

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS				
HEART BEAT	ASCII READ COMMAND	#HB<CR> Result: #HB<CR>	ASCII	
	TX	#255,HB<CR>		
	RX	#255,HB<CR>		
Sends an Heartbeat to test the communication				
GET VERSION	ASCII READ COMMAND	#VERSION<CR> Result: #VERSION:<VersionHi>,<VersionMed>,<VersionLo><CR>	ASCII	
	TX	#255,VERSION<CR>		
	RX	#255,VERSION:1.1.0<CR>		
		Actual SW version:1.1.0		
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	#255,TYPE<CR>		
	RX	#255,TYPE:RESI-C4-A<CR>		
		Actual module type:RESI-C4-A		
Returns the actual module type				
GET FEATURES	ASCII READ COMMAND	#FTRS<CR> Result: #FTRS:<Type><CR>	ASCII	
	TX	#255,FTRS<CR>		
	RX	#255,FTRS:RESI-C4-A,RS485<CR>		
		Actual module type:RESI-C4-A		
		Number of digital inputs:RS485		
		Type of digital inputs:N/A		
Returns the actual module features				
GET OWNER	ASCII READ COMMAND	#OWNER<CR> Result: #OWNER:<Owner><CR>	ASCII	
	TX	#255,OWNER<CR>		
	RX	#255,OWNER:RESI<CR>		
		Actual owner:RESI		
Returns the actual owner of the module				

GET CREATOR	ASCII READ COMMAND	#CREATOR<CR> Result: #CREATOR:<Creator><CR>	ASCII	
	TX	#255,CREATOR<CR>		
	RX	#255,CREATOR:DI HC SIGL,MSC<CR>		
		Actual creator:DI HC SIGL,MSC		
Returns the actual creator of the module				
GET COPYRIGHT	ASCII READ COMMAND	#COPYRIGHT<CR> Result: #COPYRIGHT:<Copyright><CR>	ASCII	
	TX	#255,COPYRIGHT<CR>		
	RX	#255,COPYRIGHT:2015-24 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC<CR>		
		Actual copyright:2015-24 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC		
Returns the actual copyright of the module				
GET SERIAL NUMBER	ASCII READ COMMAND	#SN<CR> Result: #SN:<Serial><CR>	ASCII	
	TX	#255,SN<CR>		
	RX	#255,SN:220018001357435031343620<CR>		
		Actual serial number:220018001357435031343620		
Returns the actual serial number of the module				
SET BOX NAME	ASCII WRITE COMMAND BOXNAME	#SETBOXNAME:<BOXNAME><CR> Result: #OK<CR> MYBOX	ASCII	YES
	TX	#255,SETBOXNAME:MYBOX<CR>		
	RX	N/A		
Sets a new box name for the controller				
GET BOX NAME	ASCII READ COMMAND	#BOXNAME<CR> Result: #BOXNAME:<BoxName><CR>	ASCII	
	TX	#255,BOXNAME<CR>		
	RX	#255,BOXNAME:NONAME<CR>		
		Actual box name:NONAME		
Returns the actual box name of the module. If no box name is defined, the value NONAME is returned				
GET INTERNAL STATUS	ASCII READ COMMAND	#INTSTAT<CR> Result: #INTSTAT:<Status><CR>	ASCII	
	TX	#255,INTSTAT<CR>		
	RX	#255,INTSTAT:I2C1:0,I2C2:0<CR>		
		Actual internal status:I2C1		
Returns the device specific internal status				

GET DIP SWITCH	ASCII READ COMMAND	#GDIP<CR> Result: #GDIP:<DIPSwitchDec>,<DIPSwitchHex><CR>	ASCII	
	TX	#255,GDIP<CR>		
	RX	#255,GDIP:255,0xFF<CR>		
		Actual DIP SWITCH settings:11111111		
Returns the actual 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 (=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)				
SYSTEM COMMANDS				
RESET	ASCII WRITE COMMAND	#RST<CR> Result: #OK<CR>	ASCII	NO
	TX	#255,RST<CR>		
	RX	N/A		
Executes a software reset (Reboot) of the module. Be aware that you will lose all serial interfaces in USB!!!				
FACTORY RESET	ASCII WRITE COMMAND	#FRST<CR> Result: #OK<CR>	ASCII	NO
	TX	#255,FRST<CR>		
	RX	N/A		
Executes a factory reset of the module				
WATCHDOG TIMER	ASCII WRITE COMMAND	#WD:<WDTIME><CR> Result: #OK<CR>	ASCII	NO
	WDTIME	10		
	TX	#255,WD:10<CR>		
	RX	N/A		
Enables or disables the WATCHDOG Timer for the Raspberry Pi module. WDTIME: 1..3600000: Time for Watchdog in Milliseconds (Maximum 60 Minutes) =0: No Watchdog is generated HINT: The Watchdog is internally handled every 10ms, so every value below 10 will reset immediately the Raspberry Pi computer.				
SET IO WATCHDOG TIMER	ASCII WRITE COMMAND	#SIOWATCHDOG:<IOWDTIME><CR> Result: #OK<CR>	ASCII	NO
	IOWDTIME	10		
	TX	#255,SIOWATCHDOG:10<CR>		

	RX	N/A		
Sets a new time for the internal IO WATCHDOG Timer. <IOWDTIME> is a time in 100ms. =0: No IO Watchdog is used HINT: The Watchdog is internally handled every 100ms, if the Timer reaches 0, all internal IOS will be set to a preconfigured state. Every ASCII command or MODBUS request will reset this timer.				
GET IO WATCHDOG TIMER	ASCII READ COMMAND	#GIOWATCHDOG<CR> Result: #GIOWATCHDOG::<IOWDTIME><CR>	ASCII	
	TX	#255,GIOWATCHDOG<CR>		
	RX	#255,GIOWATCHDOG:0,0x0<CR>		
Returns the actual time for the internal IO WATCHDOG Timer. <IOWDTIME> is a time in 100ms. =0: No IO Watchdog is used HINT: The Watchdog is internally handled every 100ms, if the Timer reaches 0, all internal IOS will be set to a preconfigured state. Every ASCII command or MODBUS request will reset this timer.				
CPU PARAMETERS				
GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUTEMP<CR> Result: #GCPUTEMP:<CPUTemp><CR>	ASCII	
	TX	#255,GCPUTEMP<CR>		
	RX	#255,GCPUTEMP:54.3877<CR>		
		Actual internal temperature of CPU:54.3877°C		
Current internal temperature of CPU in ° Celsius.				
GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUVOLT<CR> Result: #GCPUVOLT:<CPUVoltage><CR>	ASCII	
	TX	#255,GCPUVOLT<CR>		
	RX	#255,GCPUVOLT:3.3364<CR>		
		Actual supply voltage of CPU:3.3364V		
Current internal supply voltage of CPU in Volt.				
GET CPU BACKUP	ASCII READ COMMAND	#GCPUBACK<CR> Result: #GCPUBACK:<CPUBackupVoltage><CR>	ASCII	
	TX	#255,GCPUBACK<CR>		
	RX	#255,GCPUBACK:3.1871<CR>		
		Actual backup voltage of CPU for RTC:3.1871V		
Current internal backup voltage of CPU for the RTC in Volt.				

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS:REAL TIME CLOCK				
GET REAL TIME CLOCK	ASCII READ COMMAND	#GRTC<CR> Result: #GRTC:YMD,<YEAR>,<MONTH>,<DAY>,HMS,<HOUR>,<MINUTE>,<SECOND>,<WEEKDAY> ,DOK,<DATEOK>,TOK,<TIMEOK><CR>	ASCII	
	TX	#255,GRTC<CR>		
	RX	#255,GRTC:YMD,24,1,1,HMS,0,3,3,MON,DOK,1,TOK,1<CR>		
		Actual date DD.MM.YYYY:1.1.2024		
		Actual time HH.MM.SS (24h):00:03:03		
		Actual Weekday:MON		
		Battery buffered date is ok:YES		
		Battery buffered time is ok:YES		
Shows current RTC time of battery backup RTC on module				
ASCII COMMANDS:REAL TIME CLOCK				
SET REAL TIME CLOCK	ASCII WRITE COMMAND	#SRTC:YMD,<YEAR>,<MONTH>,<DAY>,HMS,<HOUR>,<MINUTE>,<SECOND>,<WEEKDAY><CR> Result: #OK<CR>	ASCII	YES
	YEAR	2024		
	MONTH	04		
	DAY	13		
	HOUR	18		
	MINUTE	12		
	SECOND	38		
	WEEKDAY	SAT		
	TX	#255,SRTC:YMD,24,04,13,HMS,18,12,38,SAT<CR>		
	RX	N/A		
Executes a software reset (Reboot) of the module.				

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS:FRAM				
GET FRAMSIZE	ASCII READ COMMAND	#GFRAMSIZE <CR> Result: #GFRAMSIZE:<FRAMType>,<FRAMSize>,<UsedSizeDEC>,<UsedSizeHEX> <CR>	ASCII	
	TX	#255,GFRAMSIZE <CR>		
	RX	#255,GFRAMSIZE:FM25L16B_G,2kB,2,0x2 <CR>		
Reads the actual type and size of the used FRAM. The <UsedSize> describes the internal used space in bytes of the FRAM				
ASCII COMMANDS:FRAM				
GET FRAM16	ASCII READ COMMAND	#GFRAM16:<INDEX> <CR> Result: #GFRAM16:<INDEXDEC>,<VALUEDEC>,<INDEXHEX>,<VALUEHEX> <CR> or #GFRAM16:<INDEXDEC>,<ERR>,<INDEXHEX>,<ERR><CR>	ASCII	
	INDEX	350		
	TX	#255,GFRAM16:350 <CR>		
	RX	#255,GFRAM16:350,0,0x15E,0x0 <CR>		
		FRAM Index in bytes:350		
		FRAM Value in decimal:0		
Reads the actual UINT16 value (2 bytes) of FRAM memory <INDEX>. <INDEX> is a BYTE index in the FRAM strogae starting with 0.				
GET FRAM32	ASCII READ COMMAND	#GFRAM32:<INDEX> <CR> Result: #GFRAM32:<INDEXDEC>,<VALUEDEC>,<INDEXHEX>,<VALUEHEX> <CR> or #GFRAM32:<INDEXDEC>,<ERR>,<INDEXHEX>,<ERR><CR>	ASCII	
	INDEX	350		
	TX	#255,GFRAM32:350 <CR>		
	RX	#255,GFRAM32:350,0,0x15E,0x0 <CR>		
		FRAM Index in bytes:350		
		FRAM Value in decimal:0		
Reads the actual UINT32 value 4 bytes) of FRAM memory <INDEX>. <INDEX> is a BYTE index in the FRAM strogae starting with 0.				
GET FRAMDBL	ASCII READ COMMAND	#GFRAMDBL:<INDEX> <CR> Result: #GFRAMDBL:<INDEXDEC>,<VALUEDBL>,<INDEXHEX>,<VALUEDBL> <CR> or #GFRAMDBL:<INDEXDEC>,<ERR>,<INDEXHEX>,<ERR><CR>	ASCII	
	INDEX	400		
	TX	#255,GFRAMDBL:400 <CR>		
	RX	#255,GFRAMDBL:400,0,0x190,0 <CR>		
		FRAM Index in bytes:400		
		FRAM Value in decimal:0		
Reads the actual DOUBLE value 8 bytes) of FRAM memory <INDEX>. <INDEX> is a BYTE index in the FRAM strogae starting with 0.				
ASCII COMMANDS:FRAM				

SET FRAM16	ASCII WRITE COMMAND	#SFRAM16:<INDEX>,<VALUE><CR> Result: #SFRAM16:OK<CR> or #SFRAM16:ERR<CR>	ASCII	YES
	INDEX	350		
	VALUE	1234		
	TX	#255,SFRAM16:350,1234<CR>		
	RX	N/A		
Writes a new UINT16 value (2 byte) into FRAM memory <INDEX>. <INDEX> is a BYTE index in the FRAM strogae starting with 0.				
SET FRAM32	ASCII WRITE COMMAND	#SFRAM32:<INDEX>,<VALUE><CR> Result: #SFRAM32:OK<CR> or #SFRAM32:ERR<CR>	ASCII	YES
	INDEX	350		
	VALUE	123456		
	TX	#255,SFRAM32:350,123456<CR>		
	RX	N/A		
Writes a new UINT32 value (4 byte) into FRAM memory <INDEX>. <INDEX> is a BYTE index in the FRAM strogae starting with 0.				
SET FRAMDBL	ASCII WRITE COMMAND	#SFRAMDBL:<INDEX>,<DOUBLEVALUE><CR> Result: #SFRAMDBL:OK<CR> or #SERAMDBL:ERR<CR>	ASCII	YES
	INDEX	400		
	DOUBLEVALUE	3,1415926		
	TX	#255,SFRAMDBL:400,3.1415926<CR>		
	RX	N/A		
Writes a new DOUBLE value (8 byte) into FRAM memory <INDEX>. <INDEX> is a BYTE index in the FRAM strogae starting with 0.				

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
LED STATUS:LED1:GREEN				
GET LED1	ASCII READ COMMAND	#GLED1<CR> Result: #GLED1:<LEDMoDe>,<LEDStateDec>,<LEDStateHex> <CR>	ASCII	
	TX	#255,GLED1<CR>		
	RX	#255,GLED1:OFF,0,0x0<CR>		
		Actual LED state:OFF LED ist currently 0		
Returns the actual state of the LED1:GREEN on the cover of module				
LED COMMANDS:LED1:GREEN				
SET LED1 OFF	ASCII WRITE COMMAND	#SL1OFF<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL1OFF<CR>		
	RX	N/A		
Sets the current state of the LED1:GREEN on the cover of module to OFF				
SET LED1 ON	ASCII WRITE COMMAND	#SL1ON<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL1ON<CR>		
	RX	N/A		
Sets the current state of the LED1:GREEN on the cover of module to ON				
SET LED1 INVERT	ASCII WRITE COMMAND	#SL1INV<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL1INV<CR>		
	RX	N/A		
Inverts the current state of the LED1:GREEN on the cover of module from ON to OFF or from OFF to ON				
SET LED1 PULSE	ASCII WRITE COMMAND	#SL1PULSE:<PULSETIME> <CR> Result: #OK<CR>	ASCII	YES
	PULSETIME	1000		
	TX	#255,SL1PULSE:1000<CR>		
	RX	N/A		
Sets the current state of the LED1:GREEN on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000				
SET LED1 BLINK	ASCII WRITE COMMAND	#SL1BLINK:<BLINKTIME> <CR> Result: #OK<CR>	ASCII	YES
	BLINKTIME	1000		
	TX	#255,SL1BLINK:1000<CR>		
	RX	N/A		

Sets the current state of the LED1:GREEN on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000

SET LED1 FLASH	ASCII WRITE COMMAND	#SL1FLASH:<ONTIME>,<OFFTIME><CR> Result: #OK<CR>	ASCII	YES
	ONTIME	200		
	OFFTIME	3000		
	TX	#255,SL1FLASH:200,3000<CR>		
	RX	N/A		

Sets the current state of the LED1:GREEN on the cover of module to FLASH and defines the on and off intervals in Milliseconds between 20 and 600000

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
LED STATUS:LED2:WHITE				
GET LED2	ASCII READ COMMAND	#GLED2<CR> Result: #GLED2:<LEDMode>,<LEDStateDec>,<LEDStateHex><CR>	ASCII	
	TX	#255,GLED2<CR>		
	RX	#255,GLED2:OFF,0,0x0<CR>		
		Actual LED state:OFF LED ist currently 0		
Returns the actual state of the LED2:WHITE on the cover of module				
LED COMMANDS:LED2:WHITE				
SET LED2 OFF	ASCII WRITE COMMAND	#SL2OFF<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL2OFF<CR>		
	RX	N/A		
Sets the current state of the LED2:WHITE on the cover of module to OFF				
SET LED2 ON	ASCII WRITE COMMAND	#SL2ON<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL2ON<CR>		
	RX	N/A		
Sets the current state of the LED2:WHITE on the cover of module to ON				
SET LED2 INVERT	ASCII WRITE COMMAND	#SL2INV<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL2INV<CR>		
	RX	N/A		
Inverts the current state of the LED2:WHITE on the cover of module from ON to OFF or from OFF to ON				
SET LED2 PULSE	ASCII WRITE COMMAND	#SL2PULSE:<PULSETIME><CR> Result: #OK<CR>	ASCII	YES
	PULSETIME	1000		
	TX	#255,SL2PULSE:1000<CR>		
	RX	N/A		
Sets the current state of the LED2:WHITE on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000				
SET LED2 BLINK	ASCII WRITE COMMAND	#SL2BLINK:<BLINKTIME><CR> Result: #OK<CR>	ASCII	YES
	BLINKTIME	1000		
	TX	#255,SL2BLINK:1000<CR>		
	RX	N/A		

Sets the current state of the LED2:WHITE on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000

SET LED2 FLASH	ASCII WRITE COMMAND	#SL2FLASH:<ONTIME>,<OFFTIME><CR> Result: #OK<CR>	ASCII	YES
	ONTIME	200		
	OFFTIME	3000		
	TX	#255,SL2FLASH:200,3000<CR>		
	RX	N/A		

Sets the current state of the LED2:WHITE on the cover of module to FLASH and defines the on and off intervals in Milliseconds between 20 and 600000

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
LED STATUS:LED3:RED				
GET LED3	ASCII READ COMMAND	#GLED3<CR> Result: #GLED3:<LEDMode>,<LEDStateDec>,<LEDStateHex><CR>	ASCII	
	TX	#255,GLED3<CR>		
	RX	#255,GLED3:OFF,0,0x0<CR>		
		Actual LED state:OFF LED ist currently 0		
Returns the actual state of the LED3:RED on the cover of module				
LED COMMANDS:LED3:RED				
SET LED3 OFF	ASCII WRITE COMMAND	#SL3OFF<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL3OFF<CR>		
	RX	N/A		
Sets the current state of the LED3:RED on the cover of module to OFF				
SET LED3 ON	ASCII WRITE COMMAND	#SL3ON<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL3ON<CR>		
	RX	N/A		
Sets the current state of the LED3:RED on the cover of module to ON				
SET LED3 INVERT	ASCII WRITE COMMAND	#SL3INV<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL3INV<CR>		
	RX	N/A		
Inverts the current state of the LED3:RED on the cover of module from ON to OFF or from OFF to ON				
SET LED3 PULSE	ASCII WRITE COMMAND	#SL3PULSE:<PULSETIME><CR> Result: #OK<CR>	ASCII	YES
	PULSETIME	1000		
	TX	#255,SL3PULSE:1000<CR>		
	RX	N/A		
Sets the current state of the LED3:RED on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000				
SET LED3 BLINK	ASCII WRITE COMMAND	#SL3BLINK:<BLINKTIME><CR> Result: #OK<CR>	ASCII	YES
	BLINKTIME	1000		
	TX	#255,SL3BLINK:1000<CR>		
	RX	N/A		

Sets the current state of the LED3:RED on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000

SET LED3 FLASH	ASCII WRITE COMMAND	#SL3FLASH:<ONTIME>,<OFFTIME><CR> Result: #OK<CR>	ASCII	YES
	ONTIME	200		
	OFFTIME	3000		
	TX	#255,SL3FLASH:200,3000<CR>		
	RX	N/A		

Sets the current state of the LED3:RED on the cover of module to FLASH and defines the on and off intervals in Milliseconds between 20 and 600000

Register NAME	MODBUS Register	Register VALUE	DATA TYPE	DO WRITE
LED STATUS:LED4:YELLOW				
GET LED4	ASCII READ COMMAND	#GLED4<CR> Result: #GLED4:<LEDMode>,<LEDStateDec>,<LEDStateHex><CR>	ASCII	
	TX	#255,GLED4<CR>		
	RX	#255,GLED4:OFF,0,0x0<CR>		
		Actual LED state:OFF LED ist currently 0		
Returns the actual state of the LED4:YELLOW on the cover of module				
LED COMMANDS:LED4:YELLOW				
SET LED4 OFF	ASCII WRITE COMMAND	#SL4OFF<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL4OFF<CR>		
	RX	N/A		
Sets the current state of the LED4:YELLOW on the cover of module to OFF				
SET LED4 ON	ASCII WRITE COMMAND	#SL4ON<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL4ON<CR>		
	RX	N/A		
Sets the current state of the LED4:YELLOW on the cover of module to ON				
SET LED4 INVERT	ASCII WRITE COMMAND	#SL4INV<CR> Result: #OK<CR>	ASCII	YES
	TX	#255,SL4INV<CR>		
	RX	N/A		
Inverts the current state of the LED4:YELLOW on the cover of module from ON to OFF or from OFF to ON				
SET LED4 PULSE	ASCII WRITE COMMAND	#SL4PULSE:<PULSETIME><CR> Result: #OK<CR>	ASCII	YES
	PULSETIME	1000		
	TX	#255,SL4PULSE:1000<CR>		
	RX	N/A		
Sets the current state of the LED4:YELLOW on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000				
SET LED4 BLINK	ASCII WRITE COMMAND	#SL4BLINK:<BLINKTIME><CR> Result: #OK<CR>	ASCII	YES
	BLINKTIME	1000		
	TX	#255,SL4BLINK:1000<CR>		
	RX	N/A		

Sets the current state of the LED4:YELLOW on the cover of module to PULSE and defines the one time pulse duration in Milliseconds between 1 and 60000

SET LED4 FLASH	ASCII WRITE COMMAND	#SL4FLASH:<ONTIME>,<OFFTIME><CR> Result: #OK<CR>	ASCII	YES
	ONTIME	200		
	OFFTIME	3000		
	TX	#255,SL4FLASH:200,3000<CR>		
	RX	N/A		

Sets the current state of the LED4:YELLOW on the cover of module to FLASH and defines the on and off intervals in Milliseconds between 20 and 600000

Register NAME	MODBUS Register	Register VALUE	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
PRODUCT INFO						
HW_GROUP	3x65201 4x65201 I:65200	50176,0xC400 B:C4 00			UINT16 R/O	
This is the group of hardware of the current product						
HW_TYPE	3x65202 4x65202 I:65201	1,0x0001 B:00 01			UINT16 R/O	
This is the type of hardware of the current product						
SW_VERSION	3x65203 4x65203 I:65202	272,0x0110 B:01 10			UINT16 R/O	
SW VERSION:0.1.0						
This is the current software version of the firmware						
SW_AUTHOR	3x65204 4x65204 I:65203	21321,0x5349 B:53 49			UINT16 R/O	
This is the current software author of the firmware						
MANUFACTURER	3x65205 4x65205 I:65204	1380275017,0x52455349 B:52 45 53 49			UINT32 R/O	
This is the current software author of the firmware						
NUMBER OF DIGITAL INPUTS	3x65207 4x65207 I:65206	0,0x0000 B:00 00			UINT16 R/O	
Number of DIS:0						
This is the current software version of the firmware						
NUMBER OF DIGITAL OUTPUTS	3x65208 4x65208 I:65207	0,0x0000 B:00 00			UINT16 R/O	
Number of DOS:0						
This is the current software version of the firmware						
NUMBER OF ANALOG INPUTS	3x65209 4x65209 I:65208	0,0x0000 B:00 00			UINT16 R/O	
Number of AIS:0						
This is the current software version of the firmware						
NUMBER OF ANALOG OUTPUTS	3x65210 4x65210 I:65209	0,0x0000 B:00 00			UINT16 R/O	
Number of AOS:0						

This is the current software version of the firmware

NUMBER OF UNIVERSAL IN/OUTPUTS	3x65211 4x65211 I:65210	0,0x0000 B:00 00			UINT16 R/O	
		Number of AIOX:0				

This is the current software version of the firmware

NUMBER OF SPECIAL INPUTS	3x65212 4x65212 I:65211	0,0x0000 B:00 00			UINT16 R/O	
		Number of special inputs:0				

This is the current software version of the firmware

NUMBER OF SPECIAL OUTPUTS	3x65213 4x65213 I:65212	0,0x0000 B:00 00			UINT16 R/O	
		Number of special outputs:0				

This is the current software version of the firmware

FEATURE1	3x65214 4x65214 I:65213	2,0x0002 B:00 02			UINT16 R/O	
		Feature:RS485				

This is the feature list of the controller:

0:NONE, 1:RS232, 2:RS485, 3:KNX, 4:DALI, 5:MBUS, 6:LORA, 7:LTE, 8:2xETHERNET

FEATURE2	3x65215 4x65215 I:65214	0,0x0000 B:00 00			UINT16 R/O	
		Feature:NONE				
FEATURE3	3x65216 4x65216 I:65215	0,0x0000 B:00 00			UINT16 R/O	
		Feature:NONE				
FEATURE4	3x65217 4x65217 I:65216	0,0x0000 B:00 00			UINT16 R/O	
		Feature:NONE				
FEATURE5	3x65218 4x65218 I:65217	0,0x0000 B:00 00			UINT16 R/O	
		Feature:NONE				
FEATURE6	3x65219 4x65219 I:65218	0,0x0000 B:00 00			UINT16 R/O	
		Feature:NONE				
FEATURE7	3x65220 4x65220 I:65219	0,0x0000 B:00 00			UINT16 R/O	

		Feature:NONE				
FEATURE8	3x65221 4x65221 I:65220	0,0x0000 B:00 00			UINT16 R/O	
		Feature:NONE				
MODBUS WATCHDOG						
MODBUS WATCHDOG TIME	3x65222 4x65222 I:65221	0,0x0000 B:00 00		50	UINT16 R/W	NO
		Actual watchdog time in 1/100s:0 -> 0,0s				
<p>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</p> <p>In case of an communication watchdog, the module sets all outputs to the states defined in the configuration output registers</p> <p>Reading this register will return the current stored time from the internal FRAM</p>						
RASPBERRY PI WATCHDOG TIMER	3x65223 4x65223 I:65222	0,0x0000 B:00 00		50	UINT16 R/W	NO
		remaining watchdog time in 10ms:0 -> 0,000s				
<p>Enables or disables the WATCHDOG Timer for the Raspberry Pi module. 1..65535: Time for Watchdog in x10 Milliseconds (Maximum 655,35 seconds) =0: No Watchdog is generated</p>						
FRAM						
GET FRAM TYPE	3x65224 4x65224 I:65223	2,0x0002 B:00 02			UINT16 R/O	
		FRAM size & type:FM25L16 2kB				
<p>Returns the current type of the FRAM and its total size =2:FM25L16B_G, 2kB =64:FM25V05, 64kB =128:FM25V10, 128kB</p>						
GET FRAM USED BYTES	3x65225 4x65225 I:65224	166,0x00A6 B:00 A6			UINT16 R/O	
		FRAM used bytes:166				
Returns the amount of used bytes from system in FRAM						
RTC REAL TIME CLOCK						
RTC YEAR	3x65231 4x65231 I:65230	24,0x0018 B:00 18		24	UINT16 R/W	NO
		Actual RTC year:24				
<p>Returns the actual year of the internal real time clock in the range of 24 to 99. Writing to this register prepares the setting of a new time.</p>						

RTC MONTH	3x65232 4x65232 l:65231	2,0x0002 B:00 02		1		UINT16 R/W	NO
		Actual RTC month:2					
Returns the actual month of the internal real time clock in the range of 1 to 12 Writing to this register prepares the setting of a new time.							
RTC DAY	3x65233 4x65233 l:65232	29,0x001D B:00 1D		1		UINT16 R/W	NO
		Actual RTC day:29					
Returns the actual day of the internal real time clock in the range of 1 to 31 Writing to this register prepares the setting of a new time.							
RTC HOUR	3x65234 4x65234 l:65233	18,0x0012 B:00 12		12		UINT16 R/W	NO
		Actual RTC month:18					
Returns the actual hour of the internal real time clock in the range of 0 to 23 Writing to this register prepares the setting of a new time.							
RTC MINUTE	3x65235 4x65235 l:65234	0,0x0000 B:00 00		45		UINT16 R/W	NO
		Actual RTC hour:0					
Returns the actual minute of the internal real time clock in the range of 0 to 59 Writing to this register prepares the setting of a new time.							
RTC SECOND	3x65236 4x65236 l:65235	23,0x0017 B:00 17		30		UINT16 R/W	NO
		Actual RTC second:23					
Returns the actual second of the internal real time clock in the range of 0 to 59 Writing to this register prepares the setting of a new time.							
RTC DAY OF WEEK	3x65237 4x65237 l:65236	4,0x0004 B:00 04		5:FRIDAY		UINT16 R/W	NO
		Actual RTC week day:THU		SELECT DAY OF WEEK			
Returns the actual day of week in the range 1 to 7 1:MON, 2:TUE, 3:WED, 4:THU, 5:FRI, 6:SAT, 7:SUN Writing to this register writes a new date and time and weekday to the RTC							
DIP SWITCH STATUS							
DIP SWITCH	3x65501 4x65501 l:65500	85,0x0055 B:00 55				UINT16 R/O	

Returns the actual 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)

CPU DATA

SERIAL1	3x65521 4x65521 I:65520	34,0x0022 B:00 22		UINT16 R/O	
Serial number of module as 96 bit unsigned integer number					
SERIAL2	3x65522 4x65522 I:65521	24,0x0018 B:00 18		UINT16 R/O	
SERIAL3	3x65523 4x65523 I:65522	22291,0x5713 B:57 13		UINT16 R/O	
SERIAL4	3x65524 4x65524 I:65523	20547,0x5043 B:50 43		UINT16 R/O	
SERIAL5	3x65525 4x65525 I:65524	13361,0x3431 B:34 31		UINT16 R/O	
SERIAL6	3x65526 4x65526 I:65525	8246,0x2036 B:20 36		UINT16 R/O	
		SERIAL:220018001357435031343620			
Serial number of module as 96 bit unsigned integer number					
CPU TEMPERATURE	3x65527 4x65527 I:65526	5061,0x13C5 B:13 C5		UINT16 R/O	
		Actual internal temperature of CPU:50,61°C			
Current internal temperature of CPU in ° Celsius multiplied by 100.					
CPU VOLTAGE	3x65528 4x65528 I:65527	333,0x014D B:01 4D		UINT16 R/O	
		Actual supply voltage of CPU:3,33V			
Current internal supply voltage of CPU in Volt multiplied by 1000.					
CPU BACKUP	3x65529 4x65529 I:65528	311,0x0137 B:01 37		UINT16 R/O	
		Actual backup voltage of CPU for RTC:3,11V			
Current internal backup voltage of CPU for RTC in Volt multiplied by 1000.					

RESETs

RASPBERRY PI RESET	3x65534 4x65534 I:65533	0,0x00 B:00 00		1:PERFORM RASPBERRY PI RESET	BIT R/W	NO
Resets the Raspberry Pi						
RASPBERRY PI RESET	3x65534 4x65534 I:65533	0,0x0000 B:00 00		1:PERFORM RASPBERRY PI RESET	UINT16 R/W	NO
Resets the Raspberry Pi						
FACTORY RESET	1x65535 2x65535 I:65534	0,0x00 B:00		1:PERFORM FACTORY RESET	BIT R/W	NO
Performs a factory reset of all internal saved parameters						
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						
RESET	1x65536 2x65536 I:65535	0,0x00 B:00		1:PERFORM ARM RESET	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). Be aware that you will lose all serial interfaces in USB!!!						
RESET	3x65536 4x65535 I:65535	0,0x0000 B:00 00		1:PERFORM ARM RESET	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). Be aware that you will lose all serial interfaces in USB!!!						

Register NAME	MODBUS Register	Register VALUE	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
DIP SWITCH STATUS						
DIP SWITCH DIP1	1x65001 2x65001 I:65000	????			BIT R/O	
Returns the actual setting of the Dip switches. =0: DIP is OFF =1: DIP is ON						
DIP SWITCH DIP2	1x65002 2x65002 I:65001	????			BIT R/O	
DIP SWITCH DIP3	1x65003 2x65003 I:65002	????			BIT R/O	
DIP SWITCH DIP4	1x65004 2x65004 I:65003	????			BIT R/O	
DIP SWITCH DIP5	1x65005 2x65005 I:65004	????			BIT R/O	
DIP SWITCH DIP6	1x65006 2x65006 I:65005	????			BIT R/O	
DIP SWITCH DIP7	1x65007 2x65007 I:65006	????			BIT R/O	
DIP SWITCH DIP8	1x65008 2x65008 I:65007	????			BIT R/O	
LED1:GREEN						
LED1:GREEN SET TO OFF	1x65009 2x65009 I:65008	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to OFF						
LED1:GREEN SET TO ON	1x65010 2x65010 I:65009	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to ON						
LED1:GREEN INVERT LED STATE	1x65011 2x65011 I:65010	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil inverts the actual LED state						
LED1:GREEN BLINK	1x65012 2x65012 I:65011	????		N/A:DO NOTHING	BIT W/O	NO

Writing 1 to this coil start symmetrical blinking of LED with last defined time						
LED1:GREEN FLASH	1x65013 2x65013 I:65012	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with last defined times						
LED1:GREEN PULSE	1x65014 2x65014 I:65013	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with last defined time						
LED1:GREEN BLINK 5s	1x65015 2x65015 I:65014	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 5s ON-5s OFF cycle						
LED1:GREEN BLINK 1s	1x65016 2x65016 I:65015	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 1s ON-1s OFF cycle						
LED1:GREEN BLINK 250ms	1x65017 2x65017 I:65016	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 250ms ON-250ms OFF cycle						
LED1:GREEN BLINK 50ms	1x65018 2x65018 I:65017	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 50ms ON-50ms OFF cycle						
LED1:GREEN FLASH 5s-1s	1x65019 2x65019 I:65018	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 5s ON-1s OFF cycle						
LED1:GREEN FLASH 1s-250ms	1x65020 2x65020 I:65019	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 1s ON-250ms OFF cycle						
LED1:GREEN FLASH 500ms-100ms	1x65021 2x65021 I:65020	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 500ms ON-100ms OFF cycle						
LED1:GREEN FLASH 300ms-50ms	1x65022 2x65022 I:65021	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 300ms ON-50ms OFF cycle						
LED1:GREEN PULSE 1s	1x65023 2x65023 I:65022	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 1s ON						

LED1:GREEN PULSE 500ms	1x65024 2x65024 I:65023	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 500ms ON						
LED1:GREEN PULSE 250ms	1x65025 2x65025 I:65024	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 250ms ON						
LED1:GREEN PULSE 100ms	1x65026 2x65026 I:65025	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 100ms ON						
LED1:GREEN PULSE 20ms	1x65027 2x65027 I:65026	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 20ms ON						
LED2:WHITE						
LED2:WHITE SET TO OFF	1x65029 2x65029 I:65028	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to OFF						
LED2:WHITE SET TO ON	1x65030 2x65030 I:65029	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to ON						
LED2:WHITE INVERT LED STATE	1x65031 2x65031 I:65030	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil inverts the actual LED state						
LED2:WHITE BLINK	1x65032 2x65032 I:65031	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with last defined time						
LED2:WHITE FLASH	1x65033 2x65033 I:65032	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with last defined times						
LED2:WHITE PULSE	1x65034 2x65034 I:65033	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with last defined time						
LED2:WHITE BLINK 5s	1x65035 2x65035 I:65034	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 5s ON-5s OFF cycle						

LED2:WHITE BLINK 1s	1x65036 2x65036 I:65035	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 1s ON-1s OFF cycle						
LED2:WHITE BLINK 250ms	1x65037 2x65037 I:65036	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 250ms ON-250ms OFF cycle						
LED2:WHITE BLINK 50ms	1x65038 2x65038 I:65037	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 50ms ON-50ms OFF cycle						
LED2:WHITE FLASH 5s-1s	1x65039 2x65039 I:65038	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 5s ON-1s OFF cycle						
LED2:WHITE FLASH 1s-250ms	1x65040 2x65040 I:65039	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 1s ON-250ms OFF cycle						
LED2:WHITE FLASH 500ms-100ms	1x65041 2x65041 I:65040	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 500ms ON-100ms OFF cycle						
LED2:WHITE FLASH 300ms-50ms	1x65042 2x65042 I:65041	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 300ms ON-50ms OFF cycle						
LED2:WHITE PULSE 1s	1x65043 2x65043 I:65042	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 1s ON						
LED2:WHITE PULSE 500ms	1x65044 2x65044 I:65043	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 500ms ON						
LED2:WHITE PULSE 250ms	1x65045 2x65045 I:65044	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 250ms ON						
LED2:WHITE PULSE 100ms	1x65046 2x65046 I:65045	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 100ms ON						

LED2:WHITE PULSE 20ms	1x65047 2x65047 I:65046	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 20ms ON						
LED3:RED						
LED3:RED SET TO OFF	1x65049 2x65049 I:65048	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to OFF						
LED3:RED SET TO ON	1x65050 2x65050 I:65049	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to ON						
LED3:RED INVERT LED STATE	1x65051 2x65051 I:65050	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil inverts the actual LED state						
LED3:RED BLINK	1x65052 2x65052 I:65051	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with last defined time						
LED3:RED FLASH	1x65053 2x65053 I:65052	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with last defined times						
LED3:RED PULSE	1x65054 2x65054 I:65053	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with last defined time						
LED3:RED BLINK 5s	1x65055 2x65055 I:65054	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 5s ON-5s OFF cycle						
LED3:RED BLINK 1s	1x65056 2x65056 I:65055	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 1s ON-1s OFF cycle						
LED3:RED BLINK 250ms	1x65057 2x65057 I:65056	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 250ms ON-250ms OFF cycle						
LED3:RED BLINK 50ms	1x65058 2x65058 I:65057	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 50ms ON-50ms OFF cycle						

LED3:RED FLASH 5s-1s	1x65059 2x65059 I:65058	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 5s ON-1s OFF cycle						
LED3:RED FLASH 1s-250ms	1x65060 2x65060 I:65059	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 1s ON-250ms OFF cycle						
LED3:RED FLASH 500ms-100ms	1x65061 2x65061 I:65060	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 500ms ON-100ms OFF cycle						
LED3:RED FLASH 300ms-50ms	1x65062 2x65062 I:65061	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 300ms ON-50ms OFF cycle						
LED3:RED PULSE 1s	1x65063 2x65063 I:65062	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 1s ON						
LED3:RED PULSE 500ms	1x65064 2x65064 I:65063	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 500ms ON						
LED3:RED PULSE 250ms	1x65065 2x65065 I:65064	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 250ms ON						
LED3:RED PULSE 100ms	1x65066 2x65066 I:65065	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 100ms ON						
LED3:RED PULSE 20ms	1x65067 2x65067 I:65066	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 20ms ON						
LED4:YELLOW						
LED4:YELLOW SET TO OFF	1x65069 2x65069 I:65068	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to OFF						
LED4:YELLOW SET TO ON	1x65070 2x65070 I:65069	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil sets the LED to ON						

LED4:YELLOW INVERT LED STATE	1x65071 2x65071 I:65070	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil inverts the actual LED state						
LED4:YELLOW BLINK	1x65072 2x65072 I:65071	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with last defined time						
LED4:YELLOW FLASH	1x65073 2x65073 I:65072	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with last defined times						
LED4:YELLOW PULSE	1x65074 2x65074 I:65073	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with last defined time						
LED4:YELLOW BLINK 5s	1x65075 2x65075 I:65074	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 5s ON-5s OFF cycle						
LED4:YELLOW BLINK 1s	1x65076 2x65076 I:65075	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 1s ON-1s OFF cycle						
LED4:YELLOW BLINK 250ms	1x65077 2x65077 I:65076	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 250ms ON-250ms OFF cycle						
LED4:YELLOW BLINK 50ms	1x65078 2x65078 I:65077	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start symmetrical blinking of LED with 50ms ON-50ms OFF cycle						
LED4:YELLOW FLASH 5s-1s	1x65079 2x65079 I:65078	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 5s ON-1s OFF cycle						
LED4:YELLOW FLASH 1s-250ms	1x65080 2x65080 I:65079	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 1s ON-250ms OFF cycle						
LED4:YELLOW FLASH 500ms-100ms	1x65081 2x65081 I:65080	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 500ms ON-100ms OFF cycle						

LED4:YELLOW FLASH 300ms-50ms	1x65082 2x65082 I:65081	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start asymmetrical flashing of LED with 300ms ON-50ms OFF cycle						
LED4:YELLOW PULSE 1s	1x65083 2x65083 I:65082	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 1s ON						
LED4:YELLOW PULSE 500ms	1x65084 2x65084 I:65083	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 500ms ON						
LED4:YELLOW PULSE 250ms	1x65085 2x65085 I:65084	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 250ms ON						
LED4:YELLOW PULSE 100ms	1x65086 2x65086 I:65085	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 100ms ON						
LED4:YELLOW PULSE 20ms	1x65087 2x65087 I:65086	????		N/A:DO NOTHING	BIT W/O	NO
Writing 1 to this coil start one time pulse of LED with 20ms ON						
DIP SWITCH STATUS						
DIP SWITCH	3x65501 4x65501 I:65500	????			UINT16 R/O	
Returns the actual 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)						
LED1:GREEN						
LED1:GREEN STATE	3x65502 4x65502 I:65501	????		1:SET TO ON	UINT16 R/W	NO
		State of LED:????				

Returns the actual state of the LED

Writing to this register will set a new state for the LED

0: Switch LED permanent OFF

1: Switch LED permanent ON

2: Invert last state of LED

3: Start symmetrical blinking of LED with TIME1 ON and TIME1 OFF

4: Start asymmetrical flashing of LED with TIME1 ON and TIME2 OFF

5: Start one time pulse of LED with TIME1 ON and infinite OFF

LED1:GREEN TIME1	3x65503 4x65503 1:65502	????		1000	UINT16 R/W	YES
		Actual time 1 in ms:0				

Returns the actual time1 for blink,flash and pulse ON time in Milliseconds

Writing to this register sets a new time in the range 20-65534ms

LED1:GREEN TIME2	3x65504 4x65504 1:65503	????		2000	UINT16 R/W	YES
		Actual time 2 in ms:0				

Returns the actual time2 for blink and flash OFF time in Milliseconds

Writing to this register sets a new time in the range 20-65534ms

LED2:WHITE

LED2:WHITE STATE	3x65505 4x65505 1:65504	????		1:SET TO ON	UINT16 R/W	NO
		State of LED:????				

Returns the actual state of the LED

Writing to this register will set a new state for the LED

0: Switch LED permanent OFF

1: Switch LED permanent ON

2: Invert last state of LED

3: Start symmetrical blinking of LED with TIME1 ON and TIME1 OFF

4: Start asymmetrical flashing of LED with TIME1 ON and TIME2 OFF

5: Start one time pulse of LED with TIME1 ON and infinite OFF

LED2:WHITE TIME1	3x65506 4x65506 1:65505	????		1000	UINT16 R/W	YES
		Actual time 1 in ms:0				

Returns the actual time1 for blink,flash and pulse ON time in Milliseconds

Writing to this register sets a new time in the range 20-65534ms

LED2:WHITE TIME2	3x65507 4x65507 1:65506	????		2000	UINT16 R/W	YES
		Actual time 2 in ms:0				

Returns the actual time2 for blink and flash OFF time in Milliseconds

Writing to this register sets a new time in the range 20-65534ms

LED3:RED

LED3:RED STATE	3x65508 4x65508 1:65507	????		1:SET TO ON	UINT16 R/W	NO
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		State of LED:????				
Returns the actual state of the LED Writing to this register will set a new state for the LED 0: Switch LED permanent OFF 1: Switch LED permanent ON 2: Invert last state of LED 3: Start symmetrical blinking of LED with TIME1 ON and TIME1 OFF 4: Start asymmetrical flashing of LED with TIME1 ON and TIME2 OFF 5: Start one time pulse of LED with TIME1 ON and infinite OFF						
LED3:RED TIME1	3x65509 4x65509 1:65508	????		1000	UINT16 R/W	YES
		Actual time 1 in ms:0				
Returns the actual time1 for blink,flash and pulse ON time in Milliseconds Writing to this register sets a new time in the range 20-65534ms						
LED3:RED TIME2	3x65510 4x65510 1:65509	????		2000	UINT16 R/W	YES
		Actual time 2 in ms:0				
Returns the actual time2 for blink and flash OFF time in Milliseconds Writing to this register sets a new time in the range 20-65534ms						
LED4:YELLOW						
LED4:YELLOW STATE	3x65511 4x65511 1:65510	????		1:SET TO ON	UINT16 R/W	NO
		State of LED:????				
Returns the actual state of the LED Writing to this register will set a new state for the LED 0: Switch LED permanent OFF 1: Switch LED permanent ON 2: Invert last state of LED 3: Start symmetrical blinking of LED with TIME1 ON and TIME1 OFF 4: Start asymmetrical flashing of LED with TIME1 ON and TIME2 OFF 5: Start one time pulse of LED with TIME1 ON and infinite OFF						
LED4:YELLOW TIME1	3x65512 4x65512 1:65511	????		1000	UINT16 R/W	YES
		Actual time 1 in ms:0				
Returns the actual time1 for blink,flash and pulse ON time in Milliseconds Writing to this register sets a new time in the range 20-65534ms						
LED4:YELLOW TIME2	3x65513 4x65513 1:65512	????		2000	UINT16 R/W	YES
		Actual time 2 in ms:0				
Returns the actual time2 for blink and flash OFF time in Milliseconds Writing to this register sets a new time in the range 20-65534ms						

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	#255,GDIS<CR>				
	RX	#255,GDIS:0,0x0<CR>				
		Actual status of digital inputs:0000.0000.0000.0000.0000.0000.0000.0000				
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 29: State of DI30 (=0:OFF, =1:ON) Bit 30: State of DI31 (=0:OFF, =1:ON) Bit 31: State of DI32 (=0:OFF, =1:ON)						
GET DIGITAL INPUT DIx	ASCII READ COMMAND	#GDI<DINR><CR> Result: #GDI<DINR>:<DlxDec>,<DlxHex><CR>			ASCII	
	DINR	1				
	TX	#255,GDI1<CR>				
	RX	#255,GDI1:0,0x0<CR>				
		Actual status of digital input DI1:0=OFF				
<DINR>: 1=DI1..32=DI32						
Returns the actual state of the digital input DIx as decimal number and as hexadecimal number. DlxDec, DlxHex: 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	#255,GAC<CR>				
	RX	#255,GAC:64,0x40<CR>				
		Actual change counter:64				
Returns the counter for changes on all digital inputs. As soon as the module detects a short keypress or long key press or long key release event, this counter is incremented by 1. If this values has changed since the last polling request, the host knows, that at least one digital input has changed its state.						

<PART>: 1..2, 1=DI1-DI16, 2=DI17-DI32

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 Dlx	ASCII READ COMMAND	#FDI<DINR> <CR> Result: #FDI<DINR>:<FallDec>, <FallHex> <CR>	ASCII	
	DINR	1		
	TX	#255,FDI1<CR>		
	RX	#255,FDI1:3,0x3 <CR>		
		Actual counter for falling edges on digital input DI1:3		

<DINR>: 1=DI1..32=DI32

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	#255,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	#255,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	#255,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				
	DO17	0:OFF				
	DO18	0:OFF				
	DO19	0:OFF				
	DO20	0:OFF				
	DO21	0:OFF				
	DO22	0:OFF				
	DO23	0:OFF				
	DO24	0:OFF				
	DO25	0:OFF				
	DO26	0:OFF				
	DO27	0:OFF				
	DO28	0:OFF				
	DO29	0:OFF				
	DO30	0:OFF				
	TX	#255,UDIOS:0<CR>				
	RX	#255,UDIOS:0,0xFFFFFFFF <CR>				
		Actual status of digital inputs:1111.1111.1111.1111.1111.1111.1111.1111				

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

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 27: State of DO28 (=0:OFF, =1:ON)

Bit 28: State of DO29 (=0:OFF, =1:ON)

Bit 29: State of DO30 (=0:OFF, =1:ON)

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 29: State of DI30 (=0:OFF, =1:ON)

Bit 30: State of DI31 (=0:OFF, =1:ON)

Bit 31: State of DI32 (=0:OFF, =1:ON)

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		
	DO17	0:OFF		
	DO18	0:OFF		
	DO19	0:OFF		
	DO20	0:OFF		
	DO21	0:OFF		
	DO22	0:OFF		
	DO23	0:OFF		
	DO24	0:OFF		
	DO25	0:OFF		

	DO26	0:OFF		
	DO27	0:OFF		
	DO28	0:OFF		
	DO29	0:OFF		
	DO30	0:OFF		
	TX	#255,SDOS:0<CR>		
	RX	#255,OK<CR>		

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 27: State of DO28 (=0:OFF, =1:ON)

Bit 28: State of DO29 (=0:OFF, =1:ON)

Bit 29: State of DO30 (=0:OFF, =1:ON)

SET DIGITAL OUTPUT DOx	ASCII WRITE COMMAND	#SDO<DONR>:<Out> <CR> Result: #OK<CR>	ASCII	NO
	DONR	2		
	DOx	0:OFF		
	TX	#255,SDO2:0<CR>		
	RX	N/A		

<DONR>: 1=DO1..30=DO30

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

GET DIGITAL OUTPUTS	ASCII READ COMMAND	#GDOS<CR> Result: #GDOS:<DOSDec>,<DOSHex> <CR>	ASCII	
	TX	#255,GDOS<CR>		
	RX	#255,GDOS:0,0x0<CR>		
		Actual status of digital outputs:00.0000.0000.0000.0000.0000.0000.0000		

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 27: State of DO28 (=0:OFF, =1:ON)

Bit 28: State of DO29 (=0:OFF, =1:ON)

Bit 29: State of DO30 (=0:OFF, =1:ON)

GET DIGITAL OUTPUT DOx	ASCII READ COMMAND	#GDO<DONR> <CR> Result: #GDO<DONR>:<DOxDec>,<DOxHex> <CR>	ASCII	
	DONR	2		
	TX	#255,GDO2 <CR>		
	RX	#255,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	#255,PDO2:200 <CR>		
	RX	#255,OK <CR>		

<DONR>: 1=DO1..30=DO30

<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	#255,GPT2 <CR>		
	RX	#255,GPT2:19937,0x4DE1 <CR>		
		Actual pulse time for DO2:19,9s		

<DONR>: 1=DO1..30=DO30

Returns the remaining timer value of the pulse for digital output DOx in ms.

