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

FLASH UNIT_ID	3x65223 4x65223 I:65222	15,0x000F B:00 0F		27	UINT16 R/W	NO
		UNIT ID:15				
If the host reads this register, the current defined unit ID from the FLASH is returned. This UnitID is used if DIP switch for UnitID is set to 15						
HINT:This settings will be active after you repower or reset your device !!						
BAUD_RATE	3x65224 4x65224 I:65223	115200,0x0001C200 B:00 01 C2 00	57600	57600	UINT32 R/W	NO
		115200Bd		ENTER BAUD RATE		
This is the current configured baud rate in the FLASH For ULTRA SLIM IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP1=ON+DIP2=ON (BR) (default is 57600bd) For BIG IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP7=ON (PARAMETER) (default is 57600bd)						
Valid baud rates are: 300bd, 600bd, 900bd, 1200bd, 2400bd, 4800bd, 9600bd, 19200bd, 38400bd, 57600bd, 115200bd, 128000bd 230400bd, 250000bd, 256000bd						
HINT:This settings will be active after you repower or reset your device !!						
PARITY	3x65226 4x65226 I:65225	0,0x0000 B:00 00		1:EVEN PARITY	UINT16 R/W	NO
		NO PARITY		SELECT PARITY		
If the register is read out, the currently set parity of the serial interface is returned. Writing a value to this register will change the new parity in FLASH. This will only take effect after a restart of the module. This can be triggered by writing to the RESET SYSTEM register. Parity values are 0: no parity 1: even parity 2: odd parity						
STOP BITS	3x65227 4x65227 I:65226	1,0x0001 B:00 01		2:TWO STOPBITS	UINT16 R/W	NO
		ONE STOPBIT		SELECT STOPBITS		
If the register is read out, the currently set number of stop bits of the serial interface is returned. Writing a value to this register will change the new number of stop bits in the FLASH. This will only take effect after a restart of the module. This can be triggered by writing to the RESET SYSTEM register. Values for stop bits are 1: one stop bit 2: two stop bits						
MODBUS TIMING	3x65228 4x65228 I:65227	0,0x0000 B:00 00		10	UINT16 R/W	NO
		Actual timing:0ms				
If the host reads this register, the current defined timing for MODBUS telegrams is returned. This timing is a time in ms which extends the standard 1.5 character timeout between two consecutive bytes on the serial line. If you write a new value to this register, the new settings are stored into the internal FLASH. Reboot the device to activate the new settings.						

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

CPU BATTERY	3x65529 4x65529 I:65528	317,0x013D B:01 3D			UINT16 R/O	
		Current battery voltage of CPU:3,17V				
Current internal backup battery voltage of CPU in Volt multiplied by 1000.						
CONVERTER STATUS						
CONVERTER STATUS	3x65534 4x65534 I:65533	0,0x0000 B:00 00			UINT16 R/O	
Current status of the converter						
FACTORY RESET	3x65535 4x65535 I:65534	0,0x0000 B:00 00		1:PERFORM FACTORY RESET	UINT16 R/W	NO
Performs a factory reset of all internal saved parameters						
SOFTWARE RESET						
RESET	1x65536 2x65536 I:65535	0,0x00 B:00		N/A:NO CHANGE	BIT R/W	NO
Performs a software reset, whenever 1 is written to this register. If the host writes to this register 1, the module executes a soft reset (reboot).						
RESET	3x65536 4x65535 I:65535	0,0x0000 B:00 00		N/A:NO CHANGE	UINT16 R/W	NO
Performs a software reset, whenever 1 is written to this register. If the host writes to this register 1, the module executes a soft reset (reboot).						

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

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

Redefines the unit ID of the module. This change will affect the MODBUS/RTU communication immediately. As a Unit IO you can use the values 0dec to 255dec.

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

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

Sets a new baud rate in the FLASH
For ULTRA SLIM IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP1=ON+DIP2=ON (BR) (default is 57600bd)
For BIG IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP7=ON (PARAMETER) (default is 57600bd)
The following baudrates are allowed:
300bd, 600bd, 900bd, 1200bd, 2400bd, 4800bd,
9600bd, 19200bd, 38400bd, 57600bd, 115200bd, 128000bd
230400bd, 250000bd, 256000bd

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

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

Sets a new parity for the serial interface.
MBParity:
NONE: no parity
EVEN: even parity
ODD: odd parity

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

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

Sets a new amount of stop bits for the serial interface.
MBStops
ONE: one stop bit
TWO: two stop bits

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

SET MODBUS PARAMS	ASCII WRITE COMMAND	#SMBPARAMS:<UNITID>,<BAUD>,<PARITY>,<STOPBIT><CR> Result: #OK<CR>	ASCII	NO
	UNITID	3		
	BAUD	115200:115200BD		
	PARITY	EVEN:EVEN PARITY		
	STOPBIT	TWO:TWO STOPBITS		
	TX	#SMBPARAMS:3,115200,EVEN,TWO<CR>		
	RX	N/A		
Sets all parameters for serrial interface				
GET MODBUS ADDRESS	ASCII READ COMMAND	#GMBADR<CR> Result: #GMBADR:<MBUnitDec>,<MBFLASHDec>,<MBUnitHex>,<MBFLASHHex><CR>	ASCII	
	TX	#GMBADR<CR>		
	RX	#1,GMBADR:1,15,0x1,0xF<CR>		
		Current MODBUS unit ID:1,15,0x1,0xF		
Shows the current used MODBUS/RTU or ASCII unit address and shows also the stored unit address in the FLASH memory, which is only used if the DIP switch for the bus address is set to 0. MBUnitDec,MBUnitHex The current used MODBUS/RTU unit or ASCII address for communication MBFLASHDec,MBFLASHHex The internal stored MODBUS/RTU unit address or ASCII address from the FLASH memory, if the DIP switch DIP3 is OFF.				
GET MODBUS BAUDRATE	ASCII READ COMMAND	#GMBBAUD<CR> Result: #GMBBAUD:<BaudRate><CR>	ASCII	
	TX	#GMBBAUD<CR>		
	RX	#1,GMBBAUD:115200,0x1C200<CR>		
		Current baudrate:115200,0x1C200		
This is the current configured baud rate in the FLASH For ULTRA SLIM IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP1=ON+DIP2=ON (BR) (default is 57600bd) For BIG IOs RESI-xxx-SIO: This baudrate is only used, if DIP switch mode DIP7=ON (PARAMETER) (default is 57600bd) The following baudrates are allowed: 300bd, 600bd, 900bd, 1200bd, 2400bd, 4800bd, 9600bd, 19200bd, 38400bd, 57600bd, 115200bd, 128000bd 230400bd, 250000bd, 256000bd				
GET MODBUS PARITY	ASCII READ COMMAND	#GMBPAR<CR> Result: #GMBPAR:<MBParity><CR>	ASCII	
	TX	#GMBPAR<CR>		
	RX	#1,GMBPAR:NONE<CR>		
		Current parity:NONE		
Shows the current configured parity of the serial interface. MBParity NONE: no parity EVEN: even parity ODD: odd parity				

