

DIP SWITCH	3x10100 4x10100 l:10099	65,0x0041 B:00 41			UINT16 R/O	
Returns the current setting of the Dip switches. For ULTRA SLIM IOs The current value of the DIP switches: Bit 0: DIP Switch 1 (=0:OFF, =1:ON) Bit 1: DIP Switch 2 (=0:OFF, =1:ON) Bit 2: DIP Switch 3 (=0:OFF, =1:ON) Bit 3: DIP Switch 4 (=0:OFF, =1:ON) For BIG IOs: The current value of the DIP switches: Bit 0: DIP Switch 1 (=0:OFF, =1:ON) Bit 1: DIP Switch 2 (=0:OFF, =1:ON) Bit 2: DIP Switch 3 (=0:OFF, =1:ON) Bit 3: DIP Switch 4 (=0:OFF, =1:ON) Bit 4: DIP Switch 5 (=0:OFF, =1:ON) Bit 5: DIP Switch 6 (=0:OFF, =1:ON) Bit 6: DIP Switch 7 (=0:OFF, =1:ON) Bit 7: DIP Switch 8 (=0:OFF, =1:ON)						
<b>PRODUCT DATA</b>						
HW_GROUP	3x65201 4x65201 l:65200	16384,0x4000 B:40 00			UINT16 R/O	
This is the group of hardware of the current product						
SW_GROUP	3x65202 4x65202 l:65201	32783,0x800F B:80 0F			UINT16 R/O	
This is the group of software of the current product						
SW_VERSION	3x65203 4x65203 l:65202	4608,0x1200 B:12 00			UINT16 R/O	
SW VERSION:1.2.0						
This is the current software version of the firmware						
SW_AUTHOR	3x65204 4x65204 l:65203	18771,0x4953 B:49 53			UINT16 R/O	
This is the current software author of the firmware						
<b>MODBUS SETTINGS</b>						
UNIT_ID	3x65222 4x65222 l:65221	1,0x0001 B:00 01			UINT16 R/O	
UNIT ID:1						
If the host reads this register, the current defined unit ID is returned.						

FLASH UNIT_ID	3x65223 4x65223 I:65222	15,0x000F B:00 0F		27	UINT16 R/W	NO
		UNIT ID:15				

If the host reads this register, the current defined unit ID from the FLASH is returned. This UnitID is used if DIP switch for UnitID is set to 15

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

BAUD_RATE	3x65224 4x65224 I:65223	115200,0x0001C200 B:00 01 C2 00	57600	57600	UINT32 R/W	NO
		115200Bd		ENTER BAUD RATE		

This is the current configured baud rate in the FLASH

For ULTRA SLIM IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP1=ON+DIP2=ON (BR) (default is 57600bd)

For BIG IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP7=ON (PARAMETER) (default is 57600bd)

Valid baud rates are:

300bd, 600bd, 900bd, 1200bd, 2400bd, 4800bd,  
9600bd, 19200bd, 38400bd, 57600bd, 115200bd, 128000bd  
230400bd, 250000bd, 256000bd

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

PARITY	3x65226 4x65226 I:65225	0,0x0000 B:00 00		1:EVENT PARITY	UINT16 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	3x65227 4x65227 I:65226	1,0x0001 B:00 01		2:TWO STOPBITS	UINT16 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

MODBUS TIMING	3x65228 4x65228 I:65227	0,0x0000 B:00 00		10	UINT16 R/W	NO
		Actual timing:0ms				

If the host reads this register, the current defined timing for MODBUS telegrams is returned. This timing is a time in ms which extends the standard 1.5 character timeout between two consecutive bytes on the serial line.

If you write a new value to this register, the new settings are stored into the internal FLASH. Reboot the device to activate the new settings.

MODBUS WATCHDOG TIME	3x65229 4x65229 I:65228	0,0x0000 B:00 00		50	UINT16 R/W	YES
		Actual watchdog time in 1/100s:0 -> 0,0s				
Writing a value onto this register defines a new time for the internal communication watchdog timer. The value is a timespan in 1/100s. =0: The communication watchdog is disabled =1..65535: Communication watchdog will be triggered after x 1/100s pause on communication line						
In case of an communication watchdog, the module sets all outputs to the states defined in the configuration output registers						
Reading this register will return the current stored time from the internal FLASH						
<b>CPU DATA</b>						
SERIAL1	3x65521 4x65521 I:65520	49,0x0031 B:00 31			UINT16 R/O	
		Serial number of module as 96 bit unsigned integer number				
SERIAL2	3x65522 4x65522 I:65521	62,0x003E B:00 3E			UINT16 R/O	
SERIAL3	3x65523 4x65523 I:65522	21258,0x530A B:53 0A			UINT16 R/O	
SERIAL4	3x65524 4x65524 I:65523	18005,0x4655 B:46 55			UINT16 R/O	
SERIAL5	3x65525 4x65525 I:65524	12343,0x3037 B:30 37			UINT16 R/O	
SERIAL6	3x65526 4x65526 I:65525	8248,0x2038 B:20 38			UINT16 R/O	
		SERIAL:31003E000A53554637303820				
		Serial number of module as 96 bit unsigned integer number				
CPU TEMPERATURE	3x65527 4x65527 I:65526	3865,0x0F19 B:0F 19			UINT16 R/O	
		Current internal temperature of CPU:38,7°C				
Current internal temperature of CPU in ° Celsius multiplied by 10.						
CPU VOLTAGE	3x65528 4x65528 I:65527	336,0x0150 B:01 50			UINT16 R/O	
		Current supply voltage of CPU:3,36V				
Current internal supply voltage of CPU in Volt multiplied by 1000.						

CPU BATTERY	3x65529 4x65529 I:65528	317,0x013D B:01 3D			UINT16 R/O	
Current battery voltage of CPU:3,17V						
Current internal backup battery voltage of CPU in Volt multiplied by 1000.						
<b>CONVERTER STATUS</b>						
CONVERTER STATUS	3x65534 4x65534 I:65533	0,0x0000 B:00 00			UINT16 R/O	
Current status of the converter						
FACTORY RESET	3x65535 4x65535 I:65534	0,0x0000 B:00 00		1:PERFORM FACTORY RESET	UINT16 R/W	NO
Performs a factory reset of all internal saved parameters						
<b>SOFTWARE RESET</b>						
RESET	1x65536 2x65536 I:65535	0,0x00 B:00		N/A:NO CHANGE	BIT R/W	NO
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	3x65536 4x65535 I:65535	0,0x0000 B:00 00		N/A:NO CHANGE	UINT16 R/W	NO
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).						

HEART BEAT	ASCII READ COMMAND	#HB<CR> Result: #HB<CR>	ASCII	
	TX	#HB<CR>		
	RX	#1,HB<CR>		
Sends an Heartbeat to test the communcation				
GET VERSION	ASCII READ COMMAND	#VERSION<CR> Result: #VERSION:<VersionHi>,<VersionMed>,<VersionLo><CR>	ASCII	
	TX	#VERSION<CR>		
	RX	#1,VERSION:1.2.00<CR>		
		Current SW version:1.2.00		
Returns the version number of the module VersionHi: Version number high (1..255) VersionMed: Version number medium (1..255) VersionLo: Version number low (1..255)				
GET TYPE	ASCII READ COMMAND	#TYPE<CR> Result: #TYPE:<Type><CR>	ASCII	
	TX	#TYPE<CR>		
	RX	#1,TYPE:RESI-16RO-SIO<CR>		
		Current module type:RESI-16RO-SIO		
Returns the current module type				
GET FEATURES	ASCII READ COMMAND	#FTRS<CR> Result: #FTRS:<Type><CR>	ASCII	
	TX	#FTRS<CR>		
	RX	#1,FTRS:RESI-16RO-SIO,16RO<CR>		
		Current module type:RESI-16RO-SIO		
Returns the current module features				
GET OWNER	ASCII READ COMMAND	#OWNER<CR> Result: #OWNER:<Owner><CR>	ASCII	
	TX	#OWNER<CR>		
	RX	#1,OWNER:RESI<CR>		
		Current owner:RESI		
Returns the current owner of the module				
GET CREATOR	ASCII READ COMMAND	#CREATOR<CR> Result: #CREATOR:<Creator><CR>	ASCII	
	TX	#CREATOR<CR>		
	RX	#1,CREATOR:DI HC SIGL,MSC<CR>		
		Current creator:DI HC SIGL,MSC		
Returns the current creator of the module				

