output 4:0->0,000s                                    |       |    |
| Returns the current value of the offdelay timer for DO4. The value is a time in milliseconds. If this value is not zero, the output is on, If this value is 0, the output is off.<br>OFFDLY4: The remaining time of the offdelay timer in milliseconds. |                                    |                                                                                           |       |    |
| SET BLINK TIMER1                                                                                                                                                                                                                                        | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET BLINK TIMER1:<BLINKTIME><CR><br>#SBLINK1:<BLINKTIME><CR><br>Result:<br>#OK<CR>       | ASCII | NO |
|                                                                                                                                                                                                                                                         | <b>BLINKTIME</b>                   | 10                                                                                        |       |    |
|                                                                                                                                                                                                                                                         | <b>TX</b>                          | #SET BLINK TIMER1:10<CR>                                                                  |       |    |
|                                                                                                                                                                                                                                                         | <b>RX</b>                          | N/A                                                                                       |       |    |

Activates the internal blink timer with the blink period of BLINKTIME in 100ms for digital output 1.

BLINKTIME: The new period for the blink timer function in 100ms.

This function offers a blink feature: the output will blink with the configured period symmetrically.

|                  |                                    |                                                                                     |       |    |
|------------------|------------------------------------|-------------------------------------------------------------------------------------|-------|----|
| SET BLINK TIMER2 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET BLINK TIMER2:<BLINKTIME><CR><br>#SBLINK2:<BLINKTIME><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>BLINKTIME</b>                   | 20                                                                                  |       |    |
|                  | <b>TX</b>                          | #SET BLINK TIMER2:20<CR>                                                            |       |    |
|                  | <b>RX</b>                          | N/A                                                                                 |       |    |

Activates the internal blink timer with the blink period of BLINKTIME in 100ms for digital output 2.

BLINKTIME: The new period for the blink timer function in 100ms.

This function offers a blink feature: the output will blink with the configured period symmetrically.

|                  |                                    |                                                                                     |       |    |
|------------------|------------------------------------|-------------------------------------------------------------------------------------|-------|----|
| SET BLINK TIMER3 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET BLINK TIMER3:<BLINKTIME><CR><br>#SBLINK3:<BLINKTIME><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>BLINKTIME</b>                   | 10                                                                                  |       |    |
|                  | <b>TX</b>                          | #SET BLINK TIMER3:10<CR>                                                            |       |    |
|                  | <b>RX</b>                          | N/A                                                                                 |       |    |

Activates the internal blink timer with the blink period of BLINKTIME in 100ms for digital output 3.

BLINKTIME: The new period for the blink timer function in 100ms.

This function offers a blink feature: the output will blink with the configured period symmetrically.

|                  |                                    |                                                                                     |       |    |
|------------------|------------------------------------|-------------------------------------------------------------------------------------|-------|----|
| SET BLINK TIMER4 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET BLINK TIMER4:<BLINKTIME><CR><br>#SBLINK4:<BLINKTIME><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>BLINKTIME</b>                   | 20                                                                                  |       |    |
|                  | <b>TX</b>                          | #SET BLINK TIMER4:20<CR>                                                            |       |    |
|                  | <b>RX</b>                          | N/A                                                                                 |       |    |

Activates the internal blink timer with the blink period of BLINKTIME in 100ms for digital output 4.

BLINKTIME: The new period for the blink timer function in 100ms.

This function offers a blink feature: the output will blink with the configured period symmetrically.

|                  |                                   |                                                                                                  |       |  |
|------------------|-----------------------------------|--------------------------------------------------------------------------------------------------|-------|--|
| GET BLINK TIMER1 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET BLINK TIMER1<CR><br>#GBLINK1<CR><br>Result:<br>#GBLINK1:<BLINKTIME1Dec>,<BLINKTIME1Hex><CR> | ASCII |  |
|                  | <b>TX</b>                         | #GET BLINK TIMER1<CR>                                                                            |       |  |
|                  | <b>RX</b>                         | #255,GBLINK1:0,0x0<CR>                                                                           |       |  |
|                  |                                   | Current blink timer for digital output 1:0->0,0s                                                 |       |  |

Returns the current period of the blink timer for DO1. The value is a time span in 100ms units. If this value is not zero, the output will blink symmetrically, If this value is 0, the blink function is deactivated.