GET MODBUS STOP	ASCII READ COMMAND	#GMBSTOP<CR> Result: #GMBSTOP:<MBStop><CR>	ASCII	
	TX	#GMBSTOP<CR>		
	RX	#1,GMBPAR:ONE<CR>		
		Current stopbit(s):ONE		
Shows the current configured parity of the serial interface. MBParity NONE: no parity EVEN: even parity ODD: odd parity				
GET MODBUS PARAMS	ASCII READ COMMAND	#GMBPARAMS<CR> Result: #GMBPARAMS:<MBUnitDec>,<MBFLASHDec>,<MBUnitHex>,<MBFLASHHex>, <MBBaudrateDec>,<MBBaudrateHex>,<MBParity>,<MBStops><CR>	ASCII	
	TX	#GMBPARAMS<CR>		
	RX	#1,GMBADR:1,0x1,15,0xF,115200,0x1C200,NONE,ONE<CR>		
		Current MODBUS unit ID used:1		
		Current MODBUS unit ID in FLASH:15		
		Current baudrate in FLASH:115200		
		Current parity in FLASH:NONE		
		Current stopbit(s) in FLASH:ONE		
Returns the complete settings for serial interface				
ASCII COMMANDS				
RESET	ASCII WRITE COMMAND	#RST<CR> Result: #OK<CR>	ASCII	NO
	TX	#RST<CR>		
	RX	N/A		
Executes a software reset (Reboot) of the module.				
FACTORY RESET	ASCII WRITE COMMAND	#FRST<CR> Result: #OK<CR>	ASCII	NO
	TX	#FRST<CR>		
	RX	N/A		
Performs a factory reset of all internal saved parameters				
SET MODBUS WATCHDOG TIMER	ASCII WRITE COMMAND	#SMBWATCHDOG:<WDTIME><CR> Result: #OK<CR>	ASCII	YES
	WDTIME	100		
	TX	#SMBWATCHDOG:100<CR>		
	RX	#1,OK<CR>		

Enables or disables the WATCHDOG Timer for the IO module. WDTIME: 1..65535: Time for Watchdog in 1/100s =0: Watchdog is deactivated HINT: The Watchdog is internally handled every 100ms. If the IO module receives no valid frame within this time period, the outputs are set to predefined values!				
GET MODBUS WATCHDOG TIMER	ASCII READ COMMAND	#GMBWATCHDOG<CR> Result: #GMBWATCHDOG:<WDTIME><CR>	ASCII	
	TX	#GMBWATCHDOG<CR>		
	RX	#1,GMBWATCHDOG:100,0x64<CR>		
		Current watchdog time:100 -> 10,0s		
Shows the actual configured time for the telegram watchdog function of the IO module. WDTIME: 1..65535: Time for Watchdog in 1/100s =0: Watchdog is deactivated HINT: The Watchdog is internally handled every 100ms. If the IO module receives no valid frame within this time period, the outputs are set to predefined values!				
CPU PARAMETERS				
GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUTEMP<CR> Result: #GCPUTEMP:<CPUTemp><CR>	ASCII	
	TX	#GCPUTEMP<CR>		
	RX	#1,GCPUTEMP:38.7842<CR>		
		Current internal temperature of CPU:38.7842°C		
Current internal temperature of CPU in ° Celsius multiplied by 10.				
GET CPU VOLTAGE	ASCII READ COMMAND	#GCPUVOLT<CR> Result: #GCPUVOLT:<CPUVoltage><CR>	ASCII	
	TX	#GCPUVOLT<CR>		
	RX	#1,GCPUVOLT:3.3632<CR>		
		Current supply voltage of CPU:3.3632V		
Current internal supply voltage of CPU in Volt multiplied by 1000.				
GET CPU BATTERY	ASCII READ COMMAND	#GCPUBATT<CR> Result: #GCPUBATT:<CPUBatteryVoltage><CR>	ASCII	
	TX	#GCPUBATT<CR>		
	RX	#1,GCPUBATT:3.1793<CR>		
		Current backup battery voltage of CPU:3.1793V		
Current internal backup battery voltage of CPU in Volt multiplied by 1000.				

DI1	1x00001 2x00001 I:0	0,0x00 B:00			BIT R/O	
		Current state of DI1:0=OFF				
Current state of the digital input DIx =0:DI is OFF, =1:DI is ON						
DI2	1x00002 2x00002 I:1	0,0x00 B:00			BIT R/O	
		Current state of DI2:0=OFF				
DI3	1x00003 2x00003 I:2	0,0x00 B:00			BIT R/O	
		Current state of DI3:0=OFF				
DI4	1x00004 2x00004 I:3	0,0x00 B:00			BIT R/O	
		Current state of DI4:0=OFF				
DI5	1x00005 2x00005 I:4	0,0x00 B:00			BIT R/O	
		Current state of DI5:0=OFF				
DI6	1x00006 2x00006 I:5	1,0x01 B:01			BIT R/O	
		Current state of DI6:1=ON				
STATUS DIGITAL OUTPUTS						
DO1	1x00007 2x00007 I:6	1,0x01 B:01		1	BIT R/W	YES
		Current state of DO1:1=ON		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	1x00008 2x00008 I:7	0,0x00 B:00		0	BIT R/W	NO
		Current state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	1x00009 2x00009 I:8	0,0x00 B:00		0	BIT R/W	NO
		Current state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	1x00010 2x00010 I:9	1,0x01 B:01		1	BIT R/W	YES

		Current state of DO4:1=ON		ENTER NEW STATE (0 or 1)		
DO5	1x00011 2x00011 I:10	0,0x00 B:00		0	BIT R/W	NO
		Current state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	1x00012 2x00012 I:11	0,0x00 B:00		0	BIT R/W	NO
		Current state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION ON						
ENABLE OPEN WIRE DETECTION ON DO1	1x00013 2x00013 I:12	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00014 2x00014 I:13	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00015 2x00015 I:14	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00016 2x00016 I:15	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00017 2x00017 I:16	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00018 2x00018 I:17	1,0x01 B:01		1	BIT R/W	YES
		Current setup of open wire detection for state ON of DO6:1=ON		ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION OFF						

ENABLE OPEN WIRE DETECTION OFF DO1	1x00019 2x00019 I:18	0,0x00 B:00		1	BIT R/W	NO
		Current 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	1x00020 2x00020 I:19	0,0x00 B:00		1	BIT R/W	NO
		Current 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	1x00021 2x00021 I:20	0,0x00 B:00		1	BIT R/W	NO
		Current 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	1x00022 2x00022 I:21	0,0x00 B:00		1	BIT R/W	NO
		Current 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	1x00023 2x00023 I:22	0,0x00 B:00		1	BIT R/W	NO
		Current setup of open wire detection for state ON of DO5:0=OFF		ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO6	1x00024 2x00024 I:23	0,0x00 B:00		1	BIT R/W	NO
		Current setup of open wire detection for state OFF of DO6:0=OFF		ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: ENABLE SHORT TO VDD DETECTION						
ENABLE SHORT TO VDD DETECTION DO1	1x00025 2x00025 I:24	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00026 2x00026 I:25	1,0x01 B:01		1	BIT R/W	YES

		Current 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	1x00027 2x00027 I:26	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00028 2x00028 I:27	1,0x01 B:01		1	BIT R/W	YES
		Current 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	1x00029 2x00029 I:28	1,0x01 B:01		1	BIT R/W	YES
		Current setup of open wire detection for state ON of DO5:1=ON		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO6	1x00030 2x00030 I:29	1,0x01 B:01		1	BIT R/W	YES
		Current setup of open wire detection for state OFF of DO6:1=ON		ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE ON						
OPEN WIRE WHILE ON DO1	1x00031 2x00031 I:30	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire 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 WHILE ON DO2	1x00032 2x00032 I:31	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state ON for DO2:0=OK				
OPEN WIRE WHILE ON DO3	1x00033 2x00033 I:32	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state ON for DO3:0=OK				
OPEN WIRE WHILE ON DO4	1x00034 2x00034 I:33	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state ON for DO4:0=OK				

OPEN WIRE WHILE ON DO5	1x00035 2x00035 I:34	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state ON for DO5:0=OK				
OPEN WIRE WHILE ON DO6	1x00036 2x00036 I:35	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state ON for DO6:0=OK				
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE OFF						
OPEN WIRE WHILE OFF DO1	1x00037 2x00037 I:36	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire 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 WHILE OFF DO2	1x00038 2x00038 I:37	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state OFF for DO2:0=OK				
OPEN WIRE WHILE OFF DO3	1x00039 2x00039 I:38	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state OFF for DO3:0=OK				
OPEN WIRE WHILE OFF DO4	1x00040 2x00040 I:39	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state OFF for DO4:0=OK				
OPEN WIRE WHILE OFF DO5	1x00041 2x00041 I:40	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state OFF for DO5:0=OK				
OPEN WIRE WHILE OFF DO6	1x00042 2x00042 I:41	0,0x00 B:00			BIT R/O	
		Current detection state of an open wire in state OFF for DO6:0=OK				
DIGITAL OUTPUTS: SHORTCUT DETECTION STATUS TO VDD WHILE OFF						

