

Command NAME	ASCII command type	ASCII command structure	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
HEART BEAT	ASCII READ COMMAND	#HB<CR> Result: #HB<CR>			ASCII	
	TX	#1,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	#1,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	#1,TYPE<CR>				
	RX	#1,TYPE:RESI-20R16RO-SIO<CR>				
		Current module type:RESI-20R16RO-SIO				
Returns the current module type						
GET FEATURES	ASCII READ COMMAND	#FTRS<CR> Result: #FTRS:<Type><CR>			ASCII	
	TX	#1,FTRS<CR>				
	RX	#1,FTRS:RESI-20R16RO-SIO,RS485,RI:20,RO:16,RELAY:30VDC,250VAC,6A,AGSNO2<CR>				
		Current module type:#1,FTRS:RESI-20R16RO-SIO,RS485,RI:20,RO:16,RELAY:30VDC,250VAC,6A,AGSNO				
Returns the current module features						
GET OWNER	ASCII READ COMMAND	#OWNER<CR> Result: #OWNER:<Owner><CR>			ASCII	
	TX	#1,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	#1,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	#1,COPYRIGHT<CR>		
	RX	#1,COPYRIGHT:2015-24 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC<CR>		
		Current copyright:2015-24 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	#1,SN<CR>		
	RX	#1,SN:2B003400065743553333920<CR>		
		Current serial number:2B003400065743553333920		
Returns the current serial number of the module				
GET INTERNAL STATUS	ASCII READ COMMAND	#INTSTAT<CR> Result: #INTSTAT:<Status><CR>	ASCII	
	TX	#1,INTSTAT<CR>		
	RX	#1,INTSTAT:I2C1:0,I2C2:0,FRAM:24<CR>		
Returns the device specific internal status				
GET DIP SWITCH	ASCII READ COMMAND	#GDIP<CR> Result: #GDIP:<DIPSwitchDec>,<DIPSwitchHex><CR>	ASCII	
	TX	#1,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)				
ASCII COMMANDS				

SET MODBUS ADDRESS	ASCII WRITE COMMAND	#SMBADR:<UNITID> <CR> Result: #OK<CR>	ASCII	NO
	UNITID	123		
	TX	#1,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	#1,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	#1,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	#1,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:EVENT PARITY		
	STOPBIT	TWO:TWO STOPBITS		
	TX	#1,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	#1,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	#1,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	#1,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	#1,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	#1,GMBPARAMS<CR>		
	RX	#1,GMBPARAMS: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				
ASCII COMMANDS				
RESET	ASCII WRITE COMMAND	#RST<CR> Result: #OK<CR>	ASCII	NO
	TX	#1,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	#1,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	#1,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	#1,GMBWATCHDOG<CR>		
	RX	#1,GMBWATCHDOG:0,0x0<CR>		
		Current watchdog time:0 -> 0,0s		
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	#1,GCPUTEMP<CR>		
	RX	#1,GCPUTEMP:38.0630<CR>		
		Current internal temperature of CPU:38.0630°C		
Current internal temperature of CPU in ° Celsius.				
GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUVOLT<CR> Result: #GCPUVOLT:<CPUVoltage> <CR>	ASCII	
	TX	#1,GCPUVOLT<CR>		
	RX	#1,GCPUVOLT:3.3672<CR>		
		Current supply voltage of CPU:3.3672V		
Current internal supply voltage of CPU in Volt.				
GET CPU BACKUP	ASCII READ COMMAND	#GCPUBACK<CR> Result: #GCPUBACK:<CPUBackupVoltage> <CR>	ASCII	
	TX	#1,GCPUBACK<CR>		
	RX	#1,GCPUBACK:0.0002<CR>		
		Current backup voltage of CPU:0.0002V		
Current internal backup capacitor voltage of CPU in Volt.				

Register NAME	MODBUS Register	Register VALUE	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
PRODUCT DATA						
HW_GROUP	3x65201 4x65201 I:65200	16384,0x4000 B:40 00			UINT16 R/O	
This is the group of hardware of the current product						
SW_GROUP	3x65202 4x65202 I:65201	32804,0x8024 B:80 24			UINT16 R/O	
This is the group of software of the current product						
SW_VERSION	3x65203 4x65203 I:65202	4608,0x1200 B:12 00			UINT16 R/O	
This is the current software version of the firmware						
SW_AUTHOR	3x65204 4x65204 I:65203	18771,0x4953 B:49 53			UINT16 R/O	
This is the current software author of the firmware						
MODBUS SETTINGS						
UNIT_ID	3x65222 4x65222 I: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 l: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 l: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 l: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 l: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

CPU DATA

SERIAL1	3x65521 4x65521 l:65520	43,0x002B B:00 2B			UINT16 R/O	
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Serial number of module as 96 bit unsigned integer number					
SERIAL2	3x65522 4x65522 I:65521	52,0x0034 B:00 34			UINT16 R/O
SERIAL3	3x65523 4x65523 I:65522	22278,0x5706 B:57 06			UINT16 R/O
SERIAL4	3x65524 4x65524 I:65523	21827,0x5543 B:55 43			UINT16 R/O
SERIAL5	3x65525 4x65525 I:65524	13109,0x3335 B:33 35			UINT16 R/O
SERIAL6	3x65526 4x65526 I:65525	8249,0x2039 B:20 39			UINT16 R/O
		SERIAL:2B0034000657435535333920			
Serial number of module as 96 bit unsigned integer number					
CPU TEMPERATURE	3x65527 4x65527 I:65526	3807,0x0EDF B:0E DF			UINT16 R/O
		Current internal temperature of CPU:38,07°C			
Current internal temperature of CPU in ° Celsius multiplied by 100.					
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 100.					
CPU BACKUP VOLTAGE	3x65529 4x65529 I:65528	0,0x0000 B:00 00			UINT16 R/O
		Current backup voltage of CPU:0,00V			
Current internal backup capacitor voltage of CPU in Volt multiplied by 100.					
DIP SWITCH STATUS					
DIP SWITCH	3x65300 4x65300 I:65299	65,0x0041 B:00 41			UINT16 R/O
Returns the current setting 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)					

CONVERTER STATUS						
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						
SOFTWARE RESET						
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).						

Command NAME	ASCII command type	ASCII command structure	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
DIGITAL INPUTS						
GET DIGITAL INPUTS	ASCII READ COMMAND	#GDIS<CR> Result: #GDIS:<DISDec>,<DISHex><CR>			ASCII	
	TX	#1,GDIS<CR>				
	RX	#1,GDIS:0,0x0<CR>				
		Actual status of digital inputs:0000.0000.0000.0000.0000				
Returns the actual state of all digital inputs as decimal number and as hexadecimal number. DISDec, DISHex The current state of all digital inputs: Bit 0: State of DI1 (=0:OFF, =1:ON) Bit 1: State of DI2 (=0:OFF, =1:ON) Bit 2: State of DI3 (=0:OFF, =1:ON) ... Bit 17: State of DI18 (=0:OFF, =1:ON) Bit 18: State of DI19 (=0:OFF, =1:ON) Bit 19: State of DI20 (=0:OFF, =1:ON)						
GET DIGITAL INPUT D1x	ASCII READ COMMAND	#GDI<D1NR><CR> Result: #GDI<D1NR>:<D1xDec>,<D1xHex><CR>			ASCII	
	D1NR	1				
	TX	#1,GDI1<CR>				
	RX	#1,GDI1:0,0x0<CR>				
		Actual status of digital input DI1:0=OFF				
<D1NR>: 1=DI1..20=DI20						
Returns the actual state of the digital input D1x as decimal number and as hexadecimal number. D1xDec, D1xHex: The current state of the digital input x: =0: Digital input is OFF =1: Digital input is ON						
GET ALL CHANGES	ASCII READ COMMAND	#GAC<CR> Result: #GAC:<ChangesDec>,<ChangesHex><CR>			ASCII	
	TX	#1,GAC<CR>				
	RX	#1,GAC:0,0x0<CR>				
		Actual change counter:0				
Returns the counter for changes on all digital inputs. As soon as the module detects a short keypress or long key release event, this counter is incremented by 1. If this values has changed sience the last polling request, the host knows, that at least one digital input has changed its state.						