BLINKTIME: The current time span for the blink timer in 100ms units.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    |                                                                                                           |       |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------|-------|----|
| GET BLINK TIMER2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET BLINK TIMER2<CR><br>#GBLINK2<CR><br>Result:<br>#GBLINK2:<BLINKTIME2Dec>,<BLINKTIME2Hex><CR>          | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #GET BLINK TIMER2<CR>                                                                                     |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | #255,GBLINK2:0,0x0<CR>                                                                                    |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    | Current blink timer for digital output 2:0->0,0s                                                          |       |    |
| Returns the current period of the blink timer for DO2. The value is a time span in 100ms units. If this value is not zero, the output will blink symmetrically, If this value is 0, the blink function is deactivated.<br>BLINKTIME: The current time span for the blink timer in 100ms units.                                                                                                                                                                                                                                                              |                                    |                                                                                                           |       |    |
| GET BLINK TIMER3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET BLINK TIMER3<CR><br>#GBLINK3<CR><br>Result:<br>#GBLINK3:<BLINKTIME3Dec>,<BLINKTIME3Hex><CR>          | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #GET BLINK TIMER3<CR>                                                                                     |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | #255,GBLINK3:0,0x0<CR>                                                                                    |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    | Current blink timer for digital output 3:0->0,0s                                                          |       |    |
| Returns the current period of the blink timer for DO3. The value is a time span in 100ms units. If this value is not zero, the output will blink symmetrically, If this value is 0, the blink function is deactivated.<br>BLINKTIME: The current time span for the blink timer in 100ms units.                                                                                                                                                                                                                                                              |                                    |                                                                                                           |       |    |
| GET BLINK TIMER4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET BLINK TIMER4<CR><br>#GBLINK4<CR><br>Result:<br>#GBLINK4:<BLINKTIME4Dec>,<BLINKTIME4Hex><CR>          | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #GET BLINK TIMER4<CR>                                                                                     |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | #255,GBLINK4:0,0x0<CR>                                                                                    |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    | Current blink timer for digital output 4:0->0,0s                                                          |       |    |
| Returns the current period of the blink timer for DO4. The value is a time span in 100ms units. If this value is not zero, the output will blink symmetrically, If this value is 0, the blink function is deactivated.<br>BLINKTIME: The current time span for the blink timer in 100ms units.                                                                                                                                                                                                                                                              |                                    |                                                                                                           |       |    |
| SET FLASH TIMER1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET FLASH TIMER1:<FLASHON1>,<FLASHOFF1><CR><br>#SFLASH1:<FLASHON1>,<FLASHOFF1><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>FLASHON1</b>                    | 10                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>FLASHOFF1</b>                   | 20                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>TX</b>                          | #SET FLASH TIMER1:10,20<CR>                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>RX</b>                          | N/A                                                                                                       |       |    |
| Activates the internal flash timer with the ON period of FLASHON1 in 100ms and the OFF period of FLASHOFF1 in 100ms for digital output 1.<br>If FLASHON1 and FLASHOFF1 are 0, the flash timer is deactivated.<br><br>FLASHON1: The new time span for the ON time of the flash timer in 100ms units.<br>FLASHOFF1: The new time span for the OFF time of the flash timer in 100ms units.<br><br>This function offers a flash feature: the output will flash with the configured ON and OFF period. So you can generate a pulse with modulated output signal. |                                    |                                                                                                           |       |    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                                                                           |       |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------|-------|----|
| SET FLASH TIMER2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET FLASH TIMER2:<FLASHON2>,<FLASHOFF2><CR><br>#SFLASH2:<FLASHON2>,<FLASHOFF2><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>FLASHON2</b>                    | 10                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>FLASHOFF2</b>                   | 20                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET FLASH TIMER2:10,20<CR>                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                                       |       |    |
| <p>Activates the internal flash timer with the ON period of FLASHON2 in 100ms and the OFF period of FLASHOFF2 in 100ms for digital output 2.<br/>If FLASHON2 and FLASHOFF2 are 0, the flash timer is deactivated.</p> <p>FLASHON2: The new time span for the ON time of the flash timer in 100ms units.<br/>FLASHOFF2: The new time span for the OFF time of the flash timer in 100ms units.</p> <p>This function offers a flash feature: the output will flash with the configured ON and OFF period. So you can generate a pulse with modulated output signal.</p> |                                    |                                                                                                           |       |    |
| SET FLASH TIMER3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET FLASH TIMER3:<FLASHON3>,<FLASHOFF3><CR><br>#SFLASH3:<FLASHON3>,<FLASHOFF3><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>FLASHON3</b>                    | 10                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>FLASHOFF3</b>                   | 20                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET FLASH TIMER3:10,20<CR>                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                                       |       |    |
| <p>Activates the internal flash timer with the ON period of FLASHON3 in 100ms and the OFF period of FLASHOFF3 in 100ms for digital output 3.<br/>If FLASHON3 and FLASHOFF3 are 0, the flash timer is deactivated.</p> <p>FLASHON3: The new time span for the ON time of the flash timer in 100ms units.<br/>FLASHOFF3: The new time span for the OFF time of the flash timer in 100ms units.</p> <p>This function offers a flash feature: the output will flash with the configured ON and OFF period. So you can generate a pulse with modulated output signal.</p> |                                    |                                                                                                           |       |    |
| SET FLASH TIMER4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET FLASH TIMER4:<FLASHON4>,<FLASHOFF4><CR><br>#SFLASH4:<FLASHON4>,<FLASHOFF4><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>FLASHON4</b>                    | 10                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>FLASHOFF4</b>                   | 20                                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET FLASH TIMER4:10,20<CR>                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                                       |       |    |
| <p>Activates the internal flash timer with the ON period of FLASHON4 in 100ms and the OFF period of FLASHOFF4 in 100ms for digital output 4.<br/>If FLASHON4 and FLASHOFF4 are 0, the flash timer is deactivated.</p> <p>FLASHON4: The new time span for the ON time of the flash timer in 100ms units.<br/>FLASHOFF4: The new time span for the OFF time of the flash timer in 100ms units.</p> <p>This function offers a flash feature: the output will flash with the configured ON and OFF period. So you can generate a pulse with modulated output signal.</p> |                                    |                                                                                                           |       |    |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                                                                                                            |       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------|--|
| GET FLASH TIMER1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET FLASH TIMER1<CR><br>#GFLASH1<CR><br>Result:<br>#GFLASH1:<FLASHON1Dec>,<FLASHOFF1Dec>,<FLASHON1Hex>,<FLASHOFF1Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>TX</b>                         | #GET FLASH TIMER1<CR>                                                                                                      |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>RX</b>                         | #255,GFLASH1:0,0,0x0,0x0<CR>                                                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current ON time for flash timer for digital output 1:0->0,0s                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current OFF time for flash timer for digital output 1:0->0,0s                                                              |       |  |
| <p>Returns the current period settings for the ON and OFF period of the flash timer for digital output 1. The values define a time span in 100ms units.<br/>If FLASHON1 or FLASHOFF1 value is not zero, the output will flash in the given ON and OFF period, If both values are 0, the flash function is deactivated.</p> <p>FLASHON1: The current time span for the ON time of the flash timer in 100ms units.<br/>FLASHOFF1: The current time span for the OFF time of the flash timer in 100ms units.</p> |                                   |                                                                                                                            |       |  |
| GET FLASH TIMER2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET FLASH TIMER2<CR><br>#GFLASH2<CR><br>Result:<br>#GFLASH2:<FLASHON2Dec>,<FLASHOFF2Dec>,<FLASHON2Hex>,<FLASHOFF2Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>TX</b>                         | #GET FLASH TIMER2<CR>                                                                                                      |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>RX</b>                         | #255,GFLASH2:0,0,0x0,0x0<CR>                                                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current ON time for flash timer for digital output 2:0->0,0s                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current OFF time for flash timer for digital output 2:0->0,0s                                                              |       |  |
| <p>Returns the current period settings for the ON and OFF period of the flash timer for digital output 2. The values define a time span in 100ms units.<br/>If FLASHON2 or FLASHOFF2 value is not zero, the output will flash in the given ON and OFF period, If both values are 0, the flash function is deactivated.</p> <p>FLASHON2: The current time span for the ON time of the flash timer in 100ms units.<br/>FLASHOFF2: The current time span for the OFF time of the flash timer in 100ms units.</p> |                                   |                                                                                                                            |       |  |
| GET FLASH TIMER3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET FLASH TIMER3<CR><br>#GFLASH3<CR><br>Result:<br>#GFLASH3:<FLASHON3Dec>,<FLASHOFF3Dec>,<FLASHON3Hex>,<FLASHOFF3Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>TX</b>                         | #GET FLASH TIMER3<CR>                                                                                                      |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>RX</b>                         | #255,GFLASH3:0,0,0x0,0x0<CR>                                                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current ON time for flash timer for digital output 3:0->0,0s                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current OFF time for flash timer for digital output 3:0->0,0s                                                              |       |  |
| <p>Returns the current period settings for the ON and OFF period of the flash timer for digital output 3. The values define a time span in 100ms units.<br/>If FLASHON3 or FLASHOFF3 value is not zero, the output will flash in the given ON and OFF period, If both values are 0, the flash function is deactivated.</p> <p>FLASHON3: The current time span for the ON time of the flash timer in 100ms units.<br/>FLASHOFF3: The current time span for the OFF time of the flash timer in 100ms units.</p> |                                   |                                                                                                                            |       |  |
| GET FLASH TIMER4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET FLASH TIMER4<CR><br>#GFLASH4<CR><br>Result:<br>#GFLASH4:<FLASHON4Dec>,<FLASHOFF4Dec>,<FLASHON4Hex>,<FLASHOFF4Hex><CR> | ASCII |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>TX</b>                         | #GET FLASH TIMER4<CR>                                                                                                      |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>RX</b>                         | #255,GFLASH4:0,0,0x0,0x0<CR>                                                                                               |       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | Current ON time for flash timer for digital output 4:0->0,0s                                                               |       |  |