OPEN WIRE SHORTCUT TO VDD DO1	1x00043 2x00043 I:42	0,0x00 B:00			BIT R/O	
		Current detection state of a shortcut to VDD in state OFF for 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	1x00044 2x00044 I:43	0,0x00 B:00			BIT R/O	
		Current detection state of a shortcut to VDD in state OFF for DO2:0=OK				
OPEN WIRE SHORTCUT TO VDD DO3	1x00045 2x00045 I:44	0,0x00 B:00			BIT R/O	
		Current detection state of a shortcut to VDD in state OFF for DO3:0=OK				
OPEN WIRE SHORTCUT TO VDD DO4	1x00046 2x00046 I:45	0,0x00 B:00			BIT R/O	
		Current detection state of a shortcut to VDD in state OFF for DO4:0=OK				
OPEN WIRE SHORTCUT TO VDD DO5	1x00047 2x00047 I:46	0,0x00 B:00			BIT R/O	
		Current detection state of a shortcut to VDD in state OFF for DO5:0=OK				
OPEN WIRE SHORTCUT TO VDD DO6	1x00048 2x00048 I:47	1,0x01 B:01			BIT R/O	
		Current detection state of a shortcut to VDD in state OFF for DO6:1=FAULT				
DIGITAL OUTPUTS: THERMAL OVERLOAD DETECTION STATUS						
THERMAL OVERLOAD DETECTION STATUS DO1	1x00049 2x00049 I:48	0,0x00 B:00			BIT R/O	
		Current 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	1x00050 2x00050 I:49	0,0x00 B:00			BIT R/O	
		Current detection state of a thermal overload for DO2:0=OK				

THERMAL OVERLOAD DETECTION STATUS DO3	1x00051 2x00051 I:50	0,0x00 B:00			BIT R/O	
		Current detection state of a thermal overload for DO3:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO4	1x00052 2x00052 I:51	0,0x00 B:00			BIT R/O	
		Current detection state of a thermal overload for DO4:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO5	1x00053 2x00053 I:52	0,0x00 B:00			BIT R/O	
		Current detection state of a thermal overload for DO5:0=OK				
THERMAL OVERLOAD DETECTION STATUS DO6	1x00054 2x00054 I:53	0,0x00 B:00			BIT R/O	
		Current detection state of a thermal overload for DO6:0=OK				
DIGITAL OUTPUTS: CURRENT LIMIT DETECTION STATUS WHILE ON						
CURRENT LIMIT DETECTION STATUS WHILE ON DO1	1x00055 2x00055 I:54	0,0x00 B:00			BIT R/O	
		Current 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	1x00056 2x00056 I:55	0,0x00 B:00			BIT R/O	
		Current detection state of a current limit while ON for DO2:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO3	1x00057 2x00057 I:56	0,0x00 B:00			BIT R/O	
		Current detection state of a current limit while ON for DO3:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO4	1x00058 2x00058 I:57	0,0x00 B:00			BIT R/O	
		Current detection state of a current limit while ON for DO4:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO5	1x00059 2x00059 I:58	0,0x00 B:00			BIT R/O	

		Current detection state of a current limit while ON for DO5:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO6	1x00060 2x00060 I:59	0,0x00 B:00			BIT R/O	
		Current detection state of a current limit while ON for DO6:0=OK				
DIGITAL OUTPUTS: GLOBAL ERRORS DO1-DO6						
GLOBAL ERRORS FOR DO1-DO6 BIT 0	1x00061 2x00061 I:60	0,0x00 B:00			BIT R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 1	1x00062 2x00062 I:61	0,0x00 B:00			BIT R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 2	1x00063 2x00063 I:62	0,0x00 B:00			BIT R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 3	1x00064 2x00064 I:63	0,0x00 B:00			BIT R/O	
		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 4	1x00065 2x00065 I:64	0,0x00 B:00			BIT R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 5	1x00066 2x00066 I:65	0,0x00 B:00			BIT R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 6	1x00067 2x00067 I:66	0,0x00 B:00			BIT R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 7	1x00068 2x00068 I:67	0,0x00 B:00			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 DO1-DO6						
INTERRUPT STATUS FOR DO1-DO6 BIT 0	1x00069 2x00069 I:68	0,0x00 B:00			BIT R/O	

		BIT 0:Overload detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 1	1x00070 2x00070 I:69	0,0x00 B:00			BIT R/O	
		BIT 1:Current limit detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 2	1x00071 2x00071 I:70	0,0x00 B:00			BIT R/O	
		BIT 2:Open wire while OFF detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 3	1x00072 2x00072 I:71	0,0x00 B:00			BIT R/O	
		BIT 3:Open wire while ON detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 4	1x00073 2x00073 I:72	0,0x00 B:00			BIT R/O	
		BIT 4:Short to VDD while ON detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 5	1x00074 2x00074 I:73	0,0x00 B:00			BIT R/O	
		BIT 5:Thermal error detected-shutdown:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 6	1x00075 2x00075 I:74	0,0x00 B:00			BIT R/O	
		BIT 6:Supply error detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 7	1x00076 2x00076 I:75	0,0x00 B:00			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 DO1-DO6	1x00077 2x00077 I:76	0,0x00 B:00			BIT R/O	
		Current SPI communication for DO1-DO6:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION DO7-DO12	1x00078 2x00078 I:77	0,0x00 B:00			BIT R/O	
		Current SPI communication for DO7-DO12:0=NO FAULT				
DIGITAL INPUTS: RESET						
RESET COUNTERS	1x10000 2x10000 I:9999	0,0x00 B:00		1:PERFORM RESET	BIT R/W	NO

If this register is written to 1, all internal edge counters and event counters are set to 0. 0 is always returned when reading.						
STATUS DIGITAL INPUTS						
DI1	3x00001 4x00001 I:0	0,0x0000 B:00 00			UINT16 R/O	
		Current 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	
		Current state of DI2:0=OFF				
DI3	3x00003 4x00003 I:2	0,0x0000 B:00 00			UINT16 R/O	
		Current state of DI3:0=OFF				
DI4	3x00004 4x00004 I:3	0,0x0000 B:00 00			UINT16 R/O	
		Current state of DI4:0=OFF				
DI5	3x00005 4x00005 I:4	0,0x0000 B:00 00			UINT16 R/O	
		Current state of DI5:0=OFF				
DI6	3x00006 4x00006 I:5	1,0x0001 B:00 01			UINT16 R/O	
		Current state of DI6:1=ON				
STATUS DIGITAL OUTPUTS						
DO1	3x00007 4x00007 I:6	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current state of DO1:1=ON		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	3x00008 4x00008 I:7	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current state of DO2:1=ON		ENTER NEW STATE (0 or 1)		
DO3	3x00009 4x00009 I:8	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current state of DO3:1=ON		ENTER NEW STATE (0 or 1)		

DO4	3x00010 4x00010 I:9	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current state of DO4:1=ON		ENTER NEW STATE (0 or 1)		
DO5	3x00011 4x00011 I:10	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current state of DO5:1=ON		ENTER NEW STATE (0 or 1)		
DO6	3x00012 4x00012 I:11	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current state of DO6:1=ON		ENTER NEW STATE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION ON						
ENABLE OPEN WIRE DETECTION ON DO1	3x00013 4x00013 I:12	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current 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	3x00014 4x00014 I:13	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current 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	3x00015 4x00015 I:14	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current 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	3x00016 4x00016 I:15	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current 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	3x00017 4x00017 I:16	1,0x0001 B:00 01		1	UINT16 R/W	NO
		Current 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	3x00018 4x00018 I:17	1,0x0001 B:00 01		1	UINT16 R/W	NO