SHORT KEY ALL DIS PART x	ASCII READ COMMAND	#SKADISP<PART> <CR> Result: #SKADISP<PART>:<ShortKeyDInDec>,...,<ShortKeyDIn+15Dec>, <ShortKeyDInHex>,...,<ShortKeyDIn+15Hex><CR>	ASCII	
	PART	1		
	TX	#1,SKADISP1<CR>		
	RX	#1,SKADISP1:0,0,0,0,0,0,0,0,0,0,0,0,0,0,0x0<CR>		
		Actual counter for short keypress events on DI1:0		
		Actual counter for short keypress events on DI2:0		
		Actual counter for short keypress events on DI3:0		
		Actual counter for short keypress events on DI4:0		
		Actual counter for short keypress events on DI5:0		
		Actual counter for short keypress events on DI6:0		
		Actual counter for short keypress events on DI7:0		
		Actual counter for short keypress events on DI8:0		
		Actual counter for short keypress events on DI9:0		
		Actual counter for short keypress events on DI10:0		
		Actual counter for short keypress events on DI11:0		
		Actual counter for short keypress events on DI12:0		
		Actual counter for short keypress events on DI13:0		
		Actual counter for short keypress events on DI14:0		
		Actual counter for short keypress events on DI15:0		
		Actual counter for short keypress events on DI16:0		
<PART>: 1..2, 1=DI1-DI16, 2=DI17-DI20				
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.				
The parameter <PART> defines the part of the digital inputs. The command returns maximal 16 digital inputs.				
SHORT KEY DIx	ASCII READ COMMAND	#SKDI<DINR> <CR> Result: #SKDI<DINR>:<ShortKeyDec>,<ShortKeyHex><CR>	ASCII	
	DINR	1		
	TX	#1,SKDI1<CR>		
	RX	#1,SKDI1:0,0x0<CR>		
		Actual counter for short keypress events on digital input DI1:0		
<DINR>: 1=DI1..20=DI20				
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 PART x	ASCII READ COMMAND	#LKSADISP<PART> <CR> Result: #LKSADISP<PART>:<LongKeyStartDInDec>,...,<LongKeyStartDIn+15Dec>, <LongKeyStartDInHex>,...,<LongKeyStartDIn+15Hex><CR>	ASCII	
	PART	1		

	TX	#1,LKSADISP1<CR>		
	RX	#1,LKSADISP1:0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0<CR>		
		Actual counter for long keypress start events on DI1:0		
		Actual counter for long keypress start events on DI2:0		
		Actual counter for long keypress start events on DI3:0		
		Actual counter for long keypress start events on DI4:0		
		Actual counter for long keypress start events on DI5:0		
		Actual counter for long keypress start events on DI6:0		
		Actual counter for long keypress start events on DI7:0		
		Actual counter for long keypress start events on DI8:0		
		Actual counter for long keypress start events on DI9:0		
		Actual counter for long keypress start events on DI10:0		
		Actual counter for long keypress start events on DI11:0		
		Actual counter for long keypress start events on DI12:0		
		Actual counter for long keypress start events on DI13:0		
		Actual counter for long keypress start events on DI14:0		
		Actual counter for long keypress start events on DI15:0		
		Actual counter for long keypress start events on DI16:0		

<PART>: 1..2, 1=DI1-DI16, 2=DI17-DI20

Returns for each digital input the counter for long keypress start events. As soon as the module detects the start of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.

The parameter <PART> defines the part of the digital inputs. The command returns maximal 16 digital inputs.

LONG KEY START DIx	ASCII READ COMMAND	#LKSDI<DINR> <CR> Result: #LKSDI<DINR>:<LongKeyStartDec>,<LongKeyStartHex> <CR>	ASCII	
	DINR	1		
	TX	#1,LKSDI1<CR>		
	RX	#1,LKSDI1:0,0x0<CR>		
		Actual counter for long keypress start events on digital input DI1:0		

<DINR>: 1=DI1..20=DI20

Returns for digital input <DINR> the counter for long keypress start events.

As soon as the module detects the start of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.

LONG KEY END ALL DIS PART x	ASCII READ COMMAND	#LKEADISP<PART> <CR> Result: #LKEADISP<PART>:<LongKeyEndDInDec>,...,<LongKeyEndDIn+15Dec>, <LongKeyEndDInHex>,...,<LongKeyEndDIn+15Hex> <CR>	ASCII	
	PART	1		
	TX	#1,LKEADISP1<CR>		
	RX	#1,LKEADISP1:0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0,0x0<CR>		
		Actual counter for long keypress end events on DI1:0		
		Actual counter for long keypress end events on DI2:0		

		Actual counter for falling edges on DI13:0		
		Actual counter for falling edges on DI14:0		
		Actual counter for falling edges on DI15:0		
		Actual counter for falling edges on DI16:0		

<PART>: 1..2, 1=DI1-DI16, 2=DI17-DI20

Returns for each digital input the counter for falling edges. As soon as the module detects a falling edge on a digital input, the falling edge counter for the affected digital input is incremented by 1.

The parameter <PART> defines the part of the digital inputs. The command returns maximal 16 digital inputs.

FALL Dix	ASCII READ COMMAND	#FDI<DINR> <CR> Result: #FDI<DINR>:<FallDec>, <FallHex> <CR>	ASCII	
	DINR	1		
	TX	#1,FDI1<CR>		
	RX	#1,FDI1:0,0x0<CR>		
		Actual counter for falling edges on digital input DI1:0		

<DINR>: 1=DI1..20=DI20

Returns for digital input <DINR> the counter for falling edges.

As soon as the module detects a falling edge on a digital input, the falling edge counter for the affected digital input is incremented by 1.

RESET COUNTERS	ASCII WRITE COMMAND	#RC <CR> Result: #OK <CR>	ASCII	NO
	TX	#1,RC <CR>		
	RX	N/A		

Resets all internal counters for digital inputs and events on this digital inputs to 0.

DIGITAL INPUTS EVENTS

EVENTS ON	ASCII WRITE COMMAND	#EVTON <CR> Result: #OK <CR>	ASCII	NO
	TX	#1,EVTON <CR>		
	RX	#1,OK <CR>		

Activates event sending of changes on digital inputs

Whenever a change is detected on the digital inputs, the IO module sends immediately

#<BusAdr>,EVT:DIS:<AllDISasDec>,<AllDISasHex> <CR>

EVENTS OFF	ASCII WRITE COMMAND	#EVTOFF <CR> Result: #OK <CR>	ASCII	NO
	TX	#1,EVTOFF <CR>		
	RX	#1,OK <CR>		

Deactivates event sending of changes on digital inputs

Whenever a change is detected on the digital inputs, the IO module sends immediately

#<BusAdr>,EVT:DIS:<AllDISasDec>,<AllDISasHex> <CR>

Command NAME	ASCII command type	ASCII command structure	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
DIGITAL OUTPUTS						
UPDATE DIGITAL INPUTS AND OUTPUTS	ASCII WRITE COMMAND	#UDIOS:<OutAllDOS> <CR> Result: #UDIOS:<InAllDISDec>,<InAllDISHex> <CR>			ASCII	YES
	DO1	0:OFF				
	DO2	0:OFF				
	DO3	0:OFF				
	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	0:OFF				
	TX	#1,UDIOS:0 <CR>				
	RX	#1,UDIOS:0,0x0 <CR>				
		Actual status of digital inputs:0000.0000.0000.0000.0000				
<p>Sets all digital outputs to the new state OutAllDOS and gives back the current status of all digital inputs InAllDIS as decimal and hexadecimal value</p> <p>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 2: State of DO3 (=0:OFF, =1:ON) ... Bit 13: State of DO14 (=0:OFF, =1:ON) Bit 14: State of DO15 (=0:OFF, =1:ON) Bit 15: State of DO16 (=0:OFF, =1:ON)</p> <p>InAllDIS: The current state for all digital inputs Bit 0: State of DI1 (=0:OFF, =1:ON) Bit 1: State of DI2 (=0:OFF, =1:ON) Bit 2: State of DI3 (=0:OFF, =1:ON) ... Bit 17: State of DI18 (=0:OFF, =1:ON) Bit 18: State of DI19 (=0:OFF, =1:ON) Bit 19: State of DI20 (=0:OFF, =1:ON)</p>						