PulseTimeInMSDec, PulseTimeInMSHex

The remaining time of the pulse in Milliseconds

Command NAME	ASCII command type	ASCII command structure	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
DIGITAL OUTPUTS						
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION WHILE ON						
SET DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE ON	ASCII WRITE COMMAND	#SDOEOWDONS:<OpenWireDOS> <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				
	DO17	0:OFF				
	DO18	0:OFF				
	DO19	0:OFF				
	DO20	0:OFF				
	DO21	0:OFF				
	DO22	0:OFF				
	DO23	0:OFF				
	DO24	0:OFF				
	DO25	0:OFF				
	DO26	0:OFF				
	DO27	0:OFF				
	DO28	0:OFF				
	DO29	0:OFF				
	DO30	0:OFF				
	TX	#255,SDOEOWDONS:0<CR>				
	RX	N/A				

Sets the open wire mode for all digital outputs to the new mode OpenWireDOS. This enables the diagnostic of open wire while the digital output is ON.

The new state for all digital outputs

Bit 0: New mode for DO1 (=0:DISABLED, =1:ENABLED)

Bit 1: New mode for DO2 (=0:DISABLED, =1:ENABLED)

...

Bit 28: New mode for DO29 (=0:DISABLED, =1:ENABLED)

Bit 29: New mode for DO30 (=0:DISABLED, =1:ENABLED)

SET DIGITAL OUTPUT ENABLE OPEN WIRE DETECTION WHILE ON	ASCII WRITE COMMAND	#SDOEOWDON<DONR>:<OpenWireDOx><CR> Result: #OK<CR>	ASCII	YES
	DONR	2		
	DOx	0:DISABLE		
	TX	#255,SDOEOWDON2:0<CR>		
	RX	N/A		

<DONR>: 1=DO1..30=DO30

<OpenWireDOx>: 0=DISABLE..1=ENABLE

Sets the open wire mode for digital output DOx to the new mode OpenWireDOx. This enables the diagnostic of open wire while the digital output is ON.

The new mode of the digital output DOx:

=0: diagnostic mode for digital output is DISABLED

=1: diagnostic mode for digital output is ENABLED

GET DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE ON	ASCII READ COMMAND	#GDOEOWDONS<CR> Result: #GDOEOWDONS:<OpenWireDOSDec>,<OpenWireDOSHex><CR>	ASCII	
	TX	#255,GDOEOWDONS<CR>		
	RX	#255,GDOEOWDONS:0,0x0<CR>		
		Actual mode for open wire diagnostic while ON of digital outputs: DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		

Returns the actual mode for open wire diagnostic while digital output is ON as decimal number and as hexadecimal number.

OpenWireDOSDec, OpenWireDOSHex

The current mode for open wire diagnostic while ON of the digital outputs:

Bit 0: Open wire diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED)

Bit 1: Open wire diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED)

...

Bit 28: Open wire diagnostic mode of DO29 (=0:DISABLED, =1:ENABLED)

Bit 29: Open wire diagnostic mode of DO30 (=0:DISABLED, =1:ENABLED)

GET DIGITAL OUTPUT ENABLE OPEN WIRE DETECTION WHILE ON	ASCII READ COMMAND	#GDOEOWDON<DONR><CR> Result: #GDOEOWDON<DONR>:<OpenWireDOxDec>,<OpenWireDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOEOWDON2<CR>		
	RX	#255,GDOEOWDON2:0,0x0<CR>		
		Actual open wire diagnostic mode while ON of digital output DO2:0=DISABLED		

<DONR>: 1=DO1..30=DO30

Returns the actual open wire diagnostic mode while ON of the digital output DOx as decimal number and as hexadecimal number.

OpenWireDOxDec, OpenWireDOxHex

The current diagnostic mode of the digital output DOx:

=0: open wire diagnostic mode for digital output is DISABLED

=1: open wire diagnostic mode for digital output is ENABLED

DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION WHILE OFF

SET DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE OFF	ASCII WRITE COMMAND	#SDOEOWDOFFS:<OpenWireDOS> <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		
	DO17	0:OFF		
	DO18	0:OFF		
	DO19	0:OFF		
	DO20	0:OFF		
	DO21	0:OFF		
	DO22	0:OFF		
	DO23	0:OFF		
	DO24	0:OFF		
	DO25	0:OFF		
	DO26	0:OFF		
	DO27	0:OFF		
	DO28	0:OFF		
	DO29	0:OFF		
	DO30	0:OFF		
	TX	#255,SDOEOWDOFFS:0<CR>		
	RX	N/A		
Sets the open wire mode for all digital outputs to the new mode OpenWireDOS. This enables the diagnostic of open wire while the digital output is OFF. The new state for all digital outputs Bit 0: New mode for DO1 (=0:DISABLED, =1:ENABLED) Bit 1: New mode for DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: New mode for DO29 (=0:DISABLED, =1:ENABLED) Bit 29: New mode for DO30 (=0:DISABLED, =1:ENABLED)				
SET DIGITAL OUTPUT ENABLE OPEN WIRE DETECTION WHILE OFF	ASCII WRITE COMMAND	#SDOEOWDOFF<DONR>:<OpenWireDOx> <CR> Result: #OK<CR>	ASCII	YES

	DONR	2		
	DOx	0:DISABLE		
	TX	#255,SDOEOWDOFF2:0<CR>		
	RX	N/A		
<DONR>: 1=DO1..30=DO30				
<OpenWireDOx>: 0=DISABLE..1=ENABLE				
Sets the open wire mode for digital output DOx to the new mode OpenWireDOx. This enables the diagnostic of open wire while the digital output is OFF. The new mode of the digital output DOx: =0: diagnostic mode for digital output is DISABLED =1: diagnostic mode for digital output is ENABLED				
GET DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE OFF	ASCII READ COMMAND	#GDOEOWDOFFS<CR> Result: #GDOEOWDOFFS:<OpenWireDOSDec>,<OpenWireDOSHex><CR>	ASCII	
	TX	#255,GDOEOWDOFFS<CR>		
	RX	#255,GDOEOWDOFFS:0,0x0<CR>		
		Actual mode for open wire diagnostic while OFF of digital outputs: DO1-DO30:00.0000.0000.0000.0000.0000.0000		
Returns the actual mode for open wire diagnostic while digital output is OFF as decimal number and as hexadecimal number. OpenWireDOSDec, OpenWireDOSHex The current mode for open wire diagnostic while OFF of the digital outputs: Bit 0: Open wire diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED) Bit 1: Open wire diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: Open wire diagnostic mode of DO29 (=0:DISABLED, =1:ENABLED) Bit 29: Open wire diagnostic mode of DO30 (=0:DISABLED, =1:ENABLED)				
GET DIGITAL OUTPUT ENABLE OPEN WIRE DETECTION WHILE OFF	ASCII READ COMMAND	#GDOEOWDOFF<DONR><CR> Result: #GDOEOWDOFF<DONR>:<OpenWireDOxDec>,<OpenWireDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOEOWDOFF2<CR>		
	RX	#255,GDOEOWDOFF2:0,0x0<CR>		
		Actual open wire diagnostic mode while OFF of digital output DO2:0=DISABLED		
<DONR>: 1=DO1..30=DO30				
Returns the actual open wire diagnostic mode while OFF of the digital output DOx as decimal number and as hexadecimal number. OpenWireDOxDec, OpenWireDOxHex The current diagnostic mode of the digital output DOx: =0: open wire diagnostic mode for digital output is DISABLED =1: open wire diagnostic mode for digital output is ENABLED				
DIGITAL OUTPUTS: ENABLE SHORTCUT TO VDD DETECTION WHILE OFF				
SET DIGITAL OUTPUTS ENABLE SHORTCUT TO VDD DETECTION WHILE OFF	ASCII WRITE COMMAND	#SDOESVDDS:<ShortCutDOS><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		
	DO17	0:OFF		
	DO18	0:OFF		
	DO19	0:OFF		
	DO20	0:OFF		
	DO21	0:OFF		
	DO22	0:OFF		
	DO23	0:OFF		
	DO24	0:OFF		
	DO25	0:OFF		
	DO26	0:OFF		
	DO27	0:OFF		
	DO28	0:OFF		
	DO29	0:OFF		
	DO30	0:OFF		
	TX	#255,SDOESVDDS:0<CR>		
	RX	N/A		

Sets the shortcut to VDD detection mode for all digital outputs to the new mode ShortCutDOS. This enables the diagnostic of shortcut to VDD while the digital output is OFF.

The new state for all digital outputs

Bit 0: New mode for DO1 (=0:DISABLED, =1:ENABLED)

Bit 1: New mode for DO2 (=0:DISABLED, =1:ENABLED)

...

Bit 28: New mode for DO29 (=0:DISABLED, =1:ENABLED)

Bit 29: New mode for DO30 (=0:DISABLED, =1:ENABLED)

SET DIGITAL OUTPUT ENABLE SHORTCUT TO VDD DETECTION WHILE OFF	ASCII WRITE COMMAND DONR DOx TX RX	#SDOESVDD<DONR>:<ShortCutDOx><CR> Result: #OK<CR> 2 0:DISABLE #255,SDOESVDD2:0<CR> N/A	ASCII	YES
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<DONR>: 1=DO1..30=DO30

<ShortCutDOx>: 0=DISABLE..1=ENABLE

Sets the shortcut to VDD mode for digital output DOx to the new mode ShortCutDOx. This enables the diagnostic of shortcut to VDD while the digital output is OFF.

The new mode of the digital output DOx:

=0: diagnostic mode for digital output is DISABLED

=1: diagnostic mode for digital output is ENABLED

GET DIGITAL OUTPUTS ENABLE SHORT CUT TO VDD DETECTION WHILE OFF	ASCII READ COMMAND	#GDOESVDDS<CR> Result: #GDOESDDS:<ShortCutDOSDec>,<ShortCutDOSHex><CR>	ASCII	
	TX	#255,GDOESVDDS<CR>		
	RX	#255,GDOESVDDS:0,0x0<CR>		
		Actual mode for shortcut to VDD diagnostic while OFF of digital outputs:		
		DO1-DO30:00.0000.0000.0000.0000.0000.0000		
Returns the actual mode for shortcut to VDD diagnostic while digital output is OFF as decimal number and as hexadecimal number. ShortCutDOSDec, ShortCutDOSHex The current mode for shortcut diagnostic while OFF of the digital outputs: Bit 0: Open wire diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED) Bit 1: Open wire diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: Open wire diagnostic mode of DO29 (=0:DISABLED, =1:ENABLED) Bit 29: Open wire diagnostic mode of DO30 (=0:DISABLED, =1:ENABLED)				
GET DIGITAL OUTPUT ENABLE SHORT CUT TO VDD DETECTION WHILE OFF	ASCII READ COMMAND	#GDOESVDD<DONR><CR> Result: #GDOESVDD<DONR>:<ShortCutDOxDec>,<ShortCutDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOESVDD2<CR>		
	RX	#255,GDOESVDD2:0,0x0<CR>		
		Actual shortcut to VDD diagnostic mode while OFF of digital output DO2:0=DISABLED		
<DONR>: 1=DO1..30=DO30				
Returns the actual short cut to VDD diagnostic mode while OFF of the digital output DOx as decimal number and as hexadecimal number. ShortCutDOxDec, ShortCutDOxHex The current diagnostic mode of the digital output DOx: =0: open wire diagnostic mode for digital output is DISABLED =1: open wire diagnostic mode for digital output is ENABLED				
DIGITAL OUTPUTS: SPI STATUS				
GET SPI STATUS DIGITAL OUTPUT GROUPS	ASCII READ COMMAND	#GSSDOGS<CR> Result: #GSSDOGS:<SPIDOGSDec>,<SPIDOGSHex><CR>	ASCII	
	TX	#255,GSSDOGS<CR>		
	RX	#255,GSSDOGS:0,0x0<CR>		
		Actual SPI status of digital output groups:0000		
digital output group #1, chip #1:DO1-DO8 digital output group #2, chip #2:DO9-DO15 digital output group #3, chip #3:DO16-DO23 digital output group #4, chip #4:DO24-DO30				
Returns the actual SPI communication state of the corresponding output group as decimal number and as hexadecimal number. SPIDOGSDec,SPIDOGSHex The current SPI communication state of the digital output group: Bit 0: SPI communication state for digital output group #1 (=0:NO FAULT, =1:FAULT) Bit 1: SPI communication state for digital output group #2 (=0:NO FAULT, =1:FAULT) Bit 2: SPI communication state for digital output group #3 (=0:NO FAULT, =1:FAULT) Bit 3: SPI communication state for digital output group #4 (=0:NO FAULT, =1:FAULT)				
GET SPI STATUS DIGITAL OUTPUT GROUPx	ASCII READ COMMAND	#GSSDOG<DOGRP><CR> Result: #GSSDOG<DOGRP>:<SPIDOGxDec>,<SPIDOGxHex><CR>	ASCII	

	DOGRP	4		
	TX	#255,GSSDOG4<CR>		
	RX	#255,GSSDOG4:0,0x0<CR>		
		Actual SPI status of digital output group DOG4:0=NO FAULT		
<DOGRP>: 1=CHIP1..4=CHIP4				
digital output group #1, chip #1:DO1-DO8 digital output group #2, chip #2:DO9-DO15 digital output group #3, chip #3:DO16-DO23 digital output group #4, chip #4:DO24-DO30				
Returns the actual SPI communication state of the digital output group DOGRP as decimal number and as hexadecimal number. SPIDOGxDec, SPIDOGxHex The current SPI communication state of the digital output group DOGRP: =0: SPI communication state for output group is OK (NO FAULT) =1: SPI communication state for output group is FAULT				
DIGITAL OUTPUTS: INTERRUPT STATUS				
GET DIGITAL OUTPUTS INTERRUPT STATUS	ASCII READ COMMAND	#GDOINTS<CR> Result: #GDOINTS:<InterruptStatusDec>,<InterruptStatusHex><CR>	ASCII	
	TX	#255,GDOINTS<CR>		
	RX	#255,GDOINTS:0,0x0<CR>		
		Actual interrupt status of all digital output groups:		
		CHIP #1:0000.0000		
		CHIP #2:0000.0000		
		CHIP #3:0000.0000		
		CHIP #4:0000.0000		
digital output group #1, chip #1:DO1-DO8 digital output group #2, chip #2:DO9-DO15 digital output group #3, chip #3:DO16-DO23 digital output group #4, chip #4:DO24-DO30				
Returns the actual interrupt state of all output groups as decimal number and as hexadecimal number. InterruptStatusDec,InterruptStatusHex: The current interrupt state of digital output group 1-4 (CHIP1-4): For each chip 8 bits are used: CHIP#1:Bits 0-7, CHIP#2:Bits 8-15, CHIP#3:Bits 16-23, CHIP#4:Bits 24-31 Bit 0: Overload detected (0=OK,1=FAULT) Bit 1: Current limit detected(0=OK,1=FAULT) Bit 2: Open wire while OFF detected (0=OK,1=FAULT) Bit 3: Open wire while ON detected (0=OK,1=FAULT) Bit 4: Short to VDD while ON detected (0=OK,1=FAULT) Bit 5: Thermal error detected-shutdown (0=OK,1=FAULT) Bit 6: Supply error detected (0=OK,1=FAULT) Bit 7: Communication error detected (0=OK,1=FAULT)				
GET DIGITAL OUTPUT GROUPx INTERRUPT STATUS	ASCII READ COMMAND	#GDOINT<DOGRP><CR> Result: #GDOINT<DOGRP>:<InterruptStatusDec>,<InterruptStatusHex><CR>	ASCII	
	DOGRP	2		
	TX	#255,GDOINT2<CR>		
	RX	#255,GDOINT2:0,0x0<CR>		
		Actual interrupt status of digital output group 2:0000.0000		
<DOGRP>: 1=CHIP1..4=CHIP4				

digital output group #1, chip #1:DO1-DO8
 digital output group #2, chip #2:DO9-DO15
 digital output group #3, chip #3:DO16-DO23
 digital output group #4, chip #4:DO24-DO30

Returns the actual interrupt state of the digital output group DOGRP as decimal number and as hexadecimal number.

InterruptStatusDec, InterruptStatusHex

Bit 0:Overload detected (0=OK,1=FAULT)

Bit 1:Current limit detected(0=OK,1=FAULT)

Bit 2:Open wire while OFF detected (0=OK,1=FAULT)

Bit 3:Open wire while ON detected (0=OK,1=FAULT)

Bit 4:Short to VDD while ON detected (0=OK,1=FAULT)

Bit 5:Thermal error detected-shutdown (0=OK,1=FAULT)

Bit 6:Supply error detected (0=OK,1=FAULT)

Bit 7:Communication error detected (0=OK,1=FAULT)

DIGITAL OUTPUTS: GLOBAL ERRORS

GET DIGITAL OUTPUTS GLOBAL ERRORS	ASCII READ COMMAND	#GDOERRS<CR> Result: #GDOERRS:<GlobalErrorsDec>,<GlobalErrorsHex><CR>	ASCII	
	TX	#255,GDOERRS<CR>		
	RX	#255,GDOERRS:0,0x0<CR>		
		Actual global errors of all digital output groups:		
		CHIP #1:0000.0000		
		CHIP #2:0000.0000		
		CHIP #3:0000.0000		
		CHIP #4:0000.0000		

digital output group #1, chip #1:DO1-DO8
 digital output group #2, chip #2:DO9-DO15
 digital output group #3, chip #3:DO16-DO23
 digital output group #4, chip #4:DO24-DO30

Returns the actual global error state of all output groups as decimal number and as hexadecimal number.

GlobalErrorsDec,GlobalErrorsHex: The current global error of all digital output groups 1-4 (CHIP1-4)

For each chip 8 bits are used: CHIP#1:Bits 0-7, CHIP#2:Bits 8-15, CHIP#3:Bits 16-23, CHIP#4:Bits 24-31

Bit 0: Internal under voltage detected (0=OK,1=FAULT)

Bit 1: VA under voltage detected (<2.3V) (0=OK,1=FAULT)

Bit 2: VDD not good detected (<17V) (0=OK,1=FAULT)

Bit 3: VDD warning detected (<12V) (0=OK,1=FAULT)

Bit 4: VDD under voltage detected (<8V) (0=OK,1=FAULT)

Bit 5: Thermal shutdown (0=OK,1=FAULT)

Bit 6: Synchronisation error detected (0=OK,1=FAULT)

Bit 7: Watchdog error detected (0=OK,1=FAULT)

GET DIGITAL OUTPUT GROUPx GLOBAL ERRORS	ASCII READ COMMAND	#GDOERR<DOGRP><CR> Result: #GDOERR<DOGRP>:<GlobalErrorsDec>,<GlobalErrorsHex><CR>	ASCII	
	DOGRP	2		
	TX	#255,GDOERR2<CR>		
	RX	#255,GDOERR2:0,0x0<CR>		
		Actual global errors of digital output group 2:0000.0000		

<DOGRP>: 1=CHIP1..4=CHIP4

digital output group #1, chip #1:DO1-DO8
 digital output group #2, chip #2:DO9-DO15
 digital output group #3, chip #3:DO16-DO23
 digital output group #4, chip #4:DO24-DO30

Returns the actual interrupt state of the digital output group DOGRP as decimal number and as hexadecimal number.

InterruptStatusDec, InterruptStatusHex

Bit 0:Internal under voltage detected (0=OK,1=FAULT)

Bit 1:VA under voltage detected (<2.3V) (0=OK,1=FAULT)

Bit 2:VDD not good detected (<17V) (0=OK,1=FAULT)

Bit 3:VDD warning detected (<12V) (0=OK,1=FAULT)

Bit 4:VDD under voltage detected (<8V) (0=OK,1=FAULT)

Bit 5:Thermal shutdown (0=OK,1=FAULT)

Bit 6:Synchronisation error detected (0=OK,1=FAULT)

Bit 7:Watchdog error detected (0=OK,1=FAULT)

DIGITAL OUTPUTS: THERMAL OVERLOAD DETECTION

GET DIGITAL OUTPUTS THERMAL OVERLOAD DETECTION	ASCII READ COMMAND	#GDOTOS<CR> Result: #GDOTOS:<StatusDOSDec>,<StatusDOSHex><CR>	ASCII	
	TX	#255,GDOTOS<CR>		
	RX	#255,GDOTOS:0,0x0<CR>		
		Actual thermal overload detection status of digital outputs: DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		

Returns the actual state of the thermal overload detection for all digital outputs as decimal number and as hexadecimal number.

StatusDOSDec, StatusDOSHex

The current detection state of the digital outputs:

Bit 0: Thermal overload detected on DO1 (=0:NO, =1:YES)

Bit 1: Thermal overload detected on DO2 (=0:NO, =1:YES)

...

Bit 28: Thermal overload detected on DO29 (=0:NO, =1:YES)

Bit 29: Thermal overload detected on DO30 (=0:NO, =1:YES)

GET DIGITAL OUTPUT DOx THERMAL OVERLOAD DETECTION	ASCII READ COMMAND	#GDOTO<DONR><CR> Result: #GDOTO<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOTO2<CR>		
	RX	#255,GDOTO2:0,0x0<CR>		
		Thermal overload detected on DO2:0=NO		

<DONR>: 1=DO1..30=DO30

Returns the actual state of the thermal overload detection for digital output DOx as decimal number and as hexadecimal number.

StatusDOxDec, StatusDOxHex

The current detection state for digital output DOx:

=0: digital output is OK

=1: FAULT detected on digital output

DIGITAL OUTPUTS: CURRENT LIMIT DETECTION

GET DIGITAL OUTPUTS CURRENT LIMIT DETECTION	ASCII READ COMMAND	#GDOCLS<CR> Result: #GDOCLS:<StatusDOSDec>,<StatusDOSHex><CR>	ASCII	
	TX	#255,GDOCLS<CR>		
	RX	#255,GDOCLS:0,0x0<CR>		

		Actual current limit detection status of digital outputs: DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		
Returns the actual state of the current limit detection for all digital outputs as decimal number and as hexadecimal number. StatusDOSDec, StatusDOSHex The current detection state of the digital outputs: Bit 0: Current limit reached for DO1 (=0:NO, =1:YES) Bit 1: Current limit reached for DO2 (=0:NO, =1:YES) ... Bit 28: Current limit reached for DO29 (=0:NO, =1:YES) Bit 29: Current limit reached for DO30 (=0:NO, =1:YES)				
GET DIGITAL OUTPUT DOx CURRENT LIMIT DETECTION	ASCII READ COMMAND	#GDOCL<DONR><CR> Result: #GDOCL<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOCL2<CR>		
	RX	#255,GDOCL2:0,0x0<CR>		
		Actual current limit detection status of DO2:0=OK		
<DONR>: 1=DO1..30=DO30				
Returns the actual state of the current limit detection for digital output DOx as decimal number and as hexadecimal number. StatusDOxDec, StatusDOxHex The current detection state for digital output DOx: =0: digital output is OK =1: FAULT detected on digital output				
DIGITAL OUTPUTS: OPEN WIRE DETECTION WHILE ON				
GET DIGITAL OUTPUTS OPEN WIRE FAULT DETECTION WHILE ON	ASCII READ COMMAND	#GDOOWFONS<CR> Result: #GDOOWFONS:<StatusDOSDec>,<StatusDOSHex><CR>	ASCII	
	TX	#255,GDOOWFONS<CR>		
	RX	#255,GDOOWFONS:0,0x0<CR>		
		Actual open wire fault detection status while ON of digital outputs: DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		
Returns the actual state of the open wire fault detection while ON for all digital outputs as decimal number and as hexadecimal number. StatusDOSDec, StatusDOSHex The current detection state of the digital outputs: Bit 0: State of DO1 (=0:OK, =1:FAULT) Bit 1: State of DO2 (=0:OK, =1:FAULT) ... Bit 28: State of DO29 (=0:OK, =1:FAULT) Bit 29: State of DO30 (=0:OK, =1:FAULT)				
GET DIGITAL OUTPUT DOx OPEN WIRE FAULT DETECTION WHILE ON	ASCII READ COMMAND	#GDOOWFON<DONR><CR> Result: #GDOOWFON<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOOWFON2<CR>		
	RX	#255,GDOOWFON2:0,0x0<CR>		
		Actual open wire fault detection status while ON of DO2:0=OK		
<DONR>: 1=DO1..30=DO30				

Returns the actual state of the open wire fault detection while ON for digital output DOx as decimal number and as hexadecimal number.

StatusDOxDec, StatusDOxHex

The current detection state for digital output DOx:

=0: digital output is OK

=1: FAULT detected on digital output

DIGITAL OUTPUTS: OPEN WIRE DETECTION WHILE OFF

GET DIGITAL OUTPUTS OPEN WIRE FAULT DETECTION WHILE OFF	ASCII READ COMMAND	#GDOOWFOFFS<CR> Result: #GDOOWFOFFS:<StatusDOSDec>,<StatusDOSHex><CR>	ASCII	
	TX	#255,GDOOWFOFFS<CR>		
	RX	#255,GDOOWFOFFS:0,0x0<CR>		
		Actual open wire fault detection status while OFF of digital outputs:		
		DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		

Returns the actual state of the open wire fault detection while OFF for all digital outputs as decimal number and as hexadecimal number.

StatusDOSDec, StatusDOSHex

The current detection state of the digital outputs:

Bit 0: State of DO1 (=0:OK, =1:FAULT)

Bit 1: State of DO2 (=0:OK, =1:FAULT)

...

Bit 28: State of DO29 (=0:OK, =1:FAULT)

Bit 29: State of DO30 (=0:OK, =1:FAULT)

GET DIGITAL OUTPUT DOx OPEN WIRE FAULT DETECTION WHILE OFF	ASCII READ COMMAND	#GDOOWFOFF<DONR><CR> Result: #GDOOWFOFF<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	2		
	TX	#255,GDOOWFOFF2<CR>		
	RX	#255,GDOOWFOFF2:0,0x0<CR>		
		Actual open wire fault detection status while OFF of DO2:0=OK		

<DONR>: 1=DO1..30=DO30

Returns the actual state of the open wire fault detection while OFF for digital output DOx as decimal number and as hexadecimal number.

StatusDOxDec, StatusDOxHex

The current detection state for digital output DOx:

=0: digital output is OK

=1: FAULT detected on digital output

DIGITAL OUTPUTS: SHORTCUT TO VDD DETECTION WHILE OFF

GET DIGITAL OUTPUTS SHORTCUT TO VDD FAULT DETECTION WHILE OFF	ASCII READ COMMAND	#GDOSVDDS<CR> Result: #GDOSVDDS:<StatusDOSDec>,<StatusDOSHex><CR>	ASCII	
	TX	#255,GDOSVDDS<CR>		
	RX	#255,GDOSVDDS:0,0x0<CR>		
		Actual shortcut to VDD fault detection status while OFF of digital outputs:		
		DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		

Returns the actual state of the shortcut to VDD fault detection while OFF for all digital outputs as decimal number and as hexadecimal number.

StatusDOSDec, StatusDOSHex

The current detection state of the digital outputs:

Bit 0: State of DO1 (=0:OK, =1:FAULT)

Bit 1: State of DO2 (=0:OK, =1:FAULT)

...

Bit 28: State of DO29 (=0:OK, =1:FAULT)

Bit 29: State of DO30 (=0:OK, =1:FAULT)

GET DIGITAL OUTPUT DOx SHORTCUT TO VDD FAULT DETECTION WHILE OFF	ASCII READ COMMAND	#GDOSVDD<DONR> <CR> Result: #GDOSVDD<DONR>:<StatusDOxDec>,<StatusDOxHex> <CR>	ASCII	
	DONR	2		
	TX	#255,GDOSVDD2<CR>		
	RX	#255,GDOSVDD1:0,0x0<CR>		
		Actual shortcut to VDD fault detection status while OFF of DO2:0=OK		
<DONR>: 1=DO1..30=DO30				
Returns the actual state of the shortcut to VDD fault detection while OFF for digital output DOx as decimal number and as hexadecimal number. StatusDOxDec, StatusDOxHex The current detection state for digital output DOx: =0: digital output is OK =1: FAULT detected on digital output				
GET DIGITAL OUTPUTS CHIPSET NAME	ASCII READ COMMAND	#GDOCHIPSET<CR> Result: #GDOCHIPSET:<ChipSetName>	ASCII	
	TX	#255,GDOCHIPSET<CR>		
	RX	#255,GDOCHIPSET:MAX14915<CR>		
		Actual name of chipset for digital outputs:MAX14915		
Returns the actual name of the chipset of the digital outputs				

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				
	DO17	0:OFF				
	DO18	0:OFF				
	DO19	0:OFF				
	DO20	0:OFF				
	DO21	0:OFF				
	DO22	0:OFF				
	DO23	0:OFF				
	DO24	0:OFF				
	DO25	0:OFF				
	DO26	0:OFF				
	DO27	0:OFF				
	DO28	0:OFF				
	DO29	0:OFF				
	DO30	0:OFF				
	TX	#255,SCDOS:0<CR>				
	RX	#255,OK<CR>				

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.

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 28: New state of DO29 (=0:OFF, =1:ON)

Bit 29: New state of DO30 (=0:OFF, =1:ON)

GET INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS	ASCII READ COMMAND	#GCDOS<CR> Result: #GCDOS:<DOSDec>,<DOSHex><CR>	ASCII	
	TX	#255,GCDOS<CR>		
	RX	#255,GDOS:0,0x0<CR>		
		Init & watchdog configuration for digital outputs:		
		DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		

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

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 28: State of DO29 (=0:OFF, =1:ON)

Bit 29: State of DO30 (=0:OFF, =1:ON)

DIGITAL OUTPUTS: INIT & WATCHDOG ENABLE OPEN WIRE DETECTION WHILE ON

SET CONFIG DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE ON	ASCII WRITE COMMAND	#SCDOEOWDONS:<OpenWireDOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ENABLE		
	DO2	1:ENABLE		
	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	DO7	1:ENABLE		
	DO8	1:ENABLE		
	DO9	1:ENABLE		
	DO10	1:ENABLE		
	DO11	1:ENABLE		
	DO12	1:ENABLE		
	DO13	1:ENABLE		
	DO14	1:ENABLE		
	DO15	1:ENABLE		
	DO16	1:ENABLE		

	DO17	1:ENABLE		
	DO18	1:ENABLE		
	DO19	1:ENABLE		
	DO20	1:ENABLE		
	DO21	1:ENABLE		
	DO22	1:ENABLE		
	DO23	1:ENABLE		
	DO24	1:ENABLE		
	DO25	1:ENABLE		
	DO26	1:ENABLE		
	DO27	1:ENABLE		
	DO28	1:ENABLE		
	DO29	1:ENABLE		
	DO30	1:ENABLE		
	TX	#255,SCDOEOWDONS:1073741823<CR>		
	RX	#255,OK<CR>		
Sets the open wire mode for all digital outputs to the new mode OpenWireDOS for init & watchdog. This enables the diagnostic of open wire while the digital output is ON. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured The new state for all digital outputs Bit 0: New mode for DO1 (=0:DISABLED, =1:ENABLED) Bit 1: New mode for DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: New mode for DO29 (=0:DISABLED, =1:ENABLED) Bit 29: New mode for DO30 (=0:DISABLED, =1:ENABLED)				
GET CONFIG DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE ON	ASCII READ COMMAND	#GCDOEOWDONS<CR> Result: #GCDOEOWDONS:<OpenWireDOSDec>,<OpenWireDOSHex><CR>	ASCII	
	TX	#255,GCDOEOWDONS<CR>		
	RX	#255,GCDOEOWDONS:0,0x0<CR>		
		Init & watchdog configuration for open wire diagnostic while ON of digital outputs: DO1-DO30:00.0000.0000.0000.0000.0000.0000		
Returns the actual mode for open wire diagnostic while digital output is ON as decimal number and as hexadecimal number. This values are used after power on of the module an after a watchdog event. OpenWireDOSDec, OpenWireDOSHex The current mode for open wire diagnostic while ON of the digital outputs: Bit 0: Open wire diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED) Bit 1: Open wire diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: Open wire diagnostic mode of DO29 (=0:DISABLED, =1:ENABLED) Bit 29: Open wire diagnostic mode of DO30 (=0:DISABLED, =1:ENABLED)				
DIGITAL OUTPUTS: INIT & WATCHDOG ENABLE OPEN WIRE DETECTION WHILE OFF				
SET CONFIG DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE OFF	ASCII WRITE COMMAND	#SCDOEOWDOFFS:<OpenWireDOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ENABLE		
	DO2	1:ENABLE		

	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	DO7	1:ENABLE		
	DO8	1:ENABLE		
	DO9	1:ENABLE		
	DO10	1:ENABLE		
	DO11	1:ENABLE		
	DO12	1:ENABLE		
	DO13	1:ENABLE		
	DO14	1:ENABLE		
	DO15	1:ENABLE		
	DO16	1:ENABLE		
	DO17	1:ENABLE		
	DO18	1:ENABLE		
	DO19	1:ENABLE		
	DO20	1:ENABLE		
	DO21	1:ENABLE		
	DO22	1:ENABLE		
	DO23	1:ENABLE		
	DO24	1:ENABLE		
	DO25	1:ENABLE		
	DO26	1:ENABLE		
	DO27	1:ENABLE		
	DO28	1:ENABLE		
	DO29	1:ENABLE		
	DO30	1:ENABLE		
	TX	#255,SCDOEOWDOFFS:1073741823 <CR>		
	RX	#255,OK <CR>		

Sets the open wire mode for all digital outputs to the new mode OpenWireDOS for init & watchdog. This enables the diagnostic of open wire while the digital output is OFF.
This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured

The new state for all digital outputs

Bit 0: New mode for DO1 (=0:DISABLED, =1:ENABLED)

Bit 1: New mode for DO2 (=0:DISABLED, =1:ENABLED)

...

Bit 28: New mode for DO29 (=0:DISABLED, =1:ENABLED)

Bit 29: New mode for DO30 (=0:DISABLED, =1:ENABLED)

GET CONFIG DIGITAL OUTPUTS	ASCII	#GCDOEOWDOFFS<CR>	ASCII	
ENABLE OPEN WIRE	READ	Result:		
DETECTION WHILE OFF	COMMAND	#GCDOEOWDOFFS:<OpenWireDOSDec>, <OpenWireDOSHex><CR>		
	TX	#255,GCDOEOWDOFFS<CR>		
	RX	#255,GCDOEOWDOFFS:0,0x0<CR>		
		Init & watchdog configuration for open wire diagnostic while OFF of digital outputs:		

		DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		
--	--	--	--	--

Returns the actual mode for open wire diagnostic while digital output is OFF as decimal number and as hexadecimal number.

This values are used after power on of the module an after a watchdog event.

OpenWireDOSDec, OpenWireDOSHex

The current mode for open wire diagnostic while OFF of the digital outputs:

Bit 0: Open wire diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED)

Bit 1: Open wire diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED)

...

Bit 28: Open wire diagnostic mode of DO29 (=0:DISABLED, =1:ENABLED)

Bit 29: Open wire diagnostic mode of DO30 (=0:DISABLED, =1:ENABLED)

DIGITAL OUTPUTS: INIT & WATCHDOG ENABLE SHORTCUT TO VDD DETECTION WHILE OFF

SET CONFIG DIGITAL OUTPUTS ENABLE SHORTCUT TO VDD DETECTION WHILE OFF	ASCII WRITE COMMAND	#SCDOESVDDS:<ShortCutDOS> <CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ENABLE		
	DO2	1:ENABLE		
	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	DO7	1:ENABLE		
	DO8	1:ENABLE		
	DO9	1:ENABLE		
	DO10	1:ENABLE		
	DO11	1:ENABLE		
	DO12	1:ENABLE		
	DO13	1:ENABLE		
	DO14	1:ENABLE		
	DO15	1:ENABLE		
	DO16	1:ENABLE		
	DO17	1:ENABLE		
	DO18	1:ENABLE		
	DO19	1:ENABLE		
	DO20	1:ENABLE		
	DO21	1:ENABLE		
	DO22	1:ENABLE		
	DO23	1:ENABLE		
	DO24	1:ENABLE		
	DO25	1:ENABLE		
	DO26	1:ENABLE		
	DO27	1:ENABLE		
	DO28	1:ENABLE		
	DO29	1:ENABLE		
	DO30	1:ENABLE		

	TX	#255,SCDOESVDDS:1073741823<CR>		
	RX	#255,OK<CR>		
<p>Sets the shortcut to VDD detection mode for all digital outputs to the new mode ShortCutDOS for init & watchdog. This enables the diagnostic of shortcut to VDD while the digital output is OFF. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured The new state for all digital outputs Bit 0: New mode for DO1 (=0:DISABLED, =1:ENABLED) Bit 1: New mode for DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: New mode for DO29 (=0:DISABLED, =1:ENABLED) Bit 29: New mode for DO30 (=0:DISABLED, =1:ENABLED)</p>				
GET CONFIG DIGITAL OUTPUTS ENABLE SHORT CUT TO VDD DETECTION WHILE OFF	ASCII READ COMMAND	#GCDOESVDDS<CR> Result: #GCDOESDDS:<ShortCutDOSDec>,<ShortCutDOSHex><CR>	ASCII	
	TX	#255,GCDOESVDDS<CR>		
	RX	#255,GCDOESVDDS:0,0x0<CR>		
		Init & watchdog configuration for shortcut to VDD diagnostic while OFF of digital outputs:		
		DO1-DO30:00.0000.0000.0000.0000.0000.0000.0000		
<p>Returns the actual mode for shortcut to VDD diagnostic while digital output is OFF as decimal number and as hexadecimal number. This values are used after power on of the module an after a watchdog event. ShortCutDOSDec, ShortCutDOSHex The current mode for shortcut diagnostic while OFF of the digital outputs: Bit 0: Open wire diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED) Bit 1: Open wire diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED) ... Bit 28: Open wire diagnostic mode of DO29 (=0:DISABLED, =1:ENABLED) Bit 29: Open wire diagnostic mode of DO30 (=0:DISABLED, =1:ENABLED)</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	????			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	????			BIT R/O		
		Actual state of DI2:0=OFF					
DI3	1x00003 2x00003 I:2	????			BIT R/O		
		Actual state of DI3:0=OFF					
DI4	1x00004 2x00004 I:3	????			BIT R/O		
		Actual state of DI4:0=OFF					
DI5	1x00005 2x00005 I:4	????			BIT R/O		
		Actual state of DI5:0=OFF					
DI6	1x00006 2x00006 I:5	????			BIT R/O		
		Actual state of DI6:0=OFF					
DI7	1x00007 2x00007 I:6	????			BIT R/O		
		Actual state of DI7:0=OFF					
DI8	1x00008 2x00008 I:7	????			BIT R/O		
		Actual state of DI8:0=OFF					
DI9	1x00009 2x00009 I:8	????			BIT R/O		
		Actual state of DI9:0=OFF					
DI10	1x00010 2x00010 I:9	????			BIT R/O		

		Actual state of DI10:0=OFF				
DI11	1x00011 2x00011 I:10	????			BIT R/O	
		Actual state of DI11:0=OFF				
DI12	1x00012 2x00012 I:11	????			BIT R/O	
		Actual state of DI12:0=OFF				
DI13	1x00013 2x00013 I:12	????			BIT R/O	
		Actual state of DI13:0=OFF				
DI14	1x00014 2x00014 I:13	????			BIT R/O	
		Actual state of DI14:0=OFF				
DI15	1x00015 2x00015 I:14	????			BIT R/O	
		Actual state of DI15:0=OFF				
DI16	1x00016 2x00016 I:15	????			BIT R/O	
		Actual state of DI16:0=OFF				
DI17	1x00017 2x00017 I:16	????			BIT R/O	
		Actual state of DI17:0=OFF				
DI18	1x00018 2x00018 I:17	????			BIT R/O	
		Actual state of DI18:0=OFF				
DI19	1x00019 2x00019 I:18	????			BIT R/O	
		Actual state of DI19:0=OFF				
DI20	1x00020 2x00020 I:19	????			BIT R/O	
		Actual state of DI20:0=OFF				
DI21	1x00021 2x00021 I:20	????			BIT R/O	
		Actual state of DI21:0=OFF				

DI22	1x00022 2x00022 I:21	????			BIT R/O	
		Actual state of DI22:0=OFF				
DI23	1x00023 2x00023 I:22	????			BIT R/O	
		Actual state of DI23:0=OFF				
DI24	1x00024 2x00024 I:23	????			BIT R/O	
		Actual state of DI24:0=OFF				
DI25	1x00025 2x00025 I:24	????			BIT R/O	
		Actual state of DI25:0=OFF				
DI26	1x00026 2x00026 I:25	????			BIT R/O	
		Actual state of DI26:0=OFF				
DI27	1x00027 2x00027 I:26	????			BIT R/O	
		Actual state of DI27:0=OFF				
DI28	1x00028 2x00028 I:27	????			BIT R/O	
		Actual state of DI28:0=OFF				
DI29	1x00029 2x00029 I:28	????			BIT R/O	
		Actual state of DI29:0=OFF				
DI30	1x00030 2x00030 I:29	????			BIT R/O	
		Actual state of DI30:0=OFF				
DI31	1x00031 2x00031 I:30	????			BIT R/O	
		Actual state of DI31:0=OFF				
DI32	1x00032 2x00032 I:31	????			BIT R/O	
		Actual state of DI32:0=OFF				
STATUS DIGITAL OUTPUTS						

DO1	1x00033 2x00033 I:32	????		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	1x00034 2x00034 I:33	????		0	BIT R/W	NO
		Actual state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	1x00035 2x00035 I:34	????		0	BIT R/W	NO
		Actual state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	1x00036 2x00036 I:35	????		0	BIT R/W	NO
		Actual state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	1x00037 2x00037 I:36	????		0	BIT R/W	NO
		Actual state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	1x00038 2x00038 I:37	????		0	BIT R/W	NO
		Actual state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	1x00039 2x00039 I:38	????		0	BIT R/W	NO
		Actual state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	1x00040 2x00040 I:39	????		0	BIT R/W	NO
		Actual state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	1x00041 2x00041 I:40	????		0	BIT R/W	NO
		Actual state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	1x00042 2x00042 I:41	????		0	BIT R/W	NO
		Actual state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	1x00043 2x00043 I:42	????		0	BIT R/W	NO

		Actual state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	1x00044 2x00044 I:43	????		0	BIT R/W	NO
		Actual state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	1x00045 2x00045 I:44	????		0	BIT R/W	NO
		Actual state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	1x00046 2x00046 I:45	????		0	BIT R/W	NO
		Actual state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	1x00047 2x00047 I:46	????		0	BIT R/W	NO
		Actual state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	1x00048 2x00048 I:47	????		0	BIT R/W	NO
		Actual state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		
DO17	1x00049 2x00049 I:48	????		0	BIT R/W	NO
		Actual state of DO17:0=OFF		ENTER NEW STATE (0 or 1)		
DO18	1x00050 2x00050 I:49	????		0	BIT R/W	NO
		Actual state of DO18:0=OFF		ENTER NEW STATE (0 or 1)		
DO19	1x00051 2x00051 I:50	????		0	BIT R/W	NO
		Actual state of DO19:0=OFF		ENTER NEW STATE (0 or 1)		
DO20	1x00052 2x00052 I:51	????		0	BIT R/W	NO
		Actual state of DO20:0=OFF		ENTER NEW STATE (0 or 1)		
DO21	1x00053 2x00053 I:52	????		0	BIT R/W	NO
		Actual state of DO21:0=OFF		ENTER NEW STATE (0 or 1)		
DO22	1x00054 2x00054 I:53	????		0	BIT R/W	NO
		Actual state of DO22:0=OFF		ENTER NEW STATE (0 or 1)		

DO23	1x00055 2x00055 I:54	????		0	BIT R/W	NO
		Actual state of DO23:0=OFF		ENTER NEW STATE (0 or 1)		
DO24	1x00056 2x00056 I:55	????		0	BIT R/W	NO
		Actual state of DO24:0=OFF		ENTER NEW STATE (0 or 1)		
DO25	1x00057 2x00057 I:56	????		0	BIT R/W	NO
		Actual state of DO25:0=OFF		ENTER NEW STATE (0 or 1)		
DO26	1x00058 2x00058 I:57	????		0	BIT R/W	NO
		Actual state of DO26:0=OFF		ENTER NEW STATE (0 or 1)		
DO27	1x00059 2x00059 I:58	????		0	BIT R/W	NO
		Actual state of DO27:0=OFF		ENTER NEW STATE (0 or 1)		
DO28	1x00060 2x00060 I:59	????		0	BIT R/W	NO
		Actual state of DO28:0=OFF		ENTER NEW STATE (0 or 1)		
DO29	1x00061 2x00061 I:60	????		0	BIT R/W	NO
		Actual state of DO29:0=OFF		ENTER NEW STATE (0 or 1)		
DO30	1x00062 2x00062 I:61	????		0	BIT R/W	NO
		Actual state of DO30:0=OFF		ENTER NEW STATE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION ON						
ENABLE OPEN WIRE DETECTION ON DO1	1x00063 2x00063 I:62	????		1	BIT R/W	NO
		Actual setup of open wire detection for state ON of DO1:0=OFF		ENTER NEW SETUP MODE (0 or 1)		
Enables/disabled detection of an open wire in DO state ON for the digital output DOx =0:Open wire detection is OFF, =1:Open wire detection is ON						
Writing on this register changes the state of the open wire detection for this output						
ENABLE OPEN WIRE DETECTION ON DO2	1x00064 2x00064 I:63	????		1	BIT R/W	NO
		Actual setup of open wire detection for state ON of DO2:0=OFF		ENTER NEW SETUP MODE (0 or 1)		

ENABLE OPEN WIRE DETECTION ON DO3	1x00065 2x00065 I:64	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO3:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO4	1x00066 2x00066 I:65	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO4:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO5	1x00067 2x00067 I:66	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO5:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO6	1x00068 2x00068 I:67	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO6:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO7	1x00069 2x00069 I:68	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO7:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO8	1x00070 2x00070 I:69	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO8:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO9	1x00071 2x00071 I:70	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO9:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO10	1x00072 2x00072 I:71	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO10:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO11	1x00073 2x00073 I:72	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO11:0=OFF		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION ON DO12	1x00074 2x00074 I:73	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO12:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO13	1x00075 2x00075 I:74	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO13:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO14	1x00076 2x00076 I:75	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO14:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO15	1x00077 2x00077 I:76	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO15:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO16	1x00078 2x00078 I:77	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO16:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO17	1x00079 2x00079 I:78	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO17:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO18	1x00080 2x00080 I:79	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO18:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO19	1x00081 2x00081 I:80	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO19:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO20	1x00082 2x00082 I:81	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO20:0=OFF		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION ON DO21	1x00083 2x00083 I:82	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO21:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO22	1x00084 2x00084 I:83	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO22:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO23	1x00085 2x00085 I:84	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO23:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO24	1x00086 2x00086 I:85	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO24:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO25	1x00087 2x00087 I:86	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO25:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO26	1x00088 2x00088 I:87	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO26:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO27	1x00089 2x00089 I:88	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO27:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO28	1x00090 2x00090 I:89	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO28:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO29	1x00091 2x00091 I:90	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO29:0=OFF		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION ON DO30	1x00092 2x00092 I:91	????		1		BIT R/W	NO
		Actual setup of open wire detection for state ON of DO30:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION OFF							
ENABLE OPEN WIRE DETECTION OFF DO1	1x00093 2x00093 I:92	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO1:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
Enables/disabled detection of an open wire in DO state OFF for the digital output DOx =0:Open wire detection is OFF, =1:Open wire detection is ON							
Writing on this register changes the state of the open wire detection for this output							
ENABLE OPEN WIRE DETECTION OFF DO2	1x00094 2x00094 I:93	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO2:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO3	1x00095 2x00095 I:94	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO3:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO4	1x00096 2x00096 I:95	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO4:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO5	1x00097 2x00097 I:96	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO5:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO6	1x00098 2x00098 I:97	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO6:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO7	1x00099 2x00099 I:98	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO7:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO8	1x00100 2x00100 I:99	????		1		BIT R/W	NO