		Current setup of open wire detection for state ON of DO6:1=ON	ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: ENABLE OPEN WIRE DETECTION OFF					
ENABLE OPEN WIRE DETECTION OFF DO1	3x00019 4x00019 I:18	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current 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	3x00020 4x00020 I:19	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current 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	3x00021 4x00021 I:20	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current 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	3x00022 4x00022 I:21	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current 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	3x00023 4x00023 I:22	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current setup of open wire detection for state ON of DO5:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
ENABLE OPEN WIRE DETECTION OFF DO6	3x00024 4x00024 I:23	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current setup of open wire detection for state OFF of DO6:0=OFF	ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: ENABLE SHORT TO VDD DETECTION					
ENABLE SHORT TO VDD DETECTION DO1	3x00025 4x00025 I:24	0,0x0000 B:00 00	1	UINT16 R/W	NO
		Current 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	3x00026 4x00026 I:25	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current 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	3x00027 4x00027 I:26	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current 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	3x00028 4x00028 I:27	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current 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	3x00029 4x00029 I:28	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current setup of open wire detection for state ON of DO5:0=OFF		ENTER NEW SETUP MODE (0 or 1)		
ENABLE SHORT TO VDD DETECTION DO6	3x00030 4x00030 I:29	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current setup of open wire detection for state OFF of DO6:0=OFF		ENTER NEW SETUP MODE (0 or 1)		
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE ON						
OPEN WIRE WHILE ON DO1	3x00031 4x00031 I:30	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of an open wire 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 WHILE ON DO2	3x00032 4x00032 I:31	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of an open wire in state ON for DO2:0=OK				
OPEN WIRE WHILE ON DO3	3x00033 4x00033 I:32	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of an open wire in state ON for DO3:0=OK				
OPEN WIRE WHILE ON DO4	3x00034 4x00034 I:33	0,0x0000 B:00 00			UINT16 R/O	

		Current detection state of an open wire in state ON for DO4:0=OK			
OPEN WIRE WHILE ON DO5	3x00035 4x00035 I:34	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state ON for DO5:0=OK			
OPEN WIRE WHILE ON DO6	3x00036 4x00036 I:35	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state ON for DO6:0=OK			
DIGITAL OUTPUTS: OPEN WIRE DETECTION STATUS WHILE OFF					
OPEN WIRE WHILE OFF DO1	3x00037 4x00037 I:36	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire 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 WHILE OFF DO2	3x00038 4x00038 I:37	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state OFF for DO2:0=OK			
OPEN WIRE WHILE OFF DO3	3x00039 4x00039 I:38	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state OFF for DO3:0=OK			
OPEN WIRE WHILE OFF DO4	3x00040 4x00040 I:39	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state OFF for DO4:0=OK			
OPEN WIRE WHILE OFF DO5	3x00041 4x00041 I:40	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state OFF for DO5:0=OK			
OPEN WIRE WHILE OFF DO6	3x00042 4x00042 I:41	0,0x0000 B:00 00			UINT16 R/O
		Current detection state of an open wire in state OFF for DO6:0=OK			
DIGITAL OUTPUTS: SHORTCUT DETECTION STATUS TO VDD WHILE OFF					

OPEN WIRE SHORTCUT TO VDD DO1	3x00043 4x00043 I:42	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a shortcut to VDD in state OFF for 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	3x00044 4x00044 I:43	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a shortcut to VDD in state OFF for DO2:0=OK				
OPEN WIRE SHORTCUT TO VDD DO3	3x00045 4x00045 I:44	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a shortcut to VDD in state OFF for DO3:0=OK				
OPEN WIRE SHORTCUT TO VDD DO4	3x00046 4x00046 I:45	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a shortcut to VDD in state OFF for DO4:0=OK				
OPEN WIRE SHORTCUT TO VDD DO5	3x00047 4x00047 I:46	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a shortcut to VDD in state OFF for DO5:0=OK				
OPEN WIRE SHORTCUT TO VDD DO6	3x00048 4x00048 I:47	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a shortcut to VDD in state OFF for DO6:0=OK				
DIGITAL OUTPUTS: THERMAL OVERLOAD DETECTION STATUS						
THERMAL OVERLOAD DETECTION STATUS DO1	3x00049 4x00049 I:48	0,0x0000 B:00 00			UINT16 R/O	
		Current 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	3x00050 4x00050 I:49	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a thermal overload for DO2:0=OK				

THERMAL OVERLOAD DETECTION STATUS DO3	3x00051 4x00051 I:50	1,0x0001 B:00 01			UINT16 R/O	
		Current detection state of a thermal overload for DO3:1=FAULT				
THERMAL OVERLOAD DETECTION STATUS DO4	3x00052 4x00052 I:51	1,0x0001 B:00 01			UINT16 R/O	
		Current detection state of a thermal overload for DO4:1=FAULT				
THERMAL OVERLOAD DETECTION STATUS DO5	3x00053 4x00053 I:52	1,0x0001 B:00 01			UINT16 R/O	
		Current detection state of a thermal overload for DO5:1=FAULT				
THERMAL OVERLOAD DETECTION STATUS DO6	3x00054 4x00054 I:53	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a thermal overload for DO6:0=OK				
DIGITAL OUTPUTS: CURRENT LIMIT DETECTION STATUS WHILE ON						
CURRENT LIMIT DETECTION STATUS WHILE ON DO1	3x00055 4x00055 I:54	1,0x0001 B:00 01			UINT16 R/O	
		Current detection state of a current limit while ON for DO1:1=FAULT				
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	3x00056 4x00056 I:55	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a current limit while ON for DO2:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO3	3x00057 4x00057 I:56	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a current limit while ON for DO3:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO4	3x00058 4x00058 I:57	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a current limit while ON for DO4:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO5	3x00059 4x00059 I:58	0,0x0000 B:00 00			UINT16 R/O	

		Current detection state of a current limit while ON for DO5:0=OK				
CURRENT LIMIT DETECTION STATUS WHILE ON DO6	3x00060 4x00060 I:59	0,0x0000 B:00 00			UINT16 R/O	
		Current detection state of a current limit while ON for DO6:0=OK				
DIGITAL OUTPUTS: GLOBAL ERRORS DO1-DO6						
GLOBAL ERRORS FOR DO1-DO6 BIT 0	3x00061 4x00061 I:60	0,0x0000 B:00 00			UINT16 R/O	
		BIT 0:Internal under voltage detected:0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 1	3x00062 4x00062 I:61	0,0x0000 B:00 00			UINT16 R/O	
		BIT 1:VA under voltage detected (<2.3V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 2	3x00063 4x00063 I:62	0,0x0000 B:00 00			UINT16 R/O	
		BIT 2:VDD not good detected (<17V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 3	3x00064 4x00064 I:63	0,0x0000 B:00 00			UINT16 R/O	
		BIT 3:VDD warning detected (<12V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 4	3x00065 4x00065 I:64	0,0x0000 B:00 00			UINT16 R/O	
		BIT 4:VDD under voltage detected (<8V):0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 5	3x00066 4x00066 I:65	0,0x0000 B:00 00			UINT16 R/O	
		BIT 5:Thermal shutdown:0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 6	3x00067 4x00067 I:66	0,0x0000 B:00 00			UINT16 R/O	
		BIT 6:Synchronisation error detected:0=OK				
GLOBAL ERRORS FOR DO1-DO6 BIT 7	3x00068 4x00068 I:67	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 DO1-DO6						
INTERRUPT STATUS FOR DO1-DO6 BIT 0	3x00069 4x00069 I:68	32801,0x8021 B:80 21			UINT16 R/O	