GET COPYRIGHT	ASCII READ COMMAND	#COPYRIGHT<CR> Result: #COPYRIGHT:<Copyright><CR>	ASCII	
	TX	#COPYRIGHT<CR>		
	RX	#1,COPYRIGHT:2015-23 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC<CR>		
		Current copyright:2015-23 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC		
Returns the current copyright of the module				
GET SERIAL NUMBER	ASCII READ COMMAND	#SN<CR> Result: #SN:<Serial><CR>	ASCII	
	TX	#SN<CR>		
	RX	#1,SN:31003E000A53554637303820<CR>		
		Current serial number:31003E000A53554637303820		
Returns the current serial number of the module				
GET INTERNAL STATUS	ASCII READ COMMAND	#INTSTAT<CR> Result: #INTSTAT:<Status><CR>	ASCII	
	TX	#INTSTAT<CR>		
	RX	#1,INTSTAT:I2C1:0,I2C2:0,FRAM:28<CR>		
Returns the device specific internal status				
GET DIP SWITCH	ASCII READ COMMAND	#GDIP<CR> Result: #GDIP:<DIPSwitchDec>,<DIPSwitchHex><CR>	ASCII	
	TX	#GDIP<CR>		
	RX	#1,GDIP:65,0x41<CR>		
		Current DIP SWITCH settings:0100.0001		
Returns the current setting of the Dip switches as decimal number and as hexadecimal number. DIPSwitchDec DIPSwitchHex The current value of the DIP switches: Bit 0: DIP Switch 1 (=0:OFF, =1:ON) Bit 1: DIP Switch 2 (=0:OFF, =1:ON) Bit 2: DIP Switch 3 (=0:OFF, =1:ON) Bit 3: DIP Switch 4 (=0:OFF, =1:ON) Bit 4: DIP Switch 5, if available (=0:OFF, =1:ON) Bit 5: DIP Switch 6, if available (=0:OFF, =1:ON) Bit 6: DIP Switch 7, if available (=0:OFF, =1:ON) Bit 7: DIP Switch 8, if available (=0:OFF, =1:ON)				
<b>ASCII COMMANDS</b>				
SET MODBUS ADDRESS	ASCII WRITE COMMAND	#SMBADR:<UNITID><CR> Result: #OK<CR>	ASCII	NO
	UNITID	123		
	TX	#SMBADR:123<CR>		
	RX	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.

HINT: The new settings are activated after a system reboot or power off on cycle!

SET MODBUS BAUDRATE	ASCII WRITE COMMAND	#SMBBAUD:<BAUD> <CR> Result: #OK<CR>	ASCII	NO
	BAUD	128000:128000BD		
	TX	#SMBBAUD:128000<CR>		
	RX	N/A		

Sets a new baud rate in the FLASH

For ULTRA SLIM IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP1=ON+DIP2=ON (BR) (default is 57600bd)

For BIG IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP7=ON (PARAMETER) (default is 57600bd)

The following baudrates are allowed:

300bd, 600bd, 900bd, 1200bd, 2400bd, 4800bd,  
9600bd, 19200bd, 38400bd, 57600bd, 115200bd, 128000bd  
230400bd, 250000bd, 256000bd

HINT: The new setup parameters will be active after a restart of the module.

SET MODBUS PARITY	ASCII WRITE COMMAND	#SMBPAR:<PARITY> <CR> Result: #OK<CR>	ASCII	NO
	PARITY	ODD:ODD PARITY		
	TX	#SMBPAR:ODD<CR>		
	RX	N/A		

Sets a new parity for the serial interface.

MBParity:

NONE: no parity  
EVEN: even parity  
ODD: odd parity

HINT: The new setup parameters will be active after a restart of the module.

SET MODBUS STOPS	ASCII WRITE COMMAND	#SMBSTOP:<STOPBIT> <CR> Result: #OK<CR>	ASCII	NO
	STOPBIT	TWO:TWO STOPBITS		
	TX	#SMBSTOP:TWO<CR>		
	RX	N/A		

Sets a new amount of stop bits for the serial interface.

MBStops

ONE: one stop bit  
TWO: two stop bits

HINT: The new setup parameters will be active after a restart of the module.

SET MODBUS PARAMS	ASCII WRITE COMMAND	#SMBPARAMS:<UNITID>,<BAUD>,<PARITY>,<STOPBIT><CR> Result: #OK<CR>	ASCII	NO
	UNITID	3		
	BAUD	115200:115200BD		
	PARITY	EVEN:EVEN PARITY		
	STOPBIT	TWO:TWO STOPBITS		
	TX	#SMBPARAMS:3,115200,EVEN,TWO<CR>		
	RX	N/A		
Sets all parameters for serial interface				
GET MODBUS ADDRESS	ASCII READ COMMAND	#GMBADR<CR> Result: #GMBADR:<MBUnitDec>,<MBFLASHDec>,<MBUnitHex>,<MBFLASHHex><CR>	ASCII	
	TX	#GMBADR<CR>		
	RX	#1,GMBADR:1,15,0x1,0xF<CR>		
		Current MODBUS unit ID:1,15,0x1,0xF		
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	ASCII READ COMMAND	#GMBBAUD<CR> Result: #GMBBAUD:<BaudRate><CR>	ASCII	
	TX	#GMBBAUD<CR>		
	RX	#1,GMBBAUD:115200,0x1C200<CR>		
		Current baudrate:115200,0x1C200		
This is the current configured baud rate in the FLASH For ULTRA SLIM IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP1=ON+DIP2=ON (BR) (default is 57600bd) For BIG IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP7=ON (PARAMETER) (default is 57600bd) The following baudrates are allowed: 300bd, 600bd, 900bd, 1200bd, 2400bd, 4800bd, 9600bd, 19200bd, 38400bd, 57600bd, 115200bd, 128000bd 230400bd, 250000bd, 256000bd				
GET MODBUS PARITY	ASCII READ COMMAND	#GMBPAR<CR> Result: #GMBPAR:<MBParity><CR>	ASCII	
	TX	#GMBPAR<CR>		
	RX	#1,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	ASCII READ COMMAND	#GMBSTOP<CR> Result: #GMBSTOP:<MBStop><CR>	ASCII	
	TX	#GMBSTOP<CR>		
	RX	#1,GMBPAR:ONE<CR>		
		Current stopbit(s):ONE		
Shows the current configured parity of the serial interface. MBParity NONE: no parity EVEN: even parity ODD: odd parity				
GET MODBUS PARAMS	ASCII READ COMMAND	#GMBPARAMS<CR> Result: #GMBPARAMS:<MBUnitDec>,<MBFLASHDec>,<MBUnitHex>,<MBFLASHHex>,<MBBaudrateDec>,<MBBaudrateHex>,<MBParity>,<MBStops><CR>	ASCII	
	TX	#GMBPARAMS<CR>		
	RX	#1,GMBADR:1,0x1,15,0xF,115200,0x1C200,NONE,ONE<CR>		
		Current MODBUS unit ID used:1		
		Current MODBUS unit ID in FLASH:15		
		Current baudrate in FLASH:115200		
		Current parity in FLASH:NONE		
		Current stopbit(s) in FLASH:ONE		
Returns the complete settings for serial interface				
<b>ASCII COMMANDS</b>				
RESET	ASCII WRITE COMMAND	#RST<CR> Result: #OK<CR>	ASCII	NO
	TX	#RST<CR>		
	RX	N/A		
Executes a software reset (Reboot) of the module.				
FACTORY RESET	ASCII WRITE COMMAND	#FRST<CR> Result: #OK<CR>	ASCII	NO
	TX	#FRST<CR>		
	RX	N/A		
Performs a factory reset of all internal saved parameters				
SET MODBUS WATCHDOG TIMER	ASCII WRITE COMMAND	#SMBWATCHDOG:<WDTIME><CR> Result: #OK<CR>	ASCII	YES
	WDTIME	100		
	TX	#SMBWATCHDOG:100<CR>		
	RX	#1,OK<CR>		

Enables or disables the WATCHDOG Timer for the IO module.