		Actual setup of open wire detection for state OFF of DO8:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO9	1x00101 2x00101 I:100	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO9:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO10	1x00102 2x00102 I:101	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO10:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO11	1x00103 2x00103 I:102	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO11:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO12	1x00104 2x00104 I:103	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO12:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO13	1x00105 2x00105 I:104	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO13:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO14	1x00106 2x00106 I:105	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO14:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO15	1x00107 2x00107 I:106	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO15:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO16	1x00108 2x00108 I:107	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO16:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO17	1x00109 2x00109 I:108	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO17:0=OFF	ENTER NEW SETUP MODE (0 or 1)		

ENABLE OPEN WIRE DETECTION OFF DO18	1x00110 2x00110 I:109	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO18:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO19	1x00111 2x00111 I:110	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO19:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO20	1x00112 2x00112 I:111	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO20:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO21	1x00113 2x00113 I:112	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO21:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO22	1x00114 2x00114 I:113	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO22:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO23	1x00115 2x00115 I:114	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO23:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO24	1x00116 2x00116 I:115	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO24:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO25	1x00117 2x00117 I:116	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO25:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO26	1x00118 2x00118 I:117	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO26:0=OFF		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION OFF DO27	1x00119 2x00119 I:118	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO27:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO28	1x00120 2x00120 I:119	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO28:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO29	1x00121 2x00121 I:120	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO29:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO30	1x00122 2x00122 I:121	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO30:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
DIGITAL OUTPUTS: ENABLE SHORT TO VDD DETECTION							
ENABLE SHORT TO VDD DETECTION DO1	1x00123 2x00123 I:122	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO1:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
Enables/disabled detection of a shortcut to VDD in DO state OFF for the digital output DOx =0:Shortcut to VDD detection is OFF, =1:Shortcut to VDD detection is ON							
Writing on this register changes the state of the shortcut detection for this output							
ENABLE SHORT TO VDD DETECTION DO2	1x00124 2x00124 I:123	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO2:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO3	1x00125 2x00125 I:124	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO3:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO4	1x00126 2x00126 I:125	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO4:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO5	1x00127 2x00127 I:126	????		1		BIT R/W	NO

		Actual setup of open wire detection for state OFF of DO5:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO6	1x00128 2x00128 I:127	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO6:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO7	1x00129 2x00129 I:128	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO7:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO8	1x00130 2x00130 I:129	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO8:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO9	1x00131 2x00131 I:130	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO9:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO10	1x00132 2x00132 I:131	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO10:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO11	1x00133 2x00133 I:132	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO11:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO12	1x00134 2x00134 I:133	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO12:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO13	1x00135 2x00135 I:134	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO13:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO14	1x00136 2x00136 I:135	????	1	BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO14:0=OFF	ENTER NEW SETUP MODE (0 or 1)		

ENABLE SHORT TO VDD DETECTION DO15	1x00137 2x00137 I:136	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO15:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO16	1x00138 2x00138 I:137	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO16:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO17	1x00139 2x00139 I:138	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO17:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO18	1x00140 2x00140 I:139	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO18:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO19	1x00141 2x00141 I:140	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO19:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO20	1x00142 2x00142 I:141	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO20:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO21	1x00143 2x00143 I:142	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO21:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO22	1x00144 2x00144 I:143	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO22:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO23	1x00145 2x00145 I:144	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO23:0=OFF		ENTER NEW SETUP MODE (0 or 1)			

ENABLE SHORT TO VDD DETECTION DO24	1x00146 2x00146 I:145	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO24:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO25	1x00147 2x00147 I:146	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO25:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO26	1x00148 2x00148 I:147	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO26:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO27	1x00149 2x00149 I:148	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO27:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO28	1x00150 2x00150 I:149	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO28:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO29	1x00151 2x00151 I:150	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO29:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO30	1x00152 2x00152 I:151	????		1		BIT R/W	NO
		Actual setup of open wire detection for state OFF of DO30:0=OFF		ENTER NEW SETUP MODE (0 or 1)			
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE ON							
OPEN WIRE FAULT WHILE ON DO1	1x00153 2x00153 I:152	????				BIT R/O	
		Actual detection state of an open wire fault in state ON for DO1:0=OK					
The current detection state of an open wire in the output state ON for the digital output DOx =0:No fault, =1:Fault-open wire detected							
OPEN WIRE FAULT WHILE ON DO2	1x00154 2x00154 I:153	????				BIT R/O	

		Actual detection state of an open wire fault in state ON for DO2:0=OK			
OPEN WIRE FAULT WHILE ON DO3	1x00155 2x00155 I:154	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO3:0=OK			
OPEN WIRE FAULT WHILE ON DO4	1x00156 2x00156 I:155	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO4:0=OK			
OPEN WIRE FAULT WHILE ON DO5	1x00157 2x00157 I:156	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO5:0=OK			
OPEN WIRE FAULT WHILE ON DO6	1x00158 2x00158 I:157	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO6:0=OK			
OPEN WIRE FAULT WHILE ON DO7	1x00159 2x00159 I:158	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO7:0=OK			
OPEN WIRE FAULT WHILE ON DO8	1x00160 2x00160 I:159	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO8:0=OK			
OPEN WIRE FAULT WHILE ON DO9	1x00161 2x00161 I:160	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO9:0=OK			
OPEN WIRE FAULT WHILE ON DO10	1x00162 2x00162 I:161	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO10:0=OK			
OPEN WIRE FAULT WHILE ON DO11	1x00163 2x00163 I:162	????			BIT R/O
		Actual detection state of an open wire fault in state ON for DO11:0=OK			

OPEN WIRE FAULT WHILE ON DO12	1x00164 2x00164 I:163	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO12:0=OK				
OPEN WIRE FAULT WHILE ON DO13	1x00165 2x00165 I:164	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO13:0=OK				
OPEN WIRE FAULT WHILE ON DO14	1x00166 2x00166 I:165	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO14:0=OK				
OPEN WIRE FAULT WHILE ON DO15	1x00167 2x00167 I:166	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO15:0=OK				
OPEN WIRE FAULT WHILE ON DO16	1x00168 2x00168 I:167	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO16:0=OK				
OPEN WIRE FAULT WHILE ON DO17	1x00169 2x00169 I:168	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO17:0=OK				
OPEN WIRE FAULT WHILE ON DO18	1x00170 2x00170 I:169	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO18:0=OK				
OPEN WIRE FAULT WHILE ON DO19	1x00171 2x00171 I:170	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO19:0=OK				
OPEN WIRE FAULT WHILE ON DO20	1x00172 2x00172 I:171	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO20:0=OK				

OPEN WIRE FAULT WHILE ON DO21	1x00173 2x00173 I:172	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO21:0=OK				
OPEN WIRE FAULT WHILE ON DO22	1x00174 2x00174 I:173	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO22:0=OK				
OPEN WIRE FAULT WHILE ON DO23	1x00175 2x00175 I:174	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO23:0=OK				
OPEN WIRE FAULT WHILE ON DO24	1x00176 2x00176 I:175	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO24:0=OK				
OPEN WIRE FAULT WHILE ON DO25	1x00177 2x00177 I:176	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO25:0=OK				
OPEN WIRE FAULT WHILE ON DO26	1x00178 2x00178 I:177	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO26:0=OK				
OPEN WIRE FAULT WHILE ON DO27	1x00179 2x00179 I:178	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO27:0=OK				
OPEN WIRE FAULT WHILE ON DO28	1x00180 2x00180 I:179	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO28:0=OK				
OPEN WIRE FAULT WHILE ON DO29	1x00181 2x00181 I:180	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO29:0=OK				

OPEN WIRE FAULT WHILE ON DO30	1x00182 2x00182 I:181	????			BIT R/O	
		Actual detection state of an open wire fault in state ON for DO30:0=OK				
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE OFF						
OPEN WIRE FAULT WHILE OFF DO1	1x00183 2x00183 I:182	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO1:0=OK				
The current detection state of an open wire in the output state OFF for the digital output DOx =0:No fault, =1:Fault-open wire detected						
OPEN WIRE FAULT WHILE OFF DO2	1x00184 2x00184 I:183	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO2:0=OK				
OPEN WIRE FAULT WHILE OFF DO3	1x00185 2x00185 I:184	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO3:0=OK				
OPEN WIRE FAULT WHILE OFF DO4	1x00186 2x00186 I:185	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO4:0=OK				
OPEN WIRE FAULT WHILE OFF DO5	1x00187 2x00187 I:186	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO5:0=OK				
OPEN WIRE FAULT WHILE OFF DO6	1x00188 2x00188 I:187	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO6:0=OK				
OPEN WIRE FAULT WHILE OFF DO7	1x00189 2x00189 I:188	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO7:0=OK				
OPEN WIRE FAULT WHILE OFF DO8	1x00190 2x00190 I:189	????			BIT R/O	

		Actual detection state of an open wire fault in state OFF for DO8:0=OK			
OPEN WIRE FAULT WHILE OFF DO9	1x00191 2x00191 I:190	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO9:0=OK			
OPEN WIRE FAULT WHILE OFF DO10	1x00192 2x00192 I:191	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO10:0=OK			
OPEN WIRE FAULT WHILE OFF DO11	1x00193 2x00193 I:192	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO11:0=OK			
OPEN WIRE FAULT WHILE OFF DO12	1x00194 2x00194 I:193	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO12:0=OK			
OPEN WIRE FAULT WHILE OFF DO13	1x00195 2x00195 I:194	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO13:0=OK			
OPEN WIRE FAULT WHILE OFF DO14	1x00196 2x00196 I:195	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO14:0=OK			
OPEN WIRE FAULT WHILE OFF DO15	1x00197 2x00197 I:196	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO15:0=OK			
OPEN WIRE FAULT WHILE OFF DO16	1x00198 2x00198 I:197	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO16:0=OK			
OPEN WIRE FAULT WHILE OFF DO17	1x00199 2x00199 I:198	????			BIT R/O
		Actual detection state of an open wire fault in state OFF for DO17:0=OK			

OPEN WIRE FAULT WHILE OFF DO18	1x00200 2x00200 I:199	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO18:0=OK				
OPEN WIRE FAULT WHILE OFF DO19	1x00201 2x00201 I:200	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO19:0=OK				
OPEN WIRE FAULT WHILE OFF DO20	1x00202 2x00202 I:201	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO20:0=OK				
OPEN WIRE FAULT WHILE OFF DO21	1x00203 2x00203 I:202	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO21:0=OK				
OPEN WIRE FAULT WHILE OFF DO22	1x00204 2x00204 I:203	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO22:0=OK				
OPEN WIRE FAULT WHILE OFF DO23	1x00205 2x00205 I:204	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO23:0=OK				
OPEN WIRE FAULT WHILE OFF DO24	1x00206 2x00206 I:205	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO24:0=OK				
OPEN WIRE FAULT WHILE OFF DO25	1x00207 2x00207 I:206	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO25:0=OK				
OPEN WIRE FAULT WHILE OFF DO26	1x00208 2x00208 I:207	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO26:0=OK				

OPEN WIRE FAULT WHILE OFF DO27	1x00209 2x00209 I:208	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO27:0=OK				
OPEN WIRE FAULT WHILE OFF DO28	1x00210 2x00210 I:209	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO28:0=OK				
OPEN WIRE FAULT WHILE OFF DO29	1x00211 2x00211 I:210	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO29:0=OK				
OPEN WIRE FAULT WHILE OFF DO30	1x00212 2x00212 I:211	????			BIT R/O	
		Actual detection state of an open wire fault in state OFF for DO30:0=OK				
DIGITAL OUTPUTS: SHORTCUT DETECTION STATUS TO VDD WHILE OFF						
OPEN WIRE SHORTCUT TO VDD DO1	1x00213 2x00213 I:212	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO1:0=OK				
The current detection state of a shortcut to VDD in the output state OFF for the digital output DOx =0:No fault, =1:Fault-shortcut to VDD detected						
OPEN WIRE SHORTCUT TO VDD DO2	1x00214 2x00214 I:213	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO2:0=OK				
OPEN WIRE SHORTCUT TO VDD DO3	1x00215 2x00215 I:214	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO3:0=OK				
OPEN WIRE SHORTCUT TO VDD DO4	1x00216 2x00216 I:215	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO4:0=OK				

OPEN WIRE SHORTCUT TO VDD DO5	1x00217 2x00217 I:216	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO5:0=OK				
OPEN WIRE SHORTCUT TO VDD DO6	1x00218 2x00218 I:217	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO6:0=OK				
OPEN WIRE SHORTCUT TO VDD DO7	1x00219 2x00219 I:218	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO7:0=OK				
OPEN WIRE SHORTCUT TO VDD DO8	1x00220 2x00220 I:219	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO8:0=OK				
OPEN WIRE SHORTCUT TO VDD DO9	1x00221 2x00221 I:220	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO9:0=OK				
OPEN WIRE SHORTCUT TO VDD DO10	1x00222 2x00222 I:221	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO10:0=OK				
OPEN WIRE SHORTCUT TO VDD DO11	1x00223 2x00223 I:222	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO11:0=OK				
OPEN WIRE SHORTCUT TO VDD DO12	1x00224 2x00224 I:223	????			BIT R/O	

		Actual detection state of a shortcut to VDD in state OFF for VDD DO12:0=OK			
OPEN WIRE SHORTCUT TO VDD DO13	1x00225 2x00225 I:224	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO13:0=OK			
OPEN WIRE SHORTCUT TO VDD DO14	1x00226 2x00226 I:225	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO14:0=OK			
OPEN WIRE SHORTCUT TO VDD DO15	1x00227 2x00227 I:226	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO15:0=OK			
OPEN WIRE SHORTCUT TO VDD DO16	1x00228 2x00228 I:227	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO16:0=OK			
OPEN WIRE SHORTCUT TO VDD DO17	1x00229 2x00229 I:228	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO17:0=OK			
OPEN WIRE SHORTCUT TO VDD DO18	1x00230 2x00230 I:229	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO18:0=OK			
OPEN WIRE SHORTCUT TO VDD DO19	1x00231 2x00231 I:230	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO19:0=OK			

OPEN WIRE SHORTCUT TO VDD DO20	1x00232 2x00232 I:231	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO20:0=OK				
OPEN WIRE SHORTCUT TO VDD DO21	1x00233 2x00233 I:232	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO21:0=OK				
OPEN WIRE SHORTCUT TO VDD DO22	1x00234 2x00234 I:233	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO22:0=OK				
OPEN WIRE SHORTCUT TO VDD DO23	1x00235 2x00235 I:234	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO23:0=OK				
OPEN WIRE SHORTCUT TO VDD DO24	1x00236 2x00236 I:235	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO24:0=OK				
OPEN WIRE SHORTCUT TO VDD DO25	1x00237 2x00237 I:236	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO25:0=OK				
OPEN WIRE SHORTCUT TO VDD DO26	1x00238 2x00238 I:237	????			BIT R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO26:0=OK				
OPEN WIRE SHORTCUT TO VDD DO27	1x00239 2x00239 I:238	????			BIT R/O	

		Actual detection state of a shortcut to VDD in state OFF for VDD DO27:0=OK			
OPEN WIRE SHORTCUT TO VDD DO28	1x00240 2x00240 I:239	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO28:0=OK			
OPEN WIRE SHORTCUT TO VDD DO29	1x00241 2x00241 I:240	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO29:0=OK			
OPEN WIRE SHORTCUT TO VDD DO30	1x00242 2x00242 I:241	????			BIT R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO30:0=OK			
DIGITAL OUTPUTS: THERMAL OVERLOAD DETECTION STATUS					
THERMAL OVERLOAD DETECTION STATUS DO1	1x00243 2x00243 I:242	????			BIT R/O
		Actual detection state of a thermal overload for DO1:0=OK			
The current detection state of a thermal overload for the digital output DOx =0:No fault, =1:Fault-thermal overload detected					
THERMAL OVERLOAD DETECTION STATUS DO2	1x00244 2x00244 I:243	????			BIT R/O
		Actual detection state of a thermal overload for DO2:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO3	1x00245 2x00245 I:244	????			BIT R/O
		Actual detection state of a thermal overload for DO3:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO4	1x00246 2x00246 I:245	????			BIT R/O
		Actual detection state of a thermal overload for DO4:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO5	1x00247 2x00247 I:246	????			BIT R/O

		Actual detection state of a thermal overload for DO5:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO6	1x00248 2x00248 I:247	????			BIT R/O
		Actual detection state of a thermal overload for DO6:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO7	1x00249 2x00249 I:248	????			BIT R/O
		Actual detection state of a thermal overload for DO7:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO8	1x00250 2x00250 I:249	????			BIT R/O
		Actual detection state of a thermal overload for DO8:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO9	1x00251 2x00251 I:250	????			BIT R/O
		Actual detection state of a thermal overload for DO9:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO10	1x00252 2x00252 I:251	????			BIT R/O
		Actual detection state of a thermal overload for DO10:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO11	1x00253 2x00253 I:252	????			BIT R/O
		Actual detection state of a thermal overload for DO11:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO12	1x00254 2x00254 I:253	????			BIT R/O
		Actual detection state of a thermal overload for DO12:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO13	1x00255 2x00255 I:254	????			BIT R/O
		Actual detection state of a thermal overload for DO13:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO14	1x00256 2x00256 I:255	????			BIT R/O
		Actual detection state of a thermal overload for DO14:0=OK			

THERMAL OVERLOAD DETECTION STATUS DO15	1x00257 2x00257 I:256	????			BIT R/O	
		Actual detection state of a thermal overload for DO15:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO16	1x00258 2x00258 I:257	????			BIT R/O	
		Actual detection state of a thermal overload for DO16:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO17	1x00259 2x00259 I:258	????			BIT R/O	
		Actual detection state of a thermal overload for DO17:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO18	1x00260 2x00260 I:259	????			BIT R/O	
		Actual detection state of a thermal overload for DO18:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO19	1x00261 2x00261 I:260	????			BIT R/O	
		Actual detection state of a thermal overload for DO19:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO20	1x00262 2x00262 I:261	????			BIT R/O	
		Actual detection state of a thermal overload for DO20:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO21	1x00263 2x00263 I:262	????			BIT R/O	
		Actual detection state of a thermal overload for DO21:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO22	1x00264 2x00264 I:263	????			BIT R/O	
		Actual detection state of a thermal overload for DO22:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO23	1x00265 2x00265 I:264	????			BIT R/O	
		Actual detection state of a thermal overload for DO23:0=OK				

THERMAL OVERLOAD DETECTION STATUS DO24	1x00266 2x00266 I:265	????			BIT R/O	
		Actual detection state of a thermal overload for DO24:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO25	1x00267 2x00267 I:266	????			BIT R/O	
		Actual detection state of a thermal overload for DO25:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO26	1x00268 2x00268 I:267	????			BIT R/O	
		Actual detection state of a thermal overload for DO26:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO27	1x00269 2x00269 I:268	????			BIT R/O	
		Actual detection state of a thermal overload for DO27:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO28	1x00270 2x00270 I:269	????			BIT R/O	
		Actual detection state of a thermal overload for DO28:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO29	1x00271 2x00271 I:270	????			BIT R/O	
		Actual detection state of a thermal overload for DO29:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO30	1x00272 2x00272 I:271	????			BIT R/O	
		Actual detection state of a thermal overload for DO30:0=OK				
DIGITAL OUTPUTS: CURRENT LIMIT DETECTION STATUS WHILE ON						
CURRENT LIMIT DETECTION STATUS WHILE ON DO1	1x00273 2x00273 I:272	????			BIT R/O	
		Actual detection state of a current limit while ON for DO1:0=OK				
The current detection state of a current limit while output is ON for the digital output DOx =0:No fault, =1:Fault-current limit error						
CURRENT LIMIT DETECTION STATUS WHILE ON DO2	1x00274 2x00274 I:273	????			BIT R/O	

		Actual detection state of a current limit while ON for DO2:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO3	1x00275 2x00275 I:274	????		BIT R/O	
		Actual detection state of a current limit while ON for DO3:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO4	1x00276 2x00276 I:275	????		BIT R/O	
		Actual detection state of a current limit while ON for DO4:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO5	1x00277 2x00277 I:276	????		BIT R/O	
		Actual detection state of a current limit while ON for DO5:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO6	1x00278 2x00278 I:277	????		BIT R/O	
		Actual detection state of a current limit while ON for DO6:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO7	1x00279 2x00279 I:278	????		BIT R/O	
		Actual detection state of a current limit while ON for DO7:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO8	1x00280 2x00280 I:279	????		BIT R/O	
		Actual detection state of a current limit while ON for DO8:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO9	1x00281 2x00281 I:280	????		BIT R/O	
		Actual detection state of a current limit while ON for DO9:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO10	1x00282 2x00282 I:281	????		BIT R/O	
		Actual detection state of a current limit while ON for DO10:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO11	1x00283 2x00283 I:282	????		BIT R/O	
		Actual detection state of a current limit while ON for DO11:0=OK			

CURRENT LIMIT DETECTION STATUS WHILE ON DO12	1x00284 2x00284 I:283	????			BIT R/O	
		Actual detection state of a current limit while ON for DO12:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO13	1x00285 2x00285 I:284	????			BIT R/O	
		Actual detection state of a current limit while ON for DO13:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO14	1x00286 2x00286 I:285	????			BIT R/O	
		Actual detection state of a current limit while ON for DO14:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO15	1x00287 2x00287 I:286	????			BIT R/O	
		Actual detection state of a current limit while ON for DO15:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO16	1x00288 2x00288 I:287	????			BIT R/O	
		Actual detection state of a current limit while ON for DO16:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO17	1x00289 2x00289 I:288	????			BIT R/O	
		Actual detection state of a current limit while ON for DO17:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO18	1x00290 2x00290 I:289	????			BIT R/O	
		Actual detection state of a current limit while ON for DO18:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO19	1x00291 2x00291 I:290	????			BIT R/O	
		Actual detection state of a current limit while ON for DO19:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO20	1x00292 2x00292 I:291	????			BIT R/O	
		Actual detection state of a current limit while ON for DO20:0=OK				

CURRENT LIMIT DETECTION STATUS WHILE ON DO21	1x00293 2x00293 I:292	????			BIT R/O	
		Actual detection state of a current limit while ON for DO21:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO22	1x00294 2x00294 I:293	????			BIT R/O	
		Actual detection state of a current limit while ON for DO22:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO23	1x00295 2x00295 I:294	????			BIT R/O	
		Actual detection state of a current limit while ON for DO23:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO24	1x00296 2x00296 I:295	????			BIT R/O	
		Actual detection state of a current limit while ON for DO24:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO25	1x00297 2x00297 I:296	????			BIT R/O	
		Actual detection state of a current limit while ON for DO25:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO26	1x00298 2x00298 I:297	????			BIT R/O	
		Actual detection state of a current limit while ON for DO26:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO27	1x00299 2x00299 I:298	????			BIT R/O	
		Actual detection state of a current limit while ON for DO27:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO28	1x00300 2x00300 I:299	????			BIT R/O	
		Actual detection state of a current limit while ON for DO28:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO29	1x00301 2x00301 I:300	????			BIT R/O	
		Actual detection state of a current limit while ON for DO29:0=OK				

CURRENT LIMIT DETECTION STATUS WHILE ON DO30	1x00302 2x00302 I:301	????			BIT R/O	
		Actual detection state of a current limit while ON for DO30:0=OK				
DIGITAL OUTPUTS: GLOBAL ERRORS						
CHIP #1:DO1-DO8						
GLOBAL ERRORS BIT 0	1x00303 2x00303 I:302	????			BIT R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS BIT 1	1x00304 2x00304 I:303	????			BIT R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS BIT 2	1x00305 2x00305 I:304	????			BIT R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS BIT 3	1x00306 2x00306 I:305	????			BIT R/O	
		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS BIT 4	1x00307 2x00307 I:306	????			BIT R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS BIT 5	1x00308 2x00308 I:307	????			BIT R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS BIT 6	1x00309 2x00309 I:308	????			BIT R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS BIT 7	1x00310 2x00310 I:309	????			BIT R/O	
		BIT 7:Watchdog error detected:0=OK				
The global error state for the output group. Each bit stands for a different error =0:No fault, =1:Fault						
DIGITAL OUTPUTS: GLOBAL ERRORS						
CHIP #2:DO9-DO15						
GLOBAL ERRORS BIT 0	1x00311 2x00311 I:310	????			BIT R/O	
		BIT 0:Internal under voltage detected:0=OK				

GLOBAL ERRORS BIT 1	1x00312 2x00312 I:311	????			BIT R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS BIT 2	1x00313 2x00313 I:312	????			BIT R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS BIT 3	1x00314 2x00314 I:313	????			BIT R/O	
		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS BIT 4	1x00315 2x00315 I:314	????			BIT R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS BIT 5	1x00316 2x00316 I:315	????			BIT R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS BIT 6	1x00317 2x00317 I:316	????			BIT R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS BIT 7	1x00318 2x00318 I:317	????			BIT R/O	
		BIT 7:Watchdog error detected:0=OK				
The global error state for the output group. Each bit stands for a different error =0:No fault, =1:Fault						
DIGITAL OUTPUTS: GLOBAL ERRORS						
CHIP #3:DO16-DO23						
GLOBAL ERRORS BIT 0	1x00319 2x00319 I:318	????			BIT R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS BIT 1	1x00320 2x00320 I:319	????			BIT R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS BIT 2	1x00321 2x00321 I:320	????			BIT R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS BIT 3	1x00322 2x00322 I:321	????			BIT R/O	

		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS BIT 4	1x00323 2x00323 I:322	????			BIT R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS BIT 5	1x00324 2x00324 I:323	????			BIT R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS BIT 6	1x00325 2x00325 I:324	????			BIT R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS BIT 7	1x00326 2x00326 I:325	????			BIT R/O	
		BIT 7:Watchdog error detected:0=OK				

The global error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: GLOBAL ERRORS**CHIP #4:DO24-DO30**

GLOBAL ERRORS BIT 0	1x00327 2x00327 I:326	????			BIT R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS BIT 1	1x00328 2x00328 I:327	????			BIT R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS BIT 2	1x00329 2x00329 I:328	????			BIT R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS BIT 3	1x00330 2x00330 I:329	????			BIT R/O	
		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS BIT 4	1x00331 2x00331 I:330	????			BIT R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS BIT 5	1x00332 2x00332 I:331	????			BIT R/O	
		BIT 5:Thermal shutdown:0=OK				

GLOBAL ERRORS BIT 6	1x00333 2x00333 I:332	????			BIT R/O	
BIT 6:Synchronisation error detected:0=OK						
GLOBAL ERRORS BIT 7	1x00334 2x00334 I:333	????			BIT R/O	
BIT 7:Watchdog error detected:0=OK						

The global error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #1:DO1-DO8						
INTERRUPT STATUS BIT 0	1x00335 2x00335 I:334	????			BIT R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	1x00336 2x00336 I:335	????			BIT R/O	
BIT 1:Current limit detected:0=OK						
INTERRUPT STATUS BIT 2	1x00337 2x00337 I:336	????			BIT R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	1x00338 2x00338 I:337	????			BIT R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	1x00339 2x00339 I:338	????			BIT R/O	
BIT 4:Short to VDD while ON detected:0=OK						
INTERRUPT STATUS BIT 5	1x00340 2x00340 I:339	????			BIT R/O	
BIT 5:Thermal error detected-shutdown:0=OK						
INTERRUPT STATUS BIT 6	1x00341 2x00341 I:340	????			BIT R/O	
BIT 6:Supply error detected:0=OK						
INTERRUPT STATUS BIT 7	1x00342 2x00342 I:341	????			BIT R/O	
BIT 7:Communication error detected:0=OK						

The global interrupt error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #2:DO9-DO15						
INTERRUPT STATUS BIT 0	1x00343 2x00343 I:342	????			BIT R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	1x00344 2x00344 I:343	????			BIT R/O	
BIT 1:Current limit detected:0=OK						
INTERRUPT STATUS BIT 2	1x00345 2x00345 I:344	????			BIT R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	1x00346 2x00346 I:345	????			BIT R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	1x00347 2x00347 I:346	????			BIT R/O	
BIT 4:Short to VDD while ON detected:0=OK						
INTERRUPT STATUS BIT 5	1x00348 2x00348 I:347	????			BIT R/O	
BIT 5:Thermal error detected-shutdown:0=OK						
INTERRUPT STATUS BIT 6	1x00349 2x00349 I:348	????			BIT R/O	
BIT 6:Supply error detected:0=OK						
INTERRUPT STATUS BIT 7	1x00350 2x00350 I:349	????			BIT R/O	
BIT 7:Communication error detected:0=OK						

The global interrupt error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #3:DO16-DO23						
INTERRUPT STATUS BIT 0	1x00351 2x00351 I:350	????			BIT R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	1x00352 2x00352 I:351	????			BIT R/O	
BIT 1:Current limit detected:0=OK						

INTERRUPT STATUS BIT 2	1x00353 2x00353 I:352	????			BIT R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	1x00354 2x00354 I:353	????			BIT R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	1x00355 2x00355 I:354	????			BIT R/O	
BIT 4:Short to VDD while ON detected:0=OK						
INTERRUPT STATUS BIT 5	1x00356 2x00356 I:355	????			BIT R/O	
BIT 5:Thermal error detected-shutdown:0=OK						
INTERRUPT STATUS BIT 6	1x00357 2x00357 I:356	????			BIT R/O	
BIT 6:Supply error detected:0=OK						
INTERRUPT STATUS BIT 7	1x00358 2x00358 I:357	????			BIT R/O	
BIT 7:Communication error detected:0=OK						

The global interrupt error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS**CHIP #4:DO24-DO30**

INTERRUPT STATUS BIT 0	1x00359 2x00359 I:358	????			BIT R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	1x00360 2x00360 I:359	????			BIT R/O	
BIT 1:Current limit detected:0=OK						
INTERRUPT STATUS BIT 2	1x00361 2x00361 I:360	????			BIT R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	1x00362 2x00362 I:361	????			BIT R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	1x00363 2x00363 I:362	????			BIT R/O	

		BIT 4:Short to VDD while ON detected:0=OK				
INTERRUPT STATUS BIT 5	1x00364 2x00364 I:363	????			BIT R/O	
		BIT 5:Thermal error detected-shutdown:0=OK				
INTERRUPT STATUS BIT 6	1x00365 2x00365 I:364	????			BIT R/O	
		BIT 6:Supply error detected:0=OK				
INTERRUPT STATUS BIT 7	1x00366 2x00366 I:365	????			BIT R/O	
		BIT 7:Communication error detected:0=OK				
The global interrupt error state for the output group. Each bit stands for a different error =0:No fault, =1:Fault						
SPI COMMUNICATION DIGITAL OUTPUTS						
SPI COMMUNICATION CHIP #1: DO1-DO8	1x00367 2x00367 I:366	????			BIT R/O	
		Actual SPI communication state:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION CHIP #2: DO9-DO15	1x00368 2x00368 I:367	????			BIT R/O	
		Actual SPI communication state:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION CHIP #3: DO16-DO23	1x00369 2x00369 I:368	????			BIT R/O	
		Actual SPI communication state:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION CHIP #4: DO24-DO30	1x00370 2x00370 I:369	????			BIT R/O	
		Actual SPI communication state:0=NO FAULT				
DIGITAL INPUTS: RESET						
RESET COUNTERS	1x10000 2x10000 I:9999	????		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	????			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	????			BIT R/O		
		Actual state of DI2:0=OFF					
DI3	1x15003 2x15003 I:15002	????			BIT R/O		
		Actual state of DI3:0=OFF					
DI4	1x15004 2x15004 I:15003	????			BIT R/O		
		Actual state of DI4:0=OFF					
DI5	1x15005 2x15005 I:15004	????			BIT R/O		
		Actual state of DI5:0=OFF					
DI6	1x15006 2x15006 I:15005	????			BIT R/O		
		Actual state of DI6:0=OFF					
DI7	1x15007 2x15007 I:15006	????			BIT R/O		
		Actual state of DI7:0=OFF					
DI8	1x15008 2x15008 I:15007	????			BIT R/O		
		Actual state of DI8:0=OFF					
DI9	1x15009 2x15009 I:15008	????			BIT R/O		
		Actual state of DI9:0=OFF					
DI10	1x15010 2x15010 I:15009	????			BIT R/O		
		Actual state of DI10:0=OFF					
DI11	1x15011 2x15011 I:15010	????			BIT R/O		
		Actual state of DI11:0=OFF					
DI12	1x15012 2x15012 I:15011	????			BIT R/O		
		Actual state of DI12:0=OFF					

DI13	1x15013 2x15013 I:15012	????			BIT R/O	
		Actual state of DI13:0=OFF				
DI14	1x15014 2x15014 I:15013	????			BIT R/O	
		Actual state of DI14:0=OFF				
DI15	1x15015 2x15015 I:15014	????			BIT R/O	
		Actual state of DI15:0=OFF				
DI16	1x15016 2x15016 I:15015	????			BIT R/O	
		Actual state of DI16:0=OFF				
DI17	1x15017 2x15017 I:15016	????			BIT R/O	
		Actual state of DI17:0=OFF				
DI18	1x15018 2x15018 I:15017	????			BIT R/O	
		Actual state of DI18:0=OFF				
DI19	1x15019 2x15019 I:15018	????			BIT R/O	
		Actual state of DI19:0=OFF				
DI20	1x15020 2x15020 I:15019	????			BIT R/O	
		Actual state of DI20:0=OFF				
DI21	1x15021 2x15021 I:15020	????			BIT R/O	
		Actual state of DI21:0=OFF				
DI22	1x15022 2x15022 I:15021	????			BIT R/O	
		Actual state of DI22:0=OFF				
D23	1x15023 2x15023 I:15022	????			BIT R/O	
		Actual state of D23:0=OFF				
DI24	1x15024 2x15024 I:15023	????			BIT R/O	

		Actual state of DI24:0=OFF				
DI25	1x15025 2x15025 I:15024	????			BIT R/O	
		Actual state of DI25:0=OFF				
DI26	1x15026 2x15026 I:15025	????			BIT R/O	
		Actual state of DI26:0=OFF				
DI27	1x15027 2x15027 I:15026	????			BIT R/O	
		Actual state of DI27:0=OFF				
DI28	1x15028 2x15028 I:15027	????			BIT R/O	
		Actual state of DI28:0=OFF				
DI29	1x15029 2x15029 I:15028	????			BIT R/O	
		Actual state of DI29:0=OFF				
DI30	1x15030 2x15030 I:15029	????			BIT R/O	
		Actual state of DI30:0=OFF				
DI31	1x15031 2x15031 I:15030	????			BIT R/O	
		Actual state of DI31:0=OFF				
DI32	1x15032 2x15032 I:15031	????			BIT R/O	
		Actual state of DI32:0=OFF				
STATUS DIGITAL INPUTS						
UNFILTERED DI1	1x15033 2x15033 I:15032	????			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 this line =0:DI is OFF, =1:DI is ON						
UNFILTERED DI2	1x15034 2x15034 I:15033	????			BIT R/O	
		Actual state of UNFILTERED DI2:0=OFF				
UNFILTERED DI3	1x15035 2x15035 I:15034	????			BIT R/O	

		Actual state of UNFILTERED DI3:0=OFF				
UNFILTERED DI4	1x15036 2x15036 I:15035	????			BIT R/O	
		Actual state of UNFILTERED DI4:0=OFF				
UNFILTERED DI5	1x15037 2x15037 I:15036	????			BIT R/O	
		Actual state of UNFILTERED DI5:0=OFF				
UNFILTERED DI6	1x15038 2x15038 I:15037	????			BIT R/O	
		Actual state of UNFILTERED DI6:0=OFF				
UNFILTERED DI7	1x15039 2x15039 I:15038	????			BIT R/O	
		Actual state of UNFILTERED DI7:0=OFF				
UNFILTERED DI8	1x15040 2x15040 I:15039	????			BIT R/O	
		Actual state of UNFILTERED DI8:0=OFF				
UNFILTERED DI9	1x15041 2x15041 I:15040	????			BIT R/O	
		Actual state of UNFILTERED DI9:0=OFF				
UNFILTERED DI10	1x15042 2x15042 I:15041	????			BIT R/O	
		Actual state of UNFILTERED DI10:0=OFF				
UNFILTERED DI11	1x15043 2x15043 I:15042	????			BIT R/O	
		Actual state of UNFILTERED DI11:0=OFF				
UNFILTERED DI12	1x15044 2x15044 I:15043	????			BIT R/O	
		Actual state of UNFILTERED DI12:0=OFF				
UNFILTERED DI13	1x15045 2x15045 I:15044	????			BIT R/O	
		Actual state of UNFILTERED DI13:0=OFF				
UNFILTERED DI14	1x15046 2x15046 I:15045	????			BIT R/O	
		Actual state of UNFILTERED DI14:0=OFF				

UNFILTERED DI15	1x15047 2x15047 I:15046	????			BIT R/O	
		Actual state of UNFILTERED DI15:0=OFF				
UNFILTERED DI16	1x15048 2x15048 I:15047	????			BIT R/O	
		Actual state of UNFILTERED DI16:0=OFF				
UNFILTERED DI17	1x15049 2x15049 I:15048	????			BIT R/O	
		Actual state of UNFILTERED DI17:0=OFF				
UNFILTERED DI18	1x15050 2x15050 I:15049	????			BIT R/O	
		Actual state of UNFILTERED DI18:0=OFF				
UNFILTERED DI19	1x15051 2x15051 I:15050	????			BIT R/O	
		Actual state of UNFILTERED DI19:0=OFF				
UNFILTERED DI20	1x15052 2x15052 I:15051	????			BIT R/O	
		Actual state of UNFILTERED DI20:0=OFF				
UNFILTERED DI21	1x15053 2x15053 I:15052	????			BIT R/O	
		Actual state of UNFILTERED DI21:0=OFF				
UNFILTERED DI22	1x15054 2x15054 I:15053	????			BIT R/O	
		Actual state of UNFILTERED DI22:0=OFF				
UNFILTERED DI23	1x15055 2x15055 I:15054	????			BIT R/O	
		Actual state of UNFILTERED DI23:0=OFF				
UNFILTERED DI24	1x15056 2x15056 I:15055	????			BIT R/O	
		Actual state of UNFILTERED DI24:0=OFF				
UNFILTERED DI25	1x15057 2x15057 I:15056	????			BIT R/O	
		Actual state of UNFILTERED DI25:0=OFF				
UNFILTERED DI26	1x15058 2x15058 I:15057	????			BIT R/O	

		Actual state of UNFILTERED DI26:0=OFF				
UNFILTERED DI27	1x15059 2x15059 I:15058	????			BIT R/O	
		Actual state of UNFILTERED DI27:0=OFF				
UNFILTERED DI28	1x15060 2x15060 I:15059	????			BIT R/O	
		Actual state of UNFILTERED DI28:0=OFF				
UNFILTERED DI29	1x15061 2x15061 I:15060	????			BIT R/O	
		Actual state of UNFILTERED DI29:0=OFF				
UNFILTERED DI30	1x15062 2x15062 I:15061	????			BIT R/O	
		Actual state of UNFILTERED DI30:0=OFF				
UNFILTERED DI31	1x15063 2x15063 I:15062	????			BIT R/O	
		Actual state of UNFILTERED DI31:0=OFF				
UNFILTERED DI32	1x15064 2x15064 I:15063	????			BIT R/O	
		Actual state of UNFILTERED DI32:0=OFF				
STATUS DIGITAL OUTPUTS						
DO1	1x16001 2x16001 I:16000	????		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	BIT R/W	NO
		Actual state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	1x16003 2x16003 I:16002	????		0	BIT R/W	NO
		Actual state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	1x16004 2x16004 I:16003	????		0	BIT R/W	NO
		Actual state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		

DO5	1x16005 2x16005 I:16004	????		0	BIT R/W	NO
		Actual state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	1x16006 2x16006 I:16005	????		0	BIT R/W	NO
		Actual state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	1x16007 2x16007 I:16006	????		0	BIT R/W	NO
		Actual state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	1x16008 2x16008 I:16007	????		0	BIT R/W	NO
		Actual state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	1x16009 2x16009 I:16008	????		0	BIT R/W	NO
		Actual state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	1x16010 2x16010 I:16009	????		0	BIT R/W	NO
		Actual state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	1x16011 2x16011 I:16010	????		0	BIT R/W	NO
		Actual state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	1x16012 2x16012 I:16011	????		0	BIT R/W	NO
		Actual state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	1x16013 2x16013 I:16012	????		0	BIT R/W	NO
		Actual state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	1x16014 2x16014 I:16013	????		0	BIT R/W	NO
		Actual state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	1x16015 2x16015 I:16014	????		0	BIT R/W	NO
		Actual state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		

DO16	1x16016 2x16016 I:16015	????		0	BIT R/W	NO
		Actual state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		
DO17	1x16017 2x16017 I:16016	????		0	BIT R/W	NO
		Actual state of DO17:0=OFF		ENTER NEW STATE (0 or 1)		
DO18	1x16018 2x16018 I:16017	????		0	BIT R/W	NO
		Actual state of DO18:0=OFF		ENTER NEW STATE (0 or 1)		
DO19	1x16019 2x16019 I:16018	????		0	BIT R/W	NO
		Actual state of DO19:0=OFF		ENTER NEW STATE (0 or 1)		
DO20	1x16020 2x16020 I:16019	????		0	BIT R/W	NO
		Actual state of DO20:0=OFF		ENTER NEW STATE (0 or 1)		
DO21	1x16021 2x16021 I:16020	????		0	BIT R/W	NO
		Actual state of DO21:0=OFF		ENTER NEW STATE (0 or 1)		
DO22	1x16022 2x16022 I:16021	????		0	BIT R/W	NO
		Actual state of DO22:0=OFF		ENTER NEW STATE (0 or 1)		
DO23	1x16023 2x16023 I:16022	????		0	BIT R/W	NO
		Actual state of DO23:0=OFF		ENTER NEW STATE (0 or 1)		
DO24	1x16024 2x16024 I:16023	????		0	BIT R/W	NO
		Actual state of DO24:0=OFF		ENTER NEW STATE (0 or 1)		
DO25	1x16025 2x16025 I:16024	????		0	BIT R/W	NO
		Actual state of DO25:0=OFF		ENTER NEW STATE (0 or 1)		
DO26	1x16026 2x16026 I:16025	????		0	BIT R/W	NO
		Actual state of DO26:0=OFF		ENTER NEW STATE (0 or 1)		

DO27	1x16027 2x16027 I:16026	????		0	BIT R/W	NO
		Actual state of DO27:0=OFF		ENTER NEW STATE (0 or 1)		
DO28	1x16028 2x16028 I:16027	????		0	BIT R/W	NO
		Actual state of DO28:0=OFF		ENTER NEW STATE (0 or 1)		
DO29	1x16029 2x16029 I:16028	????		0	BIT R/W	NO
		Actual state of DO29:0=OFF		ENTER NEW STATE (0 or 1)		
DO30	1x16030 2x16030 I:16029	????		0	BIT R/W	NO
		Actual state of DO30:0=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	1,0x01 B:01			BIT R/O	
If the digital input has changed this bit inverts its last state						
DI HAS CHANGED DI2	1x20002 2x20002 I:20001	1,0x01 B:01			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	1,0x01 B:01			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	
DI HAS CHANGED DI21	1x20021 2x20021 I:20020	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI22	1x20022 2x20022 I:20021	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI23	1x20023 2x20023 I:20022	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI24	1x20024 2x20024 I:20023	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI25	1x20025 2x20025 I:20024	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI26	1x20026 2x20026 I:20025	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI27	1x20027 2x20027 I:20026	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI28	1x20028 2x20028 I:20027	0,0x00 B:00			BIT R/O	

DI HAS CHANGED DI29	1x20029 2x20029 I:20028	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI30	1x20030 2x20030 I:20029	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI31	1x20031 2x20031 I:20030	0,0x00 B:00			BIT R/O	
DI HAS CHANGED DI32	1x20032 2x20032 I:20031	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: SHORT KEYPRESS EVENT ON DIGITAL INPUT DETECTED						
SHORT KEYPRESS ON DI1	1x20033 2x20033 I:20032	1,0x01 B:01			BIT R/O	
If a short keypress event was detected on the digital input this bit inverts its last state						
SHORT KEYPRESS ON DI2	1x20034 2x20034 I:20033	1,0x01 B:01			BIT R/O	
SHORT KEYPRESS ON DI3	1x20035 2x20035 I:20034	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI4	1x20036 2x20036 I:20035	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI5	1x20037 2x20037 I:20036	1,0x01 B:01			BIT R/O	
SHORT KEYPRESS ON DI6	1x20038 2x20038 I:20037	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI7	1x20039 2x20039 I:20038	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI8	1x20040 2x20040 I:20039	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI9	1x20041 2x20041 I:20040	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI10	1x20042 2x20042 I:20041	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI11	1x20043 2x20043 I:20042	0,0x00 B:00			BIT R/O	

SHORT KEYPRESS ON DI12	1x20044 2x20044 I:20043	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI13	1x20045 2x20045 I:20044	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI14	1x20046 2x20046 I:20045	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI15	1x20047 2x20047 I:20046	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI16	1x20048 2x20048 I:20047	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI17	1x20049 2x20049 I:20048	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI18	1x20050 2x20050 I:20049	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI19	1x20051 2x20051 I:20050	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI20	1x20052 2x20052 I:20051	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI21	1x20053 2x20053 I:20052	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI22	1x20054 2x20054 I:20053	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI23	1x20055 2x20055 I:20054	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI24	1x20056 2x20056 I:20055	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI25	1x20057 2x20057 I:20056	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI26	1x20058 2x20058 I:20057	0,0x00 B:00			BIT R/O	

SHORT KEYPRESS ON DI27	1x20059 2x20059 I:20058	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI28	1x20060 2x20060 I:20059	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI29	1x20061 2x20061 I:20060	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI30	1x20062 2x20062 I:20061	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI31	1x20063 2x20063 I:20062	0,0x00 B:00			BIT R/O	
SHORT KEYPRESS ON DI32	1x20064 2x20064 I:20063	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: LONG KEYPRESS START EVENT ON DIGITAL INPUT DETECTED						
LONG KEYPRESS START ON DI1	1x20065 2x20065 I:20064	1,0x01 B:01			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	1x20066 2x20066 I:20065	1,0x01 B:01			BIT R/O	
LONG KEYPRESS START ON DI3	1x20067 2x20067 I:20066	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI4	1x20068 2x20068 I:20067	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI5	1x20069 2x20069 I:20068	1,0x01 B:01			BIT R/O	
LONG KEYPRESS START ON DI6	1x20070 2x20070 I:20069	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI7	1x20071 2x20071 I:20070	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI8	1x20072 2x20072 I:20071	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI9	1x20073 2x20073 I:20072	0,0x00 B:00			BIT R/O	

LONG KEYPRESS START ON DI10	1x20074 2x20074 I:20073	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI11	1x20075 2x20075 I:20074	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI12	1x20076 2x20076 I:20075	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI13	1x20077 2x20077 I:20076	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI14	1x20078 2x20078 I:20077	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI15	1x20079 2x20079 I:20078	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI16	1x20080 2x20080 I:20079	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI17	1x20081 2x20081 I:20080	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI18	1x20082 2x20082 I:20081	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI19	1x20083 2x20083 I:20082	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI20	1x20084 2x20084 I:20083	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI21	1x20085 2x20085 I:20084	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI22	1x20086 2x20086 I:20085	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI23	1x20087 2x20087 I:20086	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI24	1x20088 2x20088 I:20087	0,0x00 B:00			BIT R/O	

LONG KEYPRESS START ON DI25	1x20089 2x20089 I:20088	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI26	1x20090 2x20090 I:20089	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI27	1x20091 2x20091 I:20090	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI28	1x20092 2x20092 I:20091	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI29	1x20093 2x20093 I:20092	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI30	1x20094 2x20094 I:20093	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI31	1x20095 2x20095 I:20094	0,0x00 B:00			BIT R/O	
LONG KEYPRESS START ON DI32	1x20096 2x20096 I:20095	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: LONG KEYPRESS END EVENT ON DIGITAL INPUT DETECTED						
LONG KEYPRESS END ON DI1	1x20097 2x20097 I:20096	1,0x01 B:01			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	1x20098 2x20098 I:20097	1,0x01 B:01			BIT R/O	
LONG KEYPRESS END ON DI3	1x20099 2x20099 I:20098	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI4	1x20100 2x20100 I:20099	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI5	1x20101 2x20101 I:20100	1,0x01 B:01			BIT R/O	
LONG KEYPRESS END ON DI6	1x20102 2x20102 I:20101	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI7	1x20103 2x20103 I:20102	0,0x00 B:00			BIT R/O	