		BIT 0:Overload detected:32801=FAULT				
INTERRUPT STATUS FOR DO1-DO6 BIT 1	3x00070 4x00070 I:69	32800,0x8020 B:80 20			UINT16 R/O	
		BIT 1:Current limit detected:32800=FAULT				
INTERRUPT STATUS FOR DO1-DO6 BIT 2	3x00071 4x00071 I:70	0,0x0000 B:00 00			UINT16 R/O	
		BIT 2:Open wire while OFF detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 3	3x00072 4x00072 I:71	0,0x0000 B:00 00			UINT16 R/O	
		BIT 3:Open wire while ON detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 4	3x00073 4x00073 I:72	0,0x0000 B:00 00			UINT16 R/O	
		BIT 4:Short to VDD while ON detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 5	3x00074 4x00074 I:73	0,0x0000 B:00 00			UINT16 R/O	
		BIT 5:Thermal error detected-shutdown:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 6	3x00075 4x00075 I:74	0,0x0000 B:00 00			UINT16 R/O	
		BIT 6:Supply error detected:0=OK				
INTERRUPT STATUS FOR DO1-DO6 BIT 7	3x00076 4x00076 I:75	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 DO1-DO6	3x00077 4x00077 I:76	0,0x0000 B:00 00			UINT16 R/O	
		Current SPI communication for DO1-DO6:0=NO FAULT				
The current monitoring state of the SPI communication for the digital output group =0:No fault, =1:Fault						
SPI COMMUNICATION DO7-DO12	3x00078 4x00078 I:77	0,0x0000 B:00 00			UINT16 R/O	
		Current SPI communication for DO7-DO12:0=NO FAULT				
DIGITAL INPUTS						
STATUS DI1 A	3x00111 4x00111 I:110	0,0x0000 B:00 00			UINT16 R/O	

		DI:0,CC:0,REC:0,FEC:0				
Status for the digital input DIx 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 DIx =0: DIx si OFF, =1: DIx is ON						
STATUS DI1 B	3x00112 4x00112 I:111	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
Status for the digital input DIx 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 DIx =0: DIx si OFF, =1: DIx is ON						
STATUS DI2 A	3x00113 4x00113 I:112	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI2 B	3x00114 4x00114 I:113	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI3 A	3x00115 4x00115 I:114	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI3 B	3x00116 4x00116 I:115	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI4 A	3x00117 4x00117 I:116	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI4 B	3x00118 4x00118 I:117	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS DI5 A	3x00119 4x00119 I:118	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI5 B	3x00120 4x00120 I:119	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				

STATUS DI6 A	3x00121 4x00121 I:120	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,CC:0,REC:0,FEC:0				
STATUS DI6 B	3x00122 4x00122 I:121	0,0x0000 B:00 00			UINT16 R/O	
		DI:0,SKE:0,LKSE:0,LKEE:0				
STATUS						
FILTER PATTERN DI1	3x00123 4x00123 I:122	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	3x00125 4x00125 I:124	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI3	3x00127 4x00127 I:126	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI4	3x00129 4x00129 I:128	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI5	3x00131 4x00131 I:130	0,0x00000000 B:00 00 00 00			UINT32 R/O	
FILTER PATTERN DI6	3x00133 4x00133 I:132	0,0x00000000 B:00 00 00 00			UINT32 R/O	
PULSE TIME FOR DIGITAL OUTPUTS						
PULSE TIME DO1	3x00201 4x00201 I:200	0,0x0000 B:00 00	200	20,0	UINT16 R/W	NO
Generate a pulse on digital output x in 100ms units (0,1 to 6553,5 Seconds selectable) If you write onto this register, the digital output will be switched on for the desired time in 100ms units.						
PULSE TIME DO2	3x00202 4x00202 I:201	0,0x0000 B:00 00	300	30,0	UINT16 R/W	NO
PULSE TIME DO3	3x00203 4x00203 I:202	0,0x0000 B:00 00	400	40,0	UINT16 R/W	NO
PULSE TIME DO4	3x00204 4x00204 I:203	0,0x0000 B:00 00	500	50,0	UINT16 R/W	NO

PULSE TIME DO5	3x00205 4x00205 I:204	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO6	3x00206 4x00206 I:205	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE STATUS FOR DIGITAL OUTPUTS						
PULSE TIMER DO1	3x00301 4x00301 I:300	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
Remaining time of the pulse on digital output x in Milliseconds.						
PULSE TIMER DO2	3x00303 4x00303 I:302	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO3	3x00305 4x00305 I:304	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO4	3x00307 4x00307 I:306	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO5	3x00309 4x00309 I:308	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO6	3x00311 4x00311 I:310	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE STATUS FOR DIGITAL OUTPUTS						
PULSE TIMER DO1	3x00313 4x00313 I:312	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	3x00315 4x00315 I:314	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO3	3x00317 4x00317 I:316	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				

PULSE TIMER DO4	3x00319 4x00319 I:318	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO5	3x00321 4x00321 I:320	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO6	3x00323 4x00323 I:322	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
GENERAL STATUS OF DIS						
RESET COUNTERS	3x10000 4x10000 I:9999	0,0x0000 B:00 00		1:PERFORM RESET	UINT16 R/W	NO
If this register is written to 1, all internal edge counters and event counters are set to 0. 0 is always returned when reading.						
HAS DIS CHANGED	3x10001 4x10001 I:10000	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
As soon as the module registrates an event on one of the available digital inputs, this global event counter is incremented by 1. Possible events are: Detection of a short keypress Detection of the start of a long keypress Detection of the end of a long keypress						
STATUS OF ALL DIS DI1..DI6	3x10002 4x10002 I:10001	32,0x0020 B:00 20			UINT16 R/O	
		Current state of DI1:0=OFF				
		Current state of DI2:0=OFF				
		Current state of DI3:0=OFF				
		Current state of DI4:0=OFF				
		Current state of DI5:0=OFF				
		Current state of DI6:1=ON				
Current state of all digital inputs DI1..DI6 Bit 0: =0:DI1 is OFF, =1:DI1 is ON Bit 1: =0:DI2 is OFF, =1:DI2 is ON ... Bit 4: =0:DI5 is OFF, =1:DI5 is ON Bit 5: =0:DI6 is OFF, =1:DI6 is ON						
STATUS OF DIGITAL OUTPUTS						
STATUS OF DO1-DO6	3x10003 4x10003 I:10002	9,0x0009 B:00 09		0x003F	UINT16 R/W	NO
		Current state of DO1:1=ON		1		
		Current state of DO2:0=OFF		1		

		Current state of DO3:0=OFF		1		
		Current state of DO4:1=ON		1		
		Current state of DO5:0=OFF		1		
		Current state of DO6:0=OFF		1		

Current state of all digital outputs
Bit 0: =0:DO1 is OFF, =1:DO1 is ON
Bit 1: =0:DO2 is OFF, =1:DO2 is ON
...
Bit 4: =0:DO5 is OFF, =1:DO5 is ON
Bit 5: =0:DO6 is OFF, =1:DO6 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-DO6	3x10004 4x10004 I:10003	63,0x003F B:00 3F		0x003F	UINT16 R/W	NO
		Current setup of open wire detection while ON for DO1:1=ON		1		
		Current setup of open wire detection while ON for DO2:1=ON		1		
		Current setup of open wire detection while ON for DO3:1=ON		1		
		Current setup of open wire detection while ON for DO4:1=ON		1		
		Current setup of open wire detection while ON for DO5:1=ON		1		
		Current setup of open wire detection while ON for DO6:1=ON		1		

Current setup state for open wire detection while ON for digital output DOx
Bit 0: =0:Open wire detection for DO1 is OFF, =1:Open wire detection for DO1 is ON
Bit 1: =0:Open wire detection for DO2 is OFF, =1:Open wire detection for DO2 is ON
...
Bit 4: =0:Open wire detection for DO5 is OFF, =1:Open wire detection for DO5 is ON
Bit 5: =0:Open wire detection for DO6 is OFF, =1:Open wire detection for DO6 is ON

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-DO6	3x10005 4x10005 I:10004	0,0x0000 B:00 00		0x003F	UINT16 R/W	NO
		Current setup of open wire detection while OFF for DO1:0=OFF		1		
		Current setup of open wire detection while OFF for DO2:0=OFF		1		
		Current setup of open wire detection while OFF for DO3:0=OFF		1		
		Current setup of open wire detection while OFF for DO4:0=OFF		1		