|                                                                                                                                                                                                                                                                                                                    |                           |                                                                                              |       |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------|-------|----|
|                                                                                                                                                                                                                                                                                                                    |                           | Current OFF time for flash timer for digital output 4:0->0,0s                                |       |    |
| Returns the current period settings for the ON and OFF period of the flash timer for digital output 4. The values define a time span in 100ms units.<br>If FLASHON4 or FLASHOFF4 value is not zero, the output will flash in the given ON and OFF period, If both values are 0, the flash function is deactivated. |                           |                                                                                              |       |    |
| FLASHON4: The current time span for the ON time of the flash timer in 100ms units.<br>FLASHOFF4: The current time span for the OFF time of the flash timer in 100ms units.                                                                                                                                         |                           |                                                                                              |       |    |
| SET PWM MAXIMUM1                                                                                                                                                                                                                                                                                                   | ASCII<br>WRITE<br>COMMAND | #SET PWM MAXIMUM1:<PWMMAX1><CR><br>#SPWMMAX1:<PWMMAX1><CR><br>Result:<br>#OK<CR>             | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                    | PWMMAX1                   | 100                                                                                          |       |    |
|                                                                                                                                                                                                                                                                                                                    | TX                        | #SET PWM MAXIMUM1:100<CR>                                                                    |       |    |
|                                                                                                                                                                                                                                                                                                                    | RX                        | N/A                                                                                          |       |    |
| Sets the current value of the PWM cycle for digital output 1.<br>The value is a time in 100ms units. If this value is not zero, the PWM function is activated. If this value is 0, the PWM function is off.<br><br>PWMMAX1: The new maximum time of the PWM cycle in 100ms units.                                  |                           |                                                                                              |       |    |
| SET PWM PERCENT1                                                                                                                                                                                                                                                                                                   | ASCII<br>WRITE<br>COMMAND | #SET PWM PERCENT1:<PWMPERCENT1><CR><br>#SPWMP1:<PWMPERCENT1><CR><br>Result:<br>#OK<CR>       | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                    | PWMPERCENT1               | 50,45                                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                    | TX                        | #SET PWM PERCENT1:5045<CR>                                                                   |       |    |
|                                                                                                                                                                                                                                                                                                                    | RX                        | N/A                                                                                          |       |    |
| Sets the current duty cycle of the PWM in percent for digital output 1.<br>Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%<br><br>PWMPERCENT1: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)                                                      |                           |                                                                                              |       |    |
| SET PWM CURRENT1                                                                                                                                                                                                                                                                                                   | ASCII<br>WRITE<br>COMMAND | #SET PWM CURRENT1:<PWMCUR1><CR><br>#SPWMC1:<PWMCUR1><CR><br>Result:<br>#OK<CR>               | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                    | PWMCUR1                   | 10                                                                                           |       |    |
|                                                                                                                                                                                                                                                                                                                    | TX                        | #SET PWM CURRENT1:10<CR>                                                                     |       |    |
|                                                                                                                                                                                                                                                                                                                    | RX                        | N/A                                                                                          |       |    |
| Sets the current duty cycle of the PWM as a time span in 100ms units for digital output 1.<br>Values between 0 and PWMMAX1 represent the duty cycle in 100ms units.<br><br>PWMCUR1: The current duty cycle of the PWM in percent in 100ms units                                                                    |                           |                                                                                              |       |    |
| GET PWM MAXIMUM1                                                                                                                                                                                                                                                                                                   | ASCII<br>READ<br>COMMAND  | #GET PWM MAXIMUM1<CR><br>#GPWMMAX1<CR><br>Result:<br>#GPWMMAX1:<PWMMAX1Dec>,<PWMMAX1Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                                                                                    | TX                        | #GET PWM MAXIMUM1<CR>                                                                        |       |    |
|                                                                                                                                                                                                                                                                                                                    | RX                        | #255,GPWMMAX1:0,0x0<CR>                                                                      |       |    |
|                                                                                                                                                                                                                                                                                                                    |                           | Current PWM maximum time for digital output 1:0->0,0s                                        |       |    |

Returns the current value of the PWM cycle for digital output 1. The value is a time in 100ms units. If this value is not zero, the PWM function is activated.  
If this value is 0, the PWM function is off.

PWM\_MAX1: The current configured maximum time of the PWM cycle in 100ms units.