SET DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SDOS:<OutAllDOS> <CR> Result: #OK<CR>	ASCII	YES
	DO1	0:OFF		
	DO2	0:OFF		
	DO3	0:OFF		
	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	0:OFF		
	TX	#1,SDOS:0<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 2: State of DO3 (=0:OFF, =1:ON) ... Bit 13: State of DO14 (=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	NO
	DONR	2		
	DOx	0:OFF		
	TX	#1,SDO2:0<CR>		
	RX	N/A		
<p><DONR>: 1=DO1..16=DO16</p> <p>Sets the new state for digital output DOx. The state is defined with <Out>. 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	#1,GDOS<CR>		
	RX	#1,GDOS:0,0x0<CR>		
		Actual status of digital outputs:0000.0000.0000.0000		
Returns the actual 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 2: State of DO3 (=0:OFF, =1:ON) ... Bit 13: State of DO14 (=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	2		
	TX	#1,GDO2<CR>		
	RX	#1,GDO2:0,0x0<CR>		
		Actual status of digital output DO2:0=OFF		
Returns the actual state of the digital output DOx as decimal number and as hexadecimal number. DOxDec, DOxHex The current state of the digital output DOx: =0: relay output is OFF =1: relay output is ON				
DIGITAL OUTPUTS: PULSE OUTPUT				
PULSE DOx	ASCII WRITE COMMAND	#PDO<DONR>:<Time><CR> Result: #OK<CR>	ASCII	YES
	DONR	2		
	TIME	200		
	TX	#1,PDO2:200<CR>		
	RX	#1,OK<CR>		
<DONR>: 1=DO1..16=DO16				
<Time>: 0..65535*100ms				
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	2		
	TX	#1,GPT2<CR>		
	RX	#1,GPT2:0,0x0<CR>		

		Actual pulse time for DO2:0,0s		
<DONR>: 1=DO1..16=DO16				
Returns the remaining timer value of the pulse for digital output DOx in ms. PulseTimeInMSDec, PulseTimeInMSHex The remaining time of the pulse in Milliseconds				
FAN COIL #1-#4				
SET FAN COIL FCx	ASCII WRITE COMMAND	#SFC<FCNR>:<Mode> <CR> Result: #OK<CR>	ASCII	YES
	FCNR	1		
	MODE	9999:DEACTIVATED		
	TX	#1,SFC1:9999<CR>		
	RX	#1,OK<CR>		
Sets a new mode for FAN COIL functionality on RO1, RO2 and RO3 of fan coil group. Fan coul groups: 1:RO1,RO2,RO3, 2:RO5,RO6,RO7, 3:RO9,RO10,RO11 =9999: This function is not used =0: All three ROs are OFF =1: STAGE 1: RO1 ist 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				
GET FAN COIL FCx	ASCII READ COMMAND	#GFC<FCNR> <CR> Result: #GFC<FCNR>:<ModeDec>,<ModeHex> <CR>	ASCII	
	FCNR	1		
	TX	#1,GFC1<CR>		
	RX	#1,GFC1:9999,0x270F<CR>		
		Current mode fo FC:9999->DEACTIVATED		
Current mode for FAN COIL functionality on RO1, RO2 and RO3 of fan coil group: =9999: This function is not used =0: All three ROs are OFF =1: STAGE 1: RO1 ist 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	YES
	FCNR	1		
	TIME	3,123		
	TX	#1,SPTFC1:3123<CR>		
	RX	#1,OK<CR>		
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	#1,GPTFC1<CR>		
	RX	#1,GPTFC1:3123,0xC33 <CR>		
		Current pause time for FC1:3,123s		
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	YES
	FCNR	1		
	TIME	7,250		
	TX	#1,SSTFC1:7250<CR>		
	RX	#1,OK<CR>		
Sets 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.				
GET STAGE TIME FCx	ASCII READ COMMAND	#GSTFC <FCNR> <CR> Result: #GSTFC <FCNR>:<TimeDec>,<TimeHex> <CR>	ASCII	
	FCNR	1		
	TX	#1,GSTFC1<CR>		
	RX	#1,GSTFC1:7250,0x1C52 <CR>		
		Current stage time for FC1:7,250s		
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.				

Command NAME	ASCII command type	ASCII command structure	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
DIGITAL OUTPUTS						
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	0:OFF				
	DO2	0:OFF				
	DO3	0:OFF				
	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	0:OFF				
	TX	#1,SCDOS:0<CR>				
	RX	#1,OK<CR>				
<p>This command sets all digital outputs to a new state for controller restart and watchdog function. The state is saved in FRAM. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured.</p> <p>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)</p>						
GET INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS	ASCII READ COMMAND	#GCDOS<CR> Result: #GCDOS:<DOSDec>, <DOSHex> <CR>			ASCII	
	TX	#1,GCDOS<CR>				
	RX	#1,GCDOS:0,0x0<CR>				

		Init & watchdog configuration for digital outputs:		
		DO1-DO16:0000.0000.0000.0000		
<p>Returns the actual 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</p> <p>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)</p>				

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE	
STATUS DIGITAL INPUTS							
DI1	1x00001 2x00001 I:0	0,0x00 B:00			BIT R/O		
		Actual state of DI1:0=OFF					
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		
		Actual state of DI2:0=OFF					
DI3	1x00003 2x00003 I:2	0,0x00 B:00			BIT R/O		
		Actual state of DI3:0=OFF					
DI4	1x00004 2x00004 I:3	0,0x00 B:00			BIT R/O		
		Actual state of DI4:0=OFF					
DI5	1x00005 2x00005 I:4	0,0x00 B:00			BIT R/O		
		Actual state of DI5:0=OFF					
DI6	1x00006 2x00006 I:5	0,0x00 B:00			BIT R/O		
		Actual state of DI6:0=OFF					
DI7	1x00007 2x00007 I:6	0,0x00 B:00			BIT R/O		
		Actual state of DI7:0=OFF					
DI8	1x00008 2x00008 I:7	0,0x00 B:00			BIT R/O		
		Actual state of DI8:0=OFF					
DI9	1x00009 2x00009 I:8	0,0x00 B:00			BIT R/O		
		Actual state of DI9:0=OFF					

DI10	1x00010 2x00010 I:9	0,0x00 B:00			BIT R/O	
	Actual state of DI10:0=OFF					
DI11	1x00011 2x00011 I:10	0,0x00 B:00			BIT R/O	
	Actual state of DI11:0=OFF					
DI12	1x00012 2x00012 I:11	0,0x00 B:00			BIT R/O	
	Actual state of DI12:0=OFF					
DI13	1x00013 2x00013 I:12	0,0x00 B:00			BIT R/O	
	Actual state of DI13:0=OFF					
DI14	1x00014 2x00014 I:13	0,0x00 B:00			BIT R/O	
	Actual state of DI14:0=OFF					
DI15	1x00015 2x00015 I:14	0,0x00 B:00			BIT R/O	
	Actual state of DI15:0=OFF					
DI16	1x00016 2x00016 I:15	0,0x00 B:00			BIT R/O	
	Actual state of DI16:0=OFF					
DI17	1x00017 2x00017 I:16	0,0x00 B:00			BIT R/O	
	Actual state of DI17:0=OFF					
DI18	1x00018 2x00018 I:17	0,0x00 B:00			BIT R/O	
	Actual state of DI18:0=OFF					
DI19	1x00019 2x00019 I:18	0,0x00 B:00			BIT R/O	
	Actual state of DI19:0=OFF					
DI20	1x00020 2x00020 I:19	0,0x00 B:00			BIT R/O	
	Actual state of DI20:0=OFF					

STATUS DIGITAL OUTPUTS						
DO1	1x00021 2x00021 I:20	0,0x00 B:00		1	BIT R/W	NO
		Actual 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		0	BIT R/W	NO
		Actual state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	1x00023 2x00023 I:22	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	1x00024 2x00024 I:23	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	1x00025 2x00025 I:24	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	1x00026 2x00026 I:25	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	1x00027 2x00027 I:26	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	1x00028 2x00028 I:27	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	1x00029 2x00029 I:28	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	1x00030 2x00030 I:29	0,0x00 B:00		0	BIT R/W	NO
		Actual state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		

DO11	1x00031 2x00031 I:30	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO11:0=OFF			ENTER NEW STATE (0 or 1)		
DO12	1x00032 2x00032 I:31	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO12:0=OFF			ENTER NEW STATE (0 or 1)		
DO13	1x00033 2x00033 I:32	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO13:0=OFF			ENTER NEW STATE (0 or 1)		
DO14	1x00034 2x00034 I:33	0,0x00 B:00		0	BIT R/W	NO
	Actual 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
	Actual 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
	Actual state of DO16:0=OFF			ENTER NEW STATE (0 or 1)		
DIGITAL INPUTS: RESET						
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.						
STATUS REAL DIGITAL INPUTS						
DI1	1x15001 2x14001 I:15000	0,0x00 B:00			BIT R/O	
	Actual state of DI1:0=OFF					
Current state of the digital input DIx with the internal software filter to suppress glitches or spike on this line =0:DI is OFF, =1:DI is ON						
DI2	1x15002 2x15002 I:15001	0,0x00 B:00			BIT R/O	
	Actual state of DI2:0=OFF					
DI3	1x15003 2x15003 I:15002	0,0x00 B:00			BIT R/O	
	Actual state of DI3:0=OFF					