WDTIME:

1..65535: Time for Watchdog in 1/100s

=0: Watchdog is deactivated

HINT: The Watchdog is internally handled every 100ms. If the IO module receives no valid frame within this time period, the outputs are set to predefined values!

GET MODBUS WATCHDOG TIMER	ASCII READ COMMAND	#GMBWATCHDOG<CR> Result: #GMBWATCHDOG:<WDTIME> <CR>	ASCII	
	TX	#GMBWATCHDOG<CR>		
	RX	#1,GMBWATCHDOG:100,0x64<CR>		
		Current watchdog time:100 -> 10,0s		

Shows the actual configured time for the telegram watchdog function of the IO module.

WDTIME:

1..65535: Time for Watchdog in 1/100s

=0: Watchdog is deactivated

HINT: The Watchdog is internally handled every 100ms. If the IO module receives no valid frame within this time period, the outputs are set to predefined values!

### CPU PARAMETERS

GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUTEMP<CR> Result: #GCPUTEMP:<CPUTemp> <CR>	ASCII	
	TX	#GCPUTEMP<CR>		
	RX	#1,GCPUTEMP:38.7842<CR>		
		Current internal temperature of CPU:38.7842°C		

Current internal temperature of CPU in ° Celsius multiplied by 10.

GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUVOLT<CR> Result: #GCPUVOLT:<CPUVoltage> <CR>	ASCII	
	TX	#GCPUVOLT<CR>		
	RX	#1,GCPUVOLT:3.3632<CR>		
		Current supply voltage of CPU:3.3632V		

Current internal supply voltage of CPU in Volt multiplied by 1000.

GET CPU BATTERY	ASCII READ COMMAND	#GCPUBATT<CR> Result: #GCPUBATT:<CPUBatteryVoltage> <CR>	ASCII	
	TX	#GCPUBATT<CR>		
	RX	#1,GCPUBATT:3.1793<CR>		
		Current backup battery voltage of CPU:3.1793V		

Current internal backup battery voltage of CPU in Volt multiplied by 1000.

DI1	1x00001 2x00001 I:0	1,0x01 B:01			BIT R/O	
Current state of DI1:1=ON						
Current state of the digital input DIx =0:DI is OFF, =1:DI is ON						
DI2	1x00002 2x00002 I:1	0,0x00 B:00			BIT R/O	
Current state of DI2:0=OFF						
DI3	1x00003 2x00003 I:2	0,0x00 B:00			BIT R/O	
Current state of DI3:0=OFF						
DI4	1x00004 2x00004 I:3	0,0x00 B:00			BIT R/O	
Current state of DI4:0=OFF						
DI5	1x00005 2x00005 I:4	0,0x00 B:00			BIT R/O	
Current state of DI5:0=OFF						
DI6	1x00006 2x00006 I:5	0,0x00 B:00			BIT R/O	
Current state of DI6:0=OFF						
DI7	1x00007 2x00007 I:6	0,0x00 B:00			BIT R/O	
Current state of DI7:0=OFF						
DI8	1x00008 2x00008 I:7	0,0x00 B:00			BIT R/O	
Current state of DI8:0=OFF						
DI9	1x00009 2x00009 I:8	0,0x00 B:00			BIT R/O	
Current state of DI9:0=OFF						
DI10	1x00010 2x00010 I:9	0,0x00 B:00			BIT R/O	
Current state of DI10:0=OFF						
DI11	1x00011 2x00011 I:10	0,0x00 B:00			BIT R/O	
Current state of DI11:0=OFF						

DI12	1x00012 2x00012 I:11	0,0x00 B:00			BIT R/O	
		Current state of DI12:0=OFF				
DI13	1x00013 2x00013 I:12	0,0x00 B:00			BIT R/O	
		Current state of DI13:0=OFF				
DI14	1x00014 2x00014 I:13	0,0x00 B:00			BIT R/O	
		Current state of DI14:0=OFF				
DI15	1x00015 2x00015 I:14	0,0x00 B:00			BIT R/O	
		Current state of DI15:0=OFF				
DI16	1x00016 2x00016 I:15	0,0x00 B:00			BIT R/O	
		Current state of DI16:0=OFF				
DI17	1x00017 2x00017 I:16	0,0x00 B:00			BIT R/O	
		Current state of DI17:0=OFF				
DI18	1x00018 2x00018 I:17	0,0x00 B:00			BIT R/O	
		Current state of DI18:0=OFF				
DI19	1x00019 2x00019 I:18	0,0x00 B:00			BIT R/O	
		Current state of DI19:0=OFF				
DI20	1x00020 2x00020 I:19	0,0x00 B:00			BIT R/O	
		Current state of DI20:0=OFF				
<b>STATUS DIGITAL OUTPUTS</b>						
DO1	1x00021 2x00021 I:20	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO1:0=OFF			ENTER NEW STATE (0 or 1)	
Current state of the digital output DOx =0:DO is OFF, =1:DO is ON						
Writing on this register changes the state of the digital output						

DO2	1x00022 2x00022 I:21	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	1x00023 2x00023 I:22	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	1x00024 2x00024 I:23	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	1x00025 2x00025 I:24	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	1x00026 2x00026 I:25	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	1x00027 2x00027 I:26	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	1x00028 2x00028 I:27	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	1x00029 2x00029 I:28	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	1x00030 2x00030 I:29	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	1x00031 2x00031 I:30	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	1x00032 2x00032 I:31	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		

DO13	1x00033 2x00033 I:32	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	1x00034 2x00034 I:33	0,0x00 B:00		1	BIT R/W	NO
		Current state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	1x00035 2x00035 I:34	0,0x00 B:00		0	BIT R/W	NO
		Current state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	1x00036 2x00036 I:35	0,0x00 B:00		0	BIT R/W	NO
		Current state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		
<b>DIGITAL INPUTS: RESET</b>						
RESET COUNTERS	1x10000 2x10000 I:9999	0,0x00 B:00		1:PERFORM RESET	BIT R/W	NO
If this register is written to 1, all internal edge counters and event counters are set to 0. 0 is always returned when reading.						
<b>STATUS DIGITAL INPUTS</b>						
DI1	3x00001 4x00001 I:0	1,0x01 B:01			UINT16 R/O	
		Current state of DI1:1=ON				
Current state of the digital input Dlx =0:DI is OFF, =1:DI is ON						
DI2	3x00002 4x00002 I:1	0,0x00 B:00			UINT16 R/O	
		Current state of DI2:0=OFF				
DI3	3x00003 4x00003 I:2	0,0x00 B:00			UINT16 R/O	
		Current state of DI3:0=OFF				
DI4	3x00004 4x00004 I:3	0,0x00 B:00			UINT16 R/O	
		Current state of DI4:0=OFF				
DI5	3x00005 4x00005 I:4	0,0x00 B:00			UINT16 R/O	
		Current state of DI5:0=OFF				

DI6	3x00006 4x00006 I:5	0,0x00 B:00			UINT16 R/O	
		Current state of DI6:0=OFF				
DI7	3x00007 4x00007 I:6	0,0x00 B:00			UINT16 R/O	
		Current state of DI7:0=OFF				
DI8	3x00008 4x00008 I:7	0,0x00 B:00			UINT16 R/O	
		Current state of DI8:0=OFF				
DI9	3x00009 4x00009 I:8	0,0x00 B:00			UINT16 R/O	
		Current state of DI9:0=OFF				
DI10	3x00010 4x00010 I:9	0,0x00 B:00			UINT16 R/O	
		Current state of DI10:0=OFF				
DI11	3x00011 4x00011 I:10	0,0x00 B:00			UINT16 R/O	
		Current state of DI11:0=OFF				
DI12	3x00012 4x00012 I:11	0,0x00 B:00			UINT16 R/O	
		Current state of DI12:0=OFF				
DI13	3x00013 4x00013 I:12	0,0x00 B:00			UINT16 R/O	
		Current state of DI13:0=OFF				
DI14	3x00014 4x00014 I:13	0,0x00 B:00			UINT16 R/O	
		Current state of DI14:0=OFF				
DI15	3x00015 4x00015 I:14	0,0x00 B:00			UINT16 R/O	
		Current state of DI15:0=OFF				
DI16	3x00016 4x00016 I:15	0,0x00 B:00			UINT16 R/O	
		Current state of DI16:0=OFF				