HINT: If this value is 0, the PWM function is deactivated

|                  |                                   |                                                                                                  |       |  |
|------------------|-----------------------------------|--------------------------------------------------------------------------------------------------|-------|--|
| GET PWM PERCENT1 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET PWM PERCENT1<CR><br>#GPWMP1<CR><br>Result:<br>#GPWMP1:<PWMPERCENT1Dec>,<PWMPERCENT1Hex><CR> | ASCII |  |
|                  | <b>TX</b>                         | #GET PWM PERCENT1<CR>                                                                            |       |  |
|                  | <b>RX</b>                         | #255,GPWMP1:0,0x0<CR>                                                                            |       |  |
|                  |                                   | Current PWM percent for digital output 1:0->0,00%                                                |       |  |

Returns the current duty cycle setting of the PWM in percent for digital output 1. Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%

PWMPERCENT1: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)

|                  |                                   |                                                                                          |       |  |
|------------------|-----------------------------------|------------------------------------------------------------------------------------------|-------|--|
| GET PWM CURRENT1 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET PWM CURRENT1<CR><br>#GPWMC1<CR><br>Result:<br>#GPWMC1:<PWMCUR1Dec>,<PWMCUR1Hex><CR> | ASCII |  |
|                  | <b>TX</b>                         | #GET PWM CURRENT1<CR>                                                                    |       |  |
|                  | <b>RX</b>                         | #255,GPWMC1:0,0x0<CR>                                                                    |       |  |
|                  |                                   | Current PWM on time for digital output 1:0->0,0s                                         |       |  |

Returns the current duty cycle setting of the PWM as a time span in 100ms units for digital output 1.  
Values between 0 and PWM\_MAX1 represent the duty cycle in 100ms units.

PWMCUR1: The current duty cycle of the PWM in percent in 100ms units

|                  |                                    |                                                                                    |       |    |
|------------------|------------------------------------|------------------------------------------------------------------------------------|-------|----|
| SET PWM MAXIMUM2 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM MAXIMUM2:<PWM_MAX2><CR><br>#SPWMMAX2:<PWM_MAX2><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>PWM_MAX2</b>                    | 200                                                                                |       |    |
|                  | <b>TX</b>                          | #SET PWM MAXIMUM2:200<CR>                                                          |       |    |
|                  | <b>RX</b>                          | N/A                                                                                |       |    |

Sets the current value of the PWM cycle for digital output 2.  
The value is a time in 100ms units. If this value is not zero, the PWM function is activated. If this value is 0, the PWM function is off.

PWM\_MAX2: The new maximum time of the PWM cycle in 100ms units.

|                  |                                    |                                                                                        |       |    |
|------------------|------------------------------------|----------------------------------------------------------------------------------------|-------|----|
| SET PWM PERCENT2 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM PERCENT2:<PWMPERCENT2><CR><br>#SPWMP2:<PWMPERCENT2><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>PWMPERCENT2</b>                 | 50,45                                                                                  |       |    |
|                  | <b>TX</b>                          | #SET PWM PERCENT2:5045<CR>                                                             |       |    |
|                  | <b>RX</b>                          | N/A                                                                                    |       |    |

Sets the current duty cycle of the PWM in percent for digital output 2.  
Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%

PWMPERCENT2: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)

|                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                                                                  |       |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------|-------|----|
| SET PWM CURRENT2                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM CURRENT2:<PWMCUR2><CR><br>#SPWMC1:<PWMCUR2><CR><br>Result:<br>#OK<CR>                   | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>PWMCUR2</b>                     | 10                                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET PWM CURRENT2:10<CR>                                                                         |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                              |       |    |
| Sets the current duty cycle of the PWM as a time span in 100ms units for digital output 2.<br>Values between 0 and PWMMAX2 represent the duty cycle in 100ms units.<br><br>PWMCUR2: The current duty cycle of the PWM in percent in 100ms units                                                                                                                      |                                    |                                                                                                  |       |    |
| GET PWM MAXIMUM2                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM MAXIMUM2<CR><br>#GPWMMAX2<CR><br>Result:<br>#GPWMMAX2:<PWMMAX2Dec>,<PWMMAX2Hex><CR>     | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM MAXIMUM2<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMMAX2:0,0x0<CR>                                                                          |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM maximum time for digital output 2:0->0,0s                                            |       |    |
| Returns the current value of the PWM cycle for digital output 2. The value is a time in 100ms units. If this value is not zero, the PWM function is activated.<br>If this value is 0, the PWM function is off.<br><br>PWMMAX2: The current configured maximum time of the PWM cycle in 100ms units.<br><br>HINT: If this value is 0, the PWM function is deactivated |                                    |                                                                                                  |       |    |
| GET PWM PERCENT2                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM PERCENT2<CR><br>#GPWMP2<CR><br>Result:<br>#GPWMP2:<PWMPERCENT2Dec>,<PWMPERCENT2Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM PERCENT2<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMP2:0,0x0<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM percent for digital output 2:0->0,00%                                                |       |    |
| Returns the current duty cycle setting of the PWM in percent for digital output 2. Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%<br><br>PWMPERCENT2: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)                                                                                                |                                    |                                                                                                  |       |    |
| GET PWM CURRENT2                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM CURRENT2<CR><br>#GPWMC2<CR><br>Result:<br>#GPWMC2:<PWMCUR2Dec>,<PWMCUR2Hex><CR>         | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM CURRENT2<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMC2:0,0x0<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM on time for digital output 2:0->0,0s                                                 |       |    |
| Returns the current duty cycle setting of the PWM as a time span in 100ms units for digital output 2.<br>Values between 0 and PWMMAX2 represent the duty cycle in 100ms units.<br><br>PWMCUR2: The current duty cycle of the PWM in percent in 100ms units                                                                                                           |                                    |                                                                                                  |       |    |
| SET PWM MAXIMUM3                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM MAXIMUM3:<PWMMAX3><CR><br>#SPWMMAX3:<PWMMAX3><CR><br>Result:<br>#OK<CR>                 | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>PWMMAX1</b>                     | 100                                                                                              |       |    |