LONG KEYPRESS END ON DI8	1x20104 2x20104 I:20103	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI9	1x20105 2x20105 I:20104	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI10	1x20106 2x20106 I:20105	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI11	1x20107 2x20107 I:20106	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI12	1x20108 2x20108 I:20107	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI13	1x20109 2x20109 I:20108	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI14	1x20110 2x20110 I:20109	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI15	1x20111 2x20111 I:20110	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI16	1x20112 2x20112 I:20111	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI17	1x20113 2x20113 I:20112	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI18	1x20114 2x20114 I:20113	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI19	1x20115 2x20115 I:20114	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI20	1x20116 2x20116 I:20115	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI21	1x20117 2x20117 I:20116	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI22	1x20118 2x20118 I:20117	0,0x00 B:00			BIT R/O	

LONG KEYPRESS END ON DI23	1x20119 2x20119 I:20118	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI24	1x20120 2x20120 I:20119	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI25	1x20121 2x20121 I:20120	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI26	1x20122 2x20122 I:20121	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI27	1x20123 2x20123 I:20122	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI28	1x20124 2x20124 I:20123	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI29	1x20125 2x20125 I:20124	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI30	1x20126 2x20126 I:20125	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI31	1x20127 2x20127 I:20126	0,0x00 B:00			BIT R/O	
LONG KEYPRESS END ON DI32	1x20128 2x20128 I:20127	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: RISING EDGE ON DIGITAL INPUT DETECTED						
RISING EDGE ON DI1	1x20129 2x20129 I:20128	1,0x01 B:01			BIT R/O	
If a rising edge was detected on the digital input this bit inverts its last state						
RISING EDGE ON DI2	1x20130 2x20130 I:20129	1,0x01 B:01			BIT R/O	
RISING EDGE ON DI3	1x20131 2x20131 I:20130	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI4	1x20132 2x20132 I:20131	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI5	1x20133 2x20133 I:20132	1,0x01 B:01			BIT R/O	

RISING EDGE ON DI6	1x20134 2x20134 I:20133	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI7	1x20135 2x20135 I:20134	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI8	1x20136 2x20136 I:20135	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI9	1x20137 2x20137 I:20136	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI10	1x20138 2x20138 I:20137	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI11	1x20139 2x20139 I:20138	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI12	1x20140 2x20140 I:20139	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI13	1x20141 2x20141 I:20140	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI14	1x20142 2x20142 I:20141	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI15	1x20143 2x20143 I:20142	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI16	1x20144 2x20144 I:20143	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI17	1x20145 2x20145 I:20144	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI18	1x20146 2x20146 I:20145	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI19	1x20147 2x20147 I:20146	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI20	1x20148 2x20148 I:20147	0,0x00 B:00			BIT R/O	

RISING EDGE ON DI21	1x20149 2x20149 I:20148	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI22	1x20150 2x20150 I:20149	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI23	1x20151 2x20151 I:20150	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI24	1x20152 2x20152 I:20151	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI25	1x20153 2x20153 I:20152	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI26	1x20154 2x20154 I:20153	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI27	1x20155 2x20155 I:20154	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI28	1x20156 2x20156 I:20155	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI29	1x20157 2x20157 I:20156	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI30	1x20158 2x20158 I:20157	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI31	1x20159 2x20159 I:20158	0,0x00 B:00			BIT R/O	
RISING EDGE ON DI32	1x20160 2x20160 I:20159	0,0x00 B:00			BIT R/O	
DIGITAL INPUTS: FALLING EDGE ON DIGITAL INPUT DETECTED						
FALLING EDGE ON DI1	1x20161 2x20161 I:20160	1,0x01 B:01			BIT R/O	
If a falling edge was detected on the digital input this bit inverts its last state						
FALLING EDGE ON DI2	1x20162 2x20162 I:20161	1,0x01 B:01			BIT R/O	
FALLING EDGE ON DI3	1x20163 2x20163 I:20162	0,0x00 B:00			BIT R/O	

FALLING EDGE ON DI4	1x20164 2x20164 I:20163	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI5	1x20165 2x20165 I:20164	1,0x01 B:01			BIT R/O	
FALLING EDGE ON DI6	1x20166 2x20166 I:20165	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI7	1x20167 2x20167 I:20166	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI8	1x20168 2x20168 I:20167	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI9	1x20169 2x20169 I:20168	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI10	1x20170 2x20170 I:20169	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI11	1x20171 2x20171 I:20170	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI12	1x20172 2x20172 I:20171	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI13	1x20173 2x20173 I:20172	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI14	1x20174 2x20174 I:20173	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI15	1x20175 2x20175 I:20174	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI16	1x20176 2x20176 I:20175	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI17	1x20177 2x20177 I:20176	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI18	1x20178 2x20178 I:20177	0,0x00 B:00			BIT R/O	

FALLING EDGE ON DI19	1x20179 2x20179 I:20178	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI20	1x20180 2x20180 I:20179	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI21	1x20181 2x20181 I:20180	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI22	1x20182 2x20182 I:20181	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI23	1x20183 2x20183 I:20182	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI24	1x20184 2x20184 I:20183	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI25	1x20185 2x20185 I:20184	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI26	1x20186 2x20186 I:20185	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI27	1x20187 2x20187 I:20186	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI28	1x20188 2x20188 I:20187	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI29	1x20189 2x20189 I:20188	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI30	1x20190 2x20190 I:20189	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI31	1x20191 2x20191 I:20190	0,0x00 B:00			BIT R/O	
FALLING EDGE ON DI32	1x20192 2x20192 I:20191	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						
DI1	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						
DI2	3x00002 4x00002 I:1	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI2:0=OFF						
DI3	3x00003 4x00003 I:2	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI3:0=OFF						
DI4	3x00004 4x00004 I:3	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI4:0=OFF						
DI5	3x00005 4x00005 I:4	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI5:0=OFF						
DI6	3x00006 4x00006 I:5	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI6:0=OFF						
DI7	3x00007 4x00007 I:6	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI7:0=OFF						
DI8	3x00008 4x00008 I:7	0,0x0000 B:00 00			UINT16 R/O	
Actual state of DI8:0=OFF						
DI9	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				
DI21	3x00021 4x00021 I:20	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI21:0=OFF				

DI22	3x00022 4x00022 I:21	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI22:0=OFF				
DI23	3x00023 4x00023 I:22	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI23:0=OFF				
DI24	3x00024 4x00024 I:23	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI24:0=OFF				
DI25	3x00025 4x00025 I:24	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI25:0=OFF				
DI26	3x00026 4x00026 I:25	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI26:0=OFF				
DI27	3x00027 4x00027 I:26	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI27:0=OFF				
DI28	3x00028 4x00028 I:27	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI28:0=OFF				
DI29	3x00029 4x00029 I:28	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI29:0=OFF				
DI30	3x00030 4x00030 I:29	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI30:0=OFF				
DI31	3x00031 4x00031 I:30	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI31:0=OFF				
DI32	3x00032 4x00032 I:31	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of DI32:0=OFF				
STATUS DIGITAL OUTPUTS						

DO1	3x00033 4x00033 I:32	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	3x00034 4x00034 I:33	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO2:0=OFF	ENTER NEW STATE (0 or 1)		
DO3	3x00035 4x00035 I:34	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO3:0=OFF	ENTER NEW STATE (0 or 1)		
DO4	3x00036 4x00036 I:35	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO4:0=OFF	ENTER NEW STATE (0 or 1)		
DO5	3x00037 4x00037 I:36	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO5:0=OFF	ENTER NEW STATE (0 or 1)		
DO6	3x00038 4x00038 I:37	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO6:0=OFF	ENTER NEW STATE (0 or 1)		
DO7	3x00039 4x00039 I:38	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO7:0=OFF	ENTER NEW STATE (0 or 1)		
DO8	3x00040 4x00040 I:39	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO8:0=OFF	ENTER NEW STATE (0 or 1)		
DO9	3x00041 4x00041 I:40	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO9:0=OFF	ENTER NEW STATE (0 or 1)		
DO10	3x00042 4x00042 I:41	0,0x0000 B:00 00	0	UINT16 R/W	NO
		Actual state of DO10:0=OFF	ENTER NEW STATE (0 or 1)		
DO11	3x00043 4x00043 I:42	0,0x0000 B:00 00	0	UINT16 R/W	NO

		Actual state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	3x00044 4x00044 I:43	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DO13	3x00045 4x00045 I:44	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO13:0=OFF		ENTER NEW STATE (0 or 1)		
DO14	3x00046 4x00046 I:45	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO14:0=OFF		ENTER NEW STATE (0 or 1)		
DO15	3x00047 4x00047 I:46	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO15:0=OFF		ENTER NEW STATE (0 or 1)		
DO16	3x00048 4x00048 I:47	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO16:0=OFF		ENTER NEW STATE (0 or 1)		
DO17	3x00049 4x00049 I:48	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO17:0=OFF		ENTER NEW STATE (0 or 1)		
DO18	3x00050 4x00050 I:49	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO18:0=OFF		ENTER NEW STATE (0 or 1)		
DO19	3x00051 4x00051 I:50	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO19:0=OFF		ENTER NEW STATE (0 or 1)		
DO20	3x00052 4x00052 I:51	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO20:0=OFF		ENTER NEW STATE (0 or 1)		
DO21	3x00053 4x00053 I:52	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO21:0=OFF		ENTER NEW STATE (0 or 1)		
DO22	3x00054 4x00054 I:53	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO22:0=OFF		ENTER NEW STATE (0 or 1)		

DO23	3x00055 4x00055 I:54	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO23:0=OFF		ENTER NEW STATE (0 or 1)		
DO24	3x00056 4x00056 I:55	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO24:0=OFF		ENTER NEW STATE (0 or 1)		
DO25	3x00057 4x00057 I:56	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO25:0=OFF		ENTER NEW STATE (0 or 1)		
DO26	3x00058 4x00058 I:57	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO26:0=OFF		ENTER NEW STATE (0 or 1)		
DO27	3x00059 4x00059 I:58	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO27:0=OFF		ENTER NEW STATE (0 or 1)		
DO28	3x00060 4x00060 I:59	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO28:0=OFF		ENTER NEW STATE (0 or 1)		
DO29	3x00061 4x00061 I:60	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO29:0=OFF		ENTER NEW STATE (0 or 1)		
DO30	3x00062 4x00062 I:61	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO30:0=OFF		ENTER NEW STATE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION ON						
ENABLE OPEN WIRE DETECTION ON DO1	3x00063 4x00063 I:62	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO1:1=ON		ENTER NEW SETUP MODE (0 or 1)		
Enables/disabled detection of an open wire in DO state ON for the digital output DOx =0:Open wire detection is OFF, =1:Open wire detection is ON						
Writing on this register changes the state of the open wire detection for this output						
ENABLE OPEN WIRE DETECTION ON DO2	3x00064 4x00064 I:63	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO2:1=ON		ENTER NEW SETUP MODE (0 or 1)		

ENABLE OPEN WIRE DETECTION ON DO3	3x00065 4x00065 I:64	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO3:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO4	3x00066 4x00066 I:65	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO4:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO5	3x00067 4x00067 I:66	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO5:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO6	3x00068 4x00068 I:67	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO6:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO7	3x00069 4x00069 I:68	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO7:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO8	3x00070 4x00070 I:69	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO8:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO9	3x00071 4x00071 I:70	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO9:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO10	3x00072 4x00072 I:71	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO10:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO11	3x00073 4x00073 I:72	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO11:1=ON		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION ON DO12	3x00074 4x00074 I:73	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO12:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO13	3x00075 4x00075 I:74	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO13:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO14	3x00076 4x00076 I:75	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO14:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO15	3x00077 4x00077 I:76	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO15:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO16	3x00078 4x00078 I:77	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO16:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO17	3x00079 4x00079 I:78	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO17:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO18	3x00080 4x00080 I:79	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO18:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO19	3x00081 4x00081 I:80	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO19:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION ON DO20	3x00082 4x00082 I:81	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO20:1=ON		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION ON DO21	3x00083 4x00083 I:82	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO21:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO22	3x00084 4x00084 I:83	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO22:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO23	3x00085 4x00085 I:84	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO23:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO24	3x00086 4x00086 I:85	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO24:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO25	3x00087 4x00087 I:86	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO25:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO26	3x00088 4x00088 I:87	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO26:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO27	3x00089 4x00089 I:88	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO27:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO28	3x00090 4x00090 I:89	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO28:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION ON DO29	3x00091 4x00091 I:90	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO29:1=ON		ENTER NEW SETUP MODE (0 or 1)		

ENABLE OPEN WIRE DETECTION ON DO30	3x00092 4x00092 I:91	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state ON of DO30:1=ON		ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION OFF						
ENABLE OPEN WIRE DETECTION OFF DO1	3x00093 4x00093 I:92	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO1:1=ON		ENTER NEW SETUP MODE (0 or 1)		
Enables/disabled detection of an open wire in DO state OFF for the digital output DOx =0:Open wire detection is OFF, =1:Open wire detection is ON						
Writing on this register changes the state of the open wire detection for this output						
ENABLE OPEN WIRE DETECTION OFF DO2	3x00094 4x00094 I:93	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO2:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO3	3x00095 4x00095 I:94	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO3:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO4	3x00096 4x00096 I:95	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO4:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO5	3x00097 4x00097 I:96	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO5:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO6	3x00098 4x00098 I:97	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO6:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO7	3x00099 4x00099 I:98	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO7:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO8	3x00100 4x00100 I:99	1,0x0001 B:00 01		1	UINT16 R/W	NO

		Actual setup of open wire detection for state OFF of DO8:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO9	3x00101 4x00101 I:100	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO9:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO10	3x00102 4x00102 I:101	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO10:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO11	3x00103 4x00103 I:102	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO11:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO12	3x00104 4x00104 I:103	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO12:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO13	3x00105 4x00105 I:104	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO13:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO14	3x00106 4x00106 I:105	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO14:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO15	3x00107 4x00107 I:106	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO15:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO16	3x00108 4x00108 I:107	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO16:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO17	3x00109 4x00109 I:108	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO17:1=ON	ENTER NEW SETUP MODE (0 or 1)		

ENABLE OPEN WIRE DETECTION OFF DO18	3x00110 4x00110 I:109	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO18:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO19	3x00111 4x00111 I:110	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO19:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO20	3x00112 4x00112 I:111	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO20:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO21	3x00113 4x00113 I:112	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO21:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO22	3x00114 4x00114 I:113	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO22:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO23	3x00115 4x00115 I:114	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO23:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO24	3x00116 4x00116 I:115	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO24:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO25	3x00117 4x00117 I:116	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO25:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE OPEN WIRE DETECTION OFF DO26	3x00118 4x00118 I:117	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO26:1=ON		ENTER NEW SETUP MODE (0 or 1)			

ENABLE OPEN WIRE DETECTION OFF DO27	3x00119 4x00119 I:118	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO27:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO28	3x00120 4x00120 I:119	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO28:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO29	3x00121 4x00121 I:120	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO29:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO30	3x00122 4x00122 I:121	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO30:1=ON		ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: ENABLE SHORT TO VDD DETECTION						
ENABLE SHORT TO VDD DETECTION DO1	3x00123 4x00123 I:122	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO1:1=ON		ENTER NEW SETUP MODE (0 or 1)		
Enables/disabled detection of a shortcut to VDD in DO state OFF for the digital output DOx =0:Shortcut to VDD detection is OFF, =1:Shortcut to VDD detection is ON						
Writing on this register changes the state of the shortcut detection for this output						
ENABLE SHORT TO VDD DETECTION DO2	3x00124 4x00124 I:123	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO2:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO3	3x00125 4x00125 I:124	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO3:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO4	3x00126 4x00126 I:125	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO4:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO5	3x00127 4x00127 I:126	1,0x0001 B:00 01		1	UINT16 R/W	NO

		Actual setup of open wire detection for state OFF of DO5:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO6	3x00128 4x00128 I:127	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO6:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO7	3x00129 4x00129 I:128	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO7:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO8	3x00130 4x00130 I:129	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO8:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO9	3x00131 4x00131 I:130	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO9:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO10	3x00132 4x00132 I:131	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO10:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO11	3x00133 4x00133 I:132	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO11:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO12	3x00134 4x00134 I:133	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO12:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO13	3x00135 4x00135 I:134	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO13:1=ON	ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO14	3x00136 4x00136 I:135	1,0x0001 B:00 01	1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO14:1=ON	ENTER NEW SETUP MODE (0 or 1)		

ENABLE SHORT TO VDD DETECTION DO15	3x00137 4x00137 I:136	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO15:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO16	3x00138 4x00138 I:137	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO16:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO17	3x00139 4x00139 I:138	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO17:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO18	3x00140 4x00140 I:139	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO18:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO19	3x00141 4x00141 I:140	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO19:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO20	3x00142 4x00142 I:141	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO20:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO21	3x00143 4x00143 I:142	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO21:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO22	3x00144 4x00144 I:143	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO22:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO23	3x00145 4x00145 I:144	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO23:1=ON		ENTER NEW SETUP MODE (0 or 1)		

ENABLE SHORT TO VDD DETECTION DO24	3x00146 4x00146 I:145	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO24:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO25	3x00147 4x00147 I:146	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO25:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO26	3x00148 4x00148 I:147	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO26:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO27	3x00149 4x00149 I:148	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO27:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO28	3x00150 4x00150 I:149	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO28:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO29	3x00151 4x00151 I:150	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO29:1=ON		ENTER NEW SETUP MODE (0 or 1)			
ENABLE SHORT TO VDD DETECTION DO30	3x00152 4x00152 I:151	1,0x0001 B:00 01		1		UINT16 R/W	NO
		Actual setup of open wire detection for state OFF of DO30:1=ON		ENTER NEW SETUP MODE (0 or 1)			
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE ON							
OPEN WIRE FAULT WHILE ON DO1	3x00153 4x00153 I:152	0,0x0000 B:00 00				UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO1:0=OK					
The current detection state of an open wire in the output state ON for the digital output DOx =0:No fault, =1:Fault-open wire detected							
OPEN WIRE FAULT WHILE ON DO2	3x00154 4x00154 I:153	0,0x0000 B:00 00				UINT16 R/O	

		Actual detection state of an open wire fault in state ON for DO2:0=OK			
OPEN WIRE FAULT WHILE ON DO3	3x00155 4x00155 I:154	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO3:0=OK			
OPEN WIRE FAULT WHILE ON DO4	3x00156 4x00156 I:155	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO4:0=OK			
OPEN WIRE FAULT WHILE ON DO5	3x00157 4x00157 I:156	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO5:0=OK			
OPEN WIRE FAULT WHILE ON DO6	3x00158 4x00158 I:157	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO6:0=OK			
OPEN WIRE FAULT WHILE ON DO7	3x00159 4x00159 I:158	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO7:0=OK			
OPEN WIRE FAULT WHILE ON DO8	3x00160 4x00160 I:159	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO8:0=OK			
OPEN WIRE FAULT WHILE ON DO9	3x00161 4x00161 I:160	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO9:0=OK			
OPEN WIRE FAULT WHILE ON DO10	3x00162 4x00162 I:161	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO10:0=OK			
OPEN WIRE FAULT WHILE ON DO11	3x00163 4x00163 I:162	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state ON for DO11:0=OK			

OPEN WIRE FAULT WHILE ON DO12	3x00164 4x00164 I:163	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO12:0=OK				
OPEN WIRE FAULT WHILE ON DO13	3x00165 4x00165 I:164	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO13:0=OK				
OPEN WIRE FAULT WHILE ON DO14	3x00166 4x00166 I:165	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO14:0=OK				
OPEN WIRE FAULT WHILE ON DO15	3x00167 4x00167 I:166	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO15:0=OK				
OPEN WIRE FAULT WHILE ON DO16	3x00168 4x00168 I:167	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO16:0=OK				
OPEN WIRE FAULT WHILE ON DO17	3x00169 4x00169 I:168	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO17:0=OK				
OPEN WIRE FAULT WHILE ON DO18	3x00170 4x00170 I:169	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO18:0=OK				
OPEN WIRE FAULT WHILE ON DO19	3x00171 4x00171 I:170	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO19:0=OK				
OPEN WIRE FAULT WHILE ON DO20	3x00172 4x00172 I:171	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO20:0=OK				

OPEN WIRE FAULT WHILE ON DO21	3x00173 4x00173 I:172	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO21:0=OK				
OPEN WIRE FAULT WHILE ON DO22	3x00174 4x00174 I:173	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO22:0=OK				
OPEN WIRE FAULT WHILE ON DO23	3x00175 4x00175 I:174	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO23:0=OK				
OPEN WIRE FAULT WHILE ON DO24	3x00176 4x00176 I:175	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO24:0=OK				
OPEN WIRE FAULT WHILE ON DO25	3x00177 4x00177 I:176	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO25:0=OK				
OPEN WIRE FAULT WHILE ON DO26	3x00178 4x00178 I:177	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO26:0=OK				
OPEN WIRE FAULT WHILE ON DO27	3x00179 4x00179 I:178	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO27:0=OK				
OPEN WIRE FAULT WHILE ON DO28	3x00180 4x00180 I:179	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO28:0=OK				
OPEN WIRE FAULT WHILE ON DO29	3x00181 4x00181 I:180	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO29:0=OK				

OPEN WIRE FAULT WHILE ON DO30	3x00182 4x00182 I:181	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state ON for DO30:0=OK				
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE OFF						
OPEN WIRE FAULT WHILE OFF DO1	3x00183 4x00183 I:182	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO1:0=OK				
The current detection state of an open wire in the output state OFF for the digital output DOx =0:No fault, =1:Fault-open wire detected						
OPEN WIRE FAULT WHILE OFF DO2	3x00184 4x00184 I:183	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO2:0=OK				
OPEN WIRE FAULT WHILE OFF DO3	3x00185 4x00185 I:184	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO3:0=OK				
OPEN WIRE FAULT WHILE OFF DO4	3x00186 4x00186 I:185	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO4:0=OK				
OPEN WIRE FAULT WHILE OFF DO5	3x00187 4x00187 I:186	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO5:0=OK				
OPEN WIRE FAULT WHILE OFF DO6	3x00188 4x00188 I:187	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO6:0=OK				
OPEN WIRE FAULT WHILE OFF DO7	3x00189 4x00189 I:188	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO7:0=OK				
OPEN WIRE FAULT WHILE OFF DO8	3x00190 4x00190 I:189	0,0x0000 B:00 00			UINT16 R/O	

		Actual detection state of an open wire fault in state OFF for DO8:0=OK			
OPEN WIRE FAULT WHILE OFF DO9	3x00191 4x00191 I:190	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO9:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO10	3x00192 4x00192 I:191	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO10:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO11	3x00193 4x00193 I:192	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO11:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO12	3x00194 4x00194 I:193	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO12:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO13	3x00195 4x00195 I:194	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO13:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO14	3x00196 4x00196 I:195	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO14:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO15	3x00197 4x00197 I:196	1,0x0001 B:00 01			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO15:1=FAULT			
OPEN WIRE FAULT WHILE OFF DO16	3x00198 4x00198 I:197	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO16:0=OK			
OPEN WIRE FAULT WHILE OFF DO17	3x00199 4x00199 I:198	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of an open wire fault in state OFF for DO17:0=OK			

OPEN WIRE FAULT WHILE OFF DO18	3x00200 4x00200 I:199	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO18:0=OK				
OPEN WIRE FAULT WHILE OFF DO19	3x00201 4x00201 I:200	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO19:0=OK				
OPEN WIRE FAULT WHILE OFF DO20	3x00202 4x00202 I:201	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO20:0=OK				
OPEN WIRE FAULT WHILE OFF DO21	3x00203 4x00203 I:202	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO21:0=OK				
OPEN WIRE FAULT WHILE OFF DO22	3x00204 4x00204 I:203	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO22:0=OK				
OPEN WIRE FAULT WHILE OFF DO23	3x00205 4x00205 I:204	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO23:0=OK				
OPEN WIRE FAULT WHILE OFF DO24	3x00206 4x00206 I:205	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO24:0=OK				
OPEN WIRE FAULT WHILE OFF DO25	3x00207 4x00207 I:206	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO25:0=OK				
OPEN WIRE FAULT WHILE OFF DO26	3x00208 4x00208 I:207	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO26:0=OK				

OPEN WIRE FAULT WHILE OFF DO27	3x00209 4x00209 I:208	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO27:0=OK				
OPEN WIRE FAULT WHILE OFF DO28	3x00210 4x00210 I:209	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO28:0=OK				
OPEN WIRE FAULT WHILE OFF DO29	3x00211 4x00211 I:210	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO29:0=OK				
OPEN WIRE FAULT WHILE OFF DO30	3x00212 4x00212 I:211	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of an open wire fault in state OFF for DO30:0=OK				
DIGITAL OUTPUTS: SHORTCUT DETECTION STATUS TO VDD WHILE OFF						
OPEN WIRE SHORTCUT TO VDD DO1	3x00213 4x00213 I:212	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO1:0=OK				
The current detection state of a shortcut to VDD in the output state OFF for the digital output DOx =0:No fault, =1:Fault-shortcut to VDD detected						
OPEN WIRE SHORTCUT TO VDD DO2	3x00214 4x00214 I:213	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO2:0=OK				
OPEN WIRE SHORTCUT TO VDD DO3	3x00215 4x00215 I:214	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO3:0=OK				
OPEN WIRE SHORTCUT TO VDD DO4	3x00216 4x00216 I:215	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO4:0=OK				

OPEN WIRE SHORTCUT TO VDD DO5	3x00217 4x00217 I:216	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO5:0=OK				
OPEN WIRE SHORTCUT TO VDD DO6	3x00218 4x00218 I:217	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO6:0=OK				
OPEN WIRE SHORTCUT TO VDD DO7	3x00219 4x00219 I:218	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO7:0=OK				
OPEN WIRE SHORTCUT TO VDD DO8	3x00220 4x00220 I:219	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO8:0=OK				
OPEN WIRE SHORTCUT TO VDD DO9	3x00221 4x00221 I:220	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO9:0=OK				
OPEN WIRE SHORTCUT TO VDD DO10	3x00222 4x00222 I:221	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO10:0=OK				
OPEN WIRE SHORTCUT TO VDD DO11	3x00223 4x00223 I:222	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO11:0=OK				
OPEN WIRE SHORTCUT TO VDD DO12	3x00224 4x00224 I:223	0,0x0000 B:00 00			UINT16 R/O	

		Actual detection state of a shortcut to VDD in state OFF for VDD DO12:0=OK			
OPEN WIRE SHORTCUT TO VDD DO13	3x00225 4x00225 I:224	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO13:0=OK			
OPEN WIRE SHORTCUT TO VDD DO14	3x00226 4x00226 I:225	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO14:0=OK			
OPEN WIRE SHORTCUT TO VDD DO15	3x00227 4x00227 I:226	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO15:0=OK			
OPEN WIRE SHORTCUT TO VDD DO16	3x00228 4x00228 I:227	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO16:0=OK			
OPEN WIRE SHORTCUT TO VDD DO17	3x00229 4x00229 I:228	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO17:0=OK			
OPEN WIRE SHORTCUT TO VDD DO18	3x00230 4x00230 I:229	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO18:0=OK			
OPEN WIRE SHORTCUT TO VDD DO19	3x00231 4x00231 I:230	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO19:0=OK			

OPEN WIRE SHORTCUT TO VDD DO20	3x00232 4x00232 I:231	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO20:0=OK				
OPEN WIRE SHORTCUT TO VDD DO21	3x00233 4x00233 I:232	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO21:0=OK				
OPEN WIRE SHORTCUT TO VDD DO22	3x00234 4x00234 I:233	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO22:0=OK				
OPEN WIRE SHORTCUT TO VDD DO23	3x00235 4x00235 I:234	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO23:0=OK				
OPEN WIRE SHORTCUT TO VDD DO24	3x00236 4x00236 I:235	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO24:0=OK				
OPEN WIRE SHORTCUT TO VDD DO25	3x00237 4x00237 I:236	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO25:0=OK				
OPEN WIRE SHORTCUT TO VDD DO26	3x00238 4x00238 I:237	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a shortcut to VDD in state OFF for VDD DO26:0=OK				
OPEN WIRE SHORTCUT TO VDD DO27	3x00239 4x00239 I:238	0,0x0000 B:00 00			UINT16 R/O	

		Actual detection state of a shortcut to VDD in state OFF for VDD DO27:0=OK			
OPEN WIRE SHORTCUT TO VDD DO28	3x00240 4x00240 I:239	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO28:0=OK			
OPEN WIRE SHORTCUT TO VDD DO29	3x00241 4x00241 I:240	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO29:0=OK			
OPEN WIRE SHORTCUT TO VDD DO30	3x00242 4x00242 I:241	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a shortcut to VDD in state OFF for VDD DO30:0=OK			
DIGITAL OUTPUTS: THERMAL OVERLOAD DETECTION STATUS					
THERMAL OVERLOAD DETECTION STATUS DO1	3x00243 4x00243 I:242	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a thermal overload for DO1:0=OK			
The current detection state of a thermal overload for the digital output DOx =0:No fault, =1:Fault-thermal overload detected					
THERMAL OVERLOAD DETECTION STATUS DO2	3x00244 4x00244 I:243	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a thermal overload for DO2:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO3	3x00245 4x00245 I:244	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a thermal overload for DO3:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO4	3x00246 4x00246 I:245	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a thermal overload for DO4:0=OK			
THERMAL OVERLOAD DETECTION STATUS DO5	3x00247 4x00247 I:246	0,0x0000 B:00 00			UINT16 R/O

		Actual detection state of a thermal overload for DO5:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO6	3x00248 4x00248 I:247	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO6:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO7	3x00249 4x00249 I:248	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO7:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO8	3x00250 4x00250 I:249	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO8:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO9	3x00251 4x00251 I:250	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO9:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO10	3x00252 4x00252 I:251	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO10:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO11	3x00253 4x00253 I:252	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO11:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO12	3x00254 4x00254 I:253	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO12:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO13	3x00255 4x00255 I:254	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO13:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO14	3x00256 4x00256 I:255	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO14:0=OK				

THERMAL OVERLOAD DETECTION STATUS DO15	3x00257 4x00257 I:256	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO15:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO16	3x00258 4x00258 I:257	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO16:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO17	3x00259 4x00259 I:258	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO17:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO18	3x00260 4x00260 I:259	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO18:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO19	3x00261 4x00261 I:260	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO19:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO20	3x00262 4x00262 I:261	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO20:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO21	3x00263 4x00263 I:262	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO21:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO22	3x00264 4x00264 I:263	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO22:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO23	3x00265 4x00265 I:264	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO23:0=OK				

THERMAL OVERLOAD DETECTION STATUS DO24	3x00266 4x00266 I:265	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO24:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO25	3x00267 4x00267 I:266	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO25:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO26	3x00268 4x00268 I:267	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO26:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO27	3x00269 4x00269 I:268	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO27:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO28	3x00270 4x00270 I:269	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO28:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO29	3x00271 4x00271 I:270	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO29:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO30	3x00272 4x00272 I:271	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a thermal overload for DO30:0=OK				
DIGITAL OUTPUTS: CURRENT LIMIT DETECTION STATUS WHILE ON						
CURRENT LIMIT DETECTION STATUS WHILE ON DO1	3x00273 4x00273 I:272	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO1:0=OK				
The current detection state of a current limit while output is ON for the digital output DOx =0:No fault, =1:Fault-current limit error						
CURRENT LIMIT DETECTION STATUS WHILE ON DO2	3x00274 4x00274 I:273	0,0x0000 B:00 00			UINT16 R/O	

		Actual detection state of a current limit while ON for DO2:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO3	3x00275 4x00275 I:274	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO3:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO4	3x00276 4x00276 I:275	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO4:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO5	3x00277 4x00277 I:276	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO5:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO6	3x00278 4x00278 I:277	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO6:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO7	3x00279 4x00279 I:278	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO7:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO8	3x00280 4x00280 I:279	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO8:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO9	3x00281 4x00281 I:280	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO9:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO10	3x00282 4x00282 I:281	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO10:0=OK			
CURRENT LIMIT DETECTION STATUS WHILE ON DO11	3x00283 4x00283 I:282	0,0x0000 B:00 00			UINT16 R/O
		Actual detection state of a current limit while ON for DO11:0=OK			

CURRENT LIMIT DETECTION STATUS WHILE ON DO12	3x00284 4x00284 I:283	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO12:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO13	3x00285 4x00285 I:284	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO13:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO14	3x00286 4x00286 I:285	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO14:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO15	3x00287 4x00287 I:286	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO15:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO16	3x00288 4x00288 I:287	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO16:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO17	3x00289 4x00289 I:288	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO17:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO18	3x00290 4x00290 I:289	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO18:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO19	3x00291 4x00291 I:290	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO19:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO20	3x00292 4x00292 I:291	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO20:0=OK				

CURRENT LIMIT DETECTION STATUS WHILE ON DO21	3x00293 4x00293 I:292	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO21:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO22	3x00294 4x00294 I:293	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO22:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO23	3x00295 4x00295 I:294	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO23:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO24	3x00296 4x00296 I:295	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO24:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO25	3x00297 4x00297 I:296	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO25:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO26	3x00298 4x00298 I:297	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO26:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO27	3x00299 4x00299 I:298	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO27:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO28	3x00300 4x00300 I:299	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO28:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO29	3x00301 4x00301 I:300	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO29:0=OK				

CURRENT LIMIT DETECTION STATUS WHILE ON DO30	3x00302 4x00302 I:301	0,0x0000 B:00 00			UINT16 R/O	
		Actual detection state of a current limit while ON for DO30:0=OK				

DIGITAL OUTPUTS: GLOBAL ERRORS**CHIP #1:DO1-DO8**

GLOBAL ERRORS BIT 0	3x00303 4x00303 I:302	0,0x0000 B:00 00			UINT16 R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS BIT 1	3x00304 4x00304 I:303	0,0x0000 B:00 00			UINT16 R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS BIT 2	3x00305 4x00305 I:304	0,0x0000 B:00 00			UINT16 R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS BIT 3	3x00306 4x00306 I:305	0,0x0000 B:00 00			UINT16 R/O	
		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS BIT 4	3x00307 4x00307 I:306	0,0x0000 B:00 00			UINT16 R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS BIT 5	3x00308 4x00308 I:307	0,0x0000 B:00 00			UINT16 R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS BIT 6	3x00309 4x00309 I:308	0,0x0000 B:00 00			UINT16 R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS BIT 7	3x00310 4x00310 I:309	0,0x0000 B:00 00			UINT16 R/O	
		BIT 7:Watchdog error detected:0=OK				

The global error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: GLOBAL ERRORS**CHIP #2:DO9-DO15**

GLOBAL ERRORS BIT 0	3x00311 4x00311 I:310	0,0x0000 B:00 00			UINT16 R/O	
		BIT 0:Internal under voltage detected:0=OK				

GLOBAL ERRORS BIT 1	3x00312 4x00312 I:311	0,0x0000 B:00 00			UINT16 R/O	
BIT 1:VA under voltage detected (<2.3V):0=OK						
GLOBAL ERRORS BIT 2	3x00313 4x00313 I:312	0,0x0000 B:00 00			UINT16 R/O	
BIT 2:VDD not good detected (<17V):0=OK						
GLOBAL ERRORS BIT 3	3x00314 4x00314 I:313	0,0x0000 B:00 00			UINT16 R/O	
BIT 3:VDD warning detected (<12V):0=OK						
GLOBAL ERRORS BIT 4	3x00315 4x00315 I:314	0,0x0000 B:00 00			UINT16 R/O	
BIT 4:VDD under voltage detected (<8V):0=OK						
GLOBAL ERRORS BIT 5	3x00316 4x00316 I:315	0,0x0000 B:00 00			UINT16 R/O	
BIT 5:Thermal shutdown:0=OK						
GLOBAL ERRORS BIT 6	3x00317 4x00317 I:316	0,0x0000 B:00 00			UINT16 R/O	
BIT 6:Synchronisation error detected:0=OK						
GLOBAL ERRORS BIT 7	3x00318 4x00318 I:317	0,0x0000 B:00 00			UINT16 R/O	
BIT 7:Watchdog error detected:0=OK						
The global error state for the output group. Each bit stands for a different error =0:No fault, =1:Fault						
DIGITAL OUTPUTS: GLOBAL ERRORS						
CHIP #3:DO16-DO23						
GLOBAL ERRORS BIT 0	3x00319 4x00319 I:318	0,0x0000 B:00 00			UINT16 R/O	
BIT 0:Internal under voltage detected:0=OK						
GLOBAL ERRORS BIT 1	3x00320 4x00320 I:319	0,0x0000 B:00 00			UINT16 R/O	
BIT 1:VA under voltage detected (<2.3V):0=OK						
GLOBAL ERRORS BIT 2	3x00321 4x00321 I:320	1,0x0001 B:00 01			UINT16 R/O	
BIT 2:VDD not good detected (<17V):1=FAULT						
GLOBAL ERRORS BIT 3	3x00322 4x00322 I:321	1,0x0001 B:00 01			UINT16 R/O	

		BIT 3:VDD warning detected (<12V):1=FAULT				
GLOBAL ERRORS BIT 4	3x00323 4x00323 I:322	1,0x0001 B:00 01			UINT16 R/O	
		BIT 4:VDD under voltage detected (<8V):1=FAULT				
GLOBAL ERRORS BIT 5	3x00324 4x00324 I:323	0,0x0000 B:00 00			UINT16 R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS BIT 6	3x00325 4x00325 I:324	0,0x0000 B:00 00			UINT16 R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS BIT 7	3x00326 4x00326 I:325	0,0x0000 B:00 00			UINT16 R/O	
		BIT 7:Watchdog error detected:0=OK				

The global error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: GLOBAL ERRORS**CHIP #4:DO24-DO30**

GLOBAL ERRORS BIT 0	3x00327 4x00327 I:326	0,0x0000 B:00 00			UINT16 R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS BIT 1	3x00328 4x00328 I:327	0,0x0000 B:00 00			UINT16 R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS BIT 2	3x00329 4x00329 I:328	1,0x0001 B:00 01			UINT16 R/O	
		BIT 2:VDD not good detected (<17V):1=FAULT				
GLOBAL ERRORS BIT 3	3x00330 4x00330 I:329	1,0x0001 B:00 01			UINT16 R/O	
		BIT 3:VDD warning detected (<12V):1=FAULT				
GLOBAL ERRORS BIT 4	3x00331 4x00331 I:330	1,0x0001 B:00 01			UINT16 R/O	
		BIT 4:VDD under voltage detected (<8V):1=FAULT				
GLOBAL ERRORS BIT 5	3x00332 4x00332 I:331	0,0x0000 B:00 00			UINT16 R/O	
		BIT 5:Thermal shutdown:0=OK				

GLOBAL ERRORS BIT 6	3x00333 4x00333 I:332	0,0x0000 B:00 00			UINT16 R/O	
BIT 6:Synchronisation error detected:0=OK						
GLOBAL ERRORS BIT 7	3x00334 4x00334 I:333	0,0x0000 B:00 00			UINT16 R/O	
BIT 7:Watchdog error detected:0=OK						

The global error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #1:DO1-DO8						
INTERRUPT STATUS BIT 0	3x00335 4x00335 I:334	0,0x0000 B:00 00			UINT16 R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	3x00336 4x00336 I:335	0,0x0000 B:00 00			UINT16 R/O	
BIT 1:Current limit detected:0=OK						
INTERRUPT STATUS BIT 2	3x00337 4x00337 I:336	0,0x0000 B:00 00			UINT16 R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	3x00338 4x00338 I:337	0,0x0000 B:00 00			UINT16 R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	3x00339 4x00339 I:338	0,0x0000 B:00 00			UINT16 R/O	
BIT 4:Short to VDD while ON detected:0=OK						
INTERRUPT STATUS BIT 5	3x00340 4x00340 I:339	0,0x0000 B:00 00			UINT16 R/O	
BIT 5:Thermal error detected-shutdown:0=OK						
INTERRUPT STATUS BIT 6	3x00341 4x00341 I:340	0,0x0000 B:00 00			UINT16 R/O	
BIT 6:Supply error detected:0=OK						
INTERRUPT STATUS BIT 7	3x00342 4x00342 I:341	0,0x0000 B:00 00			UINT16 R/O	
BIT 7:Communication error detected:0=OK						

The global interrupt error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #2:DO9-DO15						
INTERRUPT STATUS BIT 0	3x00343 4x00343 I:342	0,0x0000 B:00 00			UINT16 R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	3x00344 4x00344 I:343	0,0x0000 B:00 00			UINT16 R/O	
BIT 1:Current limit detected:0=OK						
INTERRUPT STATUS BIT 2	3x00345 4x00345 I:344	1,0x0001 B:00 01			UINT16 R/O	
BIT 2:Open wire while OFF detected:1=FAULT						
INTERRUPT STATUS BIT 3	3x00346 4x00346 I:345	0,0x0000 B:00 00			UINT16 R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	3x00347 4x00347 I:346	0,0x0000 B:00 00			UINT16 R/O	
BIT 4:Short to VDD while ON detected:0=OK						
INTERRUPT STATUS BIT 5	3x00348 4x00348 I:347	0,0x0000 B:00 00			UINT16 R/O	
BIT 5:Thermal error detected-shutdown:0=OK						
INTERRUPT STATUS BIT 6	3x00349 4x00349 I:348	0,0x0000 B:00 00			UINT16 R/O	
BIT 6:Supply error detected:0=OK						
INTERRUPT STATUS BIT 7	3x00350 4x00350 I:349	0,0x0000 B:00 00			UINT16 R/O	
BIT 7:Communication error detected:0=OK						

The global interrupt error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #3:DO16-DO23						
INTERRUPT STATUS BIT 0	3x00351 4x00351 I:350	0,0x0000 B:00 00			UINT16 R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	3x00352 4x00352 I:351	0,0x0000 B:00 00			UINT16 R/O	
BIT 1:Current limit detected:0=OK						

INTERRUPT STATUS BIT 2	3x00353 4x00353 I:352	0,0x0000 B:00 00			UINT16 R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	3x00354 4x00354 I:353	0,0x0000 B:00 00			UINT16 R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	3x00355 4x00355 I:354	0,0x0000 B:00 00			UINT16 R/O	
BIT 4:Short to VDD while ON detected:0=OK						
INTERRUPT STATUS BIT 5	3x00356 4x00356 I:355	0,0x0000 B:00 00			UINT16 R/O	
BIT 5:Thermal error detected-shutdown:0=OK						
INTERRUPT STATUS BIT 6	3x00357 4x00357 I:356	1,0x0001 B:00 01			UINT16 R/O	
BIT 6:Supply error detected:1=FAULT						
INTERRUPT STATUS BIT 7	3x00358 4x00358 I:357	0,0x0000 B:00 00			UINT16 R/O	
BIT 7:Communication error detected:0=OK						

The global interrupt error state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS**CHIP #4:DO24-DO30**

INTERRUPT STATUS BIT 0	3x00359 4x00359 I:358	0,0x0000 B:00 00			UINT16 R/O	
BIT 0:Overload detected:0=OK						
INTERRUPT STATUS BIT 1	3x00360 4x00360 I:359	0,0x0000 B:00 00			UINT16 R/O	
BIT 1:Current limit detected:0=OK						
INTERRUPT STATUS BIT 2	3x00361 4x00361 I:360	0,0x0000 B:00 00			UINT16 R/O	
BIT 2:Open wire while OFF detected:0=OK						
INTERRUPT STATUS BIT 3	3x00362 4x00362 I:361	0,0x0000 B:00 00			UINT16 R/O	
BIT 3:Open wire while ON detected:0=OK						
INTERRUPT STATUS BIT 4	3x00363 4x00363 I:362	0,0x0000 B:00 00			UINT16 R/O	

		BIT 4:Short to VDD while ON detected:0=OK				
INTERRUPT STATUS BIT 5	3x00364 4x00364 I:363	0,0x0000 B:00 00			UINT16 R/O	
		BIT 5:Thermal error detected-shutdown:0=OK				
INTERRUPT STATUS BIT 6	3x00365 4x00365 I:364	1,0x0001 B:00 01			UINT16 R/O	
		BIT 6:Supply error detected:1=FAULT				
INTERRUPT STATUS BIT 7	3x00366 4x00366 I:365	0,0x0000 B:00 00			UINT16 R/O	
		BIT 7:Communication error detected:0=OK				
The global interrupt error state for the output group. Each bit stands for a different error =0:No fault, =1:Fault						
SPI COMMUNICATION DIGITAL OUTPUTS						
SPI COMMUNICATION CHIP #1: DO1-DO8	3x00367 4x00367 I:366	0,0x0000 B:00 00			UINT16 R/O	
		Actual SPI communication state:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION CHIP #2: DO9-DO15	3x00368 4x00368 I:367	0,0x0000 B:00 00			UINT16 R/O	
		Actual SPI communication state:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION CHIP #3: DO16-DO23	3x00369 4x00369 I:368	0,0x0000 B:00 00			UINT16 R/O	
		Actual SPI communication state:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION CHIP #4: DO24-DO30	3x00370 4x00370 I:369	0,0x0000 B:00 00			UINT16 R/O	
		Actual SPI communication state:0=NO FAULT				
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	32,0x0020 B:00 20			UINT16 R/O	
		32 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..DI32	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 DI21:0=OFF				
		Actual state of DI22:0=OFF				
		Actual state of DI23:0=OFF				
		Actual state of DI24:0=OFF				
		Actual state of DI25:0=OFF				
		Actual state of DI26:0=OFF				
		Actual state of DI27:0=OFF				
		Actual state of DI28:0=OFF				
		Actual state of DI29:0=OFF				
		Actual state of DI30:0=OFF				
		Actual state of DI31:0=OFF				

		Actual state of DI32:0=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 14: =0:DI31 is OFF, =1:DI31 is ON Bit 15: =0:DI32 is OFF, =1:DI32 is ON						
STATUS OF DIGITAL OUTPUTS						
STATUS OF ALL DOS DO1-DO16	3x10004 4x10004 l: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 ALL DOS DO17-DO30	3x10005 4x10005 l:10004	0,0x0000 B:00 00		0x3FFF	UINT16 R/W	NO
		Actual state of DO17:0=OFF	1			
		Actual state of DO18:0=OFF	1			
		Actual state of DO19:0=OFF	1			
		Actual state of DO20:0=OFF	1			
		Actual state of DO21:0=OFF	1			
		Actual state of DO22:0=OFF	1			
		Actual state of DO23:0=OFF	1			
		Actual state of DO24:0=OFF	1			
		Actual state of DO25:0=OFF	1			
		Actual state of DO26:0=OFF	1			

		Actual state of DO27:0=OFF	1		
		Actual state of DO28:0=OFF	1		
		Actual state of DO29:0=OFF	1		
		Actual state of DO30:0=OFF	1		

Actual state of all digital outputs

Bit 0: =0:DO17 is OFF, =1:DO17 is ON

Bit 1: =0:DO28 is OFF, =1:DO28 is ON

...

Bit 12: =0:DO29 is OFF, =1:DO29 is ON

Bit 13: =0:DO30 is OFF, =1:DO30 is ON

Write on this register sets all digital outputs to a new state

DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE ON

ENABLE OPEN WIRE DETECTION WHILE ON DO1-DO16	3x10006 4x10006 I:10005	65535,0xFFFF B:FF FF		0xFFFF	UINT16 R/W	NO
		Actual setup of open wire detection while ON for DO1:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO2:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO3:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO4:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO5:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO6:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO7:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO8:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO9:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO10:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO11:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO12:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO13:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO14:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO15:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO16:1=ENABLED	1			

Actual setup state for open wire detection while ON for digital output DOx

Bit 0: =0:Open wire detection for DO1 is DISABLED, =1:Open wire detection for DO1 is ENABLED

Bit 1: =0:Open wire detection for DO2 is DISABLED, =1:Open wire detection for DO2 is ENABLED

...

Bit 14: =0:Open wire detection for DO15 is DISABLED, =1:Open wire detection for DO15 is ENABLED

Bit 15: =0:Open wire detection for DO16 is DISABLED, =1:Open wire detection for DO16 is ENABLED

Write on this register sets for all digital outputs a new setup state

ENABLE OPEN WIRE DETECTION WHILE ON DO17-DO30	3x10007 4x10007 l:10006	16383,0x3FFF B:3F FF		0x3FFF	UINT16 R/W	NO
		Actual setup of open wire detection while ON for DO17:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO18:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO19:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO20:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO21:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO22:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO23:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO24:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO25:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO26:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO27:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO28:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO29:1=ENABLED	1			
		Actual setup of open wire detection while ON for DO30:1=ENABLED	1			

Actual setup state for open wire detection while ON for digital output DOx

Bit 0: =0:Open wire detection for DO17 is DISABLED, =1:Open wire detection for DO17 is ENABLED

Bit 1: =0:Open wire detection for DO18 is DISABLED, =1:Open wire detection for DO18 is ENABLED

...