DI17	3x00017 4x00017 I:16	0,0x00 B:00			UINT16 R/O	
Current state of DI17:0=OFF						
DI18	3x00018 4x00018 I:17	0,0x00 B:00			UINT16 R/O	
Current state of DI18:0=OFF						
DI19	3x00019 4x00019 I:18	0,0x00 B:00			UINT16 R/O	
Current state of DI19:0=OFF						
DI20	3x00020 4x00020 I:19	0,0x00 B:00			UINT16 R/O	
Current state of DI20:0=OFF						
<b>STATUS DIGITAL OUTPUTS</b>						
DO1	3x00021 4x00021 I:20	0,0x00 B:00		1	UINT16 R/W	NO
Current state of DO1:0=OFF				ENTER NEW STATE (0 or 1)		
Current state of the digital output DOx =0:DO is OFF, =1:DO is ON						
Writing on this register changes the state of the digital output						
DO2	3x00022 4x00022 I:21	0,0x00 B:00		1	UINT16 R/W	NO
Current state of DO2:0=OFF				ENTER NEW STATE (0 or 1)		
DO3	3x00023 4x00023 I:22	0,0x00 B:00		1	UINT16 R/W	NO
Current state of DO3:0=OFF				ENTER NEW STATE (0 or 1)		
DO4	3x00024 4x00024 I:23	0,0x00 B:00		1	UINT16 R/W	NO
Current state of DO4:0=OFF				ENTER NEW STATE (0 or 1)		
DO5	3x00025 4x00025 I:24	0,0x00 B:00		1	UINT16 R/W	NO
Current state of DO5:0=OFF				ENTER NEW STATE (0 or 1)		
DO6	3x00026 4x00026 I:25	0,0x00 B:00		1	UINT16 R/W	NO
Current state of DO6:0=OFF				ENTER NEW STATE (0 or 1)		



DO7	3x00027 4x00027 I:26	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	3x00028 4x00028 I:27	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	3x00029 4x00029 I:28	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	3x00030 4x00030 I:29	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	3x00031 4x00031 I:30	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	3x00032 4x00032 I:31	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	3x00033 4x00033 I:32	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	3x00034 4x00034 I:33	0,0x00 B:00		1	UINT16 R/W	NO
		Current state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	3x00035 4x00035 I:34	0,0x00 B:00		0	UINT16 R/W	NO
		Current state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	3x00036 4x00036 I:35	0,0x00 B:00		0	UINT16 R/W	NO
		Current state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		
<b>DIGITAL INPUTS</b>						
STATUS DI1 A	3x00037 4x00037 I:36	37030,0x90A6 B:90 A6			UINT16 R/O	
		DI:1,CC:6,REC:5,FEC:4				

Status for the digital input Dlx Bit 0-4: Lower 5 bits of CHANGE COUNTER Bit 5-9: Lower 5 bits of RISING EDGE COUNTER Bit 10-14: Lower 5 bits of FALLING EDGE COUNTER Bit 15: Current Status of Dlx =0: Dlx si OFF, =1: Dlx is ON					
STATUS DI1 B	3x00038 4x00038 I:37	33859,0x8443 B:84 43			UINT16 R/O
		DI:0,SKE:3,LKSE:2,LKEE:1			
Status for the digital input Dlx Bit 0-4: Lower 5 bits of SHORT KEYPRESS EVENTS Bit 5-9: Lower 5 bits of LONG KEYPRESS START EVENTS Bit 10-14: Lower 5 bits of LONG KEYPRESS END EVENTS Bit 15: Current Status of Dlx =0: Dlx si OFF, =1: Dlx is ON					
STATUS DI2 A	3x00039 4x00039 I:38	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI2 B	3x00040 4x00040 I:39	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI3 A	3x00041 4x00041 I:40	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI3 B	3x00042 4x00042 I:41	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI4 A	3x00043 4x00043 I:42	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI4 B	3x00044 4x00044 I:43	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI5 A	3x00045 4x00045 I:44	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI5 B	3x00046 4x00046 I:45	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			

STATUS DI6 A	3x00047 4x00047 I:46	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI6 B	3x00048 4x00048 I:47	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI7 A	3x00049 4x00049 I:48	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI7 B	3x00050 4x00050 I:49	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI8 A	3x00051 4x00051 I:50	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI8 B	3x00052 4x00052 I:51	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI9 A	3x00053 4x00053 I:52	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI9 B	3x00054 4x00054 I:53	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI10 A	3x00055 4x00055 I:54	1058,0x0422 B:04 22			UINT16 R/O	
		DI:1,CC:2,REC:1,FEC:1				
STATUS DI10 B	3x00056 4x00056 I:55	1056,0x0420 B:04 20			UINT16 R/O	
		DI:1,SKE:0,LKSE:1,LKEE:1				
STATUS DI11 A	3x00057 4x00057 I:56	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				

STATUS DI11 B	3x00058 4x00058 I:57	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI12 A	3x00059 4x00059 I:58	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI12 B	3x00060 4x00060 I:59	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI13 A	3x00061 4x00061 I:60	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI13 B	3x00062 4x00062 I:61	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI14 A	3x00063 4x00063 I:62	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI14 B	3x00064 4x00064 I:63	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI15 A	3x00065 4x00065 I:64	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI15 B	3x00066 4x00066 I:65	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI16 A	3x00067 4x00067 I:66	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI16 B	3x00068 4x00068 I:67	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				

STATUS DI17 A	3x00069 4x00069 I:68	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI17 B	3x00070 4x00070 I:69	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI18 A	3x00071 4x00071 I:70	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI18 B	3x00072 4x00072 I:71	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI19 A	3x00073 4x00073 I:72	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI19 B	3x00074 4x00074 I:73	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI20 A	3x00075 4x00075 I:74	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI20 B	3x00076 4x00076 I:75	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
<b>STATUS</b>						
FILTER PATTERN DI1	3x00077 4x00077 I:76	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32 R/O	
The internal pattern for corresponding digital input for AC/DC filtering. The internal used state is created out of this internal pattern via oversampling.						
FILTER PATTERN DI2	3x00079 4x00079 I:78	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI3	3x00081 4x00081 I:80	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI4	3x00083 4x00083 I:82	0,0x00000000 B:00 00 00 00			UINT32 R/O	

FILTER PATTERN DI5	3x00085 4x00085 I:84	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI6	3x00087 4x00087 I:86	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI7	3x00089 4x00089 I:88	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI8	3x00091 4x00091 I:90	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI9	3x00093 4x00093 I:92	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI10	3x00095 4x00095 I:94	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI11	3x00097 4x00097 I:96	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI12	3x00099 4x00099 I:98	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI13	3x00101 4x00101 I:100	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI14	3x00103 4x00103 I:102	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI15	3x00105 4x00105 I:104	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI16	3x00107 4x00107 I:106	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI17	3x00109 4x00109 I:108	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI18	3x00111 4x00111 I:110	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI19	3x00113 4x00113 I:112	0,0x00000000 B:00 00 00 00			UINT32 R/O	

FILTER PATTERN DI20	3x00115 4x00115 I:114	0,0x00000000 B:00 00 00 00			UINT32 R/O	
<b>PULSE TIME FOR DIGITAL OUTPUTS</b>						
PULSE TIME DO1	3x00201 4x00201 I:200	0,0x0000 B:00 00	200	20,0	UINT16 R/W	NO
Generate a pulse on digital output x in 100ms units (0,1 to 6553,5 Seconds selectable) If you write onto this register, the digital output will be switched on for the desired time in 100ms units.						
PULSE TIME DO2	3x00202 4x00202 I:201	0,0x0000 B:00 00	300	30,0	UINT16 R/W	NO
PULSE TIME DO3	3x00203 4x00203 I:202	0,0x0000 B:00 00	400	40,0	UINT16 R/W	NO
PULSE TIME DO4	3x00204 4x00204 I:203	0,0x0000 B:00 00	500	50,0	UINT16 R/W	NO
PULSE TIME DO5	3x00205 4x00205 I:204	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO6	3x00206 4x00206 I:205	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO7	3x00207 4x00207 I:206	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO8	3x00208 4x00208 I:207	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO9	3x00209 4x00209 I:208	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO10	3x00210 4x00210 I:209	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO11	3x00211 4x00211 I:210	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO12	3x00212 4x00212 I:211	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO13	3x00213 4x00213 I:212	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO

PULSE TIME DO14	3x00214 4x00214 I:213	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO15	3x00215 4x00215 I:214	0,0x0000 B:00 00	200	20,0	UINT16 R/W	NO
PULSE TIME DO16	3x00216 4x00216 I:215	0,0x0000 B:00 00	200	20,0	UINT16 R/W	NO
<b>PULSE STATUS FOR DIGITAL OUTPUTS</b>						
PULSE TIMER DO1	3x00301 4x00301 I:300	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
Remaining time of the pulse on digital output x in Milliseconds.						
PULSE TIMER DO2	3x00303 4x00303 I:302	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO3	3x00305 4x00305 I:304	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO4	3x00307 4x00307 I:306	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO5	3x00309 4x00309 I:308	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO6	3x00311 4x00311 I:310	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO7	3x00313 4x00313 I:312	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO8	3x00315 4x00315 I:314	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO9	3x00317 4x00317 I:316	0,0x00000000 B:00 00 00 00			UINT32 R/O	



		0,0 seconds			
PULSE TIMER DO10	3x00319 4x00319 I:318	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO11	3x00321 4x00321 I:320	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO12	3x00323 4x00323 I:322	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO13	3x00325 4x00325 I:324	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO14	3x00327 4x00327 I:326	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO15	3x00329 4x00329 I:328	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO16	3x00331 4x00331 I:330	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
<b>PULSE STATUS FOR DIGITAL OUTPUTS</b>					
PULSE TIMER DO1	3x00331 4x00331 I:330	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
Remaining time of the pulse on digital output x in Milliseconds.					
PULSE TIMER DO2	3x00333 4x00333 I:332	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO3	3x00335 4x00335 I:334	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO4	3x00337 4x00337 I:336	0,0x00000000 B:00 00 00 00			UINT32R R/O

		0,0 seconds			
PULSE TIMER DO5	3x00339 4x00339 I:338	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO6	3x00341 4x00341 I:340	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO7	3x00343 4x00343 I:342	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO8	3x00345 4x00345 I:344	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO9	3x00347 4x00347 I:346	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO10	3x00349 4x00349 I:348	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO11	3x00351 4x00351 I:350	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO12	3x00353 4x00353 I:352	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO13	3x00355 4x00355 I:354	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO14	3x00357 4x00357 I:356	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			
PULSE TIMER DO15	3x00359 4x00359 I:358	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			

PULSE TIMER DO16	3x00361 4x00361 I:360	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
<b>GENERAL STATUS OF DIS</b>						
RESET COUNTERS	3x10000 4x10000 I:9999	0,0x0000 B:00 00		1:PERFORM RESET	UINT16 R/W	NO
If this register is written to 1, all internal edge counters and event counters are set to 0. 0 is always returned when reading.						
HAS DIS CHANGED	3x10001 4x10001 I:10000	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
As soon as the module registrates an event on one of the available digital inputs, this global event counter is incremented by 1. Possible events are: Detection of a short keypress Detection of the start of a long keypress Detection of the end of a long keypress						
STATUS OF ALL DIS DI1..DI16	3x10002 4x10002 I:10001	1,0x0001 B:00 01			UINT16 R/O	
		Current state of DI1:1=ON				
		Current state of DI2:0=OFF				
		Current state of DI3:0=OFF				
		Current state of DI4:0=OFF				
		Current state of DI5:0=OFF				
		Current state of DI6:0=OFF				
		Current state of DI7:0=OFF				
		Current state of DI8:0=OFF				
		Current state of DI9:0=OFF				
		Current state of DI10:0=OFF				
		Current state of DI11:0=OFF				
		Current state of DI12:0=OFF				
		Current state of DI13:0=OFF				
		Current state of DI14:0=OFF				
		Current state of DI15:0=OFF				
		Current state of DI16:0=OFF				
Current state of all digital inputs DI1..DI16 Bit 0: =0:DI1 is OFF, =1:DI1 is ON Bit 1: =0:DI2 is OFF, =1:DI2 is ON ... Bit 14: =0:DI15 is OFF, =1:DI15 is ON Bit 15: =0:DI16 is OFF, =1:DI16 is ON						
STATUS OF ALL DIS DI17..DI20	3x10003 4x10003 I:10002	0,0x0000 B:00 00			UINT16 R/O	
		Current state of DI17:0=OFF				

		Current state of DI18:0=OFF			
		Current state of DI19:0=OFF			
		Current state of DI20:0=OFF			
<b>STATUS OF DIGITAL OUTPUTS</b>					
STATUS OF DO1-DO16	3x10004 4x10004 l:10003	0,0x0000 B:00 00		0xFFFF	UINT16 R/W
		Current state of DO1:0=OFF	1		NO
		Current state of DO2:0=OFF	1		
		Current state of DO3:0=OFF	1		
		Current state of DO4:0=OFF	1		
		Current state of DO5:0=OFF	1		
		Current state of DO6:0=OFF	1		
		Current state of DO7:0=OFF	1		
		Current state of DO8:0=OFF	1		
		Current state of DO9:0=OFF	1		
		Current state of DO10:0=OFF	1		
		Current state of DO11:0=OFF	1		
		Current state of DO12:0=OFF	1		
		Current state of DO13:0=OFF	1		
		Current state of DO14:0=OFF	1		
		Current state of DO15:0=OFF	1		
		Current state of DO16:0=OFF	1		
Current state of all digital outputs Bit 0: =0:DO1 is OFF, =1:DO1 is ON Bit 1: =0:DO2 is OFF, =1:DO2 is ON ... Bit 14: =0:DO15 is OFF, =1:DO15 is ON Bit 15: =0:DO16 is OFF, =1:DO16 is ON					
Write on this register sets all digital outputs to a new state					
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI1</b>					
RISE DI1	3x30001 4x30001 l:30000	1,0x0001 B:00 01			UINT16 R/O
		1 event(s)			
Counter for rising edges on the digital input DIx. If the module detects a rising edge on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.					
FALL DI1	3x30002 4x30002 l:30001	0,0x0000 B:00 00			UINT16 R/O
		0 event(s)			
Counter for falling edges on the digital input DIx. If the module detects a falling edge on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.					

CHANGE DI1	3x30003 4x30003 I:30002	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
Counter for events on the digital input DIx. If the module detects an event on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0. The following events are available: Detection of a short keypress Detection of the start of a long keypress Detection of the end of a long keypress						
SHORT KEYPRESS DI1	3x30004 4x30004 I:30003	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for short keypress events on the digital input DIx. If the module detects a short keypress on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
LONG KEYPRESS START DI1	3x30005 4x30005 I:30004	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
Counter for start events of long keypress actions on the digital input DIx. If the module detects the start of a long keypress action on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
LONG KEYPRESS END DI1	3x30006 4x30006 I:30005	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for end events of long keypress actions on the digital input DIx. If the module detects the end of a long keypress action on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI2</b>						
RISE DI2	3x30011 4x30011 I:30010	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI2	3x30012 4x30012 I:30011	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI2	3x30013 4x30013 I:30012	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI2	3x30014 4x30014 I:30013	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS START DI2	3x30015 4x30015 I:30014	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI2	3x30016 4x30016 I:30015	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI3</b>						
RISE DI3	3x30021 4x30021 I:30020	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI3	3x30022 4x30022 I:30021	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI3	3x30023 4x30023 I:30022	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI3	3x30024 4x30024 I:30023	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI3	3x30025 4x30025 I:30024	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI3	3x30026 4x30026 I:30025	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI4</b>						
RISE DI4	3x30031 4x30031 I:30030	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI4	3x30032 4x30032 I:30031	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI4	3x30033 4x30033 I:30032	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

SHORT KEYPRESS DI4	3x30034 4x30034 I:30033	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI4	3x30035 4x30035 I:30034	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI4	3x30036 4x30036 I:30035	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI5</b>						
RISE DI5	3x30041 4x30041 I:30040	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI5	3x30042 4x30042 I:30041	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI5	3x30043 4x30043 I:30042	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI5	3x30044 4x30044 I:30043	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI5	3x30045 4x30045 I:30044	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI5	3x30046 4x30046 I:30045	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI6</b>						
RISE DI6	3x30051 4x30051 I:30050	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI6	3x30052 4x30052 I:30051	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