|                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                                                                  |       |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------|-------|----|
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET PWM MAXIMUM3:<PWMMAX3><CR>                                                                  |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                              |       |    |
| Sets the current value of the PWM cycle for digital output 3.<br>The value is a time in 100ms units. If this value is not zero, the PWM function is activated. If this value is 0, the PWM function is off.<br><br>PWMMAX3: The new maximum time of the PWM cycle in 100ms units.                                                                                    |                                    |                                                                                                  |       |    |
| SET PWM PERCENT3                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM PERCENT3:<PWMPERCENT3><CR><br>#SPWMP3:<PWMPERCENT3><CR><br>Result:<br>#OK<CR>           | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>PWMPERCENT3</b>                 | 50,45                                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET PWM PERCENT3:5045<CR>                                                                       |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                              |       |    |
| Sets the current duty cycle of the PWM in percent for digital output 3.<br>Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%<br><br>PWMPERCENT3: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)                                                                                                        |                                    |                                                                                                  |       |    |
| SET PWM CURRENT3                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM CURRENT3:<PWMCUR3><CR><br>#SPWMC3:<PWMCUR3><CR><br>Result:<br>#OK<CR>                   | ASCII | NO |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>PWMCUR3</b>                     | 10                                                                                               |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET PWM CURRENT3:10<CR>                                                                         |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                              |       |    |
| Sets the current duty cycle of the PWM as a time span in 100ms units for digital output 3.<br>Values between 0 and PWMMAX3 represent the duty cycle in 100ms units.<br><br>PWMCUR3: The current duty cycle of the PWM in percent in 100ms units                                                                                                                      |                                    |                                                                                                  |       |    |
| GET PWM MAXIMUM3                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM MAXIMUM3<CR><br>#GPWMMAX3<CR><br>Result:<br>#GPWMMAX3:<PWMMAX3Dec>,<PWMMAX3Hex><CR>     | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM MAXIMUM3<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMMAX3:0,0x0<CR>                                                                          |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM maximum time for digital output 3:0->0,0s                                            |       |    |
| Returns the current value of the PWM cycle for digital output 3. The value is a time in 100ms units. If this value is not zero, the PWM function is activated.<br>If this value is 0, the PWM function is off.<br><br>PWMMAX3: The current configured maximum time of the PWM cycle in 100ms units.<br><br>HINT: If this value is 0, the PWM function is deactivated |                                    |                                                                                                  |       |    |
| GET PWM PERCENT3                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM PERCENT3<CR><br>#GPWMP3<CR><br>Result:<br>#GPWMP3:<PWMPERCENT3Dec>,<PWMPERCENT3Hex><CR> | ASCII |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM PERCENT3<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMP3:0,0x0<CR>                                                                            |       |    |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM percent for digital output 3:0->0,00%                                                |       |    |

Returns the current duty cycle setting of the PWM in percent for digital output 3. Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%

PWMPERCENT3: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)

|                  |                                   |                                                                                          |       |  |
|------------------|-----------------------------------|------------------------------------------------------------------------------------------|-------|--|
| GET PWM CURRENT3 | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET PWM CURRENT3<CR><br>#GPWMC3<CR><br>Result:<br>#GPWMC3:<PWMCUR3Dec>,<PWMCUR3Hex><CR> | ASCII |  |
|                  | <b>TX</b>                         | #GET PWM CURRENT3<CR>                                                                    |       |  |
|                  | <b>RX</b>                         | #255,GPWMC3:0,0x0<CR>                                                                    |       |  |
|                  |                                   | Current PWM on time for digital output 3:0->0,0s                                         |       |  |

Returns the current duty cycle setting of the PWM as a time span in 100ms units for digital output 3.  
Values between 0 and PWMMAX3 represent the duty cycle in 100ms units.

PWMCUR3: The current duty cycle of the PWM in percent in 100ms units

|                  |                                    |                                                                                  |       |    |
|------------------|------------------------------------|----------------------------------------------------------------------------------|-------|----|
| SET PWM MAXIMUM4 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM MAXIMUM4:<PWMMAX4><CR><br>#SPWMMAX4:<PWMMAX4><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>PWMMAX4</b>                     | 200                                                                              |       |    |
|                  | <b>TX</b>                          | #SET PWM MAXIMUM4:200<CR>                                                        |       |    |
|                  | <b>RX</b>                          | N/A                                                                              |       |    |

Sets the current value of the PWM cycle for digital output 4.  
The value is a time in 100ms units. If this value is not zero, the PWM function is activated. If this value is 0, the PWM function is off.

PWMMAX4: The new maximum time of the PWM cycle in 100ms units.

|                  |                                    |                                                                                        |       |    |
|------------------|------------------------------------|----------------------------------------------------------------------------------------|-------|----|
| SET PWM PERCENT4 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM PERCENT4:<PWMPERCENT4><CR><br>#SPWMP4:<PWMPERCENT4><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>PWMPERCENT4</b>                 | 50,45                                                                                  |       |    |
|                  | <b>TX</b>                          | #SET PWM PERCENT4:5045<CR>                                                             |       |    |
|                  | <b>RX</b>                          | N/A                                                                                    |       |    |

Sets the current duty cycle of the PWM in percent for digital output 4.  
Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%

PWMPERCENT4: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)

|                  |                                    |                                                                                |       |    |
|------------------|------------------------------------|--------------------------------------------------------------------------------|-------|----|
| SET PWM CURRENT4 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET PWM CURRENT4:<PWMCUR4><CR><br>#SPWMC4:<PWMCUR4><CR><br>Result:<br>#OK<CR> | ASCII | NO |
|                  | <b>PWMCUR4</b>                     | 10                                                                             |       |    |
|                  | <b>TX</b>                          | #SET PWM CURRENT4:10<CR>                                                       |       |    |
|                  | <b>RX</b>                          | N/A                                                                            |       |    |

Sets the current duty cycle of the PWM as a time span in 100ms units for digital output 4.  
Values between 0 and PWMMAX4 represent the duty cycle in 100ms units.