DI4	1x15004 2x15004 I:15003	0,0x00 B:00			BIT R/O	
	Actual state of DI4:0=OFF					
DI5	1x15005 2x15005 I:15004	0,0x00 B:00			BIT R/O	
	Actual state of DI5:0=OFF					
DI6	1x15006 2x15006 I:15005	0,0x00 B:00			BIT R/O	
	Actual state of DI6:0=OFF					
DI7	1x15007 2x15007 I:15006	0,0x00 B:00			BIT R/O	
	Actual state of DI7:0=OFF					
DI8	1x15008 2x15008 I:15007	0,0x00 B:00			BIT R/O	
	Actual state of DI8:0=OFF					
DI9	1x15009 2x15009 I:15008	0,0x00 B:00			BIT R/O	
	Actual state of DI9:0=OFF					
DI10	1x15010 2x15010 I:15009	0,0x00 B:00			BIT R/O	
	Actual state of DI10:0=OFF					
DI11	1x15011 2x15011 I:15010	0,0x00 B:00			BIT R/O	
	Actual state of DI11:0=OFF					
DI12	1x15012 2x15012 I:15011	0,0x00 B:00			BIT R/O	
	Actual state of DI12:0=OFF					
DI13	1x15013 2x15013 I:15012	0,0x00 B:00			BIT R/O	
	Actual state of DI13:0=OFF					
DI14	1x15014 2x15014 I:15013	0,0x00 B:00			BIT R/O	
	Actual state of DI14:0=OFF					

DI15	1x15015 2x15015 I:15014	0,0x00 B:00			BIT R/O	
Actual state of DI15:0=OFF						
DI16	1x15016 2x15016 I:15015	0,0x00 B:00			BIT R/O	
Actual state of DI16:0=OFF						
DI17	1x15017 2x15017 I:15016	0,0x00 B:00			BIT R/O	
Actual state of DI17:0=OFF						
DI18	1x15018 2x15018 I:15017	0,0x00 B:00			BIT R/O	
Actual state of DI18:0=OFF						
DI19	1x15019 2x15019 I:15018	0,0x00 B:00			BIT R/O	
Actual state of DI19:0=OFF						
DI20	1x15020 2x15020 I:15019	0,0x00 B:00			BIT R/O	
Actual state of DI20:0=OFF						
STATUS DIGITAL INPUTS						
UNFILTERED DI1	1x15021 2x15021 I:15020	0,0x00 B:00			BIT R/O	
Actual state of UNFILTERED DI1:0=OFF						
Current state of the real digital input DIx without the internal software filter to suppress glitches or spike on thie line =0:DI is OFF, =1:DI is ON						
UNFILTERED DI2	1x15022 2x15022 I:15021	0,0x00 B:00			BIT R/O	
Actual state of UNFILTERED DI2:0=OFF						
UNFILTERED DI3	1x15023 2x15023 I:15022	0,0x00 B:00			BIT R/O	
Actual state of UNFILTERED DI3:0=OFF						
UNFILTERED DI4	1x15024 2x15024 I:15023	0,0x00 B:00			BIT R/O	
Actual state of UNFILTERED DI4:0=OFF						

UNFILTERED DI5	1x15025 2x15025 I:15024	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI5:0=OFF					
UNFILTERED DI6	1x15026 2x15026 I:15025	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI6:0=OFF					
UNFILTERED DI7	1x15027 2x15027 I:15026	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI7:0=OFF					
UNFILTERED DI8	1x15028 2x15028 I:15027	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI8:0=OFF					
UNFILTERED DI9	1x15029 2x15029 I:15028	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI9:0=OFF					
UNFILTERED DI10	1x15030 2x15030 I:15029	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI10:0=OFF					
UNFILTERED DI11	1x15031 2x15031 I:15030	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI11:0=OFF					
UNFILTERED DI12	1x15032 2x15032 I:15031	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI12:0=OFF					
UNFILTERED DI13	1x15033 2x15033 I:15032	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI13:0=OFF					
UNFILTERED DI14	1x15034 2x15034 I:15033	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI14:0=OFF					
UNFILTERED DI15	1x15035 2x15035 I:15034	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI15:0=OFF					

UNFILTERED DI16	1x15036 2x15036 I:15035	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI16:0=OFF					
UNFILTERED DI17	1x15037 2x15037 I:15036	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI17:0=OFF					
UNFILTERED DI18	1x15038 2x15038 I:15037	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI18:0=OFF					
UNFILTERED DI19	1x15039 2x15039 I:15038	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI19:0=OFF					
UNFILTERED DI20	1x15040 2x15040 I:15039	0,0x00 B:00			BIT R/O	
	Actual state of UNFILTERED DI20:0=OFF					
STATUS DIGITAL OUTPUTS						
DO1	1x16001 2x16001 I:16000	0,0x00 B:00		1	BIT R/W	NO
	Actual 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	1x16002 2x16002 I:16001	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO2:0=OFF				ENTER NEW STATE (0 or 1)	
DO3	1x16003 2x16003 I:16002	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO3:0=OFF				ENTER NEW STATE (0 or 1)	
DO4	1x16004 2x16004 I:16003	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO4:0=OFF				ENTER NEW STATE (0 or 1)	
DO5	1x16005 2x16005 I:16004	0,0x00 B:00		0	BIT R/W	NO
	Actual state of DO5:0=OFF				ENTER NEW STATE (0 or 1)	

DO6	1x16006 2x16006 I:16005	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	1x16007 2x16007 I:16006	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	1x16008 2x16008 I:16007	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	1x16009 2x16009 I:16008	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	1x16010 2x16010 I:16009	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	1x16011 2x16011 I:16010	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	1x16012 2x16012 I:16011	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	1x16013 2x16013 I:16012	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	1x16014 2x16014 I:16013	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	1x16015 2x16015 I:16014	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	1x16016 2x16016 I:16015	0,0x00 B:00	0	BIT R/W	NO
	Actual state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
DIGITAL INPUTS: DIGITAL INPUT HAS CHANGED IT'S STATE						
DI HAS CHANGED DI1	1x20001 2x20001 I:20000	0,0x00 B:00			BIT R/O	
If the digital input has changed this bit inverts its last state						
DI HAS CHANGED DI2	1x20002 2x20002 I:20001	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI3	1x20003 2x20003 I:20002	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI4	1x20004 2x20004 I:20003	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI5	1x20005 2x20005 I:20004	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI6	1x20006 2x20006 I:20005	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI7	1x20007 2x20007 I:20006	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI8	1x20008 2x20008 I:20007	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI9	1x20009 2x20009 I:20008	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI10	1x20010 2x20010 I:20009	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI11	1x20011 2x20011 I:20010	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI12	1x20012 2x20012 I:20011	0,0x00 B:00			BIT R/O	

DI HAS CHANGED DI13	1x20013 2x20013 I:20012	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI14	1x20014 2x20014 I:20013	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI15	1x20015 2x20015 I:20014	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI16	1x20016 2x20016 I:20015	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI17	1x20017 2x20017 I:20016	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI18	1x20018 2x20018 I:20017	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI19	1x20019 2x20019 I:20018	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI20	1x20020 2x20020 I:20019	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: SHORT KEYPRESS EVENT ON DIGITAL INPUT DETECTED						
SHORT KEYPRESS ON DI1	1x20021 2x20021 I:20020	0,0x00 B:00			BIT R/O	
If a short keypress event was detected on the digital input this bit inverts its last state						
SHORT KEYPRESS ON DI2	1x20022 2x20022 I:20021	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI3	1x20023 2x20023 I:20022	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI4	1x20024 2x20024 I:20023	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI5	1x20025 2x20025 I:20024	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI6	1x20026 2x20026 I:20025	0,0x00 B:00			BIT R/O	

SHORT KEYPRESS ON DI7	1x20027 2x20027 I:20026	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI8	1x20028 2x20028 I:20027	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI9	1x20029 2x20029 I:20028	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI10	1x20030 2x20030 I:20029	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI11	1x20031 2x20031 I:20030	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI12	1x20032 2x20032 I:20031	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI13	1x20033 2x20033 I:20032	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI14	1x20034 2x20034 I:20033	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI15	1x20035 2x20035 I:20034	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI16	1x20036 2x20036 I:20035	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI17	1x20037 2x20037 I:20036	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI18	1x20038 2x20038 I:20037	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI19	1x20039 2x20039 I:20038	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI20	1x20040 2x20040 I:20039	0,0x00 B:00			BIT R/O	