Bit 12: =0:Open wire detection for DO29 is DISABLED, =1:Open wire detection for DO29 is ENABLED

Bit 13: =0:Open wire detection for DO30 is DISABLED, =1:Open wire detection for DO30 is ENABLED

Write on this register sets for all digital outputs a new setup state

DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE OFF

ENABLE OPEN WIRE DETECTION WHILE OFF DO1-DO16	3x10008 4x10008 I:10007	65535,0xFFFF B:FF FF		0xFFFF	UINT16 R/W	NO
		Actual setup of open wire detection while OFF for DO1:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO2:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO3:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO4:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO5:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO6:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO7:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO8:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO9:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO10:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO11:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO12:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO13:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO14:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO15:1=ENABLED	1			
		Actual setup of open wire detection while OFF for DO16:1=ENABLED	1			
<p>Actual setup state for open wire detection while OFF for digital output DOx Bit 0: =0:Open wire detection for DO1 is DISABLED, =1:Open wire detection for DO1 is ENABLED Bit 1: =0:Open wire detection for DO2 is DISABLED, =1:Open wire detection for DO2 is ENABLED ... Bit 14: =0:Open wire detection for DO15 is DISABLED, =1:Open wire detection for DO15 is ENABLED Bit 15: =0:Open wire detection for DO16 is DISABLED, =1:Open wire detection for DO16 is ENABLED</p> <p>Write on this register sets for all digital outputs a new setup state</p>						
ENABLE OPEN WIRE DETECTION WHILE OFF DO17-DO30	3x10009 4x10009 I:10008	16383,0x3FFF B:3F FF		0x3FFF	UINT16 R/W	NO
		Actual setup of open wire detection while OFF for DO17:1=ENABLED	1			

		Actual setup of open wire detection while OFF for DO18:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO19:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO20:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO21:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO22:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO23:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO24:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO25:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO26:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO27:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO28:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO29:1=ENABLED	1		
		Actual setup of open wire detection while OFF for DO30:1=ENABLED	1		

Actual setup state for open wire detection while OFF for digital output DOx

Bit 0: =0:Open wire detection for DO17 is DISABLED, =1:Open wire detection for DO17 is ENABLED

Bit 1: =0:Open wire detection for DO18 is DISABLED, =1:Open wire detection for DO18 is ENABLED

...

Bit 12: =0:Open wire detection for DO29 is DISABLED, =1:Open wire detection for DO29 is ENABLED

Bit 13: =0:Open wire detection for DO30 is DISABLED, =1:Open wire detection for DO30 is ENABLED

Write on this register sets for all digital outputs a new setup state

DIGITAL OUTPUTS:ENABLE SHORTCUT TO VDD DETECTION WHILE OFF

ENABLE SHORTCUT TO VDD DETECTION WHILE OFF DO1-DO16	3x10010 4x10010 1:10009	65535,0xFFFF B:FF FF		0xFFFF	UINT16 R/W	NO
		Actual setup of shortcut detection to VDD while OFF for DO1:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO2:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO3:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO4:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO5:1=ENABLED	1			

		Actual setup of shortcut detection to VDD while OFF for DO6:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO7:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO8:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO9:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO10:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO11:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO12:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO13:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO14:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO15:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO16:1=ENABLED	1		

Actual setup state for shortcut to VDD detection while OFF for digital output DOx

Bit 0: =0:Shortcut to VDD detection for DO1 is DISABLED, =1:Shortcut to VDD detection for DO1 is ENABLED

Bit 1: =0:Shortcut to VDD detection for DO2 is DISABLED, =1:Shortcut to VDD detection for DO2 is ENABLED

...

Bit 14: =0:Shortcut to VDD detection for DO15 is DISABLED, =1:Shortcut to VDD detection for DO15 is ENABLED

Bit 15: =0:Shortcut to VDD detection for DO16 is DISABLED, =1:Shortcut to VDD detection for DO16 is ENABLED

Write on this register sets for all digital outputs a new setup state

ENABLE SHORTCUT TO VDD DETECTION WHILE OFF DO17-DO30	3x10011 4x10011 1:10010	16383,0x3FFF B:3F FF		0x3FFF	UINT16 R/W	NO
		Actual setup of shortcut detection to VDD while OFF for DO17:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO18:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO19:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO20:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO21:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO22:1=ENABLED	1			
		Actual setup of shortcut detection to VDD while OFF for DO23:1=ENABLED	1			

		Actual setup of shortcut detection to VDD while OFF for DO24:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO25:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO26:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO27:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO28:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO29:1=ENABLED	1		
		Actual setup of shortcut detection to VDD while OFF for DO30:1=ENABLED	1		

Actual setup state for shortcut to VDD detection while OFF for digital output DOx

Bit 17: =0:Shortcut to VDD detection for DO17 is DISABLED, =1:Shortcut to VDD detection for DO17 is ENABLED

Bit 18: =0:Shortcut to VDD detection for DO18 is DISABLED, =1:Shortcut to VDD detection for DO18 is ENABLED

...

Bit 12: =0:Shortcut to VDD detection for DO29 is DISABLED, =1:Shortcut to VDD detection for DO29 is ENABLED

Bit 13: =0:Shortcut to VDD detection for DO30 is DISABLED, =1:Shortcut to VDD detection for DO30 is ENABLED

Write on this register sets for all digital outputs a new setup state

DIGITAL OUTPUTS:OPEN WIRE WHILE ON DETECTION STATE

OPEN WIRE DETECTION STATE WHILE ON DO1-DO16	3x10012 4x10012 1:10011	0,0x0000 B:00 00		UINT16 R/O	
		Actual state of open wire detection while ON for DO1:0=OFF			
		Actual state of open wire detection while ON for DO2:0=OFF			
		Actual state of open wire detection while ON for DO3:0=OFF			
		Actual state of open wire detection while ON for DO4:0=OFF			
		Actual state of open wire detection while ON for DO5:0=OFF			
		Actual state of open wire detection while ON for DO6:0=OFF			
		Actual state of open wire detection while ON for DO7:0=OFF			
		Actual state of open wire detection while ON for DO8:0=OFF			
		Actual state of open wire detection while ON for DO9:0=OFF			
		Actual state of open wire detection while ON for DO10:0=OFF			
		Actual state of open wire detection while ON for DO11:0=OFF			

		Actual state of open wire detection while ON for DO12:0=OFF			
		Actual state of open wire detection while ON for DO13:0=OFF			
		Actual state of open wire detection while ON for DO14:0=OFF			
		Actual state of open wire detection while ON for DO15:0=OFF			
		Actual state of open wire detection while ON for DO16:0=OFF			
Actual diagnostic state for open wire detection while ON for digital output DOx Bit 0: =0:Output DO1 is OK, =1:Fault-Open wire detected on DO1 Bit 1: =0:Output DO2 is OK, =1:Fault-Open wire detected on DO2 ... Bit 14: =0:Output DO15 is OK, =1:Fault-Open wire detected on DO15 Bit 15: =0:Output DO16 is OK, =1:Fault-Open wire detected on DO16					
OPEN WIRE DETECTION STATE WHILE ON DO17-DO30	3x10013 4x10013 1:10012	0,0x0000 B:00 00			UINT16 R/O
		Actual state of open wire detection while ON for DO17:0=OFF			
		Actual state of open wire detection while ON for DO18:0=OFF			
		Actual state of open wire detection while ON for DO19:0=OFF			
		Actual state of open wire detection while ON for DO20:0=OFF			
		Actual state of open wire detection while ON for DO21:0=OFF			
		Actual state of open wire detection while ON for DO22:0=OFF			
		Actual state of open wire detection while ON for DO23:0=OFF			
		Actual state of open wire detection while ON for DO24:0=OFF			
		Actual state of open wire detection while ON for DO25:0=OFF			
		Actual state of open wire detection while ON for DO26:0=OFF			
		Actual state of open wire detection while ON for DO27:0=OFF			
		Actual state of open wire detection while ON for DO28:0=OFF			
		Actual state of open wire detection while ON for DO29:0=OFF			
		Actual state of open wire detection while ON for DO30:0=OFF			

Actual diagnostic state for open wire detection while ON for digital output DOx

Bit 0: =0:Output DO17 is OK, =1:Fault-Open wire detected on DO17

Bit 1: =0:Output DO18 is OK, =1:Fault-Open wire detected on DO18

...

Bit 12: =0:Output DO29 is OK, =1:Fault-Open wire detected on DO29

Bit 13: =0:Output DO30 is OK, =1:Fault-Open wire detected on DO30

DIGITAL OUTPUTS:OPEN WIRE WHILE OFF DETECTION STATE

OPEN WIRE DETECTION STATE WHILE OFF DO1-DO16	3x10014 4x10014 1:10013	32512,0x7F00 B:7F 00		UINT16 R/O	
		Actual state of open wire detection while OFF for DO1:0=OFF			
		Actual state of open wire detection while OFF for DO2:0=OFF			
		Actual state of open wire detection while OFF for DO3:0=OFF			
		Actual state of open wire detection while OFF for DO4:0=OFF			
		Actual state of open wire detection while OFF for DO5:0=OFF			
		Actual state of open wire detection while OFF for DO6:0=OFF			
		Actual state of open wire detection while OFF for DO7:0=OFF			
		Actual state of open wire detection while OFF for DO8:0=OFF			
		Actual state of open wire detection while OFF for DO9:1=ON			
		Actual state of open wire detection while OFF for DO10:1=ON			
		Actual state of open wire detection while OFF for DO11:1=ON			
		Actual state of open wire detection while OFF for DO12:1=ON			
		Actual state of open wire detection while OFF for DO13:1=ON			
		Actual state of open wire detection while OFF for DO14:1=ON			
		Actual state of open wire detection while OFF for DO15:1=ON			
		Actual state of open wire detection while OFF for DO16:0=OFF			

Actual diagnostic state for open wire detection while OFF for digital output DOx

Bit 0: =0:Output DO1 is OK, =1:Fault-Open wire detected on DO1

Bit 1: =0:Output DO2 is OK, =1:Fault-Open wire detected on DO2

...

Bit 14: =0:Output DO15 is OK, =1:Fault-Open wire detected on DO15

Bit 15: =0:Output DO16 is OK, =1:Fault-Open wire detected on DO16

OPEN WIRE DETECTION STATE WHILE OFF DO17-DO30	3x10015 4x10015 l:10014	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of open wire detection while OFF for DO17:0=OFF				
		Actual state of open wire detection while OFF for DO18:0=OFF				
		Actual state of open wire detection while OFF for DO19:0=OFF				
		Actual state of open wire detection while OFF for DO20:0=OFF				
		Actual state of open wire detection while OFF for DO21:0=OFF				
		Actual state of open wire detection while OFF for DO22:0=OFF				
		Actual state of open wire detection while OFF for DO23:0=OFF				
		Actual state of open wire detection while OFF for DO24:0=OFF				
		Actual state of open wire detection while OFF for DO25:0=OFF				
		Actual state of open wire detection while OFF for DO26:0=OFF				
		Actual state of open wire detection while OFF for DO27:0=OFF				
		Actual state of open wire detection while OFF for DO28:0=OFF				
		Actual state of open wire detection while OFF for DO29:0=OFF				
		Actual state of open wire detection while OFF for DO30:0=OFF				
Actual diagnostic state for open wire detection while OFF for digital output DOx Bit 0: =0:Output DO17 is OK, =1:Fault-Open wire detected on DO17 Bit 1: =0:Output DO18 is OK, =1:Fault-Open wire detected on DO18 ... Bit 12: =0:Output DO29 is OK, =1:Fault-Open wire detected on DO29 Bit 13: =0:Output DO30 is OK, =1:Fault-Open wire detected on DO30						
DIGITAL OUTPUTS:SHORTCUT TO VDD WHILE OFF DETECTION STATE						
SHORTCUT TO VDD WHILE OFF DETECTION STATE DO1-DO16	3x10016 4x10016 l:10015	0,0x0000 B:00 00			UINT16 R/O	
		Actual state of shortcut to VDD detection while OFF for DO1:0=OFF				
		Actual state of shortcut to VDD detection while OFF for DO2:0=OFF				
		Actual state of shortcut to VDD detection while OFF for DO3:0=OFF				

		Actual state of shortcut to VDD detection while OFF for DO4:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO5:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO6:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO7:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO8:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO9:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO10:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO11:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO12:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO13:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO14:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO15:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO16:0=OFF			
Actual diagnostic state for shortcut to VDD detection while OFF for digital output DOx Bit 0: =0:Output DO1 is OK, =1:Fault-shortcut detected on DO1 Bit 1: =0:Output DO2 is OK, =1:Fault-shortcut detected on DO2 ... Bit 14: =0:Output DO15 is OK, =1:Fault-shortcut detected on DO15 Bit 15: =0:Output DO16 is OK, =1:Fault-shortcut detected on DO16					
SHORTCUT TO VDD WHILE OFF DETECTION STATE DO17-DO30	3x10017 4x10017 1:10016	0,0x0000 B:00 00			UINT16 R/O
		Actual state of shortcut to VDD detection while OFF for DO17:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO18:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO19:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO20:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO21:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO22:0=OFF			

		Actual state of shortcut to VDD detection while OFF for DO23:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO24:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO25:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO26:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO27:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO28:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO29:0=OFF			
		Actual state of shortcut to VDD detection while OFF for DO30:0=OFF			

Actual diagnostic state for shortcut to VDD detection while OFF for digital output DOx

Bit 0: =0:Output DO17 is OK, =1:Fault-shortcut detected on DO17

Bit 1: =0:Output DO18 is OK, =1:Fault-shortcut detected on DO18

...

Bit 12: =0:Output DO29 is OK, =1:Fault-shortcut detected on DO29

Bit 13: =0:Output DO30 is OK, =1:Fault-shortcut detected on DO30

DIGITAL OUTPUTS:THERMAL OVERLOAD DETECTION STATE

THERMAL OVERLOAD DETECTION STATE DO1-DO16	3x10018 4x10018 1:10017	0,0x0000 B:00 00			UINT16 R/O
		Actual thermal overload detection state for DO1:0=OFF			
		Actual thermal overload detection state for DO2:0=OFF			
		Actual thermal overload detection state for DO3:0=OFF			
		Actual thermal overload detection state for DO4:0=OFF			
		Actual thermal overload detection state for DO5:0=OFF			
		Actual thermal overload detection state for DO6:0=OFF			
		Actual thermal overload detection state for DO7:0=OFF			
		Actual thermal overload detection state for DO8:0=OFF			
		Actual thermal overload detection state for DO9:0=OFF			
		Actual thermal overload detection state for DO10:0=OFF			

		Actual thermal overload detection state for DO11:0=OFF			
		Actual thermal overload detection state for DO12:0=OFF			
		Actual thermal overload detection state for DO13:0=OFF			
		Actual thermal overload detection state for DO14:0=OFF			
		Actual thermal overload detection state for DO15:0=OFF			
		Actual thermal overload detection state for DO16:0=OFF			
<p>Actual thermal overload detection state for digital output DOx Bit 0: =0:Output DO1 is OK, =1:Fault-Thermal overload on DO1 Bit 1: =0:Output DO2 is OK, =1:Fault-Thermal overload on DO2 ... Bit 14: =0:Output DO15 is OK, =1:Fault-Thermal overload on DO15 Bit 15: =0:Output DO16 is OK, =1:Fault-Thermal overload on DO16</p>					
THERMAL OVERLOAD DETECTION STATE DO17-DO30	3x10019 4x10019 1:10018	0,0x0000 B:00 00		UINT16 R/O	
		Actual thermal overload detection state for DO17:0=OFF			
		Actual thermal overload detection state for DO18:0=OFF			
		Actual thermal overload detection state for DO19:0=OFF			
		Actual thermal overload detection state for DO20:0=OFF			
		Actual thermal overload detection state for DO21:0=OFF			
		Actual thermal overload detection state for DO22:0=OFF			
		Actual thermal overload detection state for DO23:0=OFF			
		Actual thermal overload detection state for DO24:0=OFF			
		Actual thermal overload detection state for DO25:0=OFF			
		Actual thermal overload detection state for DO26:0=OFF			
		Actual thermal overload detection state for DO27:0=OFF			
		Actual thermal overload detection state for DO28:0=OFF			
		Actual thermal overload detection state for DO29:0=OFF			

		Actual thermal overload detection state for DO30:0=OFF			
Actual thermal overload detection state for digital output DOx Bit 0: =0:Output DO17 is OK, =1:Fault-Thermal overload on DO17 Bit 1: =0:Output DO18 is OK, =1:Fault-Thermal overload on DO18 ... Bit 12: =0:Output DO29 is OK, =1:Fault-Thermal overload on DO29 Bit 13: =0:Output DO30 is OK, =1:Fault-Thermal overload on DO30					
DIGITAL OUTPUTS:CURRENT LIMIT DETECTION STATE					
CURRENT LIMIT DETECTION STATE DO1-DO16	3x10020 4x10020 l:10019	0,0x0000 B:00 00			UINT16 R/O
		Actual current limit detection state for DO1:0=OFF			
		Actual current limit detection state for DO2:0=OFF			
		Actual current limit detection state for DO3:0=OFF			
		Actual current limit detection state for DO4:0=OFF			
		Actual current limit detection state for DO5:0=OFF			
		Actual current limit detection state for DO6:0=OFF			
		Actual current limit detection state for DO7:0=OFF			
		Actual current limit detection state for DO8:0=OFF			
		Actual current limit detection state for DO9:0=OFF			
		Actual current limit detection state for DO10:0=OFF			
		Actual current limit detection state for DO11:0=OFF			
		Actual current limit detection state for DO12:0=OFF			
		Actual current limit detection state for DO13:0=OFF			
		Actual current limit detection state for DO14:0=OFF			
		Actual current limit detection state for DO15:0=OFF			
		Actual current limit detection state for DO16:0=OFF			

Actual current limit detection state for digital output DOx
 Bit 0: =0:Output DO1 is OK, =1:Fault-Current limit on DO1
 Bit 1: =0:Output DO2 is OK, =1:Fault-Current limit on DO2
 ...
 Bit 14: =0:Output DO15 is OK, =1:Fault-Current limit on DO15
 Bit 15: =0:Output DO16 is OK, =1:Fault-Current limit on DO16

CURRENT LIMIT DETECTION STATE DO17-DO30	3x10021 4x10021 1:10020	0,0x0000 B:00 00			UINT16 R/O
		Actual current limit detection state for DO17:0=OFF			
		Actual current limit detection state for DO18:0=OFF			
		Actual current limit detection state for DO19:0=OFF			
		Actual current limit detection state for DO20:0=OFF			
		Actual current limit detection state for DO21:0=OFF			
		Actual current limit detection state for DO22:0=OFF			
		Actual current limit detection state for DO23:0=OFF			
		Actual current limit detection state for DO24:0=OFF			
		Actual current limit detection state for DO25:0=OFF			
		Actual current limit detection state for DO26:0=OFF			
		Actual current limit detection state for DO27:0=OFF			
		Actual current limit detection state for DO28:0=OFF			
		Actual current limit detection state for DO29:0=OFF			
		Actual current limit detection state for DO30:0=OFF			

Actual current limit detection state for digital output DOx
 Bit 0: =0:Output DO17 is OK, =1:Fault-Current limit on DO17
 Bit 1: =0:Output DO18 is OK, =1:Fault-Current limit on DO18
 ...
 Bit 12: =0:Output DO29 is OK, =1:Fault-Current limit on DO29
 Bit 13: =0:Output DO30 is OK, =1:Fault-Current limit on DO30

DIGITAL OUTPUTS: GLOBAL ERRORS

CHIP #1:DO1-DO8

CHIP #2:DO9-DO15

GLOBAL ERRORS FOR CHIP #1+#2	3x10022 4x10022 I:10021	0,0x0000 B:00 00		UINT16 R/O	
		BIT 0:CHIP#1:Internal under voltage detected:0=OK			
		BIT 1:CHIP#1:VA under voltage detected (<2.3V):0=OK			
		BIT 2:CHIP#1:VDD not good detected (<17V):0=OK			
		BIT 3:CHIP#1:VDD warning detected (<12V):0=OK			
		BIT 4:CHIP#1:VDD under voltage detected (<8V):0=OK			
		BIT 5:CHIP#1:Thermal shutdown:0=OK			
		BIT 6:CHIP#1:Synchronisation error detected:0=OK			
		BIT 7:CHIP#1:Watchdog error detected:0=OK			
		BIT 8:CHIP#2:Internal under voltage detected:0=OK			
		BIT 9:CHIP#2:VA under voltage detected (<2.3V):0=OK			
		BIT 10:CHIP#2:VDD not good detected (<17V):0=OK			
		BIT 11:CHIP#2:VDD warning detected (<12V):0=OK			
		BIT 12:CHIP#2:VDD under voltage detected (<8V):0=OK			
		BIT 13:CHIP#2:Thermal shutdown:0=OK			
		BIT 14:CHIP#2:Synchronisation error detected:0=OK			
		BIT 15:CHIP#2:Watchdog error detected:0=OK			

The global error state for the output group. Each bit stands for a different error

=0:No fault, =1:Fault

CHIP #3:DO16-DO23

CHIP #4:DO24-DO30

GLOBAL ERRORS FOR CHIP #3+#4	3x10023 4x10023 I:10022	7196,0x1C1C B:1C 1C		UINT16 R/O	
		BIT 0:CHIP#3:Internal under voltage detected:0=OK			
		BIT 1:CHIP#3:VA under voltage detected (<2.3V):0=OK			
		BIT 2:CHIP#3:VDD not good detected (<17V):1=FAULT			
		BIT 3:CHIP#3:VDD warning detected (<12V):1=FAULT			
		BIT 4:CHIP#3:VDD under voltage detected (<8V):1=FAULT			
		BIT 5:CHIP#3:Thermal shutdown:0=OK			
		BIT 6:CHIP#3:Synchronisation error detected:0=OK			
		BIT 7:CHIP#3:Watchdog error detected:0=OK			
		BIT 8:CHIP#4:Internal under voltage detected:0=OK			
		BIT 9:CHIP#4:VA under voltage detected (<2.3V):0=OK			
		BIT 10:CHIP#4:VDD not good detected (<17V):1=FAULT			
		BIT 11:CHIP#4:VDD warning detected (<12V):1=FAULT			
		BIT 12:CHIP#4:VDD under voltage detected (<8V):1=FAULT			
		BIT 13:CHIP#4:Thermal shutdown:0=OK			
		BIT 14:CHIP#4:Synchronisation error detected:0=OK			
		BIT 15:CHIP#4:Watchdog error detected:0=OK			

The global error state for the output group. Each bit stands for a different error

=0:No fault, =1:Fault

DIGITAL OUTPUTS: INTERRUPT STATUS

CHIP #1:DO1-DO8

CHIP #2:DO9-DO15

INTERRUPT STATUS FOR CHIP#1+#2	3x10024 4x10024 I:10023	1024,0xFFFF B:04 00		UINT16 R/O	
		BIT 0:CHIP#1:Overload detected:1=FAULT			
		BIT 1:CHIP#1:Current limit detected:1=FAULT			
		BIT 2:CHIP#1:Open wire while OFF detected:1=FAULT			
		BIT 3:CHIP#1:Open wire while ON detected:1=FAULT			
		BIT 4:CHIP#1:Shortcut to VDD detected:1=FAULT			
		BIT 5:CHIP#1:Thermal shutdown:1=FAULT			
		BIT 6:CHIP#1:Supply error detected:1=FAULT			
		BIT 7:CHIP#1:Communication error detected:1=FAULT			
		BIT 8:CHIP#2:Overload detected:1=FAULT			
		BIT 9:CHIP#2:Current limit detected:1=FAULT			
		BIT 10:CHIP#2:Open wire while OFF detected:1=FAULT			
		BIT 11:CHIP#2:Open wire while ON detected:1=FAULT			
		BIT 12:CHIP#2:Shortcut to VDD detected:1=FAULT			
		BIT 13:CHIP#2:Thermal shutdown:1=FAULT			
		BIT 14:CHIP#2:Supply error detected:1=FAULT			
		BIT 15:CHIP#2:Communication error detected:1=FAULT			

The interrupt state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

CHIP #3:DO16-DO23

CHIP #4:DO24-DO30

INTERRUPT STATUS FOR CHIP#3+#4	3x10025 4x10025 I:10024	16448,0x4040 B:40 40		UINT16 R/O	
		BIT 0:CHIP#3:Overload detected:0=OK			
		BIT 1:CHIP#3:Current limit detected:0=OK			
		BIT 2:CHIP#3:Open wire while OFF detected:0=OK			
		BIT 3:CHIP#3:Open wire while ON detected:0=OK			
		BIT 4:CHIP#3:Shortcut to VDD detected:0=OK			
		BIT 5:CHIP#3:Thermal shutdown:0=OK			
		BIT 6:CHIP#3:Supply error detected:1=FAULT			
		BIT 7:CHIP#3:Communication error detected:0=OK			
		BIT 8:CHIP#4:Overload detected:0=OK			
		BIT 9:CHIP#4:Current limit detected:0=OK			
		BIT 10:CHIP#4:Open wire while OFF detected:0=OK			
		BIT 11:CHIP#4:Open wire while ON detected:0=OK			
		BIT 12:CHIP#4:Shortcut to VDD detected:0=OK			
		BIT 13:CHIP#4:Thermal shutdown:0=OK			
		BIT 14:CHIP#4:Supply error detected:1=FAULT			
		BIT 15:CHIP#4:Communication error detected:0=OK			

The interrupt state for the output group. Each bit stands for a different error
=0:No fault, =1:Fault

SPI COMMUNICATION DIGITAL OUTPUTS

CHIP #1:DO1-DO8

CHIP #2:DO9-DO15

CHIP #3:DO16-DO23					
CHIP #4:DO24-DO30					
SPI COMMUNICATION	3x10026	0,0x0000			UINT16
DIGITAL OUTPUTS	4x10026	B:00 00			R/O
	l:10025				
Actual SPI communcation state of CHIP#1:0=OK					
Actual SPI communcation state of CHIP#2:0=OK					
Actual SPI communcation state of CHIP#3:0=OK					
Actual SPI communcation state of CHIP#4:0=OK					
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault					
Current SPI communication state of all digital output groups Bit x: =0:CHIP x has no fault, =1:CHIP x SPI Fault					
DIGITAL OUTPUTS: NUMBER OF CHIPSET					
NUMBER OF DIGITAL OUTPUT	3x10099	4,0x0004			UINT16
CHIPS	4x10099	B:00 04			R/O
	l:10098				
Actual number of installed DO CHIPS:4					
The actual number of used output chips					
DIGITAL OUTPUTS: CHIPSET TYPE					
DIGITAL OUTPUTS	3x10100	1,0x0001			UINT16
CHIPSET TYPE	4x10100	B:00 01			R/O
	l:10099				
Actual chipset for DOs:1=MAX14915					
The current chipset for the digital outputs: =0: NCV7608 =1: MAX14915					
STATUS OF DIGITAL OUTPUTS					
REAL STATUS OF ALL DOS	3x10501	0,0x0000			UINT16
DO1-DO16	4x10501	B:00 00			R/O
	l:10500				
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

REAL STATUS OF ALL DOS DO17-DO30	3x10502 4x10502 I:10501	0,0x0000 B:00 00			UINT16 R/O	
		Real state of DO17:0=OFF				
		Real state of DO18:0=OFF				
		Real state of DO19:0=OFF				
		Real state of DO20:0=OFF				
		Real state of DO21:0=OFF				
		Real state of DO22:0=OFF				
		Real state of DO23:0=OFF				
		Real state of DO24:0=OFF				
		Real state of DO25:0=OFF				
		Real state of DO26:0=OFF				
		Real state of DO27:0=OFF				
		Real state of DO28:0=OFF				
		Real state of DO29:0=OFF				
		Real state of DO30:0=OFF				

Actual state of all digital outputs in the DO chips

Bit 0: =0:DO17 is OFF, =1:DO17 is ON

Bit 1: =0:DO28 is OFF, =1:DO18 is ON

...

Bit 12: =0:DO29 is OFF, =1:DO29 is ON

Bit 13: =0:DO30 is OFF, =1:DO30 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			UINT16 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	3x15002 4x15002 I:15001	1,0x0001 B:00			UINT16 R/O	
		Actual state of DI2:1=ON				
DI3	3x15003 4x15003 I:15002	2,0x0002 B:00			UINT16 R/O	
		Actual state of DI3:2=ON				

DI4	3x15004 4x15004 I:15003	3,0x0003 B:00			UINT16 R/O	
		Actual state of DI4:3=ON				
DI5	3x15005 4x15005 I:15004	4,0x0004 B:00			UINT16 R/O	
		Actual state of DI5:4=ON				
DI6	3x15006 4x15006 I:15005	5,0x0005 B:00			UINT16 R/O	
		Actual state of DI6:5=ON				
DI7	3x15007 4x15007 I:15006	6,0x0006 B:00			UINT16 R/O	
		Actual state of DI7:6=ON				
DI8	3x15008 4x15008 I:15007	7,0x0007 B:00			UINT16 R/O	
		Actual state of DI8:7=ON				
DI9	3x15009 4x15009 I:15008	0,0x0000 B:00			UINT16 R/O	
		Actual state of DI9:0=OFF				
DI10	3x15010 4x15010 I:15009	1,0x0001 B:00			UINT16 R/O	
		Actual state of DI10:1=ON				
DI11	3x15011 4x15011 I:15010	2,0x0002 B:00			UINT16 R/O	
		Actual state of DI11:2=ON				
DI12	3x15012 4x15012 I:15011	3,0x0003 B:00			UINT16 R/O	
		Actual state of DI12:3=ON				
DI13	3x15013 4x15013 I:15012	4,0x0004 B:00			UINT16 R/O	
		Actual state of DI13:4=ON				
DI14	3x15014 4x15014 I:15013	5,0x0005 B:00			UINT16 R/O	
		Actual state of DI14:5=ON				
DI15	3x15015 4x15015 I:15014	6,0x0006 B:00			UINT16 R/O	

		Actual state of DI15:6=ON				
DI16	3x15016 4x15016 I:15015	7,0x0007 B:00			UINT16 R/O	
		Actual state of DI16:7=ON				
DI17	3x15017 4x15017 I:15016	0,0x0000 B:00			UINT16 R/O	
		Actual state of DI17:0=OFF				
DI18	3x15018 4x15018 I:15017	1,0x0001 B:00			UINT16 R/O	
		Actual state of DI18:1=ON				
DI19	3x15019 4x15019 I:15018	2,0x0002 B:00			UINT16 R/O	
		Actual state of DI19:2=ON				
DI20	3x15020 4x15020 I:15019	0,0x0000 B:00			UINT16 R/O	
		Actual state of DI20:0=OFF				
DI21	3x15021 4x15021 I:15020	1,0x0001 B:00			UINT16 R/O	
		Actual state of DI21:1=ON				
DI22	3x15022 4x15022 I:15021	2,0x0002 B:00			UINT16 R/O	
		Actual state of DI22:2=ON				
D23	3x15023 4x15023 I:15022	3,0x0003 B:00			UINT16 R/O	
		Actual state of D23:3=ON				
DI24	3x15024 4x15024 I:15023	4,0x0004 B:00			UINT16 R/O	
		Actual state of DI24:4=ON				
DI25	3x15025 4x15025 I:15024	5,0x0005 B:00			UINT16 R/O	
		Actual state of DI25:5=ON				
DI26	3x15026 4x15026 I:15025	6,0x0006 B:00			UINT16 R/O	
		Actual state of DI26:6=ON				

DI27	3x15027 4x15027 I:15026	7,0x0007 B:00			UINT16 R/O	
		Actual state of DI27:7=ON				
DI28	3x15028 4x15028 I:15027	0,0x0000 B:00			UINT16 R/O	
		Actual state of DI28:0=OFF				
DI29	3x15029 4x15029 I:15028	1,0x0001 B:00			UINT16 R/O	
		Actual state of DI29:1=ON				
DI30	3x15030 4x15030 I:15029	2,0x0002 B:00			UINT16 R/O	
		Actual state of DI30:2=ON				
DI31	3x15031 4x15031 I:15030	3,0x0003 B:00			UINT16 R/O	
		Actual state of DI31:3=ON				
DI32	3x15032 4x15032 I:15031	4,0x0004 B:00			UINT16 R/O	
		Actual state of DI32:4=ON				
STATUS DIGITAL INPUTS						
UNFILTERED DI1	3x15033 4x15033 I:15032	5,0x0005 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI1:5=ON				
Current state of the real digital input DIx without the internal software filter to suppress glitches or spike on this line =0:DI is OFF, =1:DI is ON						
UNFILTERED DI2	3x15034 4x15034 I:15033	6,0x0006 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI2:6=ON				
UNFILTERED DI3	3x15035 4x15035 I:15034	7,0x0007 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI3:7=ON				
UNFILTERED DI4	3x15036 4x15036 I:15035	0,0x0000 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI4:0=OFF				
UNFILTERED DI5	3x15037 4x15037 I:15036	1,0x0001 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI5:1=ON				

UNFILTERED DI6	3x15038 4x15038 I:15037	2,0x0002 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI6:2=ON					
UNFILTERED DI7	3x15039 4x15039 I:15038	0,0x0000 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI7:0=OFF					
UNFILTERED DI8	3x15040 4x15040 I:15039	1,0x0001 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI8:1=ON					
UNFILTERED DI9	3x15041 4x15041 I:15040	2,0x0002 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI9:2=ON					
UNFILTERED DI10	3x15042 4x15042 I:15041	3,0x0003 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI10:3=ON					
UNFILTERED DI11	3x15043 4x15043 I:15042	4,0x0004 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI11:4=ON					
UNFILTERED DI12	3x15044 4x15044 I:15043	5,0x0005 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI12:5=ON					
UNFILTERED DI13	3x15045 4x15045 I:15044	6,0x0006 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI13:6=ON					
UNFILTERED DI14	3x15046 4x15046 I:15045	7,0x0007 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI14:7=ON					
UNFILTERED DI15	3x15047 4x15047 I:15046	0,0x0000 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI15:0=OFF					
UNFILTERED DI16	3x15048 4x15048 I:15047	1,0x0001 B:00			UINT16 R/O		
		Actual state of UNFILTERED DI16:1=ON					
UNFILTERED DI17	3x15049 4x15049 I:15048	2,0x0002 B:00			UINT16 R/O		

		Actual state of UNFILTERED DI17:2=ON				
UNFILTERED DI18	3x15050 4x15050 I:15049	3,0x0003 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI18:3=ON				
UNFILTERED DI19	3x15051 4x15051 I:15050	4,0x0004 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI19:4=ON				
UNFILTERED DI20	3x15052 4x15052 I:15051	5,0x0005 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI20:5=ON				
UNFILTERED DI21	3x15053 4x15053 I:15052	6,0x0006 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI21:6=ON				
UNFILTERED DI22	3x15054 4x15054 I:15053	7,0x0007 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI22:7=ON				
UNFILTERED DI23	3x15055 4x15055 I:15054	0,0x0000 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI23:0=OFF				
UNFILTERED DI24	3x15056 4x15056 I:15055	1,0x0001 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI24:1=ON				
UNFILTERED DI25	3x15057 4x15057 I:15056	2,0x0002 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI25:2=ON				
UNFILTERED DI26	3x15058 4x15058 I:15057	0,0x0000 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI26:0=OFF				
UNFILTERED DI27	3x15059 4x15059 I:15058	1,0x0001 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI27:1=ON				
UNFILTERED DI28	3x15060 4x15060 I:15059	2,0x0002 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI28:2=ON				

UNFILTERED DI29	3x15061 4x15061 I:15060	3,0x0003 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI29:3=ON				
UNFILTERED DI30	3x15062 4x15062 I:15061	4,0x0004 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI30:4=ON				
UNFILTERED DI31	3x15063 4x15063 I:15062	5,0x0005 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI31:5=ON				
UNFILTERED DI32	3x15064 4x15064 I:15063	6,0x0006 B:00			UINT16 R/O	
		Actual state of UNFILTERED DI32:6=ON				
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)		
DO17	3x16017 4x16017 I:16016	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO17:0=OFF		ENTER NEW STATE (0 or 1)		

DO18	3x16018 4x16018 I:16017	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO18:0=OFF		ENTER NEW STATE (0 or 1)		
DO19	3x16019 4x16019 I:16018	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO19:0=OFF		ENTER NEW STATE (0 or 1)		
DO20	3x16020 4x16020 I:16019	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO20:0=OFF		ENTER NEW STATE (0 or 1)		
DO21	3x16021 4x16021 I:16020	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO21:0=OFF		ENTER NEW STATE (0 or 1)		
DO22	3x16022 4x16022 I:16021	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO22:0=OFF		ENTER NEW STATE (0 or 1)		
DO23	3x16023 4x16023 I:16022	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO23:0=OFF		ENTER NEW STATE (0 or 1)		
DO24	3x16024 4x16024 I:16023	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO24:0=OFF		ENTER NEW STATE (0 or 1)		
DO25	3x16025 4x16025 I:16024	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO25:0=OFF		ENTER NEW STATE (0 or 1)		
DO26	3x16026 4x16026 I:16025	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO26:0=OFF		ENTER NEW STATE (0 or 1)		
DO27	3x16027 4x16027 I:16026	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO27:0=OFF		ENTER NEW STATE (0 or 1)		
DO28	3x16028 4x16028 I:16027	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO28:0=OFF		ENTER NEW STATE (0 or 1)		

DO29	3x16029 4x16029 I:16028	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO29:0=OFF		ENTER NEW STATE (0 or 1)		
DO30	3x16030 4x16030 I:16029	0,0x0000 B:00 00		0	UINT16 R/W	NO
		Actual state of DO30:0=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	400	40,0	UINT16 R/W	NO
PULSE TIME DO14	3x20014 4x20014 I:20013	0,0x0000 B:00 00	500	50,0	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 TIME DO17	3x20017 4x20017 I:20016	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO18	3x20018 4x20018 I:20017	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO19	3x20019 4x20019 I:20018	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO20	3x20020 4x20020 I:20019	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO21	3x20021 4x20021 I:20020	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO22	3x20022 4x20022 I:20021	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO23	3x20023 4x20023 I:20022	0,0x0000 B:00 00	400	40,0	UINT16 R/W	NO
PULSE TIME DO24	3x20024 4x20024 I:20023	0,0x0000 B:00 00	500	50,0	UINT16 R/W	NO
PULSE TIME DO25	3x20025 4x20025 I:20024	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO26	3x20026 4x20026 I:20025	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO27	3x20027 4x20027 I:20026	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO

PULSE TIME DO28	3x20028 4x20028 I:20027	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO29	3x20029 4x20029 I:20028	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO30	3x20030 4x20030 I:20029	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 TIMER DO17	3x21033 4x21033 I:21032	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO18	3x21035 4x21035 I:21034	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO19	3x21037 4x21037 I:21036	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			
PULSE TIMER DO20	3x21039 4x21039 I:21038	0,0x00000000 B:00 00 00 00			UINT32 R/O
		0,0 seconds			

PULSE TIMER DO21	3x21041 4x21041 I:21040	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO22	3x21043 4x21043 I:21042	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO23	3x21045 4x21045 I:21044	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO24	3x21047 4x21047 I:21046	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO25	3x21049 4x21049 I:21048	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO26	3x21051 4x21051 I:21050	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO27	3x21053 4x21053 I:21052	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO28	3x21055 4x21055 I:21054	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO29	3x21057 4x21057 I:21056	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO30	3x21059 4x21059 I:21058	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE STATUS FOR DIGITAL OUTPUTS						
PULSE TIMER DO1	3x21061 4x21061 I:21060	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	3x21063 4x21063 I:21062	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO3	3x21065 4x21065 I:21064	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO4	3x21067 4x21067 I:21066	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO5	3x21069 4x21069 I:21068	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO6	3x21071 4x21071 I:21070	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO7	3x21073 4x21073 I:21072	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO8	3x21075 4x21075 I:21074	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO9	3x21077 4x21077 I:21076	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO10	3x21079 4x21079 I:21078	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO11	3x21081 4x21081 I:21080	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO12	3x21083 4x21083 I:21082	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				

PULSE TIMER DO13	3x21085 4x21085 I:21084	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO14	3x21087 4x21087 I:21086	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO15	3x21089 4x21089 I:21088	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO16	3x21091 4x21091 I:21090	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO17	3x21093 4x21093 I:21092	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO18	3x21095 4x21095 I:21094	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO19	3x21097 4x21097 I:21096	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO20	3x21099 4x21099 I:21098	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO21	3x21101 4x21101 I:21100	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO22	3x21103 4x21103 I:21102	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO23	3x21105 4x21105 I:21104	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				

PULSE TIMER DO24	3x21107 4x21107 I:21106	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO25	3x21109 4x21109 I:21108	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO26	3x21111 4x21111 I:21110	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO27	3x21113 4x21113 I:21112	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO28	3x21115 4x21115 I:21114	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO29	3x21117 4x21117 I:21116	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO30	3x21119 4x21119 I:21118	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				

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 DI21 A	3x05041 4x05041 I:5040	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				

STATUS DI21 B	3x05042 4x05042 I:5041	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI22 A	3x05043 4x05043 I:5042	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI22 B	3x05044 4x05044 I:5043	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI23 A	3x05045 4x05045 I:5044	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI23 B	3x05046 4x05046 I:5045	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI24 A	3x05047 4x05047 I:5046	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI24 B	3x05048 4x05048 I:5047	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI25 A	3x05049 4x05049 I:5048	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI25 B	3x05050 4x05050 I:5049	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI26 A	3x05051 4x05051 I:5050	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI26 B	3x05052 4x05052 I:5051	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				

STATUS DI27 A	3x05053 4x05053 I:5052	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI27 B	3x05054 4x05054 I:5053	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI28 A	3x05055 4x05055 I:5054	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI28 B	3x05056 4x05056 I:5055	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI29 A	3x05057 4x05057 I:5056	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI29 B	3x05058 4x05058 I:5057	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI30 A	3x05059 4x05059 I:5058	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI30 B	3x05060 4x05060 I:5059	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI31 A	3x05061 4x05061 I:5060	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI31 B	3x05062 4x05062 I:5061	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI32 A	3x05063 4x05063 I:5062	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				

STATUS DI32 B	3x05064 4x05064 I:5063	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS						
FILTER PATTERN DI1	3x05065 4x05065 I:5064	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	3x05067 4x05067 I:5066	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI3	3x05069 4x05069 I:5068	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI4	3x05071 4x05071 I:5070	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI5	3x05073 4x05073 I:5072	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI6	3x05075 4x05075 I:5074	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI7	3x05077 4x05077 I:5076	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI8	3x05079 4x05079 I:5078	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI9	3x05081 4x05081 I:5080	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI10	3x05083 4x05083 I:5082	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI11	3x05085 4x05085 I:5084	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI12	3x05087 4x05087 I:5086	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI13	3x05089 4x05089 I:5088	0,0x00000000 B:00 00 00 00			UINT32 R/O	

FILTER PATTERN DI14	3x05091 4x05091 I:5090	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI15	3x05093 4x05093 I:5092	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI16	3x05095 4x05095 I:5094	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI17	3x05097 4x05097 I:5096	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI18	3x05099 4x05099 I:5098	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI19	3x05101 4x05101 I:5100	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI20	3x05103 4x05103 I:5102	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI21	3x05105 4x05105 I:5104	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI22	3x05107 4x05107 I:5106	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI23	3x05109 4x05109 I:5108	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI24	3x05111 4x05111 I:5110	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI25	3x05113 4x05113 I:5112	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI26	3x05115 4x05115 I:5114	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI27	3x05117 4x05117 I:5116	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI28	3x05119 4x05119 I:5118	0,0x00000000 B:00 00 00 00			UINT32 R/O	

FILTER PATTERN DI29	3x05121 4x05121 I:5120	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI30	3x05123 4x05123 I:5122	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI31	3x05125 4x05125 I:5124	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI32	3x05127 4x05127 I:5126	0,0x00000000 B:00 00 00 00			UINT32 R/O	
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI1						
RISE DI1	3x07001 4x07001 I:7000	3,0x0003 B:00 03			UINT16 R/O	
		3 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	3,0x0003 B:00 03			UINT16 R/O	
		3 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	4,0x0004 B:00 04			UINT16 R/O	
		4 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	2,0x0002 B:00 02			UINT16 R/O	
		2 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	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				

Counter for start events of long keypress actions on the digital input DIx. If the module detects the start of a long keypress action on the digital input, this counter is incremented by 1.

After power on or a soft reset this counter is set always to 0.

With the function RESET COUNTER this counter is also set to 0.