PWMCUR4: The current duty cycle of the PWM in percent in 100ms units

|                                                                                                                                                                                                                                                                                                                                                                      |                                    |                                                                                                  |       |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------|-------|-----|
| GET PWM MAXIMUM4                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM MAXIMUM4<CR><br>#GPWMMAX4<CR><br>Result:<br>#GPWMMAX4:<PWMMAX4Dec>,<PWMMAX4Hex><CR>     | ASCII |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM MAXIMUM4<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMMAX4:0,0x0<CR>                                                                          |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM maximum time for digital output 4:0->0,0s                                            |       |     |
| Returns the current value of the PWM cycle for digital output 4. The value is a time in 100ms units. If this value is not zero, the PWM function is activated.<br>If this value is 0, the PWM function is off.<br><br>PWMMAX4: The current configured maximum time of the PWM cycle in 100ms units.<br><br>HINT: If this value is 0, the PWM function is deactivated |                                    |                                                                                                  |       |     |
| GET PWM PERCENT4                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM PERCENT4<CR><br>#GPWMP4<CR><br>Result:<br>#GPWMP4:<PWMPERCENT4Dec>,<PWMPERCENT4Hex><CR> | ASCII |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM PERCENT4<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMP4:0,0x0<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM percent for digital output 4:0->0,00%                                                |       |     |
| Returns the current duty cycle setting of the PWM in percent for digital output 4. Values between 0 and 10000 represent the duty cycle in percent as 0.00%-100.00%<br><br>PWMPERCENT4: The current duty cycle of the PWM in percent as value 0..10000 (0.00%-100.00%)                                                                                                |                                    |                                                                                                  |       |     |
| GET PWM CURRENT4                                                                                                                                                                                                                                                                                                                                                     | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET PWM CURRENT4<CR><br>#GPWMC4<CR><br>Result:<br>#GPWMC4:<PWMCUR4Dec>,<PWMCUR4Hex><CR>         | ASCII |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #GET PWM CURRENT4<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | #255,GPWMC4:0,0x0<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      |                                    | Current PWM on time for digital output 4:0->0,0s                                                 |       |     |
| Returns the current duty cycle setting of the PWM as a time span in 100ms units for digital output 4.<br>Values between 0 and PWMMAX4 represent the duty cycle in 100ms units.<br><br>PWMCUR4: The current duty cycle of the PWM in percent in 100ms units                                                                                                           |                                    |                                                                                                  |       |     |
| SET DO12 MODE                                                                                                                                                                                                                                                                                                                                                        | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO12 MODE:<DO12MODE><CR><br>#SDO12MODE:<DO12MODE><CR><br>Result:<br>#OK<CR>                 | ASCII | YES |
|                                                                                                                                                                                                                                                                                                                                                                      | DO12MODE                           | 52                                                                                               |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>TX</b>                          | #SET DO12 MODE:52<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                      | <b>RX</b>                          | N/A                                                                                              |       |     |

Sets the mode for digital outputs 3+4. The following modes are available:

0=FUNCTION is deactivated

10=Set DO1=OFF, DO2=OFF immediately

11=Set DO1=ON, DO2=OFF immediately

12=Set DO1=OFF, DO2=ON immediately

20=Set DO1=ON, DO2=ON immediately

21=Set DO1=OFF, DO2=ON immediately

22=Set DO1=ON, DO2=OFF immediately

30=Set DO1=OFF, DO2=OFF; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

31=Set DO1=ON, DO2=OFF; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

32=Set DO1=OFF, DO2=ON; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

40=Set DO1=ON, DO2=ON; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

41=Set DO1=OFF, DO2=ON; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

42=Set DO1=ON, DO2=OFF; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

The following function keep the pause between output switching configured with DO12\_TIME\_PAUSE and the outputs are time limited by DO12\_TIME\_DO1\_MAX and DO12\_TIME\_DO2\_MAX

50=Set DO1=OFF, DO2=OFF

51=Set DO1=ON, DO2=OFF

52=Set DO1=OFF, DO2=ON

60=Set DO1=ON, DO2=ON

61=Set DO1=OFF, DO2=ON

62=Set DO1=ON, DO2=OFF

|               |                                   |                                                                                               |       |  |
|---------------|-----------------------------------|-----------------------------------------------------------------------------------------------|-------|--|
| GET DO12 MODE | <b>ASCII<br/>READ<br/>COMMAND</b> | #GET DO12 MODE<CR><br>#GDO12MODE<CR><br>Result:<br>#GDO12MODE:<DO12MODEDec>,<DO12MODEHex><CR> | ASCII |  |
|               | <b>TX</b>                         | #GET DO12 MODE<CR>                                                                            |       |  |
|               | <b>RX</b>                         | #255,GDO12MODE:0,0x0<CR>                                                                      |       |  |
|               |                                   | Current mode for DO3+4:0->DISABLED                                                            |       |  |

Returns the mode for digital outputs 3+4. The following modes are available:

0=FUNCTION is deactivated

10=Set DO1=OFF, DO2=OFF immediately

11=Set DO1=ON, DO2=OFF immediately

12=Set DO1=OFF, DO2=ON immediately

20=Set DO1=ON, DO2=ON immediately

21=Set DO1=OFF, DO2=ON immediately

22=Set DO1=ON, DO2=OFF immediately

30=Set DO1=OFF, DO2=OFF; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

31=Set DO1=ON, DO2=OFF; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

32=Set DO1=OFF, DO2=ON; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

40=Set DO1=ON, DO2=ON; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

41=Set DO1=OFF, DO2=ON; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs

42=Set DO1=ON, DO2=OFF; but keep pause of DO12\_TIME\_PAUSE between the switching of the outputs



The following function keeps the pause between output switching configured with DO12\_TIME\_PAUSE and the outputs are time limited by DO12\_TIME\_DO1\_MAX and DO12\_TIME\_DO2\_MAX