DIGITAL INPUTS: LONG KEYPRESS START EVENT ON DIGITAL INPUT DETECTED

LONG KEYPRESS START ON DI1	1x20041 2x20041 I:20040	0,0x00 B:00			BIT R/O	
If a long keypress start event was detected on the digital input this bit inverts its last state						
LONG KEYPRESS START ON DI2	1x20042 2x20042 I:20041	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI3	1x20043 2x20043 I:20042	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI4	1x20044 2x20044 I:20043	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI5	1x20045 2x20045 I:20044	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI6	1x20046 2x20046 I:20045	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI7	1x20047 2x20047 I:20046	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI8	1x20048 2x20048 I:20047	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI9	1x20049 2x20049 I:20048	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI10	1x20050 2x20050 I:20049	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI11	1x20051 2x20051 I:20050	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI12	1x20052 2x20052 I:20051	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI13	1x20053 2x20053 I:20052	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI14	1x20054 2x20054 I:20053	0,0x00 B:00			BIT R/O	

LONG KEYPRESS START ON DI15	1x20055 2x20055 I:20054	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI16	1x20056 2x20056 I:20055	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI17	1x20057 2x20057 I:20056	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI18	1x20058 2x20058 I:20057	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI19	1x20059 2x20059 I:20058	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI20	1x20060 2x20060 I:20059	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: LONG KEYPRESS END EVENT ON DIGITAL INPUT DETECTED						
LONG KEYPRESS END ON DI1	1x20061 2x20061 I:20060	0,0x00 B:00			BIT R/O	
If a long keypress end event was detected on the digital input this bit inverts its last state						
LONG KEYPRESS END ON DI2	1x20062 2x20062 I:20061	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI3	1x20063 2x20063 I:20062	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI4	1x20064 2x20064 I:20063	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI5	1x20065 2x20065 I:20064	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI6	1x20066 2x20066 I:20065	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI7	1x20067 2x20067 I:20066	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI8	1x20068 2x20068 I:20067	0,0x00 B:00			BIT R/O	

LONG KEYPRESS END ON DI9	1x20069 2x20069 I:20068	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI10	1x20070 2x20070 I:20069	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI11	1x20071 2x20071 I:20070	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI12	1x20072 2x20072 I:20071	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI13	1x20073 2x20073 I:20072	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI14	1x20074 2x20074 I:20073	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI15	1x20075 2x20075 I:20074	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI16	1x20076 2x20076 I:20075	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI17	1x20077 2x20077 I:20076	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI18	1x20078 2x20078 I:20077	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI19	1x20079 2x20079 I:20078	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI20	1x20080 2x20080 I:20079	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: RISING EDGE ON DIGITAL INPUT DETECTED						
RISING EDGE ON DI1	1x20081 2x20081 I:20080	0,0x00 B:00			BIT R/O	
If a rising edge was detected on the digital input this bit inverts its last state						
RISING EDGE ON DI2	1x20082 2x20082 I:20081	0,0x00 B:00			BIT R/O	

RISING EDGE ON DI3	1x20083 2x20083 I:20082	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI4	1x20084 2x20084 I:20083	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI5	1x20085 2x20085 I:20084	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI6	1x20086 2x20086 I:20085	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI7	1x20087 2x20087 I:20086	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI8	1x20088 2x20088 I:20087	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI9	1x20089 2x20089 I:20088	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI10	1x20090 2x20090 I:20089	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI11	1x20091 2x20091 I:20090	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI12	1x20092 2x20092 I:20091	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI13	1x20093 2x20093 I:20092	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI14	1x20094 2x20094 I:20093	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI15	1x20095 2x20095 I:20094	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI16	1x20096 2x20096 I:20095	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI17	1x20097 2x20097 I:20096	0,0x00 B:00			BIT R/O	

RISING EDGE ON DI18	1x20098 2x20098 I:20097	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI19	1x20099 2x20099 I:20098	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI20	1x20100 2x20100 I:20099	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: FALLING EDGE ON DIGITAL INPUT DETECTED						
FALLING EDGE ON DI1	1x20101 2x20101 I:20100	0,0x00 B:00			BIT R/O	
If a falling edge was detected on the digital input this bit inverts its last state						
FALLING EDGE ON DI2	1x20102 2x20102 I:20101	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI3	1x20103 2x20103 I:20102	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI4	1x20104 2x20104 I:20103	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI5	1x20105 2x20105 I:20104	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI6	1x20106 2x20106 I:20105	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI7	1x20107 2x20107 I:20106	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI8	1x20108 2x20108 I:20107	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI9	1x20109 2x20109 I:20108	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI10	1x20110 2x20110 I:20109	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI11	1x20111 2x20111 I:20110	0,0x00 B:00			BIT R/O	

FALLING EDGE ON DI12	1x20112 2x20112 I:20111	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI13	1x20113 2x20113 I:20112	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI14	1x20114 2x20114 I:20113	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI15	1x20115 2x20115 I:20114	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI16	1x20116 2x20116 I:20115	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI17	1x20117 2x20117 I:20116	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI18	1x20118 2x20118 I:20117	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI19	1x20119 2x20119 I:20118	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI20	1x20120 2x20120 I:20119	0,0x00 B:00			BIT R/O	

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE	
STATUS DIGITAL INPUTS							
D11	3x00001 4x00001 I:0	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI1:0=OFF					
Current state of the digital input DIx =0:DI is OFF, =1:DI is ON							
D12	3x00002 4x00002 I:1	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI2:0=OFF					
D13	3x00003 4x00003 I:2	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI3:0=OFF					
D14	3x00004 4x00004 I:3	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI4:0=OFF					
D15	3x00005 4x00005 I:4	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI5:0=OFF					
D16	3x00006 4x00006 I:5	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI6:0=OFF					
D17	3x00007 4x00007 I:6	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI7:0=OFF					
D18	3x00008 4x00008 I:7	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI8:0=OFF					
D19	3x00009 4x00009 I:8	0,0x0000 B:00 00			UINT16 R/O		
		Actual state of DI9:0=OFF					

DI10	3x00010 4x00010 I:9	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI10:0=OFF					
DI11	3x00011 4x00011 I:10	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI11:0=OFF					
DI12	3x00012 4x00012 I:11	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI12:0=OFF					
DI13	3x00013 4x00013 I:12	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI13:0=OFF					
DI14	3x00014 4x00014 I:13	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI14:0=OFF					
DI15	3x00015 4x00015 I:14	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI15:0=OFF					
DI16	3x00016 4x00016 I:15	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI16:0=OFF					
DI17	3x00017 4x00017 I:16	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI17:0=OFF					
DI18	3x00018 4x00018 I:17	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI18:0=OFF					
DI19	3x00019 4x00019 I:18	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI19:0=OFF					
DI20	3x00020 4x00020 I:19	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI20:0=OFF					

STATUS DIGITAL OUTPUTS						
DO1	3x00021 4x00021 I:20	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Actual 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	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	3x00023 4x00023 I:22	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	3x00024 4x00024 I:23	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	3x00025 4x00025 I:24	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	3x00026 4x00026 I:25	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	3x00027 4x00027 I:26	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	3x00028 4x00028 I:27	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	3x00029 4x00029 I:28	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	3x00030 4x00030 I:29	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		

DO11	3x00031 4x00031 I:30	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	3x00032 4x00032 I:31	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	3x00033 4x00033 I:32	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	3x00034 4x00034 I:33	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	3x00035 4x00035 I:34	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	3x00036 4x00036 I:35	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		
DIGITAL INPUTS: RESET						
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	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
As soon as the module registers 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	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI1:0=OFF				
		Actual state of DI2:0=OFF				
		Actual state of DI3:0=OFF				
		Actual state of DI4:0=OFF				