		Current setup of open wire detection while OFF for DO5:0=OFF		1		
		Current setup of open wire detection while OFF for DO6:0=OFF		1		
Current setup state for open wire detection while OFF for digital output DOx Bit 0: =0:Open wire detection for DO1 is OFF, =1:Open wire detection for DO1 is ON Bit 1: =0:Open wire detection for DO2 is OFF, =1:Open wire detection for DO2 is ON ... Bit 4: =0:Open wire detection for DO5 is OFF, =1:Open wire detection for DO5 is ON Bit 5: =0:Open wire detection for DO6 is OFF, =1:Open wire detection for DO6 is ON 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-DO6	3x10006 4x10006 I:10005	63,0x003F B:00 3F		0x003F	UINT16 R/W	NO
		Current setup of shortcut detection to VDD while OFF for DO1:1=ON		1		
		Current setup of shortcut detection to VDD while OFF for DO2:1=ON		1		
		Current setup of shortcut detection to VDD while OFF for DO3:1=ON		1		
		Current setup of shortcut detection to VDD while OFF for DO4:1=ON		1		
		Current setup of shortcut detection to VDD while OFF for DO5:1=ON		1		
		Current setup of shortcut detection to VDD while OFF for DO6:1=ON		1		
Current setup state for shortcut to VDD detection while OFF for digital output DOx Bit 0: =0:Shortcut to VDD detection for DO1 is OFF, =1:Shortcut to VDD detection for DO1 is ON Bit 1: =0:Shortcut to VDD detection for DO2 is OFF, =1:Shortcut to VDD detection for DO2 is ON ... Bit 4: =0:Shortcut to VDD detection for DO5 is OFF, =1:Shortcut to VDD detection for DO5 is ON Bit 5: =0:Shortcut to VDD detection for DO6 is OFF, =1:Shortcut to VDD detection for DO6 is ON 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-DO6	3x10007 4x10007 I:10006	0,0x0000 B:00 00			UINT16 R/O	
		Current state of open wire detection while ON for DO1:0=OK				
		Current state of open wire detection while ON for DO2:0=OK				
		Current state of open wire detection while ON for DO3:0=OK				
		Current state of open wire detection while ON for DO4:0=OK				

		Current state of open wire detection while ON for DO5:0=OK			
		Current state of open wire detection while ON for DO6:0=OK			
Current 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 4: =0:Output DO5 is OK, =1:Fault-Open wire detected on DO5 Bit 5: =0:Output DO6 is OK, =1:Fault-Open wire detected on DO6					
DIGITAL OUTPUTS:OPEN WIRE WHILE OFF DETECTION STATE					
OPEN WIRE DETECTION STATE WHILE OFF DO1-DO6	3x10008 4x10008 I:10007	0,0x0000 B:00 00		UINT16 R/O	
		Current state of open wire detection while OFF for DO1:0=OK			
		Current state of open wire detection while OFF for DO2:0=OK			
		Current state of open wire detection while OFF for DO3:0=OK			
		Current state of open wire detection while OFF for DO4:0=OK			
		Current state of open wire detection while OFF for DO5:0=OK			
		Current state of open wire detection while OFF for DO6:0=OK			
Current 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 4: =0:Output DO5 is OK, =1:Fault-Open wire detected on DO5 Bit 5: =0:Output DO6 is OK, =1:Fault-Open wire detected on DO6					
DIGITAL OUTPUTS:SHORTCUT TO VDD WHILE OFF DETECTION STATE					
SHORTCUT TO VDD WHILE OFF DETECTION STATE DO1-DO6	3x10009 4x10009 I:10008	32,0x0020 B:00 20		UINT16 R/O	
		Current state of shortcut to VDD detection while OFF for DO1:0=OK			
		Current state of shortcut to VDD detection while OFF for DO2:0=OK			
		Current state of shortcut to VDD detection while OFF for DO3:0=OK			
		Current state of shortcut to VDD detection while OFF for DO4:0=OK			
		Current state of shortcut to VDD detection while OFF for DO5:0=OK			

		Current state of shortcut to VDD detection while OFF for DO6:1=FAULT			
Current 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 4: =0:Output DO5 is OK, =1:Fault-shortcut detected on DO5 Bit 5: =0:Output DO6 is OK, =1:Fault-shortcut detected on DO6					
DIGITAL OUTPUTS:THERMAL OVERLOAD DETECTION STATE					
THERMAL OVERLOAD DETECTION STATE DO1-DO6	3x10010 4x10010 I:10009	0,0x0000 B:00 00		UINT16 R/O	
		Current thermal overload detection state for DO1:0=OK			
		Current thermal overload detection state for DO2:0=OK			
		Current thermal overload detection state for DO3:0=OK			
		Current thermal overload detection state for DO4:0=OK			
		Current thermal overload detection state for DO5:0=OK			
		Current thermal overload detection state for DO6:0=OK			
Current 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 4: =0:Output DO5 is OK, =1:Fault-Thermal overload on DO5 Bit 5: =0:Output DO6 is OK, =1:Fault-Thermal overload on DO6					
DIGITAL OUTPUTS:CURRENT LIMIT DETECTION STATE					
CURRENT LIMIT DETECTION STATE DO1-DO6	3x10011 4x10011 I:10010	0,0x0000 B:00 00		UINT16 R/O	
		Current current limit detection state for DO1:0=OK			
		Current current limit detection state for DO2:0=OK			
		Current current limit detection state for DO3:0=OK			
		Current current limit detection state for DO4:0=OK			
		Current current limit detection state for DO5:0=OK			
		Current current limit detection state for DO6:0=OK			

Current 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 4: =0:Output DO5 is OK, =1:Fault-Current limit on DO5
Bit 5: =0:Output DO6 is OK, =1:Fault-Current limit on DO6

DIGITAL OUTPUTS: GLOBAL ERRORS

GLOBAL ERRORS FOR DO1-DO6	3x10012 4x10012 I:10011	0,0x00 B:00 00			BIT R/O	
		BIT 0:Internal under voltage detected:0=FAULT				
		BIT 1:VA under voltage detected (<2.3V):0=FAULT				
		BIT 2:VDD not good detected (<17V):0=FAULT				
		BIT 3:VDD warning detected (<12V):0=FAULT				
		BIT 4:VDD under voltage detected (<8V):0=FAULT				
		BIT 5:Thermal shutdown:0=FAULT				
		BIT 6:Synchronisation error detected:0=FAULT				
		BIT 7:Watchdog error detected:0=FAULT				

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

DIGITAL OUTPUTS: INTERRUPT STATUS

INTERRUPT STATUS FOR DO1-DO6	3x10013 4x10013 I:10012	0,0x00 B:00 10			BIT R/O	
		BIT 0:Overload detected:0=FAULT				
		BIT 1:Current limit detected:0=FAULT				
		BIT 2:Open wire while OFF detected:0=FAULT				
		BIT 3:Open wire while ON detected:0=FAULT				
		BIT 4:Shortcut to VDD detected:0=FAULT				
		BIT 5:Thermal shutdown:0=FAULT				
		BIT 6:Supply error detected:0=FAULT				
		BIT 7:Communication error detected:0=FAULT				

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

SPI COMMUNICATION DIGITAL OUTPUTS

SPI COMMUNICATION DIGITAL OUTPUTS	3x10014 4x10014 I:10013	0,0x0000 B:00 00			UINT16 R/O	
		Current SPI communcation state of DO1-DO6:0=OK				
		Current SPI communcation state of DO7-DO12:0=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 0: =0:DO1-DO6 No fault, =1:DO1-DO6 Fault
Bit 1: =0:DO7-DO12 No fault, =1:DO7-DO12 Fault