50=Set DO1=OFF, DO2=OFF

51=Set DO1=ON, DO2=OFF

52=Set DO1=OFF, DO2=ON

60=Set DO1=ON, DO2=ON

61=Set DO1=OFF, DO2=ON

62=Set DO1=ON, DO2=OFF

|                                                     |                                    |                                                                                              |       |     |
|-----------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------|-------|-----|
| SET DO12 TIME DO1                                   | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO12 TIME DO1:<TDO1><CR><br>#SDO12TDO1:<TDO1><CR><br>Result:<br>#OK<CR>                 | ASCII | YES |
|                                                     | <b>TDO1</b>                        | 200                                                                                          |       |     |
|                                                     | <b>TX</b>                          | #SET DO12 TIME DO1:200<CR>                                                                   |       |     |
|                                                     | <b>RX</b>                          | N/A                                                                                          |       |     |
| Sets the maximum on time for DO1 in 100ms units.    |                                    |                                                                                              |       |     |
| SET DO12 TIME DO2                                   | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO12 TIME DO2:<TDO2><CR><br>#SDO12TDO2:<TDO2><CR><br>Result:<br>#OK<CR>                 | ASCII | YES |
|                                                     | <b>TDO2</b>                        | 300                                                                                          |       |     |
|                                                     | <b>TX</b>                          | #SET DO12 TIME DO2:300<CR>                                                                   |       |     |
|                                                     | <b>RX</b>                          | N/A                                                                                          |       |     |
| Sets the maximum on time for DO2 in 100ms units.    |                                    |                                                                                              |       |     |
| GET DO12 TIME DO1                                   | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO12 TIME DO1<CR><br>#GDO12TDO1<CR><br>Result:<br>#GDO12TDO1:<TDO1Dec>,<TDO1Hex><CR>    | ASCII |     |
|                                                     | <b>TX</b>                          | #GET DO12 TIME DO1<CR>                                                                       |       |     |
|                                                     | <b>RX</b>                          | #255,GDO12TDO1:0,0x0<CR>                                                                     |       |     |
|                                                     |                                    | Current maximum time for digital output 1:0->0,0s                                            |       |     |
| Returns the maximum on time for DO1 in 100ms units. |                                    |                                                                                              |       |     |
| GET DO12 TIME DO2                                   | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO12 TIME DO2<CR><br>#GDO12TDO2<CR><br>Result:<br>#GDO12TDO2:<TDO2Dec>,<TDO2Hex><CR>    | ASCII |     |
|                                                     | <b>TX</b>                          | #GET DO12 TIME DO2<CR>                                                                       |       |     |
|                                                     | <b>RX</b>                          | #255,GDO12TDO2:0,0x0<CR>                                                                     |       |     |
|                                                     |                                    | Current maximum time for digital output 2:0->0,0s                                            |       |     |
| Returns the maximum on time for DO2 in 100ms units. |                                    |                                                                                              |       |     |
| SET DO12 TIME PAUSE                                 | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO12 TIME PAUSE:<TDO12PAUSE><CR><br>#SDO12TPAUSE:<TDO12PAUSE><CR><br>Result:<br>#OK<CR> | ASCII | YES |
|                                                     | <b>TDO12PAUSE</b>                  | 300                                                                                          |       |     |
|                                                     | <b>TX</b>                          | #SET DO12 TIME PAUSE:300<CR>                                                                 |       |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    |                                                                                                             |       |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------|-------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>RX</b>                          | N/A                                                                                                         |       |     |
| Sets the pause time between output switching in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |                                                                                                             |       |     |
| GET DO12 TIME PAUSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO12 TIME PAUSE<CR><br>#GDO12TPAUSE<CR><br>Result:<br>#GDO12TPAUSE:<TDO12PAUSEDec>,<TDO12PAUSEHex><CR> | ASCII |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>TX</b>                          | #GET DO12 TIME PAUSE<CR>                                                                                    |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>RX</b>                          | #255,GDO12TPAUSE:0,0x0<CR>                                                                                  |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    | Current pause between output switching:0->0,0s                                                              |       |     |
| Returns the pause time between output switching in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    |                                                                                                             |       |     |
| GET DO12 POSITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO12 POSITION<CR><br>#GDO12POS<CR><br>Result:<br>#GDO12POS:<DO12POSDec>,<DO12POSHex><CR>               | ASCII |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>TX</b>                          | #GET DO12 POSITION<CR>                                                                                      |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>RX</b>                          | #255,GDO12POS:0,0x0<CR>                                                                                     |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    | Current position of digital outputs 3+4:0->BOTH DOS OFF                                                     |       |     |
| Current position of DO12:<br>0=OFF<br>1=DO1 is activated<br>11=DO1 is activated but DO12_TIME_DO1_MAX is finished<br>2=DO2 is activated<br>12=DO2 is activated but DO12_TIME_DO1_MAX is finished                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                                                                                             |       |     |
| SET DO34 MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO34 MODE:<DO34MODE><CR><br>#SDO34MODE:<DO34MODE><CR><br>Result:<br>#OK<CR>                            | ASCII | YES |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>DO34MODE</b>                    | 52                                                                                                          |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>TX</b>                          | #SET DO34 MODE:52<CR>                                                                                       |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>RX</b>                          | N/A                                                                                                         |       |     |
| Sets the mode for digital outputs 3+4. The following modes are available:<br>0=FUNCTION is deactivated<br>10=Set DO3=OFF, DO4=OFF immediately<br>11=Set DO3=ON, DO4=OFF immediately<br>12=Set DO3=OFF, DO4=ON immediately<br><br>20=Set DO3=ON, DO4=ON immediately<br>21=Set DO3=OFF, DO4=ON immediately<br>22=Set DO3=ON, DO4=OFF immediately<br><br>30=Set DO3=OFF, DO4=OFF; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br>31=Set DO3=ON, DO4=OFF; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br>32=Set DO3=OFF, DO4=ON; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br><br>40=Set DO3=ON, DO4=ON; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br>41=Set DO3=OFF, DO4=ON; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br>42=Set DO3=ON, DO4=OFF; but keep pause of DO34_TIME_PAUSE between the switching of the outputs |                                    |                                                                                                             |       |     |

The following function keep the pause between output switching configured with DO34\_TIME\_PAUSE and the outputs are time limited by DO34\_TIME\_DO3\_MAX and DO34\_TIME\_DO4\_MAX