LONG KEYPRESS END DI1	3x07006 4x07006 I:7005	1,0x0001 B:00 01			UINT16 R/O	
		1 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	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

FALL DI2	3x07012 4x07012 I:7011	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

CHANGE DI2	3x07013 4x07013 I:7012	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				

SHORT KEYPRESS DI2	3x07014 4x07014 I:7013	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS START DI2	3x07015 4x07015 I:7014	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS END DI2	3x07016 4x07016 I:7015	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI3

RISE DI3	3x07021 4x07021 I:7020	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

FALL DI3	3x07022 4x07022 I:7021	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

CHANGE DI3	3x07023 4x07023 I:7022	6,0x0006 B:00 06			UINT16 R/O	
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		6 event(s)				
SHORT KEYPRESS DI3	3x07024 4x07024 I:7023	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI3	3x07025 4x07025 I:7024	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI3	3x07026 4x07026 I:7025	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI4						
RISE DI4	3x07031 4x07031 I:7030	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI4	3x07032 4x07032 I:7031	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI4	3x07033 4x07033 I:7032	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI4	3x07034 4x07034 I:7033	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI4	3x07035 4x07035 I:7034	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI4	3x07036 4x07036 I:7035	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI5						
RISE DI5	3x07041 4x07041 I:7040	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI5	3x07042 4x07042 I:7041	4,0x0004 B:00 04			UINT16 R/O	

		4 event(s)				
CHANGE DI5	3x07043 4x07043 I:7042	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI5	3x07044 4x07044 I:7043	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI5	3x07045 4x07045 I:7044	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI5	3x07046 4x07046 I:7045	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI6						
RISE DI6	3x07051 4x07051 I:7050	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI6	3x07052 4x07052 I:7051	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI6	3x07053 4x07053 I:7052	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI6	3x07054 4x07054 I:7053	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI6	3x07055 4x07055 I:7054	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI6	3x07056 4x07056 I:7055	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI7						
RISE DI7	3x07061 4x07061 I:7060	4,0x0004 B:00 04			UINT16 R/O	

		4 event(s)				
FALL DI7	3x07062 4x07062 I:7061	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI7	3x07063 4x07063 I:7062	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI7	3x07064 4x07064 I:7063	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI7	3x07065 4x07065 I:7064	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI7	3x07066 4x07066 I:7065	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI8						
RISE DI8	3x07071 4x07071 I:7070	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI8	3x07072 4x07072 I:7071	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI8	3x07073 4x07073 I:7072	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI8	3x07074 4x07074 I:7073	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI8	3x07075 4x07075 I:7074	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI8	3x07076 4x07076 I:7075	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI9

RISE DI9	3x07081 4x07081 I:7080	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI9	3x07082 4x07082 I:7081	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI9	3x07083 4x07083 I:7082	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI9	3x07084 4x07084 I:7083	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI9	3x07085 4x07085 I:7084	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI9	3x07086 4x07086 I:7085	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI10

RISE DI10	3x07091 4x07091 I:7090	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI10	3x07092 4x07092 I:7091	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI10	3x07093 4x07093 I:7092	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI10	3x07094 4x07094 I:7093	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI10	3x07095 4x07095 I:7094	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS END DI10	3x07096 4x07096 I:7095	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI11						
RISE DI11	3x07101 4x07101 I:7100	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI11	3x07102 4x07102 I:7101	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI11	3x07103 4x07103 I:7102	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI11	3x07104 4x07104 I:7103	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI11	3x07105 4x07105 I:7104	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI11	3x07106 4x07106 I:7105	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI12						
RISE DI12	3x07111 4x07111 I:7110	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI12	3x07112 4x07112 I:7111	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI12	3x07113 4x07113 I:7112	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI12	3x07114 4x07114 I:7113	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS START DI12	3x07115 4x07115 I:7114	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI12	3x07116 4x07116 I:7115	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI13						
RISE DI13	3x07121 4x07121 I:7120	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI13	3x07122 4x07122 I:7121	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI13	3x07123 4x07123 I:7122	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI13	3x07124 4x07124 I:7123	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI13	3x07125 4x07125 I:7124	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI13	3x07126 4x07126 I:7125	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI14						
RISE DI14	3x07131 4x07131 I:7130	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI14	3x07132 4x07132 I:7131	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI14	3x07133 4x07133 I:7132	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				

SHORT KEYPRESS DI14	3x07134 4x07134 I:7133	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI14	3x07135 4x07135 I:7134	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI14	3x07136 4x07136 I:7135	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI15						
RISE DI15	3x07141 4x07141 I:7140	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI15	3x07142 4x07142 I:7141	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI15	3x07143 4x07143 I:7142	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI15	3x07144 4x07144 I:7143	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI15	3x07145 4x07145 I:7144	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI15	3x07146 4x07146 I:7145	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI16						
RISE DI16	3x07151 4x07151 I:7150	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI16	3x07152 4x07152 I:7151	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

CHANGE DI16	3x07153 4x07153 I:7152	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI16	3x07154 4x07154 I:7153	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI16	3x07155 4x07155 I:7154	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI16	3x07156 4x07156 I:7155	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI17						
RISE DI17	3x07161 4x07161 I:7160	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI17	3x07162 4x07162 I:7161	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI17	3x07163 4x07163 I:7162	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI17	3x07164 4x07164 I:7163	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI17	3x07165 4x07165 I:7164	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI17	3x07166 4x07166 I:7165	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI18						
RISE DI18	3x07171 4x07171 I:7170	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

FALL DI18	3x07172 4x07172 I:7171	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI18	3x07173 4x07173 I:7172	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI18	3x07174 4x07174 I:7173	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI18	3x07175 4x07175 I:7174	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI18	3x07176 4x07176 I:7175	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI19						
RISE DI19	3x07181 4x07181 I:7180	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI19	3x07182 4x07182 I:7181	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI19	3x07183 4x07183 I:7182	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI19	3x07184 4x07184 I:7183	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI19	3x07185 4x07185 I:7184	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI19	3x07186 4x07186 I:7185	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI20						

RISE DI20	3x07191 4x07191 I:7190	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI20	3x07192 4x07192 I:7191	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI20	3x07193 4x07193 I:7192	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI20	3x07194 4x07194 I:7193	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI20	3x07195 4x07195 I:7194	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI20	3x07196 4x07196 I:7195	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI21						
RISE DI21	3x07201 4x07201 I:7200	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI21	3x07202 4x07202 I:7201	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI21	3x07203 4x07203 I:7202	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI21	3x07204 4x07204 I:7203	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI21	3x07205 4x07205 I:7204	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS END DI21	3x07206 4x07206 I:7205	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI22						
RISE DI22	3x07211 4x07211 I:7210	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI22	3x07212 4x07212 I:7211	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI22	3x07213 4x07213 I:7212	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI22	3x07214 4x07214 I:7213	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI22	3x07215 4x07215 I:7214	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI22	3x07216 4x07216 I:7215	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI23						
RISE DI23	3x07221 4x07221 I:7220	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI23	3x07222 4x07222 I:7221	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI23	3x07223 4x07223 I:7222	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI23	3x07224 4x07224 I:7223	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS START DI23	3x07225 4x07225 I:7224	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI23	3x07226 4x07226 I:7225	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI24						
RISE DI24	3x07231 4x07231 I:7230	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI24	3x07232 4x07232 I:7231	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI24	3x07233 4x07233 I:7232	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI24	3x07234 4x07234 I:7233	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI24	3x07235 4x07235 I:7234	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI24	3x07236 4x07236 I:7235	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI25						
RISE DI25	3x07241 4x07241 I:7240	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI25	3x07242 4x07242 I:7241	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI25	3x07243 4x07243 I:7242	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				

SHORT KEYPRESS DI25	3x07244 4x07244 I:7243	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI25	3x07245 4x07245 I:7244	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI25	3x07246 4x07246 I:7245	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI26						
RISE DI26	3x07251 4x07251 I:7250	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI26	3x07252 4x07252 I:7251	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI26	3x07253 4x07253 I:7252	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI26	3x07254 4x07254 I:7253	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI26	3x07255 4x07255 I:7254	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI26	3x07256 4x07256 I:7255	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI27						
RISE DI27	3x07261 4x07261 I:7260	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI27	3x07262 4x07262 I:7261	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

CHANGE DI27	3x07263 4x07263 I:7262	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI27	3x07264 4x07264 I:7263	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI27	3x07265 4x07265 I:7264	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI27	3x07266 4x07266 I:7265	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI28						
RISE DI28	3x07271 4x07271 I:7270	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI28	3x07272 4x07272 I:7271	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI28	3x07273 4x07273 I:7272	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI28	3x07274 4x07274 I:7273	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI28	3x07275 4x07275 I:7274	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI28	3x07276 4x07276 I:7275	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI29						
RISE DI29	3x07281 4x07281 I:7280	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				

FALL DI29	3x07282 4x07282 I:7281	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI29	3x07283 4x07283 I:7282	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI29	3x07284 4x07284 I:7283	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI29	3x07285 4x07285 I:7284	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI29	3x07286 4x07286 I:7285	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI30						
RISE DI30	3x07291 4x07291 I:7290	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI30	3x07292 4x07292 I:7291	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI30	3x07293 4x07293 I:7292	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI30	3x07294 4x07294 I:7293	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI30	3x07295 4x07295 I:7294	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI30	3x07296 4x07296 I:7295	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI31						

RISE DI31	3x07301 4x07301 I:7300	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI31	3x07302 4x07302 I:7301	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI31	3x07303 4x07303 I:7302	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI31	3x07304 4x07304 I:7303	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI31	3x07305 4x07305 I:7304	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS END DI31	3x07306 4x07306 I:7305	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI132						
RISE DI132	3x07311 4x07311 I:7310	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
FALL DI132	3x07312 4x07312 I:7311	4,0x0004 B:00 04			UINT16 R/O	
		4 event(s)				
CHANGE DI132	3x07313 4x07313 I:7312	6,0x0006 B:00 06			UINT16 R/O	
		6 event(s)				
SHORT KEYPRESS DI132	3x07314 4x07314 I:7313	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				
LONG KEYPRESS START DI132	3x07315 4x07315 I:7314	2,0x0002 B:00 02			UINT16 R/O	
		2 event(s)				

LONG KEYPRESS END DI132	3x07316 4x07316 I:7315	2,0x0002 B:00 02			UINT16 R/O	
		2 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 l:59000	????		0xFFFF	UINT16 R/W	NO
		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			
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 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 for module restart and watchdog function. The state is saved in FRAM						
FRAM INTIAL & WATCHDOG STATUS OF DO17-DO30	3x59002 4x59002 l:59001	????		0x3FFF	UINT16 R/W	NO
		Actual init & watchdog state of DO17:0=OFF	1			
		Actual init & watchdog state of DO18:0=OFF	1			
		Actual init & watchdog state of DO19:0=OFF	1			
		Actual init & watchdog state of DO20:0=OFF	1			
		Actual init & watchdog state of DO21:0=OFF	1			
		Actual init & watchdog state of DO22:0=OFF	1			
		Actual init & watchdog state of DO23:0=OFF	1			
		Actual init & watchdog state of DO24:0=OFF	1			
		Actual init & watchdog state of DO25:0=OFF	1			

		Actual init & watchdog state of DO26:0=OFF	1		
		Actual init & watchdog state of DO27:0=OFF	1		
		Actual init & watchdog state of DO28:0=OFF	1		
		Actual init & watchdog state of DO29:0=OFF	1		
		Actual init & watchdog state of DO30:0=OFF	1		

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

Bit 0: =0:DO17 is OFF, =1:DO17 is ON

Bit 1: =0:DO18 is OFF, =1:DO18 is ON

...

Bit 12: =0:DO29 is OFF, =1:DO29 is ON

Bit 13: =0:DO30 is OFF, =1:DO30 is ON

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM

DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE ON

INITIAL & WATCHDOG SETUP ENABLE OPEN WIRE DETECTION WHILE ON DO1-DO16	3x59003 4x59003 1:59002	???	0xFFFF	UINT16 R/W	NO
		Initial setup of open wire detection while ON for DO1:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO2:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO3:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO4:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO5:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO6:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO7:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO8:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO9:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO10:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO11:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO12:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO13:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO14:0=DISABLED	1		

		Initial setup of open wire detection while ON for DO15:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO16:0=DISABLED	1		
<p>Current FRAM setting for intial and watchdog state for open wire detection while ON for digital output DOx. This state is used after power on and after a communcation watchdog timeout, if a watchdog time is configured</p> <p>Bit 0: =0:Open wire detection for DO1 is DISABLED, =1:Open wire detection for DO1 is ENABLED</p> <p>Bit 1: =0:Open wire detection for DO2 is DISABLED, =1:Open wire detection for DO2 is ENABLED</p> <p>...</p> <p>Bit 14: =0:Open wire detection for DO15 is DISABLED, =1:Open wire detection for DO15 is ENABLED</p> <p>Bit 15: =0:Open wire detection for DO16 is DISABLED, =1:Open wire detection for DO16 is ENABLED</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>					
INITIAL & WATCHDOG SETUP ENABLE OPEN WIRE DETECTION WHILE ON DO17-DO30	3x59004 4x59004 1:59003	????		0x3FFF	UINT16 R/W
		Initial setup of open wire detection while ON for DO17:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO18:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO19:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO20:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO21:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO22:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO23:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO24:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO25:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO26:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO27:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO28:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO29:0=DISABLED	1		
		Initial setup of open wire detection while ON for DO30:0=DISABLED	1		

Current FRAM setting for intial and watchdog state for open wire detection while ON for digital output DOx. This state is used after power on and after a communcation watchdog timeout, if a watchdog time is configured

Bit 0: =0:Open wire detection for DO17 is DISABLED, =1:Open wire detection for DO17 is ENABLED

Bit 1: =0:Open wire detection for DO18 is DISABLED, =1:Open wire detection for DO18 is ENABLED

...

Bit 12: =0:Open wire detection for DO29 is DISABLED, =1:Open wire detection for DO29 is ENABLED

Bit 13: =0:Open wire detection for DO30 is DISABLED, =1:Open wire detection for DO30 is ENABLED

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM

DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE OFF

INITIAL & WATCHDOG SETUP ENABLE OPEN WIRE DETECTION WHILE OFF DO1-DO16	3x59005 4x59005 1:59004	????	0xFFFF	UINT16 R/W	NO
		Initial setup of open wire detection while OFF for DO1:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO2:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO3:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO4:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO5:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO6:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO7:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO8:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO9:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO10:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO11:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO12:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO13:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO14:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO15:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO16:0=DISABLED	1		

Current FRAM setting for initial and watchdog state for open wire detection while OFF for digital output DOx. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured

Bit 0: =0:Open wire detection for DO1 is DISABLED, =1:Open wire detection for DO1 is ENABLED

Bit 1: =0:Open wire detection for DO2 is DISABLED, =1:Open wire detection for DO2 is ENABLED

...

Bit 14: =0:Open wire detection for DO15 is DISABLED, =1:Open wire detection for DO15 is ENABLED

Bit 15: =0:Open wire detection for DO16 is DISABLED, =1:Open wire detection for DO16 is ENABLED

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM

INITIAL & WATCHDOG SETUP ENABLE OPEN WIRE DETECTION WHILE OFF DO17-DO30	3x59006 4x59006 1:59005	????	0x3FFF	UINT16 R/W	NO
		Initial setup of open wire detection while OFF for DO17:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO18:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO19:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO20:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO21:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO22:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO23:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO24:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO25:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO26:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO27:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO28:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO29:0=DISABLED	1		
		Initial setup of open wire detection while OFF for DO30:0=DISABLED	1		

Current FRAM setting for initial and watchdog state for open wire detection while OFF for digital output DOx. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured

Bit 0: =0:Open wire detection for DO17 is DISABLED, =1:Open wire detection for DO17 is ENABLED

Bit 1: =0:Open wire detection for DO18 is DISABLED, =1:Open wire detection for DO18 is ENABLED

...

Bit 12: =0:Open wire detection for DO29 is DISABLED, =1:Open wire detection for DO29 is ENABLED

Bit 13: =0:Open wire detection for DO30 is DISABLED, =1:Open wire detection for DO30 is ENABLED

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM

DIGITAL OUTPUTS:ENABLE SHORTCUT DETECTION WHILE OFF

INITIAL & WATCHDOG SETUP ENABLE SHORTCUT TO VDD DETECTION WHILE OFF DO1-DO16	3x59007 4x59007 1:59006	????	0xFFFF	UINT16 R/W	NO
		Initial setup of shortcut to VDD detection while OFF for DO1:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO2:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO3:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO4:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO5:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO6:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO7:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO8:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO9:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO10:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO11:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO12:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO13:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO14:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO15:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO16:0=DISABLED	1		

Current FRAM setting for initial and watchdog state for shortcut to VDD detection while OFF for digital output DOx. This state is used after power on and after a communication watchdog timeout, if a watchdog time is configured

Bit 0: =0:Shortcut detection for DO1 is DISABLED, =1:Shortcut detection for DO1 is ENABLED

Bit 1: =0:Shortcut detection for DO2 is DISABLED, =1:Shortcut detection for DO2 is ENABLED

...

Bit 14: =0:Shortcut detection for DO15 is DISABLED, =1:Shortcut detection for DO15 is ENABLED

Bit 15: =0:Shortcut detection for DO16 is DISABLED, =1:Shortcut detection for DO16 is ENABLED

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM

INITIAL & WATCHDOG SETUP ENABLE SHORTCUT TO VDD DETECTION WHILE OFF DO17-DO30	3x59008 4x59008 1:59007	????	0x3FFF	UINT16 R/W	NO
		Initial setup of shortcut to VDD detection while OFF for DO17:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO18:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO19:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO20:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO21:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO22:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO23:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO24:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO25:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO26:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO27:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO28:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO29:0=DISABLED	1		
		Initial setup of shortcut to VDD detection while OFF for DO30:0=DISABLED	1		

Current FRAM setting for intial and watchdog state for shortcut to VDD detection while OFF for digital output DOx. This state is used after power on and after a communcation watchdog timeout, if a watchdog time is configured

Bit 0: =0:Shortcut detection for DO17 is DISABLED, =1:Shortcut detection for DO17 is ENABLED

Bit 1: =0:Shortcut detection for DO18 is DISABLED, =1:Shortcut detection for DO18 is ENABLED

...

Bit 12: =0:Shortcut detection for DO29 is DISABLED, =1:Shortcut detection for DO29 is ENABLED

Bit 13: =0:Shortcut detection for DO30 is DISABLED, =1:Shortcut detection for DO30 is ENABLED

Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FRAM

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
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ASCII COMMANDS

AIOX CONFIGURATION

SET IO TYPES	ASCII WRITE COMMAND	#SIOTYPS:<IOTyp1>,<IOTyp2>,<IOTyp3>,<IOTyp4><CR> Result: #OK<CR>			ASCII	YES
	IOTyp1	VO[0-10V]				
	IOTyp2	VO[0-10V]				
	IOTyp3	VO[0-10V]				
	IOTyp4	VO[0-10V]				
	TX	#1,SIOTYPS:VO[0-10V],VO[0-10V],VO[0-10V],VO[0-10V]<CR>				
	RX	#1,OK<CR>				

This command defines for all 4 universal IOs a new type of IO:

IOTypx stands for the new type:

UU: Unused – high impedance

VI[0-10V]: VOLTAGE INPUT for 0 to 10V Signals

VI[2-10V]: VOLTAGE INPUT for 2 to 10V Signals

VO[0-10V]: VOLTAGE OUTPUT for 0 to 10V Signals

VO[2-10V]: VOLTAGE OUTPUT for 2 to 10V Signals]

CI[0-20mA;LP]: CURRENT INPUT for 0 to 20mA Signals – loop powered

CI[4-20mA;LP]: CURRENT INPUT for 4 to 20mA Signals – loop powered

CI[0-20mA;EP]: CURRENT INPUT for 0 to 20mA Signals – external powered

CI[4-20mA;EP]: CURRENT INPUT for 4 to 20mA Signals – external powered

CO[0-20mA]: CURRENT OUTPUT for 0 to 20mA Signals

CO[4-20mA]: CURRENT OUTPUT for 4 to 20mA Signals

RTDI[OHM]: RTD SENSOR INPUT for Ohm measurement between 0 and 1MOhm

DI[24V;L]: DIGITAL INPUT for 24Vdc – logic, threshold 12V

DI[24V;LP]: DIGITAL INPUT for 24Vdc – loop powered

HINT: The last IO type is automatically stored in FRAM and will be used after a system restart.

SET IO TYPx	ASCII WRITE COMMAND	#SIOTYP<IONR>:<IOTypx><CR> Result: #OK<CR>			ASCII	YES
	IONR	1				
	IOTypx	VO[0-10V]				
	TX	#1,SIOTYP1:VO[0-10V]<CR>				
	RX	#1,OK<CR>				

This command defines for the universal IO IONR a new type of IO:

IOTypx stands for the new type:

UU: Unused – high impedance

VI[0-10V]: VOLTAGE INPUT for 0 to 10V Signals

VI[2-10V]: VOLTAGE INPUT for 2 to 10V Signals

VO[0-10V]: VOLTAGE OUTPUT for 0 to 10V Signals

VO[2-10V]: VOLTAGE OUTPUT for 2 to 10V Signals]

CI[0-20mA;LP]: CURRENT INPUT for 0 to 20mA Signals – loop powered

CI[4-20mA;LP]: CURRENT INPUT for 4 to 20mA Signals – loop powered

CI[0-20mA;EP]: CURRENT INPUT for 0 to 20mA Signals – external powered

CI[4-20mA;EP]: CURRENT INPUT for 4 to 20mA Signals – external powered

CO[0-20mA]: CURRENT OUTPUT for 0 to 20mA Signals

CO[4-20mA]: CURRENT OUTPUT for 4 to 20mA Signals

RTDI[OHM]: RTD SENSOR INPUT for Ohm measurement between 0 and 1MOhm

DI[24V;L]: DIGITAL INPUT for 24Vdc – logic, threshold 12V

DI[24V;LP]: DIGITAL INPUT for 24Vdc – loop powered

HINT: The last IO type is automatically stored in FRAM and will be used after a system restart.

GET IO TYPES	ASCII READ COMMAND	#GIOTYPS<CR> Result: #GIOTYPS:<IOTyp1Txt>,<IOTyp2Txt>.....<IOTyp4Txt><CR>	ASCII	
	TX	#1,GIOTYPS<CR>		
	RX	#1,GIOTYPS:VO[0-10V],VO[0-10V],VO[0-10V],VO[0-10V]<CR>		
		Actual type of IO1:VO[0-10V]		
		Actual type of IO2:VO[0-10V]		
		Actual type of IO3:VO[0-10V]		
		Actual type of IO4:VO[0-10V]		

This command shows for all 4 universal IOs the current selected type of IO:

IOTypx stands for the types:

UU: Unused – high impedance

VI[0-10V]: VOLTAGE INPUT for 0 to 10V Signals

VI[2-10V]: VOLTAGE INPUT for 2 to 10V Signals

VO[0-10V]: VOLTAGE OUTPUT for 0 to 10V Signals

VO[2-10V]: VOLTAGE OUTPUT for 2 to 10V Signals]

CI[0-20mA;LP]: CURRENT INPUT for 0 to 20mA Signals – loop powered

CI[4-20mA;LP]: CURRENT INPUT for 4 to 20mA Signals – loop powered

CI[0-20mA;EP]: CURRENT INPUT for 0 to 20mA Signals – external powered

CI[4-20mA;EP]: CURRENT INPUT for 4 to 20mA Signals – external powered

CO[0-20mA]: CURRENT OUTPUT for 0 to 20mA Signals

CO[4-20mA]: CURRENT OUTPUT for 4 to 20mA Signals

RTDI[OHM]: RTD SENSOR INPUT for Ohm measurement between 0 and 1MOhm

DI[24V;L]: DIGITAL INPUT for 24Vdc – logic, threshold 12V

DI[24V;LP]: DIGITAL INPUT for 24Vdc – loop powered

GET IO TYPx	ASCII READ COMMAND	#GIOTYP<IONR><CR> Result: #GIOTYP<IONR>:<IOTypxTxt><CR>	ASCII	
	IONR	1		
	TX	#1,GIOTYP1<CR>		
	RX	#1,GIOTYP1:VO[0-10V]<CR>		
		Actual type of IO1:VO[0-10V]		

This command shows for the universal IO IONR the current selected type:

IOTypx stands for the types:

UU: Unused – high impedance

VI[0-10V]: VOLTAGE INPUT for 0 to 10V Signals

VI[2-10V]: VOLTAGE INPUT for 2 to 10V Signals

VO[0-10V]: VOLTAGE OUTPUT for 0 to 10V Signals

VO[2-10V]: VOLTAGE OUTPUT for 2 to 10V Signals]

CI[0-20mA;LP]: CURRENT INPUT for 0 to 20mA Signals – loop powered

CI[4-20mA;LP]: CURRENT INPUT for 4 to 20mA Signals – loop powered

CI[0-20mA;EP]: CURRENT INPUT for 0 to 20mA Signals – external powered

CI[4-20mA;EP]: CURRENT INPUT for 4 to 20mA Signals – external powered

CO[0-20mA]: CURRENT OUTPUT for 0 to 20mA Signals

CO[4-20mA]: CURRENT OUTPUT for 4 to 20mA Signals

RTDI[OHM]: RTD SENSOR INPUT for Ohm measurement between 0 and 1MOhm

DI[24V;L]: DIGITAL INPUT for 24Vdc – logic, threshold 12V

DI[24V;LP]: DIGITAL INPUT for 24Vdc – loop powered

VOLTAGE INPUTS

GET VOLTAGE INPUTS IN VOLT	ASCII READ COMMAND	#GVISV<CR> Result: #GVISV:<IOVolt1DbI>,<IOVolt2DbI>,...<IOVolt4DbI><CR>	ASCII	
	TX	#1,GVISV<CR>		
	RX	#1,GVISV:999.99,999.99,999.99,999.99<CR>		
		Actual voltage on IO1:999.99V		
		Actual voltage on IO2:999.99V		
		Actual voltage on IO3:999.99V		
		Actual voltage on IO4:999.99V		

This command shows for all VOLTAGE INPUT IOs the current measurement in Volt.

The measurement range is 0.0 to 10.00V.

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET VOLTAGE INPUT IN VOLT	ASCII READ COMMAND	#GVIV<IONR><CR> Result: #GVIV<IONR>:<IOxVoltDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GVIV1<CR>		
	RX	#1,GVIV1:999.99<CR>		
		Actual voltage on IO1:999.99V		

This command shows for the VOLTAGE INPUT IO <IONR> the current measurement in Volt.

The measurement range is 0.0 to 10.00V.

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET VOLTAGE INPUTS IN PERCENT	ASCII READ COMMAND	#GVISP<CR> Result: #GVISP:<IOPercent1DbI>,<IOPercent2DbI>,...<IOPercent4DbI><CR>	ASCII	
	TX	#1,GVISP<CR>		
	RX	#1,GVISP:999.99,999.99,999.99,999.99<CR>		
		Actual percentage on IO1:999.99%		
		Actual percentage on IO2:999.99%		
		Actual percentage on IO3:999.99%		

		Actual percentage on IO4:999.99%		
This command shows for all VOLTAGE INPUT IOs the current measurement in Percent. The measurement range is 0.0V -> 0.0% to 10.00V -> 100.0%. All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				
GET VOLTAGE INPUT IN PERCENT	ASCII READ COMMAND	#GVIP<IONR> <CR> Result: #GVIP<IONR>:<IOxPercentDbI> <CR>	ASCII	
	IONR	1		
	TX	#1,GVIP1<CR>		
	RX	#1,GVIP1:999.99<CR>		
		Actual percentage on IO1:999.99%		
This command shows for VOLTAGE INPUT IO <IONR> the current measurement in Percent. The measurement range is 0.0V -> 0.0% to 10.00V -> 100.0%. All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				
VOLTAGE DIGITAL INPUTS				
GET VOLTAGE DIGITAL INPUTS	ASCII READ COMMAND	#GVDIS<CR> Result: #GVDIS:<IODI1Dec>,<IODI2Dec>,...,<IODI4Dec> <CR>	ASCII	
	TX	#1,GVDIS<CR>		
	RX	#1,GVDIS:X,X,X,X<CR>		
		Actual voltage digital input state on IO1:X		
		Actual voltage digital input state on IO2:X		
		Actual voltage digital input state on IO3:X		
		Actual voltage digital input state on IO4:X		
This command shows for all VOLTAGE DIGITAL INPUT IOs the current state. The digital input can have the values 0 and 1. All IOs with a different usage type will return X to indicate, that no measurement is done.				
GET VOLTAGE DIGITAL INPUT	ASCII READ COMMAND	#GVDI<IONR> <CR> Result: #GVDI<IONR>:<IOxDIDec> <CR>	ASCII	
	IONR	1		
	TX	#1,GVDI1<CR>		
	RX	#1,GVDI3:X<CR>		
		Actual voltage digital input state on IO1:X		
This command shows for VOLTAGE DIGITAL INPUT IO <IONR> the current state. The digital input can have the values 0 and 1. All IOs with a different usage type will return X to indicate, that no measurement is done.				
GET VOLTAGE DIGITAL INPUTS CURRENT	ASCII READ COMMAND	#GVDISC<CR> Result: #GVDISC:<IOmA1DbI>,<IOmA2DbI>,...,<IOmA4DbI> <CR>	ASCII	
	TX	#1,GVDISC<CR>		
	RX	#1,GVDISC:999.99,999.99,999.99,999.99<CR>		
		Actual input current on IO1:999.99mA		
		Actual input current on IO2:999.99mA		
		Actual input current on IO3:999.99mA		
		Actual input current on IO4:999.99mA		

This command shows for all VOLTAGE DIGITAL INPUT IOs the actual current in mA.

The measurement range is 0.0mA to 35mA.

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET VOLTAGE DIGITAL INPUT CURRENT	ASCII READ COMMAND	#GVDIC<IONR><CR> Result: #GVDIC<IONR>:<IOxmADbl><CR>	ASCII	
	IONR	1		
	TX	#1,GVDIC1<CR>		
	RX	#1,GVDIC1:999.99<CR>		
		Actual input current on IO1:999.99mA		

This command shows for VOLTAGE DIGITAL INPUT IO <IONR> the actual current in mA.

The measurement range is 0.0mA to 35mA.

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

VOLTAGE OUTPUTS

SET VOLTAGE OUTPUTS IN VOLT	ASCII WRITE COMMAND	#SVOSV:<IO1VoltDbl>,<IO2VoltDbl>,<IO3VoltDbl>,<IO4VoltDbl><CR> Result: #OK<CR>	ASCII	YES
	IO1Volt	10,000		
	IO2Volt	7,500		
	IO3Volt	5,500		
	IO4Volt	2,500		
	TX	#1,SVOSV:10,7.5,5.5,2.5<CR>		
	RX	#1,OK<CR>		

This command sets for all VOLTAGE OUTPUT IOs the current output voltage in Volt.

The range is 0.0 to 11.00V.

SET VOLTAGE OUTPUTx IN VOLT	ASCII WRITE COMMAND	#SVOV<IONR>:<IOxVoltDbl><CR> Result: #OK<CR>	ASCII	NO
	IONR	1		
	IOxVolt	2,000		
	TX	#1,SVOV1:2<CR>		
	RX	N/A		

This command sets for VOLTAGE OUTPUT IO <IONR> the current output voltage in Volt.

The range is 0.0 to 11.00V.

SET VOLTAGE OUTPUTS IN PERCENT	ASCII WRITE COMMAND	#SVOSP:<IO1PercentDbl>,<IO2PercentDbl>,<IO3PercentDbl>,<IO4PercentDbl><CR> Result: #OK<CR>	ASCII	NO
	IO1Percent	110,000		
	IO2Percent	100,000		
	IO3Percent	75,000		
	IO4Percent	50,000		
	TX	#1,SVOSP:110,100,75,50<CR>		
	RX	N/A		

This command sets for all VOLTAGE OUTPUT IOs the current output voltage in Percent.

The range is 0.0V -> 0.00% to 11.00V -> 110.00%.

SET VOLTAGE OUTPUTx IN PERCENT	ASCII WRITE COMMAND	#SVOP<IONR>:<IOxPercentDbI><CR> Result: #OK<CR>	ASCII	NO
	IONR	1		
	IOxPercent	2,000		
	TX	#1,SVOP1:2<CR>		
	RX	N/A		
This command sets for VOLTAGE OUTPUT IO <IONR> the current output voltage in Percent. The range is 0.0V -> 0.00% to 11.00V -> 110.00%.				
GET VOLTAGE OUTPUTS IN VOLT	ASCII READ COMMAND	#GVOSV<CR> Result: #GVOSV:<IO1VoltDbI>,<IO2VoltDbI>,...,<IO4VoltDbI><CR>	ASCII	
	TX	#1,GVOSV<CR>		
	RX	#1,GVOSV:0.00,0.00,0.00,0.00<CR>		
		Actual voltage output on IO1:0.00V		
		Actual voltage output on IO2:0.00V		
		Actual voltage output on IO3:0.00V		
		Actual voltage output on IO4:0.00V		
This command shows for all VOLTAGE OUTPUT IOs the current output voltage in Volt. The range is 0.0V to 11.00V. All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				
GET VOLTAGE OUTPUT IN VOLT	ASCII READ COMMAND	#GVOV<IONR><CR> Result: #GVOV<IONR>:<IOxVoltDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GVOV1<CR>		
	RX	#1,GVOV3:5.50<CR>		
		Actual voltage output on IO1:5.50V		
This command shows for VOLTAGE OUTPUT IO <IONR> the current output voltage in Volt. The range is 0.0V to 11.00V. All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				
GET VOLTAGE OUTPUTS IN PERCENT	ASCII READ COMMAND	#GVOSP<CR> Result: #GVOSP:<IO1PercentDbI>,<IO2PercentDbI>,...,<IO4PercentDbI><CR>	ASCII	
	TX	#1,GVOSP<CR>		
	RX	#1,GVOSP:100.00,75.00,55.00,25.00<CR>		
		Actual percentage voltage output on IO1:100.00%		
		Actual percentage voltage output on IO2:75.00%		
		Actual percentage voltage output on IO3:55.00%		
		Actual percentage voltage output on IO4:25.00%		
This command shows for all VOLTAGE OUTPUT IOs the current output voltage in Percent. The range is 0.0V -> 0.00% to 11.00V -> 110.00% (10.00V -> 100.00%). All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				
GET VOLTAGE OUTPUT IN PERCENT	ASCII READ COMMAND	#GVOP<IONR><CR> Result: #GVOP<IONR>:<IOxPercentDbI><CR>	ASCII	

	IONR	1		
	TX	#1,GVOP1<CR>		
	RX	#1,GVOP3:55.00<CR>		
		Actual percentage voltage output on IO1:55.00%		

This command shows for VOLTAGE OUTPUT IO <IONR> the current output voltage in Percent.

The range is 0.0V -> 0.00% to 11.00V -> 110.00% (10.00V -> 100.00%).

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET VOLTAGE OUTPUTS CURRENT	ASCII READ COMMAND	#GVOSC<CR> Result: #GVOSC:<IOmA1Dbl>,<IOmA2Dbl>,...,<IOmA4Dbl><CR>	ASCII	
	TX	#1,GVOSC<CR>		
	RX	#1,GVOSC:0.00,0.00,0.00,-0.00<CR>		
		Actual output current on IO1:0.00mA		
		Actual output current on IO2:0.00mA		
		Actual output current on IO3:0.00mA		
		Actual output current on IO4:-0.00mA		

This command shows for all VOLTAGE OUTPUT IOs the actual current in mA.

The measurement range is 0.0mA to 35mA.

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET VOLTAGE OUTPUT CURRENT	ASCII READ COMMAND	#GVOC<IONR><CR> Result: #GVOC<IONR>:<IOxmADbl><CR>	ASCII	
	IONR	1		
	TX	#1,GVOC1<CR>		
	RX	#1,GVOC1:0.00<CR>		
		Actual output current on IO1:0.00mA		

This command shows for VOLTAGE OUTPUT IO <IONR> the actual current in mA.

The measurement range is 0.0mA to 35mA.

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

CURRENT INPUTS

GET CURRENT INPUTS IN mA	ASCII READ COMMAND	#GCISMA<CR> Result: #GCISMA:<IO1mAADbl>,<IO2mAADbl>,...,<IO4mAADbl><CR>	ASCII	
	TX	#1,GCISMA<CR>		
	RX	#1,GCISMA:999.99,999.99,999.99,999.99<CR>		
		Actual current input on IO1:999.99mA		
		Actual current input on IO2:999.99mA		
		Actual current input on IO3:999.99mA		
		Actual current input on IO4:999.99mA		

This command shows for all CURRENT INPUT IOs the current measured input current in mA.

The range is 0.00 to 25.00mA

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET CURRENT INPUT IN mA	ASCII READ COMMAND	#GCIMA<IONR><CR> Result: #GCIMA<IONR>:<IOxmADbl><CR>	ASCII	
	IONR	1		

	TX	#1,GCIMA1<CR>		
	RX	#1,GCIMA3:999.99<CR>		
		Actual current input on IO1:999.99mA		

This command shows for CURRENT INPUT IO <IONR> the current measured input current in mA.

The range is 0.00 to 25.00mA

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET CURRENT INPUTS IN PERCENT	ASCII READ COMMAND	#GCISP<CR> Result: #GCISP:<IO1PercentDbI>,<IO2PercentDbI>,...<IO4PercentDbI><CR>	ASCII	
	TX	#1,GCISP<CR>		
	RX	#1,GCISP:999.99,999.99,999.99,999.99<CR>		
		Actual percentage for current input on IO1:999.99%		
		Actual percentage for current input on IO2:999.99%		
		Actual percentage for current input on IO3:999.99%		
		Actual percentage for current input on IO4:999.99%		

This command shows for all CURRENT INPUT IOs the current measured input current in Percent.

The range is 0.00mA -> 0.00% to 25.00mA -> 125.00% (20mA=100%)

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET CURRENT INPUT IN PERCENT	ASCII READ COMMAND	#GCIP<IONR><CR> Result: #GCIP<IONR>:<IOxPercentDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GCIP1<CR>		
	RX	#1,GCIP3:999.99<CR>		
		Actual percentage for current input on IO1:999.99%		

This command shows for CURRENT INPUT IO <IONR> the current measured input current in Percent.

The range is 0.00mA -> 0.00% to 25.00mA -> 125.00% (20mA=100%)

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

CURRENT OUTPUTS

SET CURRENT OUTPUTS IN mA	ASCII WRITE COMMAND	#SCOSMA:<IO1mADbl>,<IO2mADbl>,<IO3mADbl>,<IO4mADbl><CR> Result: #OK<CR>	ASCII	NO
	IO1mA	2,000		
	IO2mA	4,000		
	IO3mA	6,000		
	IO4mA	25,000		
	TX	#1,SCOSMA:2,4,6,25<CR>		
	RX	N/A		

This command sets for all CURRENT OUTPUT IOs the actual output current in mA.

The range is 0.00mA to 25.00mA

SET CURRENT OUTPUTx IN mA	ASCII WRITE COMMAND	#SCOMA<IONR>:<IOxmADbl><CR> Result: #OK<CR>	ASCII	NO
	IONR	1		
	IOxVlt	2,000		
	TX	#1,SCOMA1:<IOxmADbl><CR>		

	RX	N/A		
This command sets for CURRENT OUTPUT <IONR> IOs the actual output current in mA. The range is 0.00mA to 25.00mA				
SET CURRENT OUTPUTS IN PERCENT	ASCII WRITE COMMAND	#SCOSP:<IO1PercentDbl>,<IO2PercentDbl>,<IO3PercentDbl>,<IO4PercentDbl> <CR> Result: #OK<CR>	ASCII	NO
	IO1Percent	125,000		
	IO2Percent	100,000		
	IO3Percent	75,000		
	IO4Percent	50,000		
	TX	#1,SCOSP:125,100,75,50<CR>		
	RX	N/A		
This command sets for all CURRENT OUTPUT IOs the new output current in Percent. The range is 0.00mA -> 0.00% to 25.00mA -> 125.00% (20mA -> 100.00%)				
SET CURRENT OUTPUTx IN PERCENT	ASCII WRITE COMMAND	#SCOP<IONR>:<IOxPercentDbl> <CR> Result: #OK<CR>	ASCII	NO
	IONR	1		
	IOxPercent	,000		
	TX	#1,SCOP1:0<CR>		
	RX	N/A		
This command sets for CURRENT OUTPUT IO <IONR> the new output current in Percent. The range is 0.00mA -> 0.00% to 25.00mA -> 125.00% (20mA -> 100.00%)				
GET CURRENT OUTPUTS IN mA	ASCII READ COMMAND	#GCOSMA<CR> Result: #GCOSMA:<IO1mADbl>,<IO2mADbl>,...,<IO4mADbl> <CR>	ASCII	
	TX	#1,GCOSMA<CR>		
	RX	#1,GCOSMA:999.99,999.99,999.99,999.99<CR>		
		Actual value of current output on IO1:999.99mA		
		Actual value of current output on IO2:999.99mA		
		Actual value of current output on IO3:999.99mA		
		Actual value of current output on IO4:999.99mA		
This command shows for all CURRENT OUTPUT IOs the actual output current in mA. The range is 0.00mA to 25.00mA All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				
GET CURRENT OUTPUT IN mA	ASCII READ COMMAND	#GCOMA<IONR> <CR> Result: #GCOMA<IONR>:<IOxmADbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GCOMA1<CR>		
	RX	#1,GCOMA3:999.99<CR>		
		Actual value of current output on IO1:999.99mA		
This command shows for CURRENT OUTPUT IO <IONR> the actual output current in mA. The range is 0.00mA to 25.00mA All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.				

GET CURRENT OUTPUTS IN PERCENT	ASCII READ COMMAND	#GCOSP<CR> Result: #GCOSP:<IO1PercentDbl>,<IO2PercentDbl>,...<IO4PercentDbl><CR>	ASCII	
	TX	#1,GCOSP<CR>		
	RX	#1,GCOSP:999.99,999.99,999.99,999.99<CR>		
		Actual percentage of current output on IO1:999.99%		
		Actual percentage of current output on IO2:999.99%		
		Actual percentage of current output on IO3:999.99%		
		Actual percentage of current output on IO4:999.99%		

This command shows for all CURRENT OUTPUT IOs the actual output current in Percent.

The range is 0.00mA -> 0.00% to 25.00mA -> 125.00% (20mA -> 100.00%)

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET CURRENT OUTPUT IN PERCENT	ASCII READ COMMAND	#GCOP<IONR><CR> Result: #GCOP<IONR>:<IOxPercentDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GCOP1<CR>		
	RX	#1,GCOP3:999.99<CR>		
		Actual percentage of current output on IO1:999.99%		

This command shows for CURRENT OUTPUT IO <IONR> the actual output current in Percent.

The range is 0.00mA -> 0.00% to 25.00mA -> 125.00% (20mA -> 100.00%)

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET CURRENT OUTPUTS VOLTAGE	ASCII READ COMMAND	#GCOSV<CR> Result: #GCOSV:<IO1VoltsDbl>,<IO2VoltsDbl>,...<IO4VoltsDbl><CR>	ASCII	
	TX	#1,GCOSV<CR>		
	RX	#1,GCOSV:999.99,999.99,999.99,999.99<CR>		
		Measured voltage of current output on IO1:999.99V		
		Measured voltage of current output on IO2:999.99V		
		Measured voltage of current output on IO3:999.99V		
		Measured voltage of current output on IO4:999.99V		

This command shows for all CURRENT OUTPUT IOs the actual output voltage in Volt.

The range is 0-10V

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

GET CURRENT OUTPUT VOLTAGE	ASCII READ COMMAND	#GCOV<IONR><CR> Result: #GCOV<IONR>:<IOxVoltDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GCOV1<CR>		
	RX	#1,GCOV3:999.99<CR>		
		Measured voltage of current output on IO1:999.99V		

This command shows for CURRENT OUTPUT IO <IONR> the actual output voltage in Volt.

The range is 0-10V

All IOs with a different usage type will return 999.99 to indicate, that no measurement is done.

RTD INPUTS OHM				
GET RTD INPUTS IN OHM	ASCII READ COMMAND	#GRTDISOHM<CR> Result: #GRTDISOHM:<IO1OhmDbl>,<IO2OhmDbl>,...,<IO4OhmDbl><CR>	ASCII	
	TX	#1,GRTDISOHM<CR>		
	RX	#1,GRTDISOHM:99999999.999,99999999.999,99999999.999,99999999.999<CR>		
		Actual measured RTD input on IO1:99999999.999Ohm		
		Actual measured RTD input on IO2:99999999.999Ohm		
		Actual measured RTD input on IO3:99999999.999Ohm		
		Actual measured RTD input on IO4:99999999.999Ohm		
This command shows for RTD INPUT IOs the actual measured RTD value in Ohm. The range is 0.000Ohm to 1000000.00Ohm All IOs with a different usage type will return 99999999.999 to indicate, that no measurement is done.				
GET RTD INPUT IN OHM	ASCII READ COMMAND	#GRTDIOHM<IONR> <CR> Result: #GRTDIOHM<IONR>:<IOxOhmDbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GRTDIOHM1<CR>		
	RX	#1,GRTDIOHM3:99999999.999<CR>		
		Actual measured RTD input on IO1:99999999.999Ohm		
This command shows for RTD INPUT IO <IONR> the actual measured RTD value in Ohm. The range is 0.000Ohm to 1000000.00Ohm All IOs with a different usage type will return 99999999.999 to indicate, that no measurement is done.				
GET AVERAGE RTD INPUTS IN OHM	ASCII READ COMMAND	#GAVGRTDISOHM<CR> Result: #GAVGRTDISOHM:<IO1OhmDbl>,<IO2OhmDbl>,...,<IO4OhmDbl> <CR>	ASCII	
	TX	#1,GAVGRTDISOHM<CR>		
	RX	#1,GAVGRTDISOHM:99999999.999,99999999.999,99999999.999,99999999.999<CR>		
		Average measured RTD input on IO1:99999999.999Ohm		
		Average measured RTD input on IO2:99999999.999Ohm		
		Average measured RTD input on IO3:99999999.999Ohm		
		Average measured RTD input on IO4:99999999.999Ohm		
This command shows for RTD INPUT IOs the average measured RTD value in Ohm. The range is 0.000Ohm to 1000000.00Ohm All IOs with a different usage type will return 99999999.999 to indicate, that no measurement is done.				
GET AVG RTD INPUT IN OHM	ASCII READ COMMAND	#GAVGRTDIOHM<IONR> <CR> Result: #GAVGRTDIOHM<IONR>:<IOxOhmDbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDIOHM1<CR>		
	RX	#1,GAVGRTDIOHM3:99999999.999<CR>		
		Average measured RTD input on IO1:99999999.999Ohm		

This command shows for RTD INPUT IO <IONR> the average measured RTD value in Ohm.
The range is 0.000Ohm to 1000000.00Ohm
All IOs with a different usage type will return 99999999.999 to indicate, that no measurement is done.

RTD INPUTS PT100 CELSIUS

GET RTD INPUTS AS PT100 CELSIUS	ASCII READ COMMAND	#GRTDISPT100C <CR> Result: #GRTDISPT100C:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI> <CR>	ASCII	
	TX	#1,GRTDISPT100C <CR>		
	RX	#1,GRTDISPT100C:9999.990,9999.990,9999.990,9999.990 <CR>		
		Actual measured RTD input as PT100 on IO1:9999.990°C		
		Actual measured RTD input as PT100 on IO2:9999.990°C		
		Actual measured RTD input as PT100 on IO3:9999.990°C		
		Actual measured RTD input as PT100 on IO4:9999.990°C		

This command shows for RTD INPUT IOs the actual measured RTD value linearized as PT100 sensor in °Celsius.
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET RTD INPUT AS PT100 CELSIUS	ASCII READ COMMAND	#GRTDIPT100C <IONR> <CR> Result: #GRTDIPT100C <IONR>:<IOxDbI> <CR>	ASCII	
	IONR	1		
	TX	#1,GRTDIPT100C1 <CR>		
	RX	#1,GRTDIPT100C3:9999.990 <CR>		
		Actual measured RTD input as PT100 on IO1:9999.990°C		

This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as PT100 sensor in °Celsius.
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVERAGE RTD INPUTS AS PT100 CELSIUS	ASCII READ COMMAND	#GAVGRTDISPT100C <CR> Result: #GAVGRTDISPT100C:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI> <CR>	ASCII	
	TX	#1,GAVGRTDISPT100C <CR>		
	RX	#1,GAVGRTDISPT100C:9999.990,9999.990,9999.990,9999.990 <CR>		
		Average measured RTD input as PT100 on IO1:9999.990°C		
		Average measured RTD input as PT100 on IO2:9999.990°C		
		Average measured RTD input as PT100 on IO3:9999.990°C		
		Average measured RTD input as PT100 on IO4:9999.990°C		

This command shows for RTD INPUT IOs the average measured RTD value linearized as PT100 sensor in °Celsius.
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVG RTD INPUT AS PT100 CELSIUS	ASCII READ COMMAND	#GAVGRTDIPT100C <IONR> <CR> Result: #GAVGRTDIPT100C <IONR>:<IOxDbI> <CR>	ASCII	
	IONR	1		

	TX	#1,GAVGRTDIPT100C1<CR>		
	RX	#1,GAVGRTDIPT100C1:9999.990<CR>		
		Average measured RTD input as PT100 on IO1:9999.990°C		

This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as PT100 sensor in °Celsius
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

RTD INPUTS PT1000 CELSIUS

GET RTD INPUTS AS PT1000 CELSIUS	ASCII READ COMMAND	#GRTDISPT1000C<CR> Result: #GRTDISPT1000C:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GRTDISPT1000C<CR>		
	RX	#1,GRTDISPT1000C:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as PT1000 on IO1:9999.990°C		
		Actual measured RTD input as PT1000 on IO2:9999.990°C		
		Actual measured RTD input as PT1000 on IO3:9999.990°C		
		Actual measured RTD input as PT1000 on IO4:9999.990°C		

This command shows for RTD INPUT IOs the actual measured RTD value linearized as PT1000 sensor in °Celsius.
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET RTD INPUT AS PT1000 CELSIUS	ASCII READ COMMAND	#GRTDIPT1000C<IONR><CR> Result: #GRTDIPT1000C<IONR>:<IOxDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GRTDIPT1000C1<CR>		
	RX	#1,GRTDIPT1000C3:9999.990<CR>		
		Actual measured RTD input as PT1000 on IO1:9999.990°C		

This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as PT1000 sensor in °Celsius
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVERAGE RTD INPUTS AS PT1000 CELSIUS	ASCII READ COMMAND	#GAVGRTDISPT1000C<CR> Result: #GAVGRTDISPT1000C:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GAVGRTDISPT1000C<CR>		
	RX	#1,GAVGRTDISPT1000C:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as PT1000 on IO1:9999.990°C		
		Average measured RTD input as PT1000 on IO2:9999.990°C		
		Average measured RTD input as PT1000 on IO3:9999.990°C		
		Average measured RTD input as PT1000 on IO4:9999.990°C		

This command shows for RTD INPUT IOs the average measured RTD value linearized as PT1000 sensor in °Celsius.
-999.990: Temperature is lower than 50°C
+999.990: Temperature is higher than 130°C
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVG RTD INPUT AS PT1000 CELSIUS	ASCII READ COMMAND	#GAVGRDIP1000C <IONR> <CR> Result: #GAVGRDIP1000C <IONR>: <IOxDbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRDIP1000C1<CR>		
	RX	#1,GAVGRDIP1000C1:9999.990<CR>		
		Average measured RTD input as PT1000 on IO1:9999.990°C		

This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as PT1000 sensor in °Celsius

-999.990: Temperature is lower than 50°C

+999.990: Temperature is higher than 130°C

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

RTD INPUTS NI1000-DIN43760 CELSIUS

GET RTD INPUTS AS NI1000 DIN43760 CELSIUS	ASCII READ COMMAND	#GRTDISNI1000DIN43760C <CR> Result: #GRTDISNI1000DIN43760C:<RTD1Dbl>,<RTD2Dbl>,...,<RTD4Dbl> <CR>	ASCII	
	TX	#1,GRTDISNI1000DIN43760C<CR>		
	RX	#1,GRTDISNI1000DIN43760C:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as NI1000-DIN43760 on IO1:9999.990°C		
		Actual measured RTD input as NI1000-DIN43760 on IO2:9999.990°C		
		Actual measured RTD input as NI1000-DIN43760 on IO3:9999.990°C		
		Actual measured RTD input as NI1000-DIN43760 on IO4:9999.990°C		

This command shows for RTD INPUT IOs the actual measured RTD value linearized as NI1000 DIN43760 sensor in °Celsius.