DIGITAL OUTPUTS: CHIPSET TYPE

DIGITAL OUTPUTS CHIPSET TYPE	3x10100 4x10100 I:10099	1,0x0001 B:00 01			UINT16 R/O	
		Current chipset for DOs:1=MAX14915				
The current chipset for the digital outputs: =0: NCV7608 =1: MAX14915						
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI1						
RISE DI1	3x30001 4x30001 I:30000	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for rising edges on the digital input DIx. If the module detects a rising edge on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
FALL DI1	3x30002 4x30002 I:30001	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for falling edges on the digital input DIx. If the module detects a falling edge on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
CHANGE DI1	3x30003 4x30003 I:30002	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for events on the digital input DIx. If the module detects an event on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0. The following events are available: Detecion of a short keypress Detection of the start of a long keypress Detection of the end of a long keypress						
SHORT KEYPRESS DI1	3x30004 4x30004 I:30003	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for short keypress events on the digital input DIx. If the module detects a short keypress on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
LONG KEYPRESS START DI1	3x30005 4x30005 I:30004	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
Counter for start events of long keypress actions on the digital input DIx. If the module detects the start of a long keypress action on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
LONG KEYPRESS END DI1	3x30006 4x30006 I:30005	0,0x0000 B:00 00			UINT16 R/O	

		0 event(s)				
Counter for end events of long keypress actions on the digital input DIx. If the module detects the end of a long keypress action on the digital input, this counter is incremented by 1. After power on or a soft reset this counter is set always to 0. With the function RESET COUNTER this counter is also set to 0.						
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI2						
RISE DI2	3x30011 4x30011 I:30010	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI2	3x30012 4x30012 I:30011	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI2	3x30013 4x30013 I:30012	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI2	3x30014 4x30014 I:30013	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI2	3x30015 4x30015 I:30014	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI2	3x30016 4x30016 I:30015	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI3						
RISE DI3	3x30021 4x30021 I:30020	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI3	3x30022 4x30022 I:30021	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI3	3x30023 4x30023 I:30022	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI3	3x30024 4x30024 I:30023	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

LONG KEYPRESS START DI3	3x30025 4x30025 I:30024	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI3	3x30026 4x30026 I:30025	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI4						
RISE DI4	3x30031 4x30031 I:30030	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI4	3x30032 4x30032 I:30031	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI4	3x30033 4x30033 I:30032	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
SHORT KEYPRESS DI4	3x30034 4x30034 I:30033	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI4	3x30035 4x30035 I:30034	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI4	3x30036 4x30036 I:30035	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI5						
RISE DI5	3x30041 4x30041 I:30040	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
FALL DI5	3x30042 4x30042 I:30041	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI5	3x30043 4x30043 I:30042	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				

SHORT KEYPRESS DI5	3x30044 4x30044 I:30043	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI5	3x30045 4x30045 I:30044	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS END DI5	3x30046 4x30046 I:30045	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
DIGITAL INPUTS: STATUS FOR DIGITAL INPUT DI6						
RISE DI6	3x30051 4x30051 I:30050	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
FALL DI6	3x30052 4x30052 I:30051	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
CHANGE DI6	3x30053 4x30053 I:30052	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
SHORT KEYPRESS DI6	3x30054 4x30054 I:30053	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
LONG KEYPRESS START DI6	3x30055 4x30055 I:30054	1,0x0001 B:00 01			UINT16 R/O	
		1 event(s)				
LONG KEYPRESS END DI6	3x30056 4x30056 I:30055	0,0x0000 B:00 00			UINT16 R/O	
		0 event(s)				
INITIAL & WATCHDOG STATUS FOR ALL DIGITAL OUTPUTS						
INTIAL & WATCHDOG STATUS OF DO1-DO6	3x59001 4x59001 I:59000	0,0x0000 B:00 00		0x003F	UINT16 R/W	NO
		Current init & watchdog state of DO1:0=OFF		1		
		Current init & watchdog state of DO2:0=OFF		1		
		Current init & watchdog state of DO3:0=OFF		1		
		Current init & watchdog state of DO4:0=OFF		1		
		Current init & watchdog state of DO5:0=OFF		1		

		Current init & watchdog state of DO6:0=OFF		1		
Current initial and watchdog state of all digital outputs. This state is used after power on and after a communcation watchdog timeout, if a watchdog time is confgured Bit 0: =0:DO1 is OFF, =1:DO1 is ON Bit 1: =0:DO2 is OFF, =1:DO2 is ON ... Bit 4: =0:DO5 is OFF, =1:DO5 is ON Bit 5: =0:DO6 is OFF, =1:DO6 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 FLASH						
DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE ON						
INTIAL & WATCHDOG SETUP ENABLE OPEN WIRE DETECTION WHILE ON DO1-DO6	3x59002 4x59002 I:59001	0,0x0000 B:00 00		0x003F	UINT16 R/W	NO
		Initial setup of open wire detection while ON for DO1:0=OFF		1		
		Initial setup of open wire detection while ON for DO2:0=OFF		1		
		Initial setup of open wire detection while ON for DO3:0=OFF		1		
		Initial setup of open wire detection while ON for DO4:0=OFF		1		
		Initial setup of open wire detection while ON for DO5:0=OFF		1		
		Initial setup of open wire detection while ON for DO6:0=OFF		1		
Initial setup state for open wire detection while ON for digital output DOx. Used after power on and watchdog event Bit 0: =0:Open wire detection for DO1 is OFF, =1:Open wire detection for DO1 is ON Bit 1: =0:Open wire detection for DO2 is OFF, =1:Open wire detection for DO2 is ON ... Bit 4: =0:Open wire detection for DO5 is OFF, =1:Open wire detection for DO5 is ON Bit 5: =0:Open wire detection for DO6 is OFF, =1:Open wire detection for DO6 is ON Write on this register sets for all digital outputs a new setup state						
DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE OFF						
INTIAL & WATCHDOG SETUP ENABLE OPEN WIRE DETECTION WHILE OFF DO1-DO6	3x59003 4x59003 I:59002	0,0x0000 B:00 00		0x003F	UINT16 R/W	NO
		Initial setup of open wire detection while OFF for DO1:0=OFF		1		
		Initial setup of open wire detection while OFF for DO2:0=OFF		1		
		Initial setup of open wire detection while OFF for DO3:0=OFF		1		
		Initial setup of open wire detection while OFF for DO4:0=OFF		1		
		Initial setup of open wire detection while OFF for DO5:0=OFF		1		

		Initial setup of open wire detection while OFF for DO6:0=OFF		1		
Initial setup state for open wire detection while OFF for digital output DOx. Used after power on and watchdog event Bit 0: =0:Open wire detection for DO1 is OFF, =1:Open wire detection for DO1 is ON Bit 1: =0:Open wire detection for DO2 is OFF, =1:Open wire detection for DO2 is ON ... Bit 4: =0:Open wire detection for DO5 is OFF, =1:Open wire detection for DO5 is ON Bit 5: =0:Open wire detection for DO6 is OFF, =1:Open wire detection for DO6 is ON Write on this register sets for all digital outputs a new setup state						
DIGITAL OUTPUTS:ENABLE OPEN WIRE DETECTION WHILE OFF						
INTIAL & WATCHDOG SETUP ENABLE SHOTCUT TO VDD DETECTION WHILE OFF DO1-DO6	3x59004 4x59004 I:59003	0,0x0000 B:00 00		0x003F	UINT16 R/W	NO
		Initial setup of shortcut to VDD detection while OFF for DO1:0=OFF		1		
		Initial setup of shortcut to VDD detection while OFF for DO2:0=OFF		1		
		Initial setup of shortcut to VDD detection while OFF for DO3:0=OFF		1		
		Initial setup of shortcut to VDD detection while OFF for DO4:0=OFF		1		
		Initial setup of shortcut to VDD detection while OFF for DO5:0=OFF		1		
		Initial setup of shortcut to VDD detection while OFF for DO6:0=OFF		1		
Initial setup state for shortcut to VDD detection while OFF for digital output DOx. Used after power on and watchdog event Bit 0: =0:Shortcut detection for DO1 is OFF, =1:Shortcut detection for DO1 is ON Bit 1: =0:Shortcut detection for DO2 is OFF, =1:Shortcut detection for DO2 is ON ... Bit 4: =0:Shortcut detection for DO5 is OFF, =1:Shortcut detection for DO5 is ON Bit 5: =0:Shortcut detection for DO6 is OFF, =1:Shortcut detection for DO6 is ON Write on this register sets for all digital outputs a new setup state						