CHANGE DI6	3x30053 4x30053 I:30052	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI6	3x30054 4x30054 I:30053	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI6	3x30055 4x30055 I:30054	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI6	3x30056 4x30056 I:30055	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI7</b>						
RISE DI7	3x30061 4x30061 I:30060	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI7	3x30062 4x30062 I:30061	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI7	3x30063 4x30063 I:30062	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI7	3x30064 4x30064 I:30063	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI7	3x30065 4x30065 I:30064	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI7	3x30066 4x30066 I:30065	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI8</b>						
RISE DI8	3x30071 4x30071 I:30070	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				



FALL DI8	3x30072 4x30072 I:30071	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI8	3x30073 4x30073 I:30072	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI8	3x30074 4x30074 I:30073	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI8	3x30075 4x30075 I:30074	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI8	3x30076 4x30076 I:30075	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI9</b>						
RISE DI9	3x30081 4x30081 I:30080	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI9	3x30082 4x30082 I:30081	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI9	3x30083 4x30083 I:30082	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI9	3x30084 4x30084 I:30083	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI9	3x30085 4x30085 I:30084	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI9	3x30086 4x30086 I:30085	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI10</b>						

RISE DI10	3x30091 4x30091 I:30090	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI10	3x30092 4x30092 I:30091	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI10	3x30093 4x30093 I:30092	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI10	3x30094 4x30094 I:30093	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI10	3x30095 4x30095 I:30094	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI10	3x30096 4x30096 I:30095	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI11</b>						
RISE DI11	3x30101 4x30101 I:30100	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI11	3x30102 4x30102 I:30101	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI11	3x30103 4x30103 I:30102	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI11	3x30104 4x30104 I:30103	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI11	3x30105 4x30105 I:30104	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS END DI11	3x30106 4x30106 I:30105	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI12</b>						
RISE DI12	3x30111 4x30111 I:30110	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI12	3x30112 4x30112 I:30111	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI12	3x30113 4x30113 I:30112	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI12	3x30114 4x30114 I:30113	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI12	3x30115 4x30115 I:30114	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI12	3x30116 4x30116 I:30115	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI13</b>						
RISE DI13	3x30121 4x30121 I:30120	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI13	3x30122 4x30122 I:30121	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI13	3x30123 4x30123 I:30122	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI13	3x30124 4x30124 I:30123	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS START DI13	3x30125 4x30125 I:30124	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI13	3x30126 4x30126 I:30125	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI14</b>						
RISE DI14	3x30131 4x30131 I:30130	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI14	3x30132 4x30132 I:30131	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI14	3x30133 4x30133 I:30132	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI14	3x30134 4x30134 I:30133	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI14	3x30135 4x30135 I:30134	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI14	3x30136 4x30136 I:30135	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI15</b>						
RISE DI15	3x30141 4x30141 I:30140	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI15	3x30142 4x30142 I:30141	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI15	3x30143 4x30143 I:30142	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

SHORT KEYPRESS DI15	3x30144 4x30144 I:30143	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI15	3x30145 4x30145 I:30144	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI15	3x30146 4x30146 I:30145	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI16</b>						
RISE DI16	3x30151 4x30151 I:30150	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI16	3x30152 4x30152 I:30151	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI16	3x30153 4x30153 I:30152	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI16	3x30154 4x30154 I:30153	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI16	3x30155 4x30155 I:30154	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI16	3x30156 4x30156 I:30155	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI17</b>						
RISE DI17	3x30161 4x30161 I:30160	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI17	3x30162 4x30162 I:30161	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

CHANGE DI17	3x30163 4x30163 I:30162	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI17	3x30164 4x30164 I:30163	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI17	3x30165 4x30165 I:30164	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI17	3x30166 4x30166 I:30165	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI18</b>						
RISE DI18	3x30171 4x30171 I:30170	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI18	3x30172 4x30172 I:30171	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI18	3x30173 4x30173 I:30172	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI18	3x30174 4x30174 I:30173	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI18	3x30175 4x30175 I:30174	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI18	3x30176 4x30176 I:30175	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI19</b>						
RISE DI19	3x30181 4x30181 I:30180	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

FALL DI19	3x30182 4x30182 I:30181	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI19	3x30183 4x30183 I:30182	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI19	3x30184 4x30184 I:30183	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI19	3x30185 4x30185 I:30184	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI19	3x30186 4x30186 I:30185	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI20</b>						
RISE DI20	3x30191 4x30191 I:30190	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI20	3x30192 4x30192 I:30191	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI20	3x30193 4x30193 I:30192	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI20	3x30194 4x30194 I:30193	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI20	3x30195 4x30195 I:30194	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI20	3x30196 4x30196 I:30195	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
<b>INITIAL &amp; WATCHDOG STATUS FOR ALL DIGITAL OUTPUTS</b>						

INITIAL & WATCHDOG STATUS OF DO1-DO16	3x59001 4x59001 l:59000	0,0x0000 B:00 00		0xFFFF	UINT16 R/W	YES
		Current init & watchdog state of DO1:0=OFF	1			
		Current init & watchdog state of DO2:0=OFF	1			
		Current init & watchdog state of DO3:0=OFF	1			
		Current init & watchdog state of DO4:0=OFF	1			
		Current init & watchdog state of DO5:0=OFF	1			
		Current init & watchdog state of DO6:0=OFF	1			
		Current init & watchdog state of DO7:0=OFF	1			
		Current init & watchdog state of DO8:0=OFF	1			
		Current init & watchdog state of DO9:0=OFF	1			
		Current init & watchdog state of DO10:0=OFF	1			
		Current init & watchdog state of DO11:0=OFF	1			
		Current init & watchdog state of DO12:0=OFF	1			
		Current init & watchdog state of DO13:0=OFF	1			
		Current init & watchdog state of DO14:0=OFF	1			
		Current init & watchdog state of DO15:0=OFF	1			
		Current init & watchdog state of DO16:0=OFF	1			
<p>Current initial and watchdog state of all digital outputs. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured</p> <p>Bit 0: =0:DO1 is OFF, =1:DO1 is ON            Bit 1: =0:DO2 is OFF, =1:DO2 is ON            ...            Bit 14: =0:DO15 is OFF, =1:DO15 is ON            Bit 15: =0:DO16 is OFF, =1:DO16 is ON</p> <p>DO1, DO2 and DO3 are sued for 3 stage fan coil.            Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FLASH</p>						
<b>FAN COIL #1</b>						
FC1 MODE	3x40001 4x40001 l:40000	3,0x0003 B:00 03		3:STAGE 3	UINT16 R/W	YES
		Current mode of FC:3->STAGE 3				
<p>Current mode for FAN COIL functionality on RO1, RO2 and RO3:            =9999: This function is not used            =0: All three ROs are OFF            =1: STAGE 1: DO1 is ON, DO2,DO3 are OFF            =2: STAGE 2: DO2 is ON, DO1,DO3 are OFF            =3: STAGE 3: DO3 is ON, DO1,DO2 are OFF            FC1 is DO1,DO2,DO3, FC2 is DO5, DO6,DO7, FC3 is DO9,DO10,D11, FC4 is DO13,DO14,DO15            In this mode the module inserts a pause with no outputs on, when switching from one stage to another stage. Also a minimum time for each stage is maintained by the module</p>						
FC1 PAUSE TIME	3x40002 4x40002 l:40001	1000,0x03E8 B:03 E8	5000	5,0	UINT16 R/W	NO
		1,000 seconds				
Sets and returns the pause time with no relays ON between stage switching. Time is defined in 1ms units (0 to 65,535 Seconds selectable)						