-999.990: Temperature is lower than 50°C

+999.990: Temperature is higher than 130°C

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET RTD INPUT AS NI1000 DIN43760 CELSIUS	ASCII READ COMMAND	#GRTDINI1000DIN43760C <IONR> <CR> Result: #GRTDINI1000DIN43760C <IONR>: <IOxDbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GRTDINI1000DIN43760C1<CR>		
	RX	#1,GRTDINI1000DIN43760C3:9999.990<CR>		
		Actual measured RTD input as NI1000-DIN43760 on IO1:9999.990°C		

This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as NI1000 DIN43760 sensor in °Celsius

-999.990: Temperature is lower than 50°C

+999.990: Temperature is higher than 130°C

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVERAGE RTD INPUTS AS NI1000 DIN43760 CELSIUS	ASCII READ COMMAND	#GAVGRDISNI1000DIN43760C <CR> Result: #GAVGRDISNI1000DIN43760C:<RTD1Dbl>,<RTD2Dbl>,...,<RTD4Dbl> <CR>	ASCII	
	TX	#1,GAVGRDISNI1000DIN43760C<CR>		
	RX	#1,GAVGRDISNI1000DIN43760C:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as NI1000-DIN43760 on IO1:9999.990°C		
		Average measured RTD input as NI1000-DIN43760 on IO2:9999.990°C		
		Average measured RTD input as NI1000-DIN43760 on IO3:9999.990°C		

		Average measured RTD input as NI1000-DIN43760 on IO4:9999.990°C		
This command shows for RTD INPUT IOs the average measured RTD value linearized as NI1000 DIN43760 sensor in °Celsius. -999.990: Temperature is lower than 50°C +999.990: Temperature is higher than 130°C All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVG RTD INPUT AS NI1000 DIN43760 CELSIUS	ASCII READ COMMAND	#GAVGRTDINI1000DIN43760C<IONR><CR> Result: #GAVGRTDINI1000DIN43760C<IONR>:<IOxDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDINI1000DIN43760C1<CR>		
	RX	#1,GAVGRTDINI1000DIN43760C1:9999.990<CR>		
		Average measured RTD input as NI1000-DIN43760 on IO1:9999.990°C		
This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as NI1000 DIN43760 sensor in °Celsius. -999.990: Temperature is lower than 50°C +999.990: Temperature is higher than 130°C All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
RTD INPUTS PT100 KELVIN				
GET RTD INPUTS AS PT100 KELVIN	ASCII READ COMMAND	#GRTDISPT100K<CR> Result: #GRTDISPT100K:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GRTDISPT100K<CR>		
	RX	#1,GRTDISPT100K:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as PT100 on IO1:9999.990°K		
		Actual measured RTD input as PT100 on IO2:9999.990°K		
		Actual measured RTD input as PT100 on IO3:9999.990°K		
		Actual measured RTD input as PT100 on IO4:9999.990°K		
This command shows for RTD INPUT IOs the actual measured RTD value linearized as PT100 sensor in °Kelvin -999.990: Temperature is lower than 223.15°K +999.990: Temperature is higher than 403.15°K All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET RTD INPUT AS PT100 KELVIN	ASCII READ COMMAND	#GRTDIPT100K<IONR><CR> Result: #GRTDIPT100K<IONR>:<IOxDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GRTDIPT100K1<CR>		
	RX	#1,GRTDIPT100K3:9999.990<CR>		
		Actual measured RTD input as PT100 on IO1:9999.990°K		
This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as PT100 sensor in °Kelvin -999.990: Temperature is lower than 223.15°K +999.990: Temperature is higher than 403.15°K All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVERAGE RTD INPUTS AS PT100 KELVIN	ASCII READ COMMAND	#GAVGRTDISPT100K<CR> Result: #GAVGRTDISPT100K:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GAVGRTDISPT100K<CR>		

	RX	#1,GAVGRDISPT100K:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as PT100 on IO1:9999.990°K		
		Average measured RTD input as PT100 on IO2:9999.990°K		
		Average measured RTD input as PT100 on IO3:9999.990°K		
		Average measured RTD input as PT100 on IO4:9999.990°K		

This command shows for RTD INPUT IOs the average measured RTD value linearized as PT100 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVG RTD INPUT AS PT100 KELVIN	ASCII READ COMMAND	#GAVGRDIPT100K<IONR><CR> Result: #GAVGRDIPT100K<IONR>:<IOxDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRDIPT100K1<CR>		
	RX	#1,GAVGRDIPT100K1:9999.990<CR>		
		Average measured RTD input as PT100 on IO1:9999.990°K		

This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as PT100 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

RTD INPUTS PT1000 KELVIN

GET RTD INPUTS AS PT1000 KELVIN	ASCII READ COMMAND	#GRDISPT1000K<CR> Result: #GRDISPT1000K:<RTD1Dbl>,<RTD2Dbl>,...,<RTD4Dbl><CR>	ASCII	
	TX	#1,GRDISPT1000K<CR>		
	RX	#1,GRDISPT1000K:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as PT1000 on IO1:9999.990°K		
		Actual measured RTD input as PT1000 on IO2:9999.990°K		
		Actual measured RTD input as PT1000 on IO3:9999.990°K		
		Actual measured RTD input as PT1000 on IO4:9999.990°K		

This command shows for RTD INPUT IOs the actual measured RTD value linearized as PT1000 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET RTD INPUT AS PT1000 KELVIN	ASCII READ COMMAND	#GRDIPT1000K<IONR><CR> Result: #GRDIPT1000K<IONR>:<IOxDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GRDIPT1000K1<CR>		
	RX	#1,GRDIPT1000K3:9999.990<CR>		
		Actual measured RTD input as PT1000 on IO1:9999.990°K		

This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as PT1000 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVERAGE RTD INPUTS AS PT1000 KELVIN	ASCII READ COMMAND	#GAVGRTDISPT1000K<CR> Result: #GAVGRTDISPT1000K:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GAVGRTDISPT1000K<CR>		
	RX	#1,GAVGRTDISPT1000K:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as PT1000 on IO1:9999.990°K		
		Average measured RTD input as PT1000 on IO2:9999.990°K		
		Average measured RTD input as PT1000 on IO3:9999.990°K		
		Average measured RTD input as PT1000 on IO4:9999.990°K		

This command shows for RTD INPUT IOs the average measured RTD value linearized as PT1000 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVG RTD INPUT AS PT1000 KELVIN	ASCII READ COMMAND	#GAVGRTDIPT1000K<IONR><CR> Result: #GAVGRTDIPT1000K<IONR>:<IOxDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDIPT1000K1<CR>		
	RX	#1,GAVGRTDIPT1000K1:9999.990<CR>		
		Average measured RTD input as PT1000 on IO1:9999.990°K		

This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as PT1000 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

RTD INPUTS NI1000-DIN43760 KELVIN

GET RTD INPUTS AS NI1000 DIN43760 KELVIN	ASCII READ COMMAND	#GRTDISNI1000DIN43760K<CR> Result: #GRTDISNI1000DIN43760K:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GRTDISNI1000DIN43760K<CR>		
	RX	#1,GRTDISNI1000DIN43760K:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as NI1000-DIN43760 on IO1:9999.990°K		
		Actual measured RTD input as NI1000-DIN43760 on IO2:9999.990°K		
		Actual measured RTD input as NI1000-DIN43760 on IO3:9999.990°K		
		Actual measured RTD input as NI1000-DIN43760 on IO4:9999.990°K		

This command shows for RTD INPUT IOs the actual measured RTD value linearized as NI1000 DIN43760 sensor in °Kelvin

-999.990: Temperature is lower than 223.15°K

+999.990: Temperature is higher than 403.15°K

All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET RTD INPUT AS NI1000 DIN43760 KELVIN	ASCII READ COMMAND	#GRTDINI1000DIN43760K<IONR><CR> Result: #GRTDINI1000DIN43760K<IONR>:<IOxDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GRTDINI1000DIN43760K1<CR>		
	RX	#1,GRTDINI1000DIN43760K3:9999.990<CR>		

		Actual measured RTD input as NI1000-DIN43760 on IO1:9999.990°K		
This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as NI1000 DIN43760 sensor in °Kelvin -999.990: Temperature is lower than 223.15°K +999.990: Temperature is higher than 403.15°K All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVERAGE RTD INPUTS AS NI1000 DIN43760 KELVIN	ASCII READ COMMAND	#GAVGRTDISNI1000DIN43760K<CR> Result: #GAVGRTDISNI1000DIN43760K:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GAVGRTDISNI1000DIN43760K<CR>		
	RX	#1,GAVGRTDISNI1000DIN43760K:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as NI1000-DIN43760 on IO1:9999.990°K		
		Average measured RTD input as NI1000-DIN43760 on IO2:9999.990°K		
		Average measured RTD input as NI1000-DIN43760 on IO3:9999.990°K		
		Average measured RTD input as NI1000-DIN43760 on IO4:9999.990°K		
This command shows for RTD INPUT IOs the average measured RTD value linearized as NI1000 DIN43760 sensor in °Kelvin -999.990: Temperature is lower than 223.15°K +999.990: Temperature is higher than 403.15°K All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVG RTD INPUT AS NI1000 DIN43760 KELVIN	ASCII READ COMMAND	#GAVGRTDINI1000DIN43760K<IONR><CR> Result: #GAVGRTDINI1000DIN43760K<IONR>:<IOxDbI><CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDINI1000DIN43760K1<CR>		
	RX	#1,GAVGRTDINI1000DIN43760K1:9999.990<CR>		
		Average measured RTD input as NI1000-DIN43760 on IO1:9999.990°K		
This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as NI1000 DIN43760 sensor in °Kelvin -999.990: Temperature is lower than 223.15°K +999.990: Temperature is higher than 403.15°K All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
RTD INPUTS PT100 FAHRENHEIT				
GET RTD INPUTS AS PT100 FAHRENHEIT	ASCII READ COMMAND	#GRTDISPT100F<CR> Result: #GRTDISPT100F:<RTD1DbI>,<RTD2DbI>,...,<RTD4DbI><CR>	ASCII	
	TX	#1,GRTDISPT100F<CR>		
	RX	#1,GRTDISPT100F:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as PT100 on IO1:9999.990°F		
		Actual measured RTD input as PT100 on IO2:9999.990°F		
		Actual measured RTD input as PT100 on IO3:9999.990°F		
		Actual measured RTD input as PT100 on IO4:9999.990°F		
This command shows for RTD INPUT IOs the actual measured RTD value linearized as PT100 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				

GET RTD INPUT AS PT100 FAHRENHEIT	ASCII READ COMMAND	#GRTDIPT100F<IONR> <CR> Result: #GRTDIPT100F<IONR>:<IOxDbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GRTDIPT100F1<CR>		
	RX	#1,GRTDIPT100F3:9999.990<CR>		
		Actual measured RTD input as PT100 on IO1:9999.990°F		

This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as PT100 sensor in °Fahrenheit
-999.990: Temperature is lower than -58°F
+999.990: Temperature is higher than 266°F
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVERAGE RTD INPUTS AS PT100 FAHRENHEIT	ASCII READ COMMAND	#GAVGRTDISPT100F<CR> Result: #GAVGRTDISPT100F:<RTD1Dbl>,<RTD2Dbl>,...<RTD4Dbl> <CR>	ASCII	
	TX	#1,GAVGRTDISPT100F<CR>		
	RX	#1,GAVGRTDISPT100F:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as PT100 on IO1:9999.990°F		
		Average measured RTD input as PT100 on IO2:9999.990°F		
		Average measured RTD input as PT100 on IO3:9999.990°F		
		Average measured RTD input as PT100 on IO4:9999.990°F		

This command shows for RTD INPUT IOs the average measured RTD value linearized as PT100 sensor in °Fahrenheit
-999.990: Temperature is lower than -58°F
+999.990: Temperature is higher than 266°F
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

GET AVG RTD INPUT AS PT100 FAHRENHEIT	ASCII READ COMMAND	#GAVGRTDIPT100F<IONR> <CR> Result: #GAVGRTDIPT100F<IONR>:<IOxDbl> <CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDIPT100F1<CR>		
	RX	#1,GAVGRTDIPT100F1:9999.990<CR>		
		Average measured RTD input as PT100 on IO1:9999.990°F		

This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as PT100 sensor in °Fahrenheit
-999.990: Temperature is lower than -58°F
+999.990: Temperature is higher than 266°F
All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.

RTD INPUTS PT1000 FAHRENHEIT

GET RTD INPUTS AS PT1000 FAHRENHEIT	ASCII READ COMMAND	#GRTDISPT1000F<CR> Result: #GRTDISPT1000F:<RTD1Dbl>,<RTD2Dbl>,...<RTD4Dbl> <CR>	ASCII	
	TX	#1,GRTDISPT1000F<CR>		
	RX	#1,GRTDISPT1000F:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as PT1000 on IO1:9999.990°F		
		Actual measured RTD input as PT1000 on IO2:9999.990°F		
		Actual measured RTD input as PT1000 on IO3:9999.990°F		

		Actual measured RTD input as PT1000 on IO4:9999.990°F		
This command shows for RTD INPUT IOs the actual measured RTD value linearized as PT1000 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET RTD INPUT AS PT1000 FAHRENHEIT	ASCII READ COMMAND	#GRTDIPT1000F<IONR><CR> Result: #GRTDIPT1000F<IONR>:<IOxDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GRTDIPT1000F1<CR>		
	RX	#1,GRTDIPT1000F3:9999.990<CR>		
		Actual measured RTD input as PT1000 on IO1:9999.990°F		
This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as PT1000 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVERAGE RTD INPUTS AS PT1000 FAHRENHEIT	ASCII READ COMMAND	#GAVGRTDISPT1000F<CR> Result: #GAVGRTDISPT1000F:<RTD1Dbl>,<RTD2Dbl>,...,<RTD4Dbl><CR>	ASCII	
	TX	#1,GAVGRTDISPT1000F<CR>		
	RX	#1,GAVGRTDISPT1000F:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as PT1000 on IO1:9999.990°F		
		Average measured RTD input as PT1000 on IO2:9999.990°F		
		Average measured RTD input as PT1000 on IO3:9999.990°F		
		Average measured RTD input as PT1000 on IO4:9999.990°F		
This command shows for RTD INPUT IOs the average measured RTD value linearized as PT1000 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVG RTD INPUT AS PT1000 FAHRENHEIT	ASCII READ COMMAND	#GAVGRTDIPT1000F<IONR><CR> Result: #GAVGRTDIPT1000F<IONR>:<IOxDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDIPT1000F1<CR>		
	RX	#1,GAVGRTDIPT1000F1:9999.990<CR>		
		Average measured RTD input as PT1000 on IO1:9999.990°F		
This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as PT1000 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
RTD INPUTS NI1000-DIN43760 FAHRENHEIT				
GET RTD INPUTS AS NI1000 DIN43760 FAHRENHEIT	ASCII READ COMMAND	#GRTDISNI1000DIN43760F<CR> Result: #GRTDISNI1000DIN43760F:<RTD1Dbl>,<RTD2Dbl>,...,<RTD4Dbl><CR>	ASCII	
	TX	#1,GRTDISNI1000DIN43760F<CR>		

	RX	#1,GRTDISNI1000DIN43760F:9999.990,9999.990,9999.990,9999.990<CR>		
		Actual measured RTD input as NI1000-DIN43760 on IO1:9999.990°F		
		Actual measured RTD input as NI1000-DIN43760 on IO2:9999.990°F		
		Actual measured RTD input as NI1000-DIN43760 on IO3:9999.990°F		
		Actual measured RTD input as NI1000-DIN43760 on IO4:9999.990°F		
This command shows for RTD INPUT IOs the actual measured RTD value linearized as NI1000 DIN43760 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET RTD INPUT AS NI1000 DIN43760 FARENEHEIT	ASCII READ COMMAND	#GRTDINI1000DIN43760F<IONR><CR> Result: #GRTDINI1000DIN43760F<IONR>:<IOxDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GRTDINI1000DIN43760F1<CR>		
	RX	#1,GRTDINI1000DIN43760F3:9999.990<CR>		
		Actual measured RTD input as NI1000-DIN43760 on IO1:9999.990°F		
This command shows for RTD INPUT IO <IONR> the actual measured RTD value linearized as NI1000 DIN43760 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVERAGE RTD INPUTS AS NI1000 DIN43760 FARENEHEIT	ASCII READ COMMAND	#GAVGRTDISNI1000DIN43760F<CR> Result: #GAVGRTDISNI1000DIN43760F:<RTD1Dbl>,<RTD2Dbl>,...,<RTD4Dbl><CR>	ASCII	
	TX	#1,GAVGRTDISNI1000DIN43760F<CR>		
	RX	#1,GAVGRTDISNI1000DIN43760F:9999.990,9999.990,9999.990,9999.990<CR>		
		Average measured RTD input as NI1000-DIN43760 on IO1:9999.990°F		
		Average measured RTD input as NI1000-DIN43760 on IO2:9999.990°F		
		Average measured RTD input as NI1000-DIN43760 on IO3:9999.990°F		
		Average measured RTD input as NI1000-DIN43760 on IO4:9999.990°F		
This command shows for RTD INPUT IOs the average measured RTD value linearized as NI1000 DIN43760 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				
GET AVG RTD INPUT AS NI1000 DIN43760 FARENEHEIT	ASCII READ COMMAND	#GAVGRTDINI1000DIN43760F<IONR><CR> Result: #GAVGRTDINI1000DIN43760F<IONR>:<IOxDbl><CR>	ASCII	
	IONR	1		
	TX	#1,GAVGRTDINI1000DIN43760F1<CR>		
	RX	#1,GAVGRTDINI1000DIN43760F1:9999.990<CR>		
		Average measured RTD input as NI1000-DIN43760 on IO1:9999.990°F		
This command shows for RTD INPUT IO <IONR> the average measured RTD value linearized as NI1000 DIN43760 sensor in °Fahrenheit -999.990: Temperature is lower than -58°F +999.990: Temperature is higher than 266°F All IOs with a different usage type will return 9999.990 to indicate, that no measurement is done.				

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
INTER PROCESSOR COMMUNICATION						
AIOX IS ONLINE	ASCII READ COMMAND	#G16AIOXISONLINE <CR> Result: #G16AIOXISONLINE:<YesNo> <CR>			ASCII	
	TX	#1,G16AIOXISONLINE <CR>				
	RX	#1,G16AIOXISONLINE:YES <CR>				
		Actual communication state co-processor to AIOX processor:YES				
This command returns the actual state of the serial communication between the ARM co-processor and the additional processor for the AIOX. YES: Currently the communication is fine NO: There is a mayor problem/hardware fault between the two processors						
CHIP COMMUNICATION						
ARE CHIPS ONLINE	ASCII READ COMMAND	#ARECHIPSONLINE <CR> Result: #ARECHIPSONLINE:<Chip1IsOnline> <CR>			ASCII	
	TX	#1,ARECHIPSONLINE <CR>				
	RX	#1,ARECHIPSONLINE:1 <CR>				
		Actual state of CHIP1:1				
This command shows the current SPI communication status with each chip. ChipxIsOnline: =0: Currently there is a SPI error in the communication and the chip is offline =1: The SPI communication with the chip is ok						
IS CHIPx ONLINE	ASCII READ COMMAND CHIPNR	#ISCHIPONLINE <CHIPNR> <CR> Result: #ISCHIPONLINE <CHIPNR>:<ChipxIsOnline> <CR>			ASCII	
	TX	#1,ISCHIPONLINE1 <CR>				
	RX	#1,ISCHIPONLINE1:1 <CR>				
		Actual state of CHIP1:1				
This command shows the current SPI communication status with chip <CHIPNR>. =0: Currently there is a SPI error in the communication and the chip is offline =1: The SPI communication with the chip is ok						
GET ALL SPI ERRORS	ASCII READ COMMAND	#GASPIERRS <CR> Result: #GASPIERRS:<SPI1ErrDec>,<SPI1ErrHex> <CR>			ASCII	
	TX	#1,GASPIERRS <CR>				
	RX	#1,GASPIERRS:0,0x0 <CR>				
		Actual SPI errors of CHIP1:0				
This command shows the acutal SPI errors since power up for every chip						

GET SPI ERROR	ASCII READ COMMAND	#GSPERR<CHIPNR><CR> Result: #GSPERR<CHIPNR>:<SPiErrDec>,<SPiErrHex><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GSPERR1<CR>		
	RX	#1,GSPERR1:0,0x0<CR>		
		Actual SPI errors of CHIP1:0		
This command shows the acutal SPI errors since power up for chip <CHIPNR>				
GET CHIP STATEMACHINES	ASCII READ COMMAND	#GCHIPSMS<CR> Result: #GCHIPSMS:<Chip1StateMachine><CR>	ASCII	
	TX	#1,GCHIPSMS<CR>		
	RX	#1,GCHIPSMS:12090<CR>		
		Actual state of CHIP1:12090		
This command shows the acutal state of the internal communication state machine for all chips				
GET CHIP STATEMACHINE	ASCII READ COMMAND	#GCHIPSM<CHIPNR><CR> Result: #GCHIPSM<CHIPNR>:<ChipxStateMachine><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GCHIPSM1<CR>		
	RX	#1,GCHIPSM1:12010<CR>		
		Actual state of CHIP1:12010		
This command shows the acutal state of the internal communication state machine for chip <CHIPNR>				
RESET CHIP STATEMACHINE	ASCII WRITE COMMAND	#RCHIPSM<CHIPNR><CR> Result: #OK<CR>	ASCII	YES
	CHIPNR	1		
	TX	#1,RCHIPSM1<CR>		
	RX	N/A		
This command restarts the state machine for chip <CHIPNR>. The affected chip will be resetted & initialized completely				
CHIP STATUS				
GET ALL LIVE STATES	ASCII READ COMMAND	#GALSTATES<CR> Result: #GALSTATE:<Chip1LiveStateDec>,<Chip1LiveStateHex><CR>	ASCII	
	TX	#1,GALSTATES<CR>		
	RX	#1,GALSTATES:27648,0x6C00<CR>		
		Actual live state of CHIP1:27648,0x6C00		

Returns the actual chip status of all chips.

Each result bit stands for a different state:

Bit 0: VI_ERR_CURR_A: Status of channel A: Voltage or current error detected on Channel A. This bit is interpreted differently depending on which of the following IO function selected:

Voltage output: short-circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current output: open circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current input, loop powered: short-circuit error. A short to ground is detected

Current input, externally powered: short-circuit error. A current source >25 mA is detected

Bit 1: VI_ERR_CURR_B: Status of voltage input B. Same like VI_ERR_CURR_A

Bit 2: VI_ERR_CURR_C: Status of voltage input C. Same like VI_ERR_CURR_A

Bit 3: VI_ERR_CURR_D: Status of voltage input D. Same like VI_ERR_CURR_A

Bit 4: HI_TEMP_STATUS: If the die temperature is typically at or above 115°C, the HI_TEMP_STATUS bit is asserted

Bit 5: CHARGE_PUMP_STATUS: Charge pump error detected.

Bit 6: ALDO5V_STATUS: ALDO5V Power Supply Monitor Error. This bit is asserted when the ALDO5V pin falls below 4.05 V. Usually ~5V.

Bit 7: AVDD_STATUS: AVDD Power Supply Monitor Error. This bit is asserted when the AVDD pin falls below 9.26 V. Usually ~17V.

Bit 8: DVCC_STATUS: DVCC Power Supply Monitor Error. This bit is asserted when the DVCC pin falls below 1.93 V. Usually ~3.3V.

Bit 9: ALDO1V8_STATUS: ALDO1V8 Power Supply Monitor Error. This bit is asserted when the ALDO1V8 pin falls below 1.35 V. Usually ~1.8V.

Bit 10-12: ADC_CH_CURR: Current converted channel of the ADC (0:A, 1:B, 2:C, 3:D, 4:Diagnostic 0, 5:Diagnostic 1, 6:Diagnostic 2, 7:Diagnostic 3)

Bit 13: ADC_BUSY: ADC busy status bit.

Bit 14: ADC_DATA_RDY: ADC data ready. The ADC_DATA_RDY bit asserts when a conversion cycle has completed. The bit stays asserted until a user writes 1 to clear the bit. In single conversion mode, the ADC_RDY pin follows the ADC_DATA_RDY bit and only deasserts when the ADC_DATA_RDY bit is cleared. In continuous conversion mode, the ADC_RDY pin returns high after 24 µs.

Bit 15: RESERVED: Reserved

GET LIVE STATE	ASCII READ COMMAND	#GLSTATE<CHIPNR> <CR> Result: #GLSTATE<CHIPNR>:<ChipxLiveStateDec>,<ChipxLiveStateHex> <CR>	ASCII	
	CHIPNR	1		
	TX	#1,GLSTATE1<CR>		
	RX	#1,GLSTATE4:29696,0x7400<CR>		
		Actual live state of CHIP1:29696,0x7400		
		Live state bit 0: VI_ERR_CURR_A:0		
		Live state bit 1: VI_ERR_CURR_B:0		
		Live state bit 2: VI_ERR_CURR_C:0		
		Live state bit 3: VI_ERR_CURR_D:0		
		Live state bit 4: HI_TEMP_STATUS:0		
		Live state bit 5: CHARGE_PUMP_STATUS:0		
		Live state bit 6: ALDO5V_STATUS:0		
		Live state bit 7: AVDD_STATUS:0		
		Live state bit 8: DVCC_STATUS:0		
		Live state bit 9: ALDO1V8_STATUS:0		
		Live state bit 10-12: ADC_CH_CURR:5		
		Live state bit 13: ADC_BUSY:1		
		Live state bit 14: ADC_DATA_RDY:0		
		Live state bit 15: RESERVED:0		

Returns the actual chip status of chip <CHIPNR>

Each result bit stands for a different state:

Bit 0: VI_ERR_CURR_A: Status of channel A:Voltage or current error detected on Channel A. This bit is interpreted differently depending on which of the following IO function selected:

Voltage output: short-circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current output: open circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current input, loop powered: short-circuit error. A short to ground is detected

Current input, externally powered: short-circuit error. A current source >25 mA is detected

Bit 1: VI_ERR_CURR_B: Status of voltage input B. Same like VI_ERR_CURR_A

Bit 2: VI_ERR_CURR_C: Status of voltage input C. Same like VI_ERR_CURR_A

Bit 3: VI_ERR_CURR_D: Status of voltage input D. Same like VI_ERR_CURR_A

Bit 4: HI_TEMP_STATUS: If the die temperature is typically at or above 115°C, the HI_TEMP_STATUS bit is asserted

Bit 5: CHARGE_PUMP_STATUS: Charge pump error detected.

Bit 6: ALDO5V_STATUS: ALDO5V Power Supply Monitor Error. This bit is asserted when the ALDO5V pin falls below 4.05 V. Usually ~5V.

Bit 7: AVDD_STATUS: AVDD Power Supply Monitor Error. This bit is asserted when the AVDD pin falls below 9.26 V. Usually ~17V.

Bit 8: DVCC_STATUS: DVCC Power Supply Monitor Error. This bit is asserted when the DVCC pin falls below 1.93 V. Usually ~3.3V.

Bit 9: ALDO1V8_STATUS: ALDO1V8 Power Supply Monitor Error. This bit is asserted when the ALDO1V8 pin falls below 1.35 V. Usually ~1.8V.

Bit 10-12: ADC_CH_CURR: Current converted channel of the ADC (0:A, 1:B, 2:C, 3:D, 4:Diagnostic 0, 5:Diagnostic 1, 6:Diagnostic 2, 7:Diagnostic 3)

Bit 13: ADC_BUSY: ADC busy status bit.

Bit 14: ADC_DATA_RDY:ADC data ready. The ADC_DATA_RDY bit asserts when a conversion cycle has completed. The bit stays asserted until a user writes 1 to clear the bit. In single conversion mode, the ADC_RDY pin follows the ADC_DATA_RDY bit and only deasserts when the ADC_DATA_RDY bit is cleared. In continuous conversion mode, the ADC_RDY pin returns high after 24 µs.

Bit 15: RESERVED: Reserved

GET ALL ALERT STATES	ASCII READ COMMAND	#GAASTATES<CR> Result: #GAASTATES:<Chip1AlertStateDec>,<Chip1AlertStateHex><CR>	ASCII	
	TX	#1,GAASTATES<CR>		
	RX	#1,GAASTATES:33792,0x8400<CR>		
		Actual alert state of CHIP1:33792,0x8400		

Returns the actual alert states for all chips.

Each result bit stands for a different state:

Bit 0: VI_ERR_CURR_A: Status of channel A:Voltage or current error detected on Channel A. This bit is interpreted differently depending on which of the following IO function selected:

Voltage output: short-circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current output: open circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current input, loop powered: short-circuit error. A short to ground is detected

Current input, externally powered: short-circuit error. A current source >25 mA is detected

Bit 1: VI_ERR_CURR_B: Status of voltage input B. Same like VI_ERR_CURR_A

Bit 2: VI_ERR_CURR_C: Status of voltage input C. Same like VI_ERR_CURR_A

Bit 3: VI_ERR_CURR_D: Status of voltage input D. Same like VI_ERR_CURR_A

Bit 4: HI_TEMP_STATUS: If the die temperature is typically at or above 115°C, the HI_TEMP_STATUS bit is asserted

Bit 5: CHARGE_PUMP_STATUS: Charge pump error detected.

Bit 6: ALDO5V_STATUS: ALDO5V Power Supply Monitor Error. This bit is asserted when the ALDO5V pin falls below 4.05 V. Usually ~5V.

Bit 7: AVDD_STATUS: AVDD Power Supply Monitor Error. This bit is asserted when the AVDD pin falls below 9.26 V. Usually ~17V.

Bit 8: DVCC_STATUS: DVCC Power Supply Monitor Error. This bit is asserted when the DVCC pin falls below 1.93 V. Usually ~3.3V.

Bit 9: ALDO1V8_STATUS: ALDO1V8 Power Supply Monitor Error. This bit is asserted when the ALDO1V8 pin falls below 1.35 V. Usually ~1.8V.

Bit 10: ADC_CONV_ERR: ADC Conversion Error. ADC results may be outside the selected measurement range.

Bit 11: ADC_SAT_ERR: ADC Saturation Error. ADC may be outside the user selected measurement range.

Bit 12: SPI_SCLK_CNT_ERR: SPI SCLK count error detected. This bit is asserted if an SPI command is applied but 32 SCLKs are not provided.

Bit 13: SPI_CRC_ERR: SPI CRC error detected. This bit is asserted if an invalid CRC is received.

Bit 14: CAL_MEM_ERR: Calibration Memory Error. This flag asserts under the following two conditions: When a calibration memory CRC error or an uncorrectable error correcting code (ECC) error is detected on the calibration memory upload. It is not possible to clear this bit if there is a CRC error or uncorrectable ECC error. It is recommended to reset the device and check the supplies in this situation. When there is an attempted SPI access to a register before the calibration memory refresh is complete. Do not address the device until the calibration memory is refreshed. Writing 1 to this bit clears the flag, if the flag is asserted due to this condition.

Bit 15: RESET_OCCURRED: Reset occurred. This bit is asserted after a reset event, which asserts the ALERT pin after the reset. Write a 1 to this bit to clear the flag. Note that a mask bit is not provided for this bit.

GET ALERT STATE	ASCII	#GASTATE<CHIPNR><CR>	ASCII	
	READ	Result:		
	COMMAND	#GASTATE<CHIPNR>:<ChipxAlertState><CR>		
	CHIPNR	1		
	TX	#1,GASTATE1<CR>		
	RX	#1,GASTATE4:33792,0x8400<CR>		
		Actual alert state of CHIP1:33792,0x8400		
		Alert state bit 0: VI_ERR_A:0		
		Alert state bit 1: VI_ERR_B:0		
		Alert state bit 2: VI_ERR_C:0		
		Alert state bit 3: VI_ERR_D:0		
		Alert state bit 4: HI_TEMP_ERR:0		
		Alert state bit 5: CHARGE_PUMP_ERR:0		
		Alert state bit 6: ALDO5V_ERR:0		
		Alert state bit 7: AVDD_ERR:0		
		Alert state bit 8: DVCC_ERR:0		
		Alert state bit 9: ALDO1V8_ERR:0		
		Alert state bit 10: ADC_CONV_ERR:1		
		Alert state bit 11: ADC_SAT_ERR:0		
		Alert state bit 12: SPI_SCLK_CNT_ERR:0		
		Alert state bit 13: SPI_CRC_ERR:0		
		Alert state bit 14: CAL_MEM_ERR:0		
		Alert state bit 15: RESET_OCCURED:0		

Returns the actual alert states for chip <CHIPNR>.

Each result bit stands for a different state:

Bit 0: VI_ERR_CURR_A: Status of channel A: Voltage or current error detected on Channel A. This bit is interpreted differently depending on which of the following IO function selected:

Voltage output: short-circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current output: open circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current input, loop powered: short-circuit error. A short to ground is detected

Current input, externally powered: short-circuit error. A current source >25 mA is detected

Bit 1: VI_ERR_CURR_B: Status of voltage input B. Same like VI_ERR_CURR_A

Bit 2: VI_ERR_CURR_C: Status of voltage input C. Same like VI_ERR_CURR_A

Bit 3: VI_ERR_CURR_D: Status of voltage input D. Same like VI_ERR_CURR_A

Bit 4: HI_TEMP_STATUS: If the die temperature is typically at or above 115°C, the HI_TEMP_STATUS bit is asserted

Bit 5: CHARGE_PUMP_STATUS: Charge pump error detected.

Bit 6: ALDO5V_STATUS: ALDO5V Power Supply Monitor Error. This bit is asserted when the ALDO5V pin falls below 4.05 V. Usually ~5V.

Bit 7: AVDD_STATUS: AVDD Power Supply Monitor Error. This bit is asserted when the AVDD pin falls below 9.26 V. Usually ~17V.

Bit 8: DVCC_STATUS: DVCC Power Supply Monitor Error. This bit is asserted when the DVCC pin falls below 1.93 V. Usually ~3.3V.

Bit 9: ALDO1V8_STATUS: ALDO1V8 Power Supply Monitor Error. This bit is asserted when the ALDO1V8 pin falls below 1.35 V. Usually ~1.8V.

Bit 10: ADC_CONV_ERR: ADC Conversion Error. ADC results may be outside the selected measurement range.

Bit 11: ADC_SAT_ERR: ADC Saturation Error. ADC may be outside the user selected measurement range.

Bit 12: SPI_SCLK_CNT_ERR: SPI SCLK count error detected. This bit is asserted if an SPI command is applied but 32 SCLKs are not provided.

Bit 13: SPI_CRC_ERR: SPI CRC error detected. This bit is asserted if an invalid CRC is received.

Bit 14: CAL_MEM_ERR: Calibration Memory Error. This flag asserts under the following two conditions: When a calibration memory CRC error or an uncorrectable error correcting code (ECC) error is detected on the calibration memory upload. It is not possible to clear this bit if there is a CRC error or uncorrectable ECC error. It is recommended to reset the device and check the supplies in this situation. When there is an attempted SPI access to a register before the calibration memory refresh is complete. Do not address the device until the calibration memory is refreshed. Writing 1 to this bit clears the flag, if the flag is asserted due to this condition.

Bit 15: RESET_OCCURRED: Reset occurred. This bit is asserted after a reset event, which asserts the ALERT pin after the reset. Write a 1 to this bit to clear the flag. Note that a mask bit is not provided for this bit.

CLEAR ALERT STATE	ASCII WRITE COMMAND	#CALERTS<CHIPNR>:<AlertState><CR> Result: #OK<CR>	ASCII	YES
	CHIPNR	1		
	Bit 0	1:RESET FLAG	0:VI_ERR_A	
	Bit 1	1:RESET FLAG	1:VI_ERR_B	
	Bit 2	1:RESET FLAG	2:VI_ERR_C	
	Bit 3	1:RESET FLAG	3:VI_ERR_D	
	Bit 4	1:RESET FLAG	4:HI_TEMP_ERR	
	Bit 5	1:RESET FLAG	5:CHARGE_PUMP_ERR	
	Bit 6	1:RESET FLAG	6:ALDO5V_ERR	
	Bit 7	1:RESET FLAG	7:AVDD_ERR	
	Bit 8	1:RESET FLAG	8:DVCC_ERR	
	Bit 9	1:RESET FLAG	9:ALDO1V8_ERR	
	Bit 10	1:RESET FLAG	10:ADC_CONV_ERR	
	Bit 11	1:RESET FLAG	11:ADC_SAT_ERR	
	Bit 12	1:RESET FLAG	12:SPI_SCLK_ERR	
	Bit 13	1:RESET FLAG	13:SPI_CRC_ERR	
	Bit 14	1:RESET FLAG	14:CAL_MEM_ERR	
	Bit 15	1:RESET FLAG	15:RESET_OCCURED	
	TX	#1,CALERTS1:65535<CR>		
	RX	N/A		

With this command you can reset individual alert bits in the alert status register

CHIP TEMPERATURES

GET CHIP TEMPERATURES	ASCII READ COMMAND	#GCHIPTemps<CR> Result: #GCHIPTemps:<Chip1TempDbl><CR>	ASCII	
	TX	#1,GCHIPTemps<CR>		
	RX	#1,GCHIPTemps:46.37<CR>		
		Actual temperature of CHIP1:46.37°C		

This command returns for every AIOX chip the actual chip temperature in °C

GET CHIP TEMPERATURE	ASCII READ COMMAND	#GCHIPTemp<CHIPNR><CR> Result: #GCHIPTemp<CHIPNR>:<ChipxTempDbl><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GCHIPTemp1<CR>		
	RX	#1,GCHIPTemp1:46.37<CR>		
		Actual temperature of CHIP1:46.37°C		

This command returns for AIOX chip <CHIPNR> the actual chip temperature in °C

AVERAGE CHIP TEMPERATURES

GET AVERAGE CHIP TEMPERATURES	ASCII READ COMMAND	#GAVGCHIPTemps<CR> Result: #GAVGCHIPTemps:<Chip1AvgTempDbl><CR>	ASCII	
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	TX	#1,GAVGCHIPTemps<CR>		
	RX	#1,GAVGCHIPTemps:46.36<CR>		
		Average temperature of CHIP1:46.36°C		

This command returns for every AIOX chip the average chip temperature in °C

GET AVERAGE CHIP TEMPERATURE	ASCII READ COMMAND	#GAVGCHIPTemp<CHIPNR><CR> Result: #GAVGCHIPTemp<CHIPNR>:<ChipxAvgTempDbl><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GAVGCHIPTemp1<CR>		
	RX	#1,GAVGCHIPTemp1:46.36<CR>		
		Average temperature of CHIP1:46.36°C		

This command returns for AIOX chip <CHIPNR> the average chip temperature in °C

CHIP SUPPLY VOLTAGES

GET SUPPLY VOLTAGES	ASCII READ COMMAND	#GVAVDDS<CR> Result: #GVAVDDS:<Chip1VAVDDDBl><CR>	ASCII	
	TX	#1,GVAVDDS<CR>		
	RX	#1,GVAVDDS:14.61<CR>		
		Actual supply voltage of CHIP1:14.61V		

This command returns for every AIOX chip the actual supply voltage in Volts.

This must be >14.5V, if not, there is a severe wiring or other hardware issue!

GET SUPPLY VOLTAGE	ASCII READ COMMAND	#GVAVDD<CHIPNR><CR> Result: #GVAVDD<CHIPNR>:<ChipxVAVDD><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GVAVDD1<CR>		
	RX	#1,GVAVDD1:14.61<CR>		
		Actual supply voltage of CHIP1:14.61V		

This command returns for AIOX chip <CHIPNR> the actual supply voltage in Volts.

This must be >14.5V, if not, there is a severe wiring or other hardware issue!

AVERAGE CHIP SUPPLY VOLTAGES

GET AVERAGE SUPPLY VOLTAGES	ASCII READ COMMAND	#GAVGVAVDDS<CR> Result: #GAVGVAVDDS:<Chip1AvgVAVDDDBl><CR>	ASCII	
	TX	#1,GAVGVAVDDS<CR>		
	RX	#1,GAVGVAVDDS:14.61<CR>		
		Average supply voltage of CHIP1:14.61V		

This command returns for every AIOX chip the average supply voltage in Volts.

This must be >14.5V, if not, there is a severe wiring or other hardware issue!

GET AVERAGE SUPPLY VOLTAGE	ASCII READ COMMAND	#GAVGVAVDD<CHIPNR><CR> Result: #GAVGVAVDD<CHIPNR>:<ChipxAvgVAVDD><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GAVGVAVDD1<CR>		
	RX	#1,GAVGVAVDD1:14.61<CR>		

		Average supply voltage of CHIP1:14.61V		
This command returns for AIOX chip <CHIPNR> the average supply voltage in Volts. This must be >14.5V, if not, there is a severe wiring or other hardware issue!				
CHIP GROUND VOLTAGES				
GET GROUND VOLTAGES	ASCII READ COMMAND	#GVAGNDS<CR> Result: #GVAGNDS:<Chip1VAGNDDbl><CR>	ASCII	
	TX	#1,GVAGNDS<CR>		
	RX	#1,GVAGNDS:0.00<CR>		
		Actual ground voltage of CHIP1:0.00V		
This command returns for every AIOX chip the actual ground voltage in Volts. This must be 0, if not, there is a severe wiring or other hardware issue!				
GET GROUND VOLTAGE	ASCII READ COMMAND	#GVAGND<CHIPNR><CR> Result: #GVAGND<CHIPNR>:<ChipxVAGNDDbl><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GVAGND1<CR>		
	RX	#1,GVAGND1:0.00<CR>		
		Actual ground voltage of CHIP1:0.00V		
This command returns for AIOX chip <CHIPNR> the actual ground voltage in Volts. This must be 0, if not, there is a severe wiring or other hardware issue!				
AVERAGE CHIP GROUND VOLTAGES				
GET AVERAGE GROUND VOLTAGES	ASCII READ COMMAND	#GAVGVAGNDS<CR> Result: #GAVGVAGNDS:<Chip1AvgVAGNDDbl><CR>	ASCII	
	TX	#1,GAVGVAGNDS<CR>		
	RX	#1,GAVGVAGNDS:0.00<CR>		
		Average ground voltage of CHIP1:0.00V		
This command returns for every AIOX chip the average ground voltage in Volts. This must be 0, if not, there is a severe wiring or other hardware issue!				
GET AVERAGE GROUND VOLTAGE	ASCII READ COMMAND	#GAVGVAGND<CHIPNR><CR> Result: #GAVGVAGND<CHIPNR>:<ChipxAvgVAVGNDDbl><CR>	ASCII	
	CHIPNR	1		
	TX	#1,GAVGVAGND1<CR>		
	RX	#1,GAVGVAGND1:0.00<CR>		
		Average ground voltage of CHIP1:0.00V		
This command returns for AIOX chip <CHIPNR> the average ground voltage in Volts. This must be 0, if not, there is a severe wiring or other hardware issue!				

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
ASCII COMMANDS						
SET CONFIG OUTPUT VALUES	ASCII WRITE COMMAND	#SCFGOVs:<IO1CfgValDbl>,<IO2CfgValDbl>,<IO3CfgValDbl>,<IO4CfgValDbl><CR> Result: #OK<CR>			ASCII	YES
	IO1Value	,000				
	IO2Value	,000				
	IO3Value	,000				
	IO4Value	,000				
	TX	#1,SCFGOVs:0,0,0,0<CR>				
	RX	N/A				
This command sets for all outputs the standard value in Volt or in mA, which are used when the controller is restarted or performing a watchdog reset and the channel is used as voltage output or current output. For voltage outputs the range is 0 to 11,0V. For current outputs the range is 0 to 25mA.						
SET CONFIG OUTPUT VALUE _x	ASCII WRITE COMMAND	#SCFGOV<IONR>:<IOxCfgValueDbl><CR> Result: #OK<CR>			ASCII	YES
	IONR	1				
	IOxCfgValue	,000				
	TX	#1,SCFGOV1:0<CR>				
	RX	N/A				
This command sets for one outputs the standard value in Volt or in mA, which is used when the controller is restarted and the channel is used as voltage output or current output. For voltage outputs the range is 0 to 11,0V. For current outputs the range is 0 to 25mA.						
GET CONFIG OUTPUT VALUES	ASCII READ COMMAND	#GCFGOVs<CR> Result: #GCFGOVs:<IOVolt1Dbl>,<IOVolt2Dbl>,...<IOVolt4Dbl><CR>			ASCII	
	TX	#1,GCFGOVs<CR>				
	RX	#1,GCFGOVs:999.99,999.99,999.99,999.99<CR>				
		Actual config value on IO1:999.99V or mA				
		Actual config value on IO2:999.99V or mA				
		Actual config value on IO3:999.99V or mA				
		Actual config value on IO4:999.99V or mA				
This command shows for all channels the current saved startup values for use as voltage or current outputs For voltage outputs the range is 0 to 11,0V. For current outputs the range is 0 to 25mA. All IOs with a different usage type will return 999.99.						
GET CONFIG OUTPUT VALUE	ASCII READ COMMAND	#GCFGOV<IONR><CR> Result: #GCFGOV<IONR>:<IOxValueDbl><CR>			ASCII	
	IONR	1				

	TX	#1,GCFG0V1<CR>		
	RX	#1,GCFG0V1:999.99<CR>		
		Actual config value on IO1:999.99V or mA		

This command shows for one channel the current saved startup value for use as voltage or current output.

For voltage outputs the range is 0 to 11,0V.

For current outputs the range is 0 to 25mA.

All IOs with a different usage type will return 999.99.