		Actual state of DI5:0=OFF			
		Actual state of DI6:0=OFF			
		Actual state of DI7:0=OFF			
		Actual state of DI8:0=OFF			
		Actual state of DI9:0=OFF			
		Actual state of DI10:0=OFF			
		Actual state of DI11:0=OFF			
		Actual state of DI12:0=OFF			
		Actual state of DI13:0=OFF			
		Actual state of DI14:0=OFF			
		Actual state of DI15:0=OFF			
		Actual state of DI16:0=OFF			
Actual state of all digital inputs DI1..DI12 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	
		Actual state of DI17:0=OFF			
		Actual state of DI18:0=OFF			
		Actual state of DI19:0=OFF			
		Actual state of DI20:0=OFF			
Actual state of all digital inputs DI1..DI12 Bit 0: =0:DI17 is OFF, =1:DI17 is ON Bit 1: =0:DI18 is OFF, =1:DI18 is ON ... Bit 2: =0:DI19 is OFF, =1:DI19 is ON Bit 3: =0:DI20 is OFF, =1:DI20 is ON					
STATUS OF DIGITAL OUTPUTS					
STATUS OF ALL DOS DO1-DO16	3x10004 4x10004 I:10003	0,0x0000 B:00 00		0xFFFF UINT16 R/W	NO
		Actual state of DO1:0=OFF	1		
		Actual state of DO2:0=OFF	1		
		Actual state of DO3:0=OFF	1		
		Actual state of DO4:0=OFF	1		
		Actual state of DO5:0=OFF	1		
		Actual state of DO6:0=OFF	1		
		Actual state of DO7:0=OFF	1		
		Actual state of DO8:0=OFF	1		
		Actual state of DO9:0=OFF	1		
		Actual state of DO10:0=OFF	1		

	Actual state of DO11:0=OFF	1		
	Actual state of DO12:0=OFF	1		
	Actual state of DO13:0=OFF	1		
	Actual state of DO14:0=OFF	1		
	Actual state of DO15:0=OFF	1		
	Actual state of DO16:0=OFF	1		

Actual 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

STATUS OF DIGITAL OUTPUTS

REAL STATUS OF ALL DOS DO1-DO16	3x10501 4x10501 I:10500	0,0x0000 B:00 00		UINT16 R/O	
	Real state of DO1:0=OFF				
	Real state of DO2:0=OFF				
	Real state of DO3:0=OFF				
	Real state of DO4:0=OFF				
	Real state of DO5:0=OFF				
	Real state of DO6:0=OFF				
	Real state of DO7:0=OFF				
	Real state of DO8:0=OFF				
	Real state of DO9:0=OFF				
	Real state of DO10:0=OFF				
	Real state of DO11:0=OFF				
	Real state of DO12:0=OFF				
	Real state of DO13:0=OFF				
	Real state of DO14:0=OFF				
	Real state of DO15:0=OFF				
	Real state of DO16:0=OFF				

Actual state of all digital outputs in the DO chips

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

STATUS REAL DIGITAL INPUTS

DI1	3x15001 4x15001 I:15000	0,0x0000 B:00 00		UINT16 R/O	
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		Actual state of DI1:0=OFF				
Current state of the digital input DIx with the internal software filter to suppress glitches or spike on this line =0:DI is OFF, =1:DI is ON						
D12	3x15002 4x15002 I:15001	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI2:0=OFF				
D13	3x15003 4x15003 I:15002	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI3:0=OFF				
D14	3x15004 4x15004 I:15003	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI4:0=OFF				
D15	3x15005 4x15005 I:15004	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI5:0=OFF				
D16	3x15006 4x15006 I:15005	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI6:0=OFF				
D17	3x15007 4x15007 I:15006	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI7:0=OFF				
D18	3x15008 4x15008 I:15007	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI8:0=OFF				
D19	3x15009 4x15009 I:15008	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI9:0=OFF				
D110	3x15010 4x15010 I:15009	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI10:0=OFF				
D111	3x15011 4x15011 I:15010	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI11:0=OFF				

DI12	3x15012 4x15012 I:15011	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI12:0=OFF					
DI13	3x15013 4x15013 I:15012	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI13:0=OFF					
DI14	3x15014 4x15014 I:15013	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI14:0=OFF					
DI15	3x15015 4x15015 I:15014	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI15:0=OFF					
DI16	3x15016 4x15016 I:15015	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI16:0=OFF					
DI17	3x15017 4x15017 I:15016	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI17:0=OFF					
DI18	3x15018 4x15018 I:15017	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI18:0=OFF					
DI19	3x15019 4x15019 I:15018	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI19:0=OFF					
DI20	3x15020 4x15020 I:15019	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of DI20:0=OFF					
STATUS DIGITAL INPUTS						
UNFILTERED DI1	3x15021 4x15021 I:15020	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI1:0=OFF					
Current state of the real digital input DIx without the internal software filter to suppress glitches or spike on thie line =0:DI is OFF, =1:DI is ON						

UNFILTERED DI2	3x15022 4x15022 I:15021	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI2:0=OFF					
UNFILTERED DI3	3x15023 4x15023 I:15022	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI3:0=OFF					
UNFILTERED DI4	3x15024 4x15024 I:15023	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI4:0=OFF					
UNFILTERED DI5	3x15025 4x15025 I:15024	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI5:0=OFF					
UNFILTERED DI6	3x15026 4x15026 I:15025	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI6:0=OFF					
UNFILTERED DI7	3x15027 4x15027 I:15026	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI7:0=OFF					
UNFILTERED DI8	3x15028 4x15028 I:15027	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI8:0=OFF					
UNFILTERED DI9	3x15029 4x15029 I:15028	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI9:0=OFF					
UNFILTERED DI10	3x15030 4x15030 I:15029	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI10:0=OFF					
UNFILTERED DI11	3x15031 4x15031 I:15030	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI11:0=OFF					
UNFILTERED DI12	3x15032 4x15032 I:15031	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI12:0=OFF					

UNFILTERED DI13	3x15033 4x15033 I:15032	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI13:0=OFF					
UNFILTERED DI14	3x15034 4x15034 I:15033	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI14:0=OFF					
UNFILTERED DI15	3x15035 4x15035 I:15034	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI15:0=OFF					
UNFILTERED DI16	3x15036 4x15036 I:15035	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI16:0=OFF					
UNFILTERED DI17	3x15037 4x15037 I:15036	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI17:0=OFF					
UNFILTERED DI18	3x15038 4x15038 I:15037	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI18:0=OFF					
UNFILTERED DI19	3x15039 4x15039 I:15038	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI19:0=OFF					
UNFILTERED DI20	3x15040 4x15040 I:15039	0,0x0000 B:00 00			UINT16 R/O	
	Actual state of UNFILTERED DI20:0=OFF					
STATUS DIGITAL OUTPUTS						
DO1	3x16001 4x16001 I:16000	0,0x0000 B:00 00		1	UINT16 R/W	NO
	Actual 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	3x16002 4x16002 I:16001	0,0x0000 B:00 00		0	UINT16 R/W	NO
	Actual state of DO2:0=OFF				ENTER NEW STATE (0 or 1)	

DO3	3x16003 4x16003 I:16002	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	3x16004 4x16004 I:16003	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	3x16005 4x16005 I:16004	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	3x16006 4x16006 I:16005	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	3x16007 4x16007 I:16006	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	3x16008 4x16008 I:16007	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	3x16009 4x16009 I:16008	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	3x16010 4x16010 I:16009	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	3x16011 4x16011 I:16010	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	3x16012 4x16012 I:16011	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	3x16013 4x16013 I:16012	0,0x0000 B:00 00	0	UINT16 R/W	NO
	Actual state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		

DO14	3x16014 4x16014 I:16013	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	3x16015 4x16015 I:16014	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	3x16016 4x16016 I:16015	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
PULSE TIME FOR DIGITAL OUTPUTS						
PULSE TIME DO1	3x20001 4x20001 I:20000	0,0x0000 B:00 00	200	20,0	UINT16 R/W	YES
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	3x20002 4x20002 I:20001	0,0x0000 B:00 00	300	30,0	UINT16 R/W	NO
PULSE TIME DO3	3x20003 4x20003 I:20002	0,0x0000 B:00 00	400	40,0	UINT16 R/W	NO
PULSE TIME DO4	3x20004 4x20004 I:20003	0,0x0000 B:00 00	500	50,0	UINT16 R/W	NO
PULSE TIME DO5	3x20005 4x20005 I:20004	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO6	3x20006 4x20006 I:20005	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO7	3x20007 4x20007 I:20006	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO8	3x20008 4x20008 I:20007	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO9	3x20009 4x20009 I:20008	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO10	3x20010 4x20010 I:20009	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO11	3x20011 4x20011 I:20010	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO12	3x20012 4x20012 I:20011	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO

PULSE TIME DO13	3x20013 4x20013 I:20012	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO14	3x20014 4x20014 I:20013	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO15	3x20015 4x20015 I:20014	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO16	3x20016 4x20016 I:20015	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE STATUS FOR DIGITAL OUTPUTS						
PULSE TIMER DO1	3x21001 4x21001 I:21000	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	3x21003 4x21003 I:21002	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO3	3x21005 4x21005 I:21004	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO4	3x21007 4x21007 I:21006	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO5	3x21009 4x21009 I:21008	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO6	3x21011 4x21011 I:21010	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO7	3x21013 4x21013 I:21012	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO8	3x21015 4x21015 I:21014	0,0x00000000 B:00 00 00 00			UINT32 R/O	

		0,0 seconds			
PULSE TIMER DO9	3x21017 4x21017 I:21016	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO10	3x21019 4x21019 I:21018	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO11	3x21021 4x21021 I:21020	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO12	3x21023 4x21023 I:21022	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO13	3x21025 4x21025 I:21024	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO14	3x21027 4x21027 I:21026	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO15	3x21029 4x21029 I:21028	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO16	3x21031 4x21031 I:21030	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE STATUS FOR DIGITAL OUTPUTS					
PULSE TIMER DO1	3x21033 4x21033 I:21032	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	3x21035 4x21035 I:21034	0,0x00000000 B:00 00 00 00			UINT32R R/O
		0,0 seconds			

PULSE TIMER DO3	3x21037 4x21037 I:21036	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO4	3x21039 4x21039 I:21038	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO5	3x21041 4x21041 I:21040	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO6	3x21043 4x21043 I:21042	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO7	3x21045 4x21045 I:21044	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO8	3x21047 4x21047 I:21046	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO9	3x21049 4x21049 I:21048	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO10	3x21051 4x21051 I:21050	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO11	3x21053 4x21053 I:21052	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO12	3x21055 4x21055 I:21054	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO13	3x21057 4x21057 I:21056	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				

PULSE TIMER DO14	3x21059 4x21059 I:21058	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO15	3x21061 4x21061 I:21060	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO16	3x21063 4x21063 I:21062	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
FAN COIL #1						
FC1 MODE	3x40001 4x40001 I:40000	9999,0x270F B:27 0F		3:LEVEL 3	UINT16 R/W	YES
		Current mode of FC:9999->DEACTIVATED				
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						
FC1 PAUSE TIME	3x40002 4x40002 I:40001	3123,0x0C33 B:0C 33	5000	5,0	UINT16 R/W	NO
		3,123 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	7250,0x00001C52 B:00 00 1C 52	10000	10,0	UINT32 R/W	NO
		7,250 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	7250,0x00001C52 B:1C 52 00 00	10000	10,0	UINT32R R/W	NO
		7,250 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.						
FAN COIL #2						
FC2 MODE	3x40012 4x40021 I:40020	1000,0x03E8 B:03 E8		9999:DEACTIVATED	UINT16 R/W	YES
		Current mode of FC:1000->N/A				

Current mode for FAN COIL functionality on RO5, RO6 and RO7:

=9999: This function is not used

=0: All three ROs are OFF

=1: STAGE 1: RO9 is ON, RO10,RO11 are OFF

=2: STAGE 2: RO10 is ON, RO9,RO11 are OFF

=3: STAGE 3: RO11 is ON, RO9,RO10 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

FC2 PAUSE TIME	3x40013 4x40013 I:40012	0,0x0000 B:00 00	5000	5,0	UINT16 R/W	NO
		0,000 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)

FC2 STAGE TIME	3x40014 4x40014 I:40013	983055000,0x3A983A98 B:3A 98 3A 98	10000	10,0	UINT32 R/W	YES
		983055,000 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.

FC2 STAGE TIME	3x40016 4x40016 I:40015	0,0x00000000 B:00 00 00 00	10000	10,0	UINT32R R/W	NO
		0,000 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.

FAN COIL #3

FC3 MODE	3x40011 4x40011 I:40010	9999,0x270F B:27 0F		9999:DEACTIVATED	UINT16 R/W	YES
		Current mode of FC:9999->DEACTIVATED				

Current mode for FAN COIL functionality on RO5, RO6 and RO7:

=9999: This function is not used

=0: All three ROs are OFF

=1: STAGE 1: RO5 is ON, RO6,RO7 are OFF

=2: STAGE 2: RO6 is ON, RO5,RO7 are OFF

=3: STAGE 3: RO7 is ON, RO5,RO6 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

FC3 PAUSE TIME	3x40012 4x40012 I:40011	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)

FC3 STAGE TIME	3x40013 4x40013 I:40012	15000,0x00003A98 B:00 00 3A 98	10000	10,0	UINT32 R/W	YES
		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.

FC3 STAGE TIME	3x40015 4x40015 I:40014	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.						
FAN COIL #4						
FC4 MODE	3x40031 4x40031 I:40030	9999,0x270F B:27 0F		9999:DEACTIVATED	UINT16 R/W	YES
Current mode of FC:9999->DEACTIVATED						
Current mode for FAN COIL functionality on RO5, RO6 and RO7: =9999: This function is not used =0: All three ROs are OFF =1: STAGE 1: RO13 is ON, RO14,RO15 are OFF =2: STAGE 2: RO14 is ON, RO13,RO15 are OFF =3: STAGE 3: RO15 is ON, RO13,RO14 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						
FC4 PAUSE TIME	3x40032 4x40032 I:40031	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)						
FC4 STAGE TIME	3x40033 4x40033 I:40032	15000,0x00003A98 B:00 00 3A 98	10000	10,0	UINT32 R/W	YES
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.						
FC4 STAGE TIME	3x40035 4x40035 I:40034	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.						

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
DIGITAL INPUTS						
STATUS DI1 A	3x05001 4x05001 I:5000	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
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	3x05002 4x05002 I:5001	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
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	3x05003 4x05003 I:5002	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI2 B	3x05004 4x05004 I:5003	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI3 A	3x05005 4x05005 I:5004	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI3 B	3x05006 4x05006 I:5005	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI4 A	3x05007 4x05007 I:5006	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI4 B	3x05008 4x05008 I:5007	0,0x0000 B:00 00			UINT16 R/O	

		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI5 A	3x05009 4x05009 I:5008	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI5 B	3x05010 4x05010 I:5009	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI6 A	3x05011 4x05011 I:5010	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI6 B	3x05012 4x05012 I:5011	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI7 A	3x05013 4x05013 I:5012	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI7 B	3x05014 4x05014 I:5013	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI8 A	3x05015 4x05015 I:5014	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI8 B	3x05016 4x05016 I:5015	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI9 A	3x05017 4x05017 I:5016	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			
STATUS DI9 B	3x05018 4x05018 I:5017	0,0x0000 B:00 00			UINT16 R/O
		DI:0,SKE:0,LKSE:0,LKEE:0			
STATUS DI10 A	3x05019 4x05019 I:5018	0,0x0000 B:00 00			UINT16 R/O
		DI:0,CC:0,REC:0,FEC:0			

STATUS DI10 B	3x05020 4x05020 I:5019	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI11 A	3x05021 4x05021 I:5020	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI11 B	3x05022 4x05022 I:5021	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI12 A	3x05023 4x05023 I:5022	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI12 B	3x05024 4x05024 I:5023	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI13 A	3x05025 4x05025 I:5024	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI13 B	3x05026 4x05026 I:5025	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI14 A	3x05027 4x05027 I:5026	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI14 B	3x05028 4x05028 I:5027	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI15 A	3x05029 4x05029 I:5028	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI15 B	3x05030 4x05030 I:5029	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				

STATUS DI16 A	3x05031 4x05031 I:5030	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI16 B	3x05032 4x05032 I:5031	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI17 A	3x05033 4x05033 I:5032	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI17 B	3x05034 4x05034 I:5033	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI18 A	3x05035 4x05035 I:5034	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI18 B	3x05036 4x05036 I:5035	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI19 A	3x05037 4x05037 I:5036	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI19 B	3x05038 4x05038 I:5037	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI20 A	3x05039 4x05039 I:5038	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI20 B	3x05040 4x05040 I:5039	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS						
FILTER PATTERN DI1	3x05041 4x05041 I:5040	0,0x00000000 B:00 00 00 00			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	3x05043 4x05043 I:5042	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI3	3x05045 4x05045 I:5044	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI4	3x05047 4x05047 I:5046	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI5	3x05049 4x05049 I:5048	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI6	3x05051 4x05051 I:5050	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI7	3x05053 4x05053 I:5052	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI8	3x05055 4x05055 I:5054	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI9	3x05057 4x05057 I:5056	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI10	3x05059 4x05059 I:5058	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI11	3x05061 4x05061 I:5060	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI12	3x05063 4x05063 I:5062	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI13	3x05065 4x05065 I:5064	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI14	3x05067 4x05067 I:5066	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI15	3x05069 4x05069 I:5068	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI16	3x05071 4x05071 I:5070	0,0x00000000 B:00 00 00 00			UINT32 R/O	

FILTER PATTERN DI17	3x05073 4x05073 I:5072	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI18	3x05075 4x05075 I:5074	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI19	3x05077 4x05077 I:5076	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI20	3x05079 4x05079 I:5078	0,0x00000000 B:00 00 00 00			UINT32 R/O	
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI1						
RISE DI1	3x07001 4x07001 I:7000	0,0x0000 B:00 00			UINT16 R/O	
		0 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	3x07002 4x07002 I:7001	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	3x07003 4x07003 I:7002	0,0x0000 B:00 00			UINT16 R/O	
		0 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	3x07004 4x07004 I:7003	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	3x07005 4x07005 I:7004	0,0x0000 B:00 00			UINT16 R/O	
		0 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	3x07006 4x07006 I:7005	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.

DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI2

RISE DI2	3x07011 4x07011 I:7010	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

FALL DI2	3x07012 4x07012 I:7011	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

CHANGE DI2	3x07013 4x07013 I:7012	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

SHORT KEYPRESS DI2	3x07014 4x07014 I:7013	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS START DI2	3x07015 4x07015 I:7014	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS END DI2	3x07016 4x07016 I:7015	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI3

RISE DI3	3x07021 4x07021 I:7020	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

FALL DI3	3x07022 4x07022 I:7021	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

CHANGE DI3	3x07023 4x07023 I:7022	0,0x0000 B:00 00			UINT16 R/O	
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		0 event(s)				
SHORT KEYPRESS DI3	3x07024 4x07024 I:7023	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI3	3x07025 4x07025 I:7024	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI3	3x07026 4x07026 I:7025	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI4						
RISE DI4	3x07031 4x07031 I:7030	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI4	3x07032 4x07032 I:7031	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI4	3x07033 4x07033 I:7032	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI4	3x07034 4x07034 I:7033	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI4	3x07035 4x07035 I:7034	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI4	3x07036 4x07036 I:7035	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI5						
RISE DI5	3x07041 4x07041 I:7040	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI5	3x07042 4x07042 I:7041	0,0x0000 B:00 00			UINT16 R/O	

		0 event(s)				
CHANGE DI5	3x07043 4x07043 I:7042	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI5	3x07044 4x07044 I:7043	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI5	3x07045 4x07045 I:7044	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI5	3x07046 4x07046 I:7045	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI6						
RISE DI6	3x07051 4x07051 I:7050	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI6	3x07052 4x07052 I:7051	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI6	3x07053 4x07053 I:7052	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI6	3x07054 4x07054 I:7053	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI6	3x07055 4x07055 I:7054	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI6	3x07056 4x07056 I:7055	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI7						
RISE DI7	3x07061 4x07061 I:7060	0,0x0000 B:00 00			UINT16 R/O	

		0 event(s)				
FALL DI7	3x07062 4x07062 I:7061	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI7	3x07063 4x07063 I:7062	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI7	3x07064 4x07064 I:7063	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI7	3x07065 4x07065 I:7064	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI7	3x07066 4x07066 I:7065	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI8						
RISE DI8	3x07071 4x07071 I:7070	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI8	3x07072 4x07072 I:7071	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI8	3x07073 4x07073 I:7072	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI8	3x07074 4x07074 I:7073	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI8	3x07075 4x07075 I:7074	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI8	3x07076 4x07076 I:7075	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI9						
RISE DI9	3x07081 4x07081 I:7080	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI9	3x07082 4x07082 I:7081	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI9	3x07083 4x07083 I:7082	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI9	3x07084 4x07084 I:7083	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI9	3x07085 4x07085 I:7084	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI9	3x07086 4x07086 I:7085	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI10						
RISE DI10	3x07091 4x07091 I:7090	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI10	3x07092 4x07092 I:7091	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI10	3x07093 4x07093 I:7092	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI10	3x07094 4x07094 I:7093	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI10	3x07095 4x07095 I:7094	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS END DI10	3x07096 4x07096 I:7095	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI11						
RISE DI11	3x07101 4x07101 I:7100	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI11	3x07102 4x07102 I:7101	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI11	3x07103 4x07103 I:7102	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI11	3x07104 4x07104 I:7103	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI11	3x07105 4x07105 I:7104	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI11	3x07106 4x07106 I:7105	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI12						
RISE DI12	3x07111 4x07111 I:7110	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI12	3x07112 4x07112 I:7111	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI12	3x07113 4x07113 I:7112	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI12	3x07114 4x07114 I:7113	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS START DI12	3x07115 4x07115 I:7114	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI12	3x07116 4x07116 I:7115	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI13						
RISE DI13	3x07121 4x07121 I:7120	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI13	3x07122 4x07122 I:7121	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI13	3x07123 4x07123 I:7122	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI13	3x07124 4x07124 I:7123	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI13	3x07125 4x07125 I:7124	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI13	3x07126 4x07126 I:7125	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI14						
RISE DI14	3x07131 4x07131 I:7130	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI14	3x07132 4x07132 I:7131	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI14	3x07133 4x07133 I:7132	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

SHORT KEYPRESS DI14	3x07134 4x07134 I:7133	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI14	3x07135 4x07135 I:7134	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI14	3x07136 4x07136 I:7135	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI15						
RISE DI15	3x07141 4x07141 I:7140	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI15	3x07142 4x07142 I:7141	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI15	3x07143 4x07143 I:7142	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI15	3x07144 4x07144 I:7143	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI15	3x07145 4x07145 I:7144	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI15	3x07146 4x07146 I:7145	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI16						
RISE DI16	3x07151 4x07151 I:7150	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI16	3x07152 4x07152 I:7151	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

CHANGE DI16	3x07153 4x07153 I:7152	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI16	3x07154 4x07154 I:7153	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI16	3x07155 4x07155 I:7154	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI16	3x07156 4x07156 I:7155	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI17						
RISE DI17	3x07161 4x07161 I:7160	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI17	3x07162 4x07162 I:7161	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI17	3x07163 4x07163 I:7162	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI17	3x07164 4x07164 I:7163	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI17	3x07165 4x07165 I:7164	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI17	3x07166 4x07166 I:7165	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI18						
RISE DI18	3x07171 4x07171 I:7170	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

FALL DI18	3x07172 4x07172 I:7171	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI18	3x07173 4x07173 I:7172	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI18	3x07174 4x07174 I:7173	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI18	3x07175 4x07175 I:7174	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI18	3x07176 4x07176 I:7175	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI19						
RISE DI19	3x07181 4x07181 I:7180	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI19	3x07182 4x07182 I:7181	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI19	3x07183 4x07183 I:7182	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI19	3x07184 4x07184 I:7183	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI19	3x07185 4x07185 I:7184	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI19	3x07186 4x07186 I:7185	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI20						

RISE DI20	3x07191 4x07191 I:7190	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI20	3x07192 4x07192 I:7191	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI20	3x07193 4x07193 I:7192	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI20	3x07194 4x07194 I:7193	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI20	3x07195 4x07195 I:7194	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI20	3x07196 4x07196 I:7195	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
INITIAL & WATCHDOG STATUS FOR ALL DIGITAL OUTPUTS						
FRAM INTIAL & WATCHDOG STATUS OF DO1-DO16	3x59001 4x59001 1:59000	0,0x0000 B:00 00		0xFFFF	UINT16 R/W	YES
		Actual init & watchdog state of DO1:0=OFF		1		
		Actual init & watchdog state of DO2:0=OFF		1		
		Actual init & watchdog state of DO3:0=OFF		1		
		Actual init & watchdog state of DO4:0=OFF		1		
		Actual init & watchdog state of DO5:0=OFF		1		
		Actual init & watchdog state of DO6:0=OFF		1		
		Actual init & watchdog state of DO7:0=OFF		1		
		Actual init & watchdog state of DO8:0=OFF		1		
		Actual init & watchdog state of DO9:0=OFF		1		
		Actual init & watchdog state of DO10:0=OFF		1		
		Actual init & watchdog state of DO11:0=OFF		1		
		Actual init & watchdog state of DO12:0=OFF		1		
		Actual init & watchdog state of DO13:0=OFF		1		
		Actual init & watchdog state of DO14:0=OFF		1		
		Actual init & watchdog state of DO15:0=OFF		1		
		Actual init & watchdog state of DO16:0=OFF		1		
<p>Current FRAM setting of 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>Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM</p>						