50=Set DO3=OFF, DO4=OFF  
51=Set DO3=ON, DO4=OFF  
52=Set DO3=OFF, DO4=ON

60=Set DO3=ON, DO4=ON  
61=Set DO3=OFF, DO4=ON  
62=Set DO3=ON, DO4=OFF

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                               |       |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------|-------|-----|
| GET DO34 MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO34 MODE<CR><br>#GDO34MODE<CR><br>Result:<br>#GDO34MODE:<DO34MODEDec>,<DO34MODEHex><CR> | ASCII |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>TX</b>                          | #GET DO34 MODE<CR>                                                                            |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>RX</b>                          | #255,GDO34MODE:0,0x0<CR>                                                                      |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    | Current mode for DO3+4:0->DISABLED                                                            |       |     |
| <p>Returns the mode for digital outputs 3+4. The following modes are available:</p> <p>0=FUNCTION is deactivated<br/>10=Set DO3=OFF, DO4=OFF immediately<br/>11=Set DO3=ON, DO4=OFF immediately<br/>12=Set DO3=OFF, DO4=ON immediately</p> <p>20=Set DO3=ON, DO4=ON immediately<br/>21=Set DO3=OFF, DO4=ON immediately<br/>22=Set DO3=ON, DO4=OFF immediately</p> <p>30=Set DO3=OFF, DO4=OFF; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br/>31=Set DO3=ON, DO4=OFF; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br/>32=Set DO3=OFF, DO4=ON; but keep pause of DO34_TIME_PAUSE between the switching of the outputs</p> <p>40=Set DO3=ON, DO4=ON; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br/>41=Set DO3=OFF, DO4=ON; but keep pause of DO34_TIME_PAUSE between the switching of the outputs<br/>42=Set DO3=ON, DO4=OFF; but keep pause of DO34_TIME_PAUSE between the switching of the outputs</p> <p>The following function keep the pause between output switching configured with DO34_TIME_PAUSE and the outputs are time limited by DO34_TIME_DO3_MAX and DO34_TIME_DO4_MAX</p> <p>50=Set DO3=OFF, DO4=OFF<br/>51=Set DO3=ON, DO4=OFF<br/>52=Set DO3=OFF, DO4=ON</p> <p>60=Set DO3=ON, DO4=ON<br/>61=Set DO3=OFF, DO4=ON<br/>62=Set DO3=ON, DO4=OFF</p> |                                    |                                                                                               |       |     |
| SET DO34 TIME DO3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO34 TIME DO3:<TDO3><CR><br>#SDO34TDO3:<TDO3><CR><br>Result:<br>#OK<CR>                  | ASCII | YES |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>TDO3</b>                        | 200                                                                                           |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>TX</b>                          | #SET DO34 TIME DO3:200<CR>                                                                    |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>RX</b>                          | N/A                                                                                           |       |     |
| Sets the maximum on time for DO1 in 100ms units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    |                                                                                               |       |     |
| SET DO34 TIME DO4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO34 TIME DO4:<TDO4><CR><br>#SDO34TDO4:<TDO4><CR><br>Result:<br>#OK<CR>                  | ASCII | YES |

|                                                                 |                                    |                                                                                                             |       |     |
|-----------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------|-------|-----|
|                                                                 | <b>TDO4</b>                        | 300                                                                                                         |       |     |
|                                                                 | <b>TX</b>                          | #SET DO34 TIME DO4:300<CR>                                                                                  |       |     |
|                                                                 | <b>RX</b>                          | N/A                                                                                                         |       |     |
| Sets the maximum on time for DO4 in 100ms units.                |                                    |                                                                                                             |       |     |
| GET DO34 TIME DO3                                               | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO34 TIME DO3<CR><br>#GDO34TDO3<CR><br>Result:<br>#GDO34TDO3:<TDO3Dec>,<TDO3Hex><CR>                   | ASCII |     |
|                                                                 | <b>TX</b>                          | #GET DO34 TIME DO3<CR>                                                                                      |       |     |
|                                                                 | <b>RX</b>                          | #255,GDO34TDO3:0,0x0<CR>                                                                                    |       |     |
|                                                                 |                                    | Current maximum time for digital output 1:0->0,0s                                                           |       |     |
| Returns the maximum on time for DO1 in 100ms units.             |                                    |                                                                                                             |       |     |
| GET DO34 TIME DO4                                               | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO34 TIME DO4<CR><br>#GDO34TDO4<CR><br>Result:<br>#GDO34TDO4:<TDO4Dec>,<TDO4Hex><CR>                   | ASCII |     |
|                                                                 | <b>TX</b>                          | #GET DO34 TIME DO4<CR>                                                                                      |       |     |
|                                                                 | <b>RX</b>                          | #255,GDO34TDO4:0,0x0<CR>                                                                                    |       |     |
|                                                                 |                                    | Current maximum time for digital output 2:0->0,0s                                                           |       |     |
| Returns the maximum on time for DO4 in 100ms units.             |                                    |                                                                                                             |       |     |
| SET DO34 TIME PAUSE                                             | <b>ASCII<br/>WRITE<br/>COMMAND</b> | #SET DO34 TIME PAUSE:<TDO34PAUSE><CR><br>#SDO34TPAUSE:<TDO34PAUSE><CR><br>Result:<br>#OK<CR>                | ASCII | YES |
|                                                                 | <b>TDO34PAUSE</b>                  | 300                                                                                                         |       |     |
|                                                                 | <b>TX</b>                          | #SET DO34 TIME PAUSE:300<CR>                                                                                |       |     |
|                                                                 | <b>RX</b>                          | N/A                                                                                                         |       |     |
| Sets the pause time between output switching in 100ms units.    |                                    |                                                                                                             |       |     |
| GET DO34 TIME PAUSE                                             | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO34 TIME PAUSE<CR><br>#GDO34TPAUSE<CR><br>Result:<br>#GDO34TPAUSE:<TDO34PAUSEDec>,<TDO34PAUSEHex><CR> | ASCII |     |
|                                                                 | <b>TX</b>                          | #GET DO34 TIME PAUSE<CR>                                                                                    |       |     |
|                                                                 | <b>RX</b>                          | #255,GDO34TPAUSE:0,0x0<CR>                                                                                  |       |     |
|                                                                 |                                    | Current pause between output switching:0->0,0s                                                              |       |     |
| Returns the pause time between output switching in 100ms units. |                                    |                                                                                                             |       |     |
| GET DO34 POSITION                                               | <b>ASCII<br/>READ<br/>COMMAND</b>  | #GET DO34 POSITION<CR><br>#GDO34POS<CR><br>Result:<br>#GDO34POS:<DO34POSDec>,<DO34POSHex><CR>               | ASCII |     |
|                                                                 | <b>TX</b>                          | #GET DO34 POSITION<CR>                                                                                      |       |     |
|                                                                 | <b>RX</b>                          | #255,GDO34POS:0,0x0<CR>                                                                                     |       |     |
|                                                                 |                                    | Current position of digital outputs 3+4:0->BOTH DOS OFF                                                     |       |     |