RESET 16AIOXCPU	ASCII WRITE COMMAND	#R16AIOXCPU<CR> Result: #OK<CR>	ASCII	NO
	TX	#1,R16AIOXCPU<CR>		
	RX	N/A		

This command restarts the internal CPU of the 16AIOX addon print. All channels will be resetted & initialized completely

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
AIOX IO TYPES						
IO TYPE1	3x40001 4x40001 l:40000	0,0x0000 B:00 00		13:RTDI[OHM]	UINT16 R/W	YES
		Actual IO type of AIOx:0:UU		CHOOSE NEW IO TYPE FROM LIST		
Current configured IO type for AIOXx =0: UNUSED =1: VOLTAGE INPUT[0-10V] =2: VOLTAGE INPUT[2-10V] =3: VOLTAGE OUTPUT[0-10V] =4: VOLTAGE OUTPUT[2-10V] =5: CURRENT INPUT LOOP POWERED[0-20mA] =6: CURRENT INPUT LOOP POWERED[4-20mA] =7: CURRENT INPUT EXTERNAL POWERED[0-20mA] =8: CURRENT INPUT EXTERNAL POWERED[4-20mA] =9: CURRENT OUTPUT[0-20mA] =10: CURRENT OUTPUT[4-20mA] =11: DIGITAL INPUT LOGIC 24V= =12: DIGITAL INPUT LOOP POWERED =13: RESISTANCE MEASUREMENT						
HINT: The last IO type is automatically stored in FRAM and will be used after a system restart.						
IO TYPE2	3x40002 4x40002 l:40001	0,0x0000 B:00 00		12:DI[24V;LP]	UINT16 R/W	YES
		Actual IO type of AIOx:0:UU		CHOOSE NEW IO TYPE FROM LIST		
IO TYPE3	3x40003 4x40003 l:40002	0,0x0000 B:00 00		1:VI[0-10V]	UINT16 R/W	NO
		Actual IO type of AIOx:0:UU		CHOOSE NEW IO TYPE FROM LIST		
IO TYPE4	3x40004 4x40004 l:40003	0,0x0000 B:00 00		1:VI[0-10V]	UINT16 R/W	NO
		Actual IO type of AIOx:0:UU		CHOOSE NEW IO TYPE FROM LIST		
AIOX:VOLTAGE INPUTS						
VOLTAGE INPUT1 IN VOLTS	3x40005 4x40005 l:40004	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of VIx:65535=N/V				
Current value of voltage input in x*100V, range 0-10V =65535,0xFFFF: The channel is not configured as voltage input						
VOLTAGE INPUT2 IN VOLTS	3x40006 4x40006 l:40005	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of VIx:65535=N/V				

VOLTAGE INPUT3 IN VOLTS	3x40007 4x40007 I:40006	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of Vlx:65535=N/V				
VOLTAGE INPUT4 IN VOLTS	3x40008 4x40008 I:40007	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of Vlx:65535=N/V				
AIOX:VOLTAGE INPUTS						
VOLTAGE INPUT1 IN PERCENT	3x40009 4x40009 I:40008	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of Vlx:65535=N/V				
Current value of voltage input in x*100%, range 0-100% =65535,0xFFFF: The channel is not configured as voltage input						
VOLTAGE INPUT3 IN PERCENT	3x40010 4x40010 I:40009	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of Vlx:65535=N/V				
VOLTAGE INPUT3 IN PERCENT	3x40011 4x40011 I:40010	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of Vlx:65535=N/V				
VOLTAGE INPUT4 IN PERCENT	3x40012 4x40012 I:40011	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual value of Vlx:65535=N/V				
AIOX:VOLTAGE OUTPUTS						
VOLTAGE OUTPUT1 IN VOLTS	3x40013 4x40013 I:40012	65535,0xFFFF B:FF FF	1100	11	UINT16 R/W	NO
		Actual value of VOx:65535=N/V		ENTER NEW VALUE FOR VOx		
Current value of voltage output in x*100V, range 0-11V =65535,0xFFFF: The channel is not configured as voltage output						
Writing a new value onto this register sets voltage output x to a new output value in Volt						
VOLTAGE OUTPUT2 IN VOLTS	3x40014 4x40014 I:40013	65535,0xFFFF B:FF FF	1100	11	UINT16 R/W	NO
		Actual value of VOx:65535=N/V		ENTER NEW VALUE FOR VOx		
VOLTAGE OUTPUT3 IN VOLTS	3x40015 4x40015 I:40014	65535,0xFFFF B:FF FF	1100	11	UINT16 R/W	NO
		Actual value of VOx:65535=N/V		ENTER NEW VALUE FOR VOx		
VOLTAGE OUTPUT4 IN VOLTS	3x40016 4x40016 I:40015	65535,0xFFFF B:FF FF	1100	11	UINT16 R/W	NO

		Actual value of VOx:65535=N/V	ENTER NEW VALUE FOR VOx		
AIOX:VOLTAGE OUTPUTS					
VOLTAGE OUTPUT1 IN PERCENT	3x40017 4x40017 I:40016	65535,0xFFFF B:FF FF	11000	110	UINT16 R/W
		Actual value of VOx:65535=N/V	ENTER NEW VALUE FOR VOx		
Current value of voltage output in x*100%, range 0-110% (100%=10V) =65535,0xFFFF: The channel is not configured as voltage output					
Writing a new value onto this register sets voltage output x to a new output value in percent					
VOLTAGE OUTPUT2 IN PERCENT	3x40018 4x40018 I:40017	65535,0xFFFF B:FF FF	5000	50	UINT16 R/W
		Actual value of VOx:65535=N/V	ENTER NEW VALUE FOR VOx		
VOLTAGE OUTPUT3 IN PERCENT	3x40019 4x40019 I:40018	65535,0xFFFF B:FF FF	3000	30	UINT16 R/W
		Actual value of VOx:65535=N/V	ENTER NEW VALUE FOR VOx		
VOLTAGE OUTPUT4 IN PERCENT	3x40020 4x40020 I:40019	65535,0xFFFF B:FF FF	7500	75	UINT16 R/W
		Actual value of VOx:65535=N/V	ENTER NEW VALUE FOR VOx		
AIOX:VOLTAGE OUTPUTS					
VOLTAGE OUTPUT1 MEASURED CURRENT	3x40021 4x40021 I:40020	-32768,0x8000 B:80 00			SINT16 R/O
		Actual measured output current of VOx:-32768=N/V			
Returns the measured output current in x*100mA on voltage output VOx, Range -25mA..+25mA =-32768,0x8000: The channel is not configured as voltage output					
VOLTAGE OUTPUT2 MEASURED CURRENT	3x40022 4x40022 I:40021	-32768,0x8000 B:80 00			SINT16 R/O
		Actual measured output current of VOx:-32768=N/V			
VOLTAGE OUTPUT3 MEASURED CURRENT	3x40023 4x40023 I:40022	-32768,0x8000 B:80 00			SINT16 R/O
		Actual measured output current of VOx:-32768=N/V			
VOLTAGE OUTPUT4 MEASURED CURRENT	3x40024 4x40024 I:40023	-32768,0x8000 B:80 00			SINT16 R/O
		Actual measured output current of VOx:-32768=N/V			
AIOX:CURRENT INPUTS					
CURRENT INPUT1 IN MILLIAMPERE	3x40025 4x40025 I:40024	65535,0xFFFF B:FF FF			UINT16 R/O
		Actual value of Clx:65535=N/V			

Current value of current input in x*100mA, range 0-25mA =65535,0xFFFF: The channel is not configured as current input						
CURRENT INPUT2 IN MILLIAMPERE	3x40026 4x40026 I:40025	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of VIx:65535=N/V						
CURRENT INPUT3 IN MILLIAMPERE	3x40027 4x40027 I:40026	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of VIx:65535=N/V						
CURRENT INPUT4 IN MILLIAMPERE	3x40028 4x40028 I:40027	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of VIx:65535=N/V						
AIOX:CURRENT INPUTS						
CURRENT INPUT1 IN PERCENT	3x40029 4x40029 I:40028	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of CIx:65535=N/V						
Current value of current input in x*100%, range 0-125% (100%=20mA) =65535,0xFFFF: The channel is not configured as current input						
CURRENT INPUT2 IN PERCENT	3x40030 4x40030 I:40029	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of CIx:65535=N/V						
CURRENT INPUT3 IN PERCENT	3x40031 4x40031 I:40030	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of CIx:65535=N/V						
CURRENT INPUT4 IN PERCENT	3x40032 4x40032 I:40031	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual value of CIx:65535=N/V						
AIOX:CURRENT OUTPUTS						
CURRENT OUTPUT1 IN MILIAMPERE	3x40033 4x40033 I:40032	65535,0xFFFF B:FF FF	500	5	UINT16 R/W	NO
Actual value of COx:65535=N/V			ENTER NEW VALUE FOR COx			
Current value of current output in x*100mA, range 0-25mA =65535,0xFFFF: The channel is not configured as current output						
Writing a new value onto this register sets current output x to a new output value in Milliampere						
CURRENT OUTPUT2 IN MILIAMPERE	3x40034 4x40034 I:40033	65535,0xFFFF B:FF FF	500	5	UINT16 R/W	NO
Actual value of COx:65535=N/V			ENTER NEW VALUE FOR COx			

CURRENT OUTPUT3 IN MILIAMPERE	3x40035 4x40035 I:40034	65535,0xFFFF B:FF FF	500	5	UINT16 R/W	NO
		Actual value of COx:65535=N/V		ENTER NEW VALUE FOR COx		
CURRENT OUTPUT4 IN MILIAMPERE	3x40036 4x40036 I:40035	65535,0xFFFF B:FF FF	500	5	UINT16 R/W	NO
		Actual value of COx:65535=N/V		ENTER NEW VALUE FOR COx		
AIOX:CURRENT OUTPUTS						
CURRENT OUTPUT1 IN PERCENT	3x40037 4x40037 I:40036	65535,0xFFFF B:FF FF	5000	50	UINT16 R/W	NO
		Actual value of COx:65535=N/V		ENTER NEW VALUE FOR COx		
Current value of current output in x*100%, range 0-125% (100%=20mA) =65535,0xFFFF: The channel is not configured as current output						
Writing a new value onto this register sets current output x to a new output value in percent						
CURRENT OUTPUT2 IN PERCENT	3x40038 4x40038 I:40037	65535,0xFFFF B:FF FF	5000	50	UINT16 R/W	NO
		Actual value of COx:65535=N/V		ENTER NEW VALUE FOR COx		
CURRENT OUTPUT3 IN PERCENT	3x40039 4x40039 I:40038	65535,0xFFFF B:FF FF	5000	50	UINT16 R/W	NO
		Actual value of COx:65535=N/V		ENTER NEW VALUE FOR COx		
CURRENT OUTPUT4 IN PERCENT	3x40040 4x40040 I:40039	65535,0xFFFF B:FF FF	5000	50	UINT16 R/W	NO
		Actual value of COx:65535=N/V		ENTER NEW VALUE FOR COx		
AIOX:CURRENT OUTPUTS						
CURRENT OUTPUT1 MEASURED VOLTS	3x40041 4x40041 I:40040	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual measured output voltage COx:65535=N/V				
Current measured output voltage for current output x*100V, range 0-10V =65535,0xFFFF: The channel is not configured as current output						
CURRENT OUTPUT2 MEASURED VOLTS	3x40042 4x40042 I:40041	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual measured output voltage COx:65535=N/V				
CURRENT OUTPUT3 MEASURED VOLTS	3x40043 4x40043 I:40042	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual measured output voltage COx:65535=N/V				
CURRENT OUTPUT4 MEASURED VOLTS	3x40044 4x40044 I:40043	65535,0xFFFF B:FF FF			UINT16 R/O	

		Actual measured output voltage COx:65535=N/V				
AIOX:DIGITAL INPUTS						
DIGITAL INPUT1	3x40045 4x40045 I:40044	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual state of digital input DIx:65535=N/V				
Current measured state of digital input DIx =0: Digital input is OFF or loop is closed =1: Digital input is ON (+24V attached) or loop is open =65535,0xFFFF: The channel is not configured as digital input						
DIGITAL INPUT2	3x40046 4x40046 I:40045	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual state of digital input DIx:65535=N/V				
DIGITAL INPUT3	3x40047 4x40047 I:40046	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual measured output voltage COx:65535=N/V				
DIGITAL INPUT4	3x40048 4x40048 I:40047	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual measured output voltage COx:65535=N/V				
AIOX:DIGITAL INPUTS						
DIGITAL INPUT1 MEASURED CURRENT	3x40049 4x40049 I:40048	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured output current of DIx:-32768=N/V				
Returns the measured output current in x*100mA on DIGITAL INPUT VOx, Range -25mA..+25mA =-32768,0x8000: The channel is not configured as DIGITAL INPUT						
DIGITAL INPUT2 MEASURED CURRENT	3x40050 4x40050 I:40049	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured output current of DIx:-32768=N/V				
DIGITAL INPUT3 MEASURED CURRENT	3x40051 4x40051 I:40050	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured output current of DIx:-32768=N/V				
DIGITAL INPUT4 MEASURED CURRENT	3x40052 4x40052 I:40051	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured output current of DIx:-32768=N/V				

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
AIOX:RTD INPUTS OHM*10						
RTD INPUT1 IN OHM*10	3x41001 4x41001 I:41000	65534,0xFFFE B:FF FE			UINT16 R/O	
Actual measured ohm value of RTDIx:65534=OPEN						
Current measured RTD in Ohm*10 between 0 and 600000 =0..60000: Current measured resistance in Ohm*10 =65534,0xFFFE: The sensor or cabling is open (broken, not connected, or out of range) =65535,0xFFFF: The channel is not configured as RTD input						
RTD INPUT2 IN OHM*10	3x41002 4x41002 I:41001	65534,0xFFFE B:FF FE			UINT16 R/O	
Actual measured ohm value of RTDIx:65534=OPEN						
RTD INPUT3 IN OHM*10	3x41003 4x41003 I:41002	65534,0xFFFE B:FF FE			UINT16 R/O	
Actual measured ohm value of RTDIx:65534=OPEN						
RTD INPUT4 IN OHM*10	3x41004 4x41004 I:41003	65534,0xFFFE B:FF FE			UINT16 R/O	
Actual measured ohm value of RTDIx:65534=OPEN						
AIOX:RTD INPUTS OHM*1						
RTD INPUT1 IN OHM	3x41005 4x41005 I:41004	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual measured ohm value of RTDIx:65535=N/V						
Current measured RTD in Ohm*1 between 0 and 60000 =0..60000: Current measured resistance in Ohm*1 =65534,0xFFFE: The sensor or cabling is open (broken, not connected, or out of range) =65535,0xFFFF: The channel is not configured as RTD input						
RTD INPUT2 IN OHM	3x41006 4x41006 I:41005	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual measured ohm value of RTDIx:65535=N/V						
RTD INPUT3 IN OHM	3x41007 4x41007 I:41006	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual measured ohm value of RTDIx:65535=N/V						
RTD INPUT4 IN OHM	3x41008 4x41008 I:41007	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual measured ohm value of RTDIx:65535=N/V						

AIOX:RTD INPUTS OHM/10					
RTD INPUT1 IN OHM/10	3x41009 4x41009 I:41008	65535,0xFFFF B:FF FF			UINT16 R/O
Actual measured ohm value of RTDIx:65535=N/V					
Current measured RTD in Ohm/10 between 0 and 60000 =0..60000: Current measured resistance in Ohm/10 =65534,0xFFFF: The sensor or cabling is open (broken, not connected, or out of range) =65535,0xFFFF: The channel is not configured as RTD input					
RTD INPUT2 IN OHM/10	3x41010 4x41010 I:41009	65535,0xFFFF B:FF FF			UINT16 R/O
Actual measured ohm value of RTDIx:65535=N/V					
RTD INPUT3 IN OHM/10	3x41011 4x41011 I:41010	65535,0xFFFF B:FF FF			UINT16 R/O
Actual measured ohm value of RTDIx:65535=N/V					
RTD INPUT4 IN OHM/10	3x41012 4x41012 I:41011	65535,0xFFFF B:FF FF			UINT16 R/O
Actual measured ohm value of RTDIx:65535=N/V					
AIOX:RTD INPUTS PT100 CELSIUS					
RTD INPUT1 AS PT100 IN CELSIUS	3x41013 4x41013 I:41012	-32768,0x8000 B:80 00			SINT16 R/O
Actual measured PT100 temperature RTDIx:-32768=N/V					
Current measured RTD sensor value linearized as PT100 sensor in Celsius*100 in the range of -5000 to +13000 for -50.0 to +130.0 °C -32766,0x8002: Measured value is below -50°C -32767,0x8001: Measured value is above +130°C -32768,0x8000: The channel is not configured as RTD input					
RTD INPUT2 AS PT100 IN CELSIUS	3x41014 4x41014 I:41013	-32768,0x8000 B:80 00			SINT16 R/O
Actual measured PT100 temperature RTDIx:-32768=N/V					
RTD INPUT3 AS PT100 IN CELSIUS	3x41015 4x41015 I:41014	-32768,0x8000 B:80 00			SINT16 R/O
Actual measured PT100 temperature RTDIx:-32768=N/V					
RTD INPUT4 AS PT100 IN CELSIUS	3x41016 4x41016 I:41015	-32768,0x8000 B:80 00			SINT16 R/O
Actual measured PT100 temperature RTDIx:-32768=N/V					
AIOX:RTD INPUTS PT1000 CELSIUS					
RTD INPUT1 AS PT1000 IN CELSIUS	3x41017 4x41017 I:41016	-32768,0x8000 B:80 00			SINT16 R/O

		Actual measured PT1000 temperature RTDIx:-32768=N/V				
Current measured RTD sensor value linearized as PT1000 sensor in Celsius*100 in the range of -5000 to +13000 for -50.0 to +130.0 °C -32766,0x8002: Measured value is below -50°C -32767,0x8001: Measured value is above +130°C -32768,0x8000: The channel is not configured as RTD input						
RTD INPUT2 AS PT1000 IN CELSIUS	3x41018 4x41018 I:41017	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured PT1000 temperature RTDIx:-32768=N/V				
RTD INPUT3 AS PT1000 IN CELSIUS	3x41019 4x41019 I:41018	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured PT1000 temperature RTDIx:-32768=N/V				
RTD INPUT4 AS PT1000 IN CELSIUS	3x41020 4x41020 I:41019	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured PT1000 temperature RTDIx:-32768=N/V				
AIOX:RTD INPUTS NI1000-DIN43760 CELSIUS						
RTD INPUT1 AS NI1000-DIN43760 IN CELSIUS	3x41021 4x41021 I:41020	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V				
Current measured RTD sensor value linearized as NI1000-DIN43760 sensor in Celsius*100 in the range of -5000 to +13000 for -50.0 to +130.0 °C -32766,0x8002: Measured value is below -50°C -32767,0x8001: Measured value is above +130°C -32768,0x8000: The channel is not configured as RTD input						
RTD INPUT2 AS NI1000-DIN43760 IN CELSIUS	3x41022 4x41022 I:41021	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V				
RTD INPUT3 AS NI1000-DIN43760 IN CELSIUS	3x41023 4x41023 I:41022	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V				
RTD INPUT4 AS NI1000-DIN43760 IN CELSIUS	3x41024 4x41024 I:41023	-32768,0x8000 B:80 00			SINT16 R/O	
		Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V				
AIOX:RTD INPUTS PT100 KELVIN						
RTD INPUT1 AS PT100 IN KELVIN	3x41025 4x41025 I:41024	65535,0xFFFF B:FF FF			UINT16 R/O	
		Actual measured PT100 temperature RTDIx:65535=655,35°K				
Current measured RTD sensor value linearized as PT100 sensor in Kelvin*100 in the range of 22315 to 40315 for 223.15 to 403.15 °K 65533,0xFFFFD: Measured value is below 223,15°K 65534,0xFFFFE: Measured value is above 403,15°K 65535,0xFFFFF: The channel is not configured as RTD input						

RTD INPUT2 AS PT100 IN KELVIN	3x41026 4x41026 I:41025	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT100 temperature RTDIx:65535=655,35°K					
RTD INPUT3 AS PT100 IN KELVIN	3x41027 4x41027 I:41026	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT100 temperature RTDIx:65535=655,35°K					
RTD INPUT4 AS PT100 IN KELVIN	3x41028 4x41028 I:41027	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT100 temperature RTDIx:65535=655,35°K					
AIOX:RTD INPUTS PT1000 KELVIN					
RTD INPUT1 AS PT1000 IN KELVIN	3x41029 4x41029 I:41028	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT1000 temperature RTDIx:65535=655,35°K					
Current measured RTD sensor value linearized as PT1000 sensor in Kelvin*100 in the range of 22315 to 40315 for 223.15 to 403.15 °K 65533,0xFFFF: Measured value is below 223,15°K 65534,0xFFFF: Measured value is above 403,15°K 65535,0xFFFF: The channel is not configured as RTD input					
RTD INPUT2 AS PT1000 IN KELVIN	3x41030 4x41030 I:41029	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT1000 temperature RTDIx:65535=655,35°K					
RTD INPUT3 AS PT1000 IN KELVIN	3x41031 4x41031 I:41030	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT1000 temperature RTDIx:65535=655,35°K					
RTD INPUT4 AS PT1000 IN KELVIN	3x41032 4x41032 I:41031	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured PT1000 temperature RTDIx:65535=655,35°K					
AIOX:RTD INPUTS NI1000-DIN43760 KELVIN					
RTD INPUT1 AS NI1000-DIN43760 IN KELVIN	3x41033 4x41033 I:41032	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:65535=655,35°K					
Current measured RTD sensor value linearized as NI1000-DIN43760 sensor in Kelvin*100 in the range of 22315 to 40315 for 223.15 to 403.15 °K 65533,0xFFFF: Measured value is below 223,15°K 65534,0xFFFF: Measured value is above 403,15°K 65535,0xFFFF: The channel is not configured as RTD input					
RTD INPUT2 AS NI1000-DIN43760 IN KELVIN	3x41034 4x41034 I:41033	65535,0xFFFF B:FF FF		UINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:65535=655,35°K					

RTD INPUT3 AS NI1000-DIN43760 IN KELVIN	3x41035 4x41035 I:41034	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:65535=655,35°K						
RTD INPUT4 AS NI1000-DIN43760 IN KELVIN	3x41036 4x41036 I:41035	65535,0xFFFF B:FF FF			UINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:65535=655,35°K						
AIOX:RTD INPUTS PT100 FAHRENHEIT						
RTD INPUT1 AS PT100 IN FAHRENHEIT	3x41037 4x41037 I:41036	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT100 temperature RTDIx:-32768=N/V						
Current measured RTD sensor value linearized as PT100 sensor in Fahrenheit*100 in the range of -5800 to +26600 for -58.0 to +266.0 °F -32766,0x8002: Measured value is below -58°C -32767,0x8001: Measured value is above +266°C -32768,0x8000: The channel is not configured as RTD input						
RTD INPUT2 AS PT100 IN FAHRENHEIT	3x41038 4x41038 I:41037	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT100 temperature RTDIx:-32768=N/V						
RTD INPUT3 AS PT100 IN FAHRENHEIT	3x41039 4x41039 I:41038	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT100 temperature RTDIx:-32768=N/V						
RTD INPUT4 AS PT100 IN FAHRENHEIT	3x41040 4x41040 I:41039	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT100 temperature RTDIx:-32768=N/V						
AIOX:RTD INPUTS PT1000 FAHRENHEIT						
RTD INPUT1 AS PT1000 IN FAHRENHEIT	3x41041 4x41041 I:41040	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT1000 temperature RTDIx:-32768=N/V						
Current measured RTD sensor value linearized as PT1000 sensor in Fahrenheit*100 in the range of -5800 to +26600 for -58.0 to +266.0 °F -32766,0x8002: Measured value is below -58°C -32767,0x8001: Measured value is above +266°C -32768,0x8000: The channel is not configured as RTD input						
RTD INPUT2 AS PT1000 IN FAHRENHEIT	3x41042 4x41042 I:41041	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT1000 temperature RTDIx:-32768=N/V						
RTD INPUT3 AS PT1000 IN FAHRENHEIT	3x41043 4x41043 I:41042	-32768,0x8000 B:80 00			SINT16 R/O	
Actual measured PT1000 temperature RTDIx:-32768=N/V						

RTD INPUT4 AS PT1000 IN FAHRENHEIT	3x41044 4x41044 I:41043	-32768,0x8000 B:80 00		SINT16 R/O	
Actual measured PT1000 temperature RTDIx:-32768=N/V					
AIOX:RTD INPUTS NI1000-DIN43760 FAHRENHEIT					
RTD INPUT1 AS NI1000-DIN43760 IN FAHRENHEIT	3x41045 4x41045 I:41044	-32768,0x8000 B:80 00		SINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V					
Current measured RTD sensor value linearized as NI1000-DIN43760 sensor in Fahrenheit*100 in the range of -5800 to +26600 for -58.0 to +266.0 °F -32766,0x8002: Measured value is below -58°C -32767,0x8001: Measured value is above +266°C -32768,0x8000: The channel is not configured as RTD input					
RTD INPUT2 AS NI1000-DIN43760 IN FAHRENHEIT	3x41046 4x41046 I:41045	-32768,0x8000 B:80 00		SINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V					
RTD INPUT3 AS NI1000-DIN43760 IN FAHRENHEIT	3x41047 4x41047 I:41046	-32768,0x8000 B:80 00		SINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V					
RTD INPUT4 AS NI1000-DIN43760 IN FAHRENHEIT	3x41048 4x41048 I:41047	-32768,0x8000 B:80 00		SINT16 R/O	
Actual measured NI1000-DIN43760 temperature RTDIx:-32768=N/V					
AIOX:RTD INPUTS OHM*100					
RTD INPUT1 IN OHM*100	3x41501 4x41501 I:41500	4294967295,0xFFFFFFFF B:FF FF FF FF		UINT32 R/O	
Actual measured ohm value of RTDIx:-1=N/V					
Current measured RTD in Ohm*100 =0xFFFFFFFF: The channel is not configured as RTD input					
RTD INPUT2 IN OHM*100	3x41503 4x41503 I:41502	4294967295,0xFFFFFFFF B:FF FF FF FF		UINT32 R/O	
Actual measured ohm value of RTDIx:-1=N/V					
RTD INPUT3 IN OHM*100	3x41505 4x41505 I:41504	4294967295,0xFFFFFFFF B:FF FF FF FF		UINT32 R/O	
Actual measured ohm value of RTDIx:-1=N/V					
RTD INPUT4 IN OHM*100	3x41507 4x41507 I:41506	4294967295,0xFFFFFFFF B:FF FF FF FF		UINT32 R/O	
Actual measured ohm value of RTDIx:-1=N/V					
AIOX:RTD INPUTS OHM*100					

RTD INPUT1 IN OHM*100	3x41509 4x41509 I:41508	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Actual measured ohm value of RTDIx:-1=N/V						
Current measured RTD in Ohm*100 =0xFFFFFFFF: The channel is not configured as RTD input						
RTD INPUT2 IN OHM*100	3x41511 4x41511 I:41510	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Actual measured ohm value of RTDIx:-1=N/V						
RTD INPUT3 IN OHM*100	3x41513 4x41513 I:41512	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Actual measured ohm value of RTDIx:-1=N/V						
RTD INPUT4 IN OHM*100	3x41515 4x41515 I:41514	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Actual measured ohm value of RTDIx:-1=N/V						

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
AIOX:AVERAGE RTD INPUTS OHM*10						
AVERAGE RTD INPUT1 IN OHM*10	3x42001 4x42001 l:42000	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
Measured average RTD in Ohm*10 between 0 and 600000 =0..60000: Measured average resistance in Ohm*10 =65534,0xFFFF: The sensor or cabling is open (broken, not connected, or out of range) =65535,0xFFFF: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 IN OHM*10	3x42002 4x42002 l:42001	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
AVERAGE RTD INPUT3 IN OHM*10	3x42003 4x42003 l:42002	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
AVERAGE RTD INPUT4 IN OHM*10	3x42004 4x42004 l:42003	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
AIOX:AVERAGE RTD INPUTS OHM*1						
AVERAGE RTD INPUT1 IN OHM	3x42005 4x42005 l:42004	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
Measured average RTD in Ohm*1 between 0 and 60000 =0..60000: Measured average resistance in Ohm*1 =65534,0xFFFF: The sensor or cabling is open (broken, not connected, or out of range) =65535,0xFFFF: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 IN OHM	3x42006 4x42006 l:42005	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
AVERAGE RTD INPUT3 IN OHM	3x42007 4x42007 l:42006	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						
AVERAGE RTD INPUT4 IN OHM	3x42008 4x42008 l:42007	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average ohm value of RTDix:65535=N/V						

AIOX:AVERAGE RTD INPUTS OHM/10					
AVERAGE RTD INPUT1 IN OHM/10	3x42009 4x42009 I:42008	65535,0xFFFF B:FF FF			UINT16 R/O
Measured average ohm value of RTDix:65535=N/V					
Measured average RTD in Ohm/10 between 0 and 60000 =0..60000: Measured average resistance in Ohm/10 =65534,0xFFFF: The sensor or cabling is open (broken, not connected, or out of range) =65535,0xFFFF: The channel is not configured as RTD input					
AVERAGE RTD INPUT2 IN OHM/10	3x42010 4x42010 I:42009	65535,0xFFFF B:FF FF			UINT16 R/O
Measured average ohm value of RTDix:65535=N/V					
AVERAGE RTD INPUT3 IN OHM/10	3x42011 4x42011 I:42010	65535,0xFFFF B:FF FF			UINT16 R/O
Measured average ohm value of RTDix:65535=N/V					
AVERAGE RTD INPUT4 IN OHM/10	3x42012 4x42012 I:42011	65535,0xFFFF B:FF FF			UINT16 R/O
Measured average ohm value of RTDix:65535=N/V					
AIOX:AVERAGE RTD INPUTS PT100 CELSIUS					
AVERAGE RTD INPUT1 AS PT100 IN CELSIUS	3x42013 4x42013 I:42012	-32768,0x8000 B:80 00			SINT16 R/O
Measured average PT100 temperature RTDix:-32768=N/V					
Calculated average value of RTD sensor value linearized as PT100 sensor in Celsius*100 in the range of -5000 to +13000 for -50.0 to +130.0 °C -32766,0x8002: Measured value is below -50°C -32767,0x8001: Measured value is above +130°C -32768,0x8000: The channel is not configured as RTD input					
AVERAGE RTD INPUT2 AS PT100 IN CELSIUS	3x42014 4x42014 I:42013	-32768,0x8000 B:80 00			SINT16 R/O
Measured average PT100 temperature RTDix:-32768=N/V					
AVERAGE RTD INPUT3 AS PT100 IN CELSIUS	3x42015 4x42015 I:42014	-32768,0x8000 B:80 00			SINT16 R/O
Measured average PT100 temperature RTDix:-32768=N/V					
AVERAGE RTD INPUT4 AS PT100 IN CELSIUS	3x42016 4x42016 I:42015	-32768,0x8000 B:80 00			SINT16 R/O
Measured average PT100 temperature RTDix:-32768=N/V					
AIOX:AVERAGE RTD INPUTS PT1000 CELSIUS					
AVERAGE RTD INPUT1 AS PT1000 IN CELSIUS	3x42017 4x42017 I:42016	-32768,0x8000 B:80 00			SINT16 R/O

		Measured average PT1000 temperature RTDIx:-32768=N/V				
Calculated average value of RTD sensor value linearized as PT1000 sensor in Celsius*100 in the range of -5000 to +13000 for -50.0 to +130.0 °C -32766,0x8002: Measured value is below -50°C -32767,0x8001: Measured value is above +130°C -32768,0x8000: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 AS PT1000 IN CELSIUS	3x42018 4x42018 I:42017	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average PT1000 temperature RTDIx:-32768=N/V				
AVERAGE RTD INPUT3 AS PT1000 IN CELSIUS	3x42019 4x42019 I:42018	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average PT1000 temperature RTDIx:-32768=N/V				
AVERAGE RTD INPUT4 AS PT1000 IN CELSIUS	3x42020 4x42020 I:42019	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average PT1000 temperature RTDIx:-32768=N/V				
AIOX:AVERAGE RTD INPUTS NI1000-DIN43760 CELSIUS						
AVERAGE RTD INPUT1 AS NI1000-DIN43760 IN CELSIUS	3x42021 4x42021 I:42020	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average NI1000-DIN43760 temperature RTDIx:-32768=N/V				
Calculated average value of RTD sensor value linearized as NI1000-DIN43760 sensor in Celsius*100 in the range of -5000 to +13000 for -50.0 to +130.0 °C -32766,0x8002: Measured value is below -50°C -32767,0x8001: Measured value is above +130°C -32768,0x8000: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 AS NI1000-DIN43760 IN CELSIUS	3x42022 4x42022 I:42021	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average NI1000-DIN43760 temperature RTDIx:-32768=N/V				
AVERAGE RTD INPUT3 AS NI1000-DIN43760 IN CELSIUS	3x42023 4x42023 I:42022	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average NI1000-DIN43760 temperature RTDIx:-32768=N/V				
AVERAGE RTD INPUT4 AS NI1000-DIN43760 IN CELSIUS	3x42024 4x42024 I:42023	-32768,0x8000 B:80 00			SINT16 R/O	
		Measured average NI1000-DIN43760 temperature RTDIx:-32768=N/V				
AIOX:AVERAGE RTD INPUTS PT100 KELVIN						
AVERAGE RTD INPUT1 AS PT100 IN KELVIN	3x42025 4x42025 I:42024	65535,0xFFFF B:FF FF			UINT16 R/O	
		Measured average PT100 temperature RTDIx:65535=655,35°K				
Average value of measured RTD sensor linearized as PT100 sensor in Kelvin*100 in the range of 22315 to 40315 for 223.15 to 403.15 °K 65533,0xFFFFD: Measured value is below 223,15°K 65534,0xFFFFE: Measured value is above 403,15°K 65535,0xFFFFF: The channel is not configured as RTD input						

AVERAGE RTD INPUT2 AS PT100 IN KELVIN	3x42026 4x42026 I:42025	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT100 temperature RTDIx:65535=655,35°K					
AVERAGE RTD INPUT3 AS PT100 IN KELVIN	3x42027 4x42027 I:42026	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT100 temperature RTDIx:65535=655,35°K					
AVERAGE RTD INPUT4 AS PT100 IN KELVIN	3x42028 4x42028 I:42027	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT100 temperature RTDIx:65535=655,35°K					
AIOX:AVERAGE RTD INPUTS PT1000 KELVIN					
AVERAGE RTD INPUT1 AS PT1000 IN KELVIN	3x42029 4x42029 I:42028	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT1000 temperature RTDIx:65535=655,35°K					
Average value of measured RTD sensor linearized as PT1000 sensor in Kelvin*100 in the range of 22315 to 40315 for 223.15 to 403.15 °K 65533,0xFFFFD: Measured value is below 223,15°K 65534,0xFFFFE: Measured value is above 403,15°K 65535,0xFFFFF: The channel is not configured as RTD input					
AVERAGE RTD INPUT2 AS PT1000 IN KELVIN	3x42030 4x42030 I:42029	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT1000 temperature RTDIx:65535=655,35°K					
AVERAGE RTD INPUT3 AS PT1000 IN KELVIN	3x42031 4x42031 I:42030	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT1000 temperature RTDIx:65535=655,35°K					
AVERAGE RTD INPUT4 AS PT1000 IN KELVIN	3x42032 4x42032 I:42031	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average PT1000 temperature RTDIx:65535=655,35°K					
AIOX:AVERAGE RTD INPUTS NI1000-DIN43760 KELVIN					
AVERAGE RTD INPUT1 AS NI1000-DIN43760 IN KELVIN	3x42033 4x42033 I:42032	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDIx:65535=655,35°K					
Average value of measured RTD sensor linearized as NI1000-DIN43760 sensor in Kelvin*100 in the range of 22315 to 40315 for 223.15 to 403.15 °K 65533,0xFFFFD: Measured value is below 223,15°K 65534,0xFFFFE: Measured value is above 403,15°K 65535,0xFFFFF: The channel is not configured as RTD input					
AVERAGE RTD INPUT2 AS NI1000-DIN43760 IN KELVIN	3x42034 4x42034 I:42033	65535,0xFFFF B:FF FF		UINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDIx:65535=655,35°K					

AVERAGE RTD INPUT3 AS NI1000-DIN43760 IN KELVIN	3x42035 4x42035 I:42034	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDIx:65535=655,35°K						
AVERAGE RTD INPUT4 AS NI1000-DIN43760 IN KELVIN	3x42036 4x42036 I:42035	65535,0xFFFF B:FF FF			UINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDIx:65535=655,35°K						
AIOX:AVERAGE RTD INPUTS PT100 FAHRENHEIT						
AVERAGE RTD INPUT1 AS PT100 IN FAHRENHEIT	3x42037 4x42037 I:42036	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT100 temperature RTDIx:-32768=N/V						
Average value of measured RTD sensor value linearized as PT100 sensor in Fahrenheit*100 in the range of -5800 to +26600 for -58.0 to +266.0 °F -32766,0x8002: Measured value is below -58°C -32767,0x8001: Measured value is above +266°C -32768,0x8000: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 AS PT100 IN FAHRENHEIT	3x42038 4x42038 I:42037	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT100 temperature RTDIx:-32768=N/V						
AVERAGE RTD INPUT3 AS PT100 IN FAHRENHEIT	3x42039 4x42039 I:42038	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT100 temperature RTDIx:-32768=N/V						
AVERAGE RTD INPUT4 AS PT100 IN FAHRENHEIT	3x42040 4x42040 I:42039	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT100 temperature RTDIx:-32768=N/V						
AIOX:AVERAGE RTD INPUTS PT1000 FAHRENHEIT						
AVERAGE RTD INPUT1 AS PT1000 IN FAHRENHEIT	3x42041 4x42041 I:42040	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT1000 temperature RTDIx:-32768=N/V						
Average value of measured RTD sensor value linearized as PT1000 sensor in Fahrenheit*100 in the range of -5800 to +26600 for -58.0 to +266.0 °F -32766,0x8002: Measured value is below -58°C -32767,0x8001: Measured value is above +266°C -32768,0x8000: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 AS PT1000 IN FAHRENHEIT	3x42042 4x42042 I:42041	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT1000 temperature RTDIx:-32768=N/V						
AVERAGE RTD INPUT3 AS PT1000 IN FAHRENHEIT	3x42043 4x42043 I:42042	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT1000 temperature RTDIx:-32768=N/V						

AVERAGE RTD INPUT4 AS PT1000 IN FAHRENHEIT	3x42044 4x42044 I:42043	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average PT1000 temperature RTDix:-32768=N/V						
AIOX:AVERAGE RTD INPUTS NI1000-DIN43760 FAHRENHEIT						
AVERAGE RTD INPUT1 AS NI1000-DIN43760 IN FAHRENHEIT	3x42045 4x42045 I:42044	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDix:-32768=N/V						
Average value of measured RTD sensor value linearized as NI1000-DIN43760 sensor in Fahrenheit*100 in the range of -5800 to +26600 for -58.0 to +266.0 °F -32766,0x8002: Measured value is below -58°C -32767,0x8001: Measured value is above +266°C -32768,0x8000: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 AS NI1000-DIN43760 IN FAHRENHEIT	3x42046 4x42046 I:42045	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDix:-32768=N/V						
AVERAGE RTD INPUT3 AS NI1000-DIN43760 IN FAHRENHEIT	3x42047 4x42047 I:42046	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDix:-32768=N/V						
AVERAGE RTD INPUT4 AS NI1000-DIN43760 IN FAHRENHEIT	3x42048 4x42048 I:42047	-32768,0x8000 B:80 00			SINT16 R/O	
Measured average NI1000-DIN43760 temperature RTDix:-32768=N/V						
AIOX:RTD INPUTS OHM*100						
AVERAGE RTD INPUT1 IN OHM*100	3x42501 4x42501 I:42500	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32 R/O	
Measured average ohm value of RTDix:-1=N/V						
Measured average RTD in Ohm*100 =0xFFFFFFFF: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 IN OHM*100	3x42503 4x42503 I:42502	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32 R/O	
Measured average ohm value of RTDix:-1=N/V						
AVERAGE RTD INPUT3 IN OHM*100	3x42505 4x42505 I:42504	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32 R/O	
Measured average ohm value of RTDix:-1=N/V						
AVERAGE RTD INPUT4 IN OHM*100	3x42507 4x42507 I:42506	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32 R/O	
Measured average ohm value of RTDix:-1=N/V						
AIOX:AVERAGE RTD INPUTS OHM*100						

AVERAGE RTD INPUT1 IN OHM*100	3x42509 4x42509 I:42508	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Measured average ohm value of RTDix:-1=N/V						
Measured average RTD in Ohm*100 =0xFFFFFFFF: The channel is not configured as RTD input						
AVERAGE RTD INPUT2 IN OHM*100	3x42511 4x42511 I:42510	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Measured average ohm value of RTDix:-1=N/V						
AVERAGE RTD INPUT3 IN OHM*100	3x42513 4x42513 I:42512	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Measured average ohm value of RTDix:-1=N/V						
AVERAGE RTD INPUT4 IN OHM*100	3x42515 4x42515 I:42514	4294967295,0xFFFFFFFF B:FF FF FF FF			UINT32R R/O	
Measured average ohm value of RTDix:-1=N/V						

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
AIOX CHIP TEMPERATURE						
TEMPERATURE CHIP 1 IN CELSIUS	3x43001 4x43001 !:43000	464,0x01D0 B:01 D0			UINT16 R/O	
Actual measured temperature of CHIPx:46,4°C						
Current measured chip temperature for CHIPx in x*10 °C. Each CHIP supports 4 AIOX channels.						
AIOX CHIP TEMPERATURE						
AVERAGE TEMPERATURE CHIP 1 IN CELSIUS	3x43002 4x43002 !:43001	464,0x01D0 B:01 D0			UINT16 R/O	
Measured average temperature of CHIPx:46,4°C						
Measured average chip temperature for CHIPx in x*10 °C. Each CHIP supports 4 AIOX channels.						
AIOX CHIP VOLTAGES						
Vavdd CHIP 1 IN VOLT	3x43003 4x43003 !:43002	146,0x0092 B:00 92			UINT16 R/O	
Actual measured voltage Vavdd of CHIPx:14,6V						
Current measured voltage Vavdd for CHIPx in x*10 Volts. Each CHIP supports 4 AIOX channels. This must be >14.5V, if not, there is a severe wiring or other hardware issue!						
AIOX CHIP VOLTAGES						
AVERAGE Vavdd CHIP 1 IN VOLT	3x43004 4x43004 !:43003	146,0x0092 B:00 92			UINT16 R/O	
Measured average voltage Vavdd of CHIPx:14,6V						
Current measured voltage Vavdd for CHIPx in x*10 Volts. Each CHIP supports 4 AIOX channels. This must be >14.5V, if not, there is a severe wiring or other hardware issue!						
AIOX CHIP VOLTAGES						
Vagnd CHIP 1 IN VOLT	3x43005 4x43005 !:43004	0,0x0000 B:00 00			UINT16 R/O	
Actual measured voltage Vagnd of CHIPx:0,0V						
Current measured voltage Vagnd for CHIPx in x*10 Volts. Each CHIP supports 4 AIOX channels. This must be 0V, if not, there is a severe wiring or other hardware issue!						
AIOX CHIP VOLTAGES						
AVERAGE Vagnd CHIP 1 IN VOLT	3x43006 4x43006 !:43005	0,0x0000 B:00 00			UINT16 R/O	
Measured average voltage Vagnd of CHIPx:0,0V						
Current measured voltage Vagnd for CHIPx in x*10 Volts. Each CHIP supports 4 AIOX channels. This must be 0V, if not, there is a severe wiring or other hardware issue!						
AIOX CHIP STATUS						

LIVE STATUS CHIP 1	3x43007 4x43007 1:43006	30720,0x7800 B:78 00			UINT16 R/O	
Actual live status of CHIPx:7800						

Current live status for CHIPx. Each CHIP supports 4 AIOX channels.

Each result bit stands for a different state:

Bit 0: VI_ERR_CURR_A: Status of channel A:Voltage or current error detected on Channel A. This bit is interpreted differently depending on which of the following IO function selected:

Voltage output: short-circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current output: open circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current input, loop powered: short-circuit error. A short to ground is detected

Current input, externally powered: short-circuit error. A current source >25 mA is detected

Bit 1: VI_ERR_CURR_B: Status of voltage input B. Same like VI_ERR_CURR_A

Bit 2: VI_ERR_CURR_C: Status of voltage input C. Same like VI_ERR_CURR_A

Bit 3: VI_ERR_CURR_D: Status of voltage input D. Same like VI_ERR_CURR_A

Bit 4: HI_TEMP_STATUS: If the die temperature is typically at or above 115°C, the HI_TEMP_STATUS bit is asserted

Bit 5: CHARGE_PUMP_STATUS: Charge pump error detected.

Bit 6: ALDO5V_STATUS: ALDO5V Power Supply Monitor Error. This bit is asserted when the ALDO5V pin falls below 4.05 V. Usually ~5V.

Bit 7: AVDD_STATUS: AVDD Power Supply Monitor Error. This bit is asserted when the AVDD pin falls below 9.26 V. Usually ~17V.

Bit 8: DVCC_STATUS: DVCC Power Supply Monitor Error. This bit is asserted when the DVCC pin falls below 1.93 V. Usually ~3.3V.

Bit 9: ALDO1V8_STATUS: ALDO1V8 Power Supply Monitor Error. This bit is asserted when the ALDO1V8 pin falls below 1.35 V. Usually ~1.8V.

Bit 10-12: ADC_CH_CURR: Current converted channel of the ADC (0:A, 1:B, 2:C, 3:D, 4:Diagnostic 0, 5:Diagnostic 1, 6:Diagnostic 2, 7:Diagnostic 3)

Bit 13: ADC_BUSY: ADC busy status bit.

Bit 14: ADC_DATA_RDY:ADC data ready. The ADC_DATA_RDY bit asserts when a conversion cycle has completed. The bit stays asserted until a user writes 1 to clear the bit. In single conversion mode, the ADC_RDY pin follows the ADC_DATA_RDY bit and only deasserts when the ADC_DATA_RDY bit is cleared. In continuous conversion mode, the ADC_RDY pin returns high after 24 µs.

Bit 15: RESERVED: Reserved

AIOX CHIP STATUS

ALERT STATUS CHIP 1	3x43008 4x43008 1:43007	33792,0x8400 B:84 00			UINT16 R/O	
Actual alert status of CHIPx:8400						

Current alert status for CHIPx. Each CHIP supports 4 AIOX channels.

Each result bit stands for a different state:

Bit 0: VI_ERR_CURR_A: Status of channel A:Voltage or current error detected on Channel A. This bit is interpreted differently depending on which of the following IO function selected:

Voltage output: short-circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current output: open circuit error. The error condition is debounced for 2 ms before the status bit is set.

Current input, loop powered: short-circuit error. A short to ground is detected

Current input, externally powered: short-circuit error. A current source >25 mA is detected

Bit 1: VI_ERR_CURR_B: Status of voltage input B. Same like VI_ERR_CURR_A

Bit 2: VI_ERR_CURR_C: Status of voltage input C. Same like VI_ERR_CURR_A

Bit 3: VI_ERR_CURR_D: Status of voltage input D. Same like VI_ERR_CURR_A

Bit 4: HI_TEMP_STATUS: If the die temperature is typically at or above 115°C, the HI_TEMP_STATUS bit is asserted

Bit 5: CHARGE_PUMP_STATUS: Charge pump error detected.

Bit 6: ALDO5V_STATUS: ALDO5V Power Supply Monitor Error. This bit is asserted when the ALDO5V pin falls below 4.05 V. Usually ~5V.

Bit 7: AVDD_STATUS: AVDD Power Supply Monitor Error. This bit is asserted when the AVDD pin falls below 9.26 V. Usually ~17V.

Bit 8: DVCC_STATUS: DVCC Power Supply Monitor Error. This bit is asserted when the DVCC pin falls below 1.93 V. Usually ~3.3V.

Bit 9: ALDO1V8_STATUS: ALDO1V8 Power Supply Monitor Error. This bit is asserted when the ALDO1V8 pin falls below 1.35 V. Usually ~1.8V.

Bit 10: ADC_CONV_ERR: ADC Conversion Error. ADC results may be outside the selected measurement range.

Bit 11: ADC_SAT_ERR: ADC Saturation Error. ADC may be outside the user selected measurement range.

Bit 12: SPI_SCLK_CNT_ERR: SPI SCLK count error detected. This bit is asserted if an SPI command is applied but 32 SCLKs are not provided.

Bit 13: SPI_CRC_ERR: SPI CRC error detected. This bit is asserted if an invalid CRC is received.

Bit 14: CAL_MEM_ERR: Calibration Memory Error. This flag asserts under the following two conditions: When a calibration memory CRC error or an uncorrectable error correcting code (ECC) error is detected on the calibration memory upload. It is not possible to clear this bit if there is a CRC error or uncorrectable ECC error. It is recommended to reset the device and check the supplies in this situation. When there is an attempted SPI access to a register before the calibration memory refresh is complete. Do not address the device until the calibration memory is refreshed. Writing 1 to this bit clears the flag, if the flag is asserted due to this condition.

Bit 15: RESET_OCCURRED: Reset occurred. This bit is asserted after a reset event, which asserts the ALERT pin after the reset. Write a 1 to this bit to clear the flag. Note that a mask bit is not provided for this bit.

AIOX SPI STATUS						
SPI ERRORS CHIP 1	3x43009 4x43009 I:43008	0,0x0000 B:00 00			UINT16 R/O	
		Actual SPI error counter of CHIPx:0 error(s)				
Current SPI error counter for CHIPx. Each CHIP supports 4 AIOX channels. This command shows the acutal SPI errors since power up for every chip						
AIOX STATE MACHINES						
STATE MACHINE CHIP 1	3x43010 4x43010 I:43009	12070,0x2F26 B:2F 26			UINT16 R/O	
		Actual state of CHIPx:12070				
This command shows the acutal state of the internal communication state machine for CHIPx						
AIOX ONLINE						
IS ONLINE CHIP 1	3x43011 4x43011 I:43010	1,0x0001 B:00 01			UINT16 R/O	
		Is CHIPx online:1=YES				
This command shows the acutal state of the internal communication state machine for CHIPx						
AIOX CLEAR ALARM STATE						
CLEAR ALERT STATES CHIP 1	3x43012 4x43012 I:43011	0,0x0000 B:00 00	65535		UINT16 R/W	YES
		0:VI_ERR_A		1:RESET FLAG		
		1:VI_ERR_B		1:RESET FLAG		
		2:VI_ERR_C		1:RESET FLAG		
		3:VI_ERR_D		1:RESET FLAG		
		4:HI_TEMP_ERR		1:RESET FLAG		
		5:CHARGE_PUMP_ERR		1:RESET FLAG		
		6:ALDO5V_ERR		1:RESET FLAG		
		7:AVDD_ERR		1:RESET FLAG		
		8:DVCC_ERR		1:RESET FLAG		
		9:ALDO1V8_ERR		1:RESET FLAG		
		10:ADC_CONV_ERR		1:RESET FLAG		
		11:ADC_SAT_ERR		1:RESET FLAG		
		12:SPI_SCLK_ERR		1:RESET FLAG		
		13:SPI_CRC_ERR		1:RESET FLAG		
		14:CAL_MEM_ERR		1:RESET FLAG		
		15:RESET_OCCURED		1:RESET FLAG		
With this command you can reset individual alert bits in the alert status register of CHIPx						
AIOX RESET STATE MACHINE						
RESET CHIP 1 STATE MACHINE	3x43013 4x43013 I:43012	0,0x0000 B:00 00	1	1:RESET STATE MACHINE	UINT16 R/W	YES
This command restarts the state machine for chip CHIPx . The affected chip will be resetted & initialized completely						

Register NAME Command NAME	MODBUS Register ASCII Command	Register VALUE ASCII Command	NEW REAL VALUE	NEW VALUE	DATA TYPE	DO WRITE
AIOX CONFIG OUTPUT VALUES						
CONFIG OUTPUT VALUE AIOX1	3x44001 4x44001 I:44000	65535,0xFFFF B:FF FF	100	1	UINT16 R/W	YES
Actual config value for AIOx:N/A			ENTER NEW CONFIG VALUE FOR AIOx			
This command sets for all outputs the standard value in Volt*100 or in mA*100, which are used when the controller is restarted or a watchdog condition has occurred and the channel is used as voltage output or current output. For voltage outputs the range is 0 to 1100 (0 to 11,0V). For current outputs the range is 0 to 2500 (0 to 25mA). All IOs with a different usage type will return 65535,0xFFFF.						
CONFIG OUTPUT VALUE AIOX2	3x44002 4x44002 I:44001	65535,0xFFFF B:FF FF	200	2	UINT16 R/W	YES
Actual config value for AIOx:N/A			ENTER NEW CONFIG VALUE FOR AIOx			
CONFIG OUTPUT VALUE AIOX3	3x44003 4x44003 I:44002	65535,0xFFFF B:FF FF	300	3	UINT16 R/W	YES
Actual config value for AIOx:N/A			ENTER NEW CONFIG VALUE FOR AIOx			
CONFIG OUTPUT VALUE AIOX4	3x44004 4x44004 I:44003	65535,0xFFFF B:FF FF	400	4	UINT16 R/W	YES
Actual config value for AIOx:N/A			ENTER NEW CONFIG VALUE FOR AIOx			
INTER PROCESSOR COMMUNICATION						
AIOX IS ONLINE	3x50000 4x50000 I:49999	1,0x0001 B:00 01			UINT16 R/O	
Actual communication status co-processor to AIOX processor:OK						
This command returns the actual state of the serial communication between the ARM co-processor and the additional processor for the AIOX. =1: Currently the communication is fine =0: There is a mayor problem/hardware fault between the two processors						