FC1 STAGE TIME	3x40003 4x40003 I:40002	15000,0x00003A98 B:00 00 3A 98	10000	10,0	UINT32 R/W	NO
		15,000 seconds				
Sets and returns the minimum time for a stage in 1ms units. If the module activates a new stage 1 to 3, it keeps this stage at least for this time span, before changing to another stage.						
FC1 STAGE TIME	3x40005 4x40005 I:40004	15000,0x00003A98 B:3A 98 00 00	10000	10,0	UINT32R R/W	NO
		15,000 seconds				
Sets and returns the minimum time for a stage in 1ms units. If the module activates a new stage 1 to 3, it keeps this stage at least for this time span, before changing to another stage.						
<b>FAN COIL #2</b>						
FC2 MODE	3x40011 4x40011 I:40010	3,0x0003 B:00 03		3:STAGE 3	UINT16 R/W	YES
		Current mode of FC:3->STAGE 3				
FC2 PAUSE TIME	3x40012 4x40012 I:40011	1000,0x03E8 B:03 E8	5000	5,0	UINT16 R/W	NO
		1,000 seconds				
FC2 STAGE TIME	3x40013 4x40013 I:40012	15000,0x00003A98 B:00 00 3A 98	10000	10,0	UINT32 R/W	NO
		15,000 seconds				
FC2 STAGE TIME	3x40015 4x40015 I:40014	15000,0x00003A98 B:3A 98 00 00	10000	10,0	UINT32R R/W	NO
		15,000 seconds				
<b>FAN COIL #3</b>						
FC3 MODE	3x40021 4x40021 I:40020	3,0x0003 B:00 03		3:STAGE 3	UINT16 R/W	YES
		Current mode of FC:3->STAGE 3				
FC3 PAUSE TIME	3x40022 4x40022 I:40021	1000,0x03E8 B:03 E8	5000	5,0	UINT16 R/W	NO
		1,000 seconds				
FC3 STAGE TIME	3x40023 4x40023 I:40022	15000,0x00003A98 B:00 00 3A 98	10000	10,0	UINT32 R/W	NO
		15,000 seconds				
FC3 STAGE TIME	3x40025 4x40025 I:40024	15000,0x00003A98 B:3A 98 00 00	10000	10,0	UINT32R R/W	NO
		15,000 seconds				
<b>FAN COIL #4</b>						

FC4 MODE	3x40031 4x40031 I:40030	3,0x0003 B:00 03		3:STAGE 3	UINT16 R/W	YES
		Current mode of FC:3->STAGE 3				
FC4 PAUSE TIME	3x40032 4x40032 I:40031	1000,0x03E8 B:03 E8	5000	5,0	UINT16 R/W	NO
		1,000 seconds				
FC4 STAGE TIME	3x40033 4x40033 I:40032	15000,0x00003A98 B:00 00 3A 98	10000	10,0	UINT32 R/W	NO
		15,000 seconds				
FC4 STAGE TIME	3x40035 4x40035 I:40034	15000,0x00003A98 B:3A 98 00 00	10000	10,0	UINT32R R/W	NO
		15,000 seconds				





		Current counter for short keypress events on DI5:0		
		Current counter for short keypress events on DI6:0		
		Current counter for short keypress events on DI7:0		
		Current counter for short keypress events on DI8:0		
		Current counter for short keypress events on DI9:0		
		Current counter for short keypress events on DI10:0		
		Current counter for short keypress events on DI11:0		
		Current counter for short keypress events on DI12:0		
		Current counter for short keypress events on DI13:0		
		Current counter for short keypress events on DI14:0		
		Current counter for short keypress events on DI15:0		
		Current counter for short keypress events on DI16:0		
		Current counter for short keypress events on DI17:0		
		Current counter for short keypress events on DI18:0		
		Current counter for short keypress events on DI19:0		
		Current counter for short keypress events on DI20:0		
Returns for each digital input the counter for short keypress events. As soon as the module detects a short keypress on a digital input, the counter for the affected digital input is incremented by 1.				
SHORT KEY DIx	ASCII READ COMMAND	#SKDI<DINR> <CR> Result: #SKDI<DINR> :<ShortKeyDec>,<ShortKeyHex> <CR>	ASCII	
	DINR	20		
	TX	#SKDI20 <CR>		
	RX	#1,SKDI20:0,0x0 <CR>		
		Current counter for short keypress events on digital input DI20:0		
Returns for digital input <DINR> the counter for short keypress events. As soon as the module detects a short keypress on a digital input, the counter for the affected digital input is incremented by 1.				
LONG KEY START ALL DIS	ASCII READ COMMAND	#LKSADIS <CR> Result: #LKSADIS:<LongKeyStartDI1Dec>,...,<LongKeyStartDIxDec>, <LongKeyStartDI1Hex>,...,<LongKeyStartDIxHex> <CR>	ASCII	
	TX	#LKSADIS <CR>		
	RX	#1,LKSADIS:1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0x1,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0 <CR>		
		Current counter for long keypress start events on DI1:1		
		Current counter for long keypress start events on DI2:0		
		Current counter for long keypress start events on DI3:0		
		Current counter for long keypress start events on DI4:0		
		Current counter for long keypress start events on DI5:0		
		Current counter for long keypress start events on DI6:0		
		Current counter for long keypress start events on DI7:0		
		Current counter for long keypress start events on DI8:0		
		Current counter for long keypress start events on DI9:0		
		Current counter for long keypress start events on DI10:0		
		Current counter for long keypress start events on DI11:0		
		Current counter for long keypress start events on DI12:0		



Returns for each digital input the counter for long keypress end events. As soon as the module detects the end of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.				
LONG KEY END DIx	ASCII READ COMMAND	#LKEDI<DINR> <CR> Result: #LKEDI<DINR>:<LongKeyEndDec>,<LongKeyEndHex> <CR>	ASCII	
	DINR	20		
	TX	#LKEDI20 <CR>		
	RX	#1,LKEDI20:0,0x0 <CR>		
		Current counter for long keypress end events on digital input DI20:0		
Returns for digital input <DINR> the counter for long keypress end events. As soon as the module detects the end of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.				
RISE ALL DIS	ASCII READ COMMAND	#RADIS <CR> Result: #RADIS:<RiseDI1Dec>,...,<RiseDIxDec>,<RiseDI1Hex>,...,<RiseDIxHex> <CR>	ASCII	
	TX	#RADIS <CR>		
	RX	#1,RADIS:1,0x1,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0 <CR>		
		Current counter for rising edges on DI1:1		
		Current counter for rising edges on DI2:0		
		Current counter for rising edges on DI3:0		
		Current counter for rising edges on DI4:0		
		Current counter for rising edges on DI5:0		
		Current counter for rising edges on DI6:0		
		Current counter for rising edges on DI7:0		
		Current counter for rising edges on DI8:0		
		Current counter for rising edges on DI9:0		
		Current counter for rising edges on DI10:0		
		Current counter for rising edges on DI11:0		
		Current counter for rising edges on DI12:0		
		Current counter for rising edges on DI13:0		
		Current counter for rising edges on DI14:0		
		Current counter for rising edges on DI15:0		
		Current counter for rising edges on DI16:0		
		Current counter for rising edges on DI17:0		
		Current counter for rising edges on DI18:0		
		Current counter for rising edges on DI19:0		
		Current counter for rising edges on DI20:0		
Returns for each digital input the counter for rising edges. As soon as the module detects a rising edge on a digital input, the rising edge counter for the affected digital input is incremented by 1.				
RISE DIx	ASCII READ COMMAND	#RDI<DINR> <CR> Result: #RDI<DINR>:<RiseDec>,<RiseHex> <CR>	ASCII	
	DINR	20		
	TX	#RDI20 <CR>		
	RX	#1,RDI20:0,0x0 <CR>		
		Current counter for rising edges on digital input DI20:0		
Returns for digital input <DINR> the counter for rising edges. As soon as the module detects a rising edge on a digital input, the rising edge counter for the affected digital input is incremented by 1.				





SET DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SDOS:<OutAllDOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ON		
	DO2	0:OFF		
	DO3	1:ON		
	DO4	0:OFF		
	DO5	0:OFF		
	DO6	0:OFF		
	DO7	0:OFF		
	DO8	0:OFF		
	DO9	0:OFF		
	DO10	0:OFF		
	DO11	0:OFF		
	DO12	0:OFF		
	DO13	0:OFF		
	DO14	0:OFF		
	DO15	0:OFF		
	DO16	1:ON		
	TX	#SDOS:32773<CR>		
	RX	#1,OK<CR>		
<p>Sets all digital outputs to the new state OutAllDOS  The new state for all digital outputs  Bit 0: State of DO1 (=0:OFF, =1:ON)  Bit 1: State of DO2 (=0:OFF, =1:ON)  ...  Bit 14: State of DO15 (=0:OFF, =1:ON)  Bit 15: State of DO16 (=0:OFF, =1:ON)</p>				
SET DIGITAL OUTPUT DOx	ASCII WRITE COMMAND	#SDO<DONR>:<Out><CR> Result: #OK<CR>	ASCII	YES
	DONR	16		
	DO1	1:ON		
	TX	#SDO16:1<CR>		
	RX	#1,OK<CR>		
<p>Sets the new state for digital output DOx. The state is defined with &lt;Out&gt;.  Out  The new state of the digital output DOx:  =0: digital output is OFF  =1: digital output is ON</p>				
GET DIGITAL OUTPUTS	ASCII READ COMMAND	#GDOS<CR> Result: #GDOS:<DOSDec>,<DOSHex><CR>	ASCII	
	TX	#GDOS<CR>		
	RX	#1,GDOS:32773,0x8005<CR>		

		Current status of digital outputs:1000.0000.0000.0101		
Returns the current state of the digital outputs as decimal number and as hexadecimal number. DOSDec, DOSHex The current state of the digital outputs: Bit 0: State of DO1 (=0:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 14: State of DO15 (=0:OFF, =1:ON) Bit 15: State of DO16 (=0:OFF, =1:ON)				
GET DIGITAL OUTPUT DOx	ASCII READ COMMAND	#GDO<DONR> <CR> Result: #GDO<DONR>:<DOxDec>,<DOxHex> <CR>	ASCII	
	DONR	16		
	TX	#GDO16<CR>		
	RX	#1,GDO16:1,0x1<CR>		
		Current status of digital output DO16:1=ON		
Returns the current state of the digital output DOx as decimal number and as hexadecimal number. DOxDec, DOxHex The current state of the digital output DOx: =0: digital output is OFF =1: digital output is ON				
PULSE DOx	ASCII WRITE COMMAND	#PDO<DONR>:<Time> <CR> Result: #OK<CR>	ASCII	YES
	DONR	1		
	TIME	200		
	TX	#PDO1:200<CR>		
	RX	#1,OK<CR>		
This command switches the digital output DOx on for the pulse duration <PulseTimeIn100ms>*100ms. PulseTimeIn100ms: A duration in 100ms units. The corresponding digital output is switched on for this time period.				
GET PULSE TIMER DOx	ASCII READ COMMAND	#GPT<DONR> <CR> Result: #GPT:<TimeDec>,<TimeHex> <CR>	ASCII	
	DONR	1		
	TX	#GPT1<CR>		
	RX	#1,GPT1:19941,0x4DE5 <CR>		
		Current pulse time for DO1:19,9s		
Returns the remaining timer value of the pulse for digital output DOx in ms. PulseTimeInMSDec, PulseTimeInMSHex The remaining time of the pulse in Milliseconds				

**INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS**

SET INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SCDOS:<OutAllDOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ON		
	DO2	0:OFF		
	DO3	1:ON		
	DO4	0:OFF		
	DO5	0:OFF		
	DO6	0:OFF		
	DO7	0:OFF		
	DO8	0:OFF		
	DO9	0:OFF		
	DO10	0:OFF		
	DO11	0:OFF		
	DO12	0:OFF		
	DO13	0:OFF		
	DO14	0:OFF		
	DO15	0:OFF		
	DO16	1:ON		
	TX	#SCDOS:32773<CR>		
	RX	#1,OK<CR>		

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FLASH. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured.

#### OutAllDOS

The new state for the digital outputs:

Bit 0: New state of DO1 (=0:OFF, =1:ON)

Bit 1: New state of DO2 (=0:OFF, =1:ON)

...

Bit 14: New state of DO15 (=0:OFF, =1:ON)

Bit 15: New state of DO16 (=0:OFF, =1:ON)

GET INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS	ASCII READ COMMAND	#GDOS<CR> Result: #GDOS:<DOSDec>, <DOSHex><CR>	ASCII	
	TX	#GDOS<CR>		
	RX	#1,GDOS:32773,0x8005<CR>		
		Current status of digital outputs:1000.0000.0000.0101		

Returns the current initial and watchdog state of the digital outputs as decimal number and as hexadecimal number. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured

#### DOSDec, DOSHex

The current state of the digital outputs:

Bit 0: State of DO1 (=0:OFF, =1:ON)

Bit 1: State of DO2 (=0:OFF, =1:ON)

...

Bit 14: State of DO15 (=0:OFF, =1:ON)

Bit 15: State of DO16 (=0:OFF, =1:ON)

FAN COIL #1-#4				
SET FAN COIL FCx	ASCII WRITE COMMAND	#SFC<FCNR>:<Mode><CR> Result: #OK<CR>	ASCII	YES
	FCNR	1		
	MODE	2:STAGE 2		
	TX	#SFC1:2<CR>		
	RX	#1,OK<CR>		
Sets a new mode for FAN COIL functionality on RO1, RO2 and RO3: =9999: This function is not used =0: All three ROs are OFF =1: STAGE 1: RO1 is ON, RO2,RO3 are OFF =2: STAGE 2: RO2 is ON, RO1,RO3 are OFF =3: STAGE 3: RO3 is ON, RO1,RO2 are OFF FC1 is DO1,DO2,DO3, FC2 is DO5, DO6,DO7, FC3 is DO9,DO10,D11, FC4 is DO13,DO14,DO15 In this mode the module inserts a pause with no outputs on, when switching from one stage to another stage. Also a minimum time for each stage is maintained by the module				
GET FAN COIL FCx	ASCII READ COMMAND	#GFC<FCNR><CR> Result: #GFC<FCNR>:<ModeDec>,<ModeHex><CR>	ASCII	
	FCNR	1		
	TX	#GFC1<CR>		
	RX	#1,GFC1:2,0x2<CR>		
		Current mode fo FC:2->STAGE 2		
Current mode for FAN COIL functionality on RO1, RO2 and RO3: =9999: This function is not used =0: All three ROs are OFF =1: STAGE 1: RO1 is ON, RO2,RO3 are OFF =2: STAGE 2: RO2 is ON, RO1,RO3 are OFF =3: STAGE 3: RO3 is ON, RO1,RO2 are OFF In this mode the module inserts a pause with no outputs on, when switching from one stage to another stage. Also a minimum time for each stage is maintained by the module				
SET PAUSE TIME FCx	ASCII WRITE COMMAND	#SPTFC<FCNR>:<Time><CR> Result: #OK<CR>	ASCII	NO
	FCNR	1		
	TIME	3,123		
	TX	#SPTFC1:3123<CR>		
	RX	N/A		
Sets a new pause time with no relays ON between stage switching. Time is defined in 1ms units (0 to 65,535 Seconds selectable)				
GET PAUSE TIME FCx	ASCII READ COMMAND	#GPTFC<FCNR><CR> Result: #GPTFC<FCNR>:<TimeDec>,<TimeHex><CR>	ASCII	
	FCNR	1		
	TX	#GPTFC1<CR>		
	RX	#1,GPTFC1:1000,0x3E8<CR>		
		Current pause time for FC1:1,000s		

Returns the pause time with no relays ON between stage switching. Time is defined in 1ms units (0 to 65,535 Seconds selectable)

SET STAGE TIME FCx	ASCII WRITE COMMAND	#SSTFC<FCNR>:<Time><CR> Result: #OK<CR>	ASCII	NO
	FCNR	1		
	TIME	7,250		
	TX	#SSTFC1:7250<CR>		
	RX	N/A		

Sets the minium time for a stage in 1ms units. If the module activates a new stage 1 to 3, it keeps this stage at least for this time span, before chaning to another stage.

GET STAGE TIME FCx	ASCII READ COMMAND	#GSTFC<FCNR><CR> Result: #GSTFC<FCNR>:<TimeDec>,<TimeHex><CR>	ASCII	
	FCNR	1		
	TX	#GSTFC1<CR>		
	RX	#1,GLTFC1:15000,0x3A98<CR>		
		Current stage time for FC1:15,000s		

Returns the minium time for a stage in 1ms units. If the module activates a new stage 1 to 3, it keeps this stage at least for this time span, before chaning to another stage.