DIGITAL INPUTS				
GET DIGITAL INPUTS	ASCII READ COMMAND	#GDIS<CR> Result: #GDIS:<DISDec>,<DISHex><CR>	ASCII	
	TX	#GDIS<CR>		
	RX	#1,GDIS:32,0x20<CR>		
		Current status of digital inputs:10.0000		
Returns the current state of all 32 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 4: State of DI5 (=0:OFF, =1:ON) Bit 5: State of DI6 (=0:OFF, =1:ON)				
GET DIGITAL INPUT DIx	ASCII READ COMMAND	#GDI<DINR><CR> Result: #GDI<DINR>:<DIxDec>,<DIxHex><CR>	ASCII	
	DINR	6		
	TX	#GDI6<CR>		
	RX	#1,GDI6:1,0x1<CR>		
		Current status of digital input DI6:1=ON		
Returns the current state of the digital input Dix as decimal number and as hexadecimal number. X stands for the desired digital input between 1 and 12. DIxDec, DIxHex: 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	#GAC<CR>		
	RX	#1,GAC:1,0x1<CR>		
		Current change counter:1		
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 sience the last polling request, the host knows, that at least one digital input has changed its state.				
CHANGE ALL DIS	ASCII READ COMMAND	#CADIS<CR> Result: #CADIS:<ChangeDI1Dec>,...,<ChangeDIxDec>,<ChangeDI1Hex>,...,<ChangeDIxHex><CR>	ASCII	
	TX	#CADIS<CR>		
	RX	#1,CADIS:0,0,0,0,0,1,0x0,0x0,0x0,0x0,0x0,0x1<CR>		
		Current counter for changes on DI1:0		
		Current counter for changes on DI2:0		
		Current counter for changes on DI3:0		
		Current counter for changes on DI4:0		

		Current counter for changes on DI5:0		
		Current counter for changes on DI6:1		
Returns for each digital input the counter for changes. As soon as the module detects a signal change on a digital input, the change counter for the affected digital input is incremented by 1. A signal change can be: Detection of a short keypress Detection of the start of a long keypress Detection of a release of a long keypress				
CHANGE DIx	ASCII READ COMMAND	#CDI<DINR><CR> Result: #CDI<DINR>:<ChangesDec>,<ChangesHex><CR>	ASCII	
	DINR	6		
	TX	#CDI6<CR>		
	RX	#1,CDI6:1,0x1<CR>		
		Current counter for changes on digital input DI6:1		
Returns for digital input <DINR> the counter for signal changes. As soon as the module detects a signal change on a digital input, the change counter for the affected digital input is incremented by 1. A signal change can be: Detection of a short keypress Detection of the start of a long keypress Detection of a release of a long keypress				
SHORT KEY ALL DIS	ASCII READ COMMAND	#SKADIS<CR> Result: #SKADIS:<ShortKeyDI1Dec>,...,<ShortKeyDIxDec>, <ShortKeyDI1Hex>,...,<ShortKeyDIxHex><CR>	ASCII	
	TX	#SKADIS<CR>		
	RX	#1,SKADIS:0,0,0,0,0,0,0x0,0x0,0x0,0x0,0x0,0x0<CR>		
		Current counter for short keypress events on DI1:0		
		Current counter for short keypress events on DI2:0		
		Current counter for short keypress events on DI3:0		
		Current counter for short keypress events on DI4:0		
		Current counter for short keypress events on DI5:0		
		Current counter for short keypress events on DI6:0		
Returns for each digital input the counter for short keypress events. As soon as the module detects a short keypress on a digital input, the counter for the affected digital input is incremented by 1.				
SHORT KEY DIx	ASCII READ COMMAND	#SKDI<DINR><CR> Result: #SKDI<DINR>:<ShortKeyDec>,<ShortKeyHex><CR>	ASCII	
	DINR	6		
	TX	#SKDI6<CR>		
	RX	#1,SKDI6:0,0x0<CR>		
		Current counter for short keypress events on digital input DI6:0		
Returns for digital input <DINR> the counter for short keypress events. As soon as the module detects a short keypress on a digital input, the counter for the affected digital input is incremented by 1.				
LONG KEY START ALL DIS	ASCII READ COMMAND	#LKSADIS<CR> Result: #LKSADIS:<LongKeyStartDI1Dec>,...,<LongKeyStartDIxDec>, <LongKeyStartDI1Hex>,...,<LongKeyStartDIxHex><CR>	ASCII	
	TX	#LKSADIS<CR>		

	RX	#1,LKSADIS:0,0,0,0,0,1,0x0,0x0,0x0,0x0,0x0,0x1<CR>		
		Current counter for long keypress start events on DI1:0		
		Current counter for long keypress start events on DI2:0		
		Current counter for long keypress start events on DI3:0		
		Current counter for long keypress start events on DI4:0		
		Current counter for long keypress start events on DI5:0		
		Current counter for long keypress start events on DI6:1		
Returns for each digital input the counter for long keypress start events. As soon as the module detects the start of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.				
LONG KEY START DIx	ASCII READ COMMAND	#LKSDI<DINR><CR> Result: #LKSDI<DINR>:<LongKeyStartDec>,<LongKeyStartHex><CR>	ASCII	
	DINR	6		
	TX	#LKSDI6<CR>		
	RX	#1,LKSDI6:1,0x1<CR>		
		Current counter for long keypress start events on digital input DI6:1		
Returns for digital input <DINR> the counter for long keypress start events. As soon as the module detects the start of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.				
LONG KEY END ALL DIS	ASCII READ COMMAND	#LKEADIS<CR> Result: #LKEADIS:<LongKeyEndDI1Dec>,...,<LongKeyEndDIxDec>, <LongKeyEndDI1Hex>,...,<LongKeyEndDIxHex><CR>	ASCII	
	TX	#LKEADIS<CR>		
	RX	#1,LKEADIS:0,0,0,0,0,0,0x0,0x0,0x0,0x0,0x0,0x0,0x0<CR>		
		Current counter for long keypress end events on DI1:0		
		Current counter for long keypress end events on DI2:0		
		Current counter for long keypress end events on DI3:0		
		Current counter for long keypress end events on DI4:0		
		Current counter for long keypress end events on DI5:0		
		Current counter for long keypress end events on DI6:0		
Returns for each digital input the counter for long keypress end events. As soon as the module detects the end of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.				
LONG KEY END DIx	ASCII READ COMMAND	#LKEDI<DINR><CR> Result: #LKEDI<DINR>:<LongKeyEndDec>,<LongKeyEndHex><CR>	ASCII	
	DINR	6		
	TX	#LKEDI6<CR>		
	RX	#1,LKEDI6:0,0x0<CR>		
		Current counter for long keypress end events on digital input DI6:0		
Returns for digital input <DINR> the counter for long keypress end events. As soon as the module detects the end of a long keypress on a digital input, the counter for the affected digital input is incremented by 1.				
RISE ALL DIS	ASCII READ COMMAND	#RADIS<CR> Result: #RADIS:<RiseDI1Dec>,...,<RiseDIxDec>,<RiseDI1Hex>,...,<RiseDIxHex><CR>	ASCII	
	TX	#RADIS<CR>		
	RX	#1,RADIS:0,0,0,0,0,1,0x0,0x0,0x0,0x0,0x0,0x1<CR>		
		Current counter for rising edges on DI1:0		

		Current counter for rising edges on DI2:0		
		Current counter for rising edges on DI3:0		
		Current counter for rising edges on DI4:0		
		Current counter for rising edges on DI5:0		
		Current counter for rising edges on DI6:1		
Returns for each digital input the counter for rising edges. As soon as the module detects a rising edge on a digital input, the rising edge counter for the affected digital input is incremented by 1.				
RISE DIx	ASCII READ COMMAND	#RDI<DINR><CR> Result: #RDI<DINR>:<RiseDec>,<RiseHex><CR>	ASCII	
	DINR	6		
	TX	#RDI6<CR>		
	RX	#1,RDI6:1,0x1<CR>		
		Current counter for rising edges on digital input DI6:1		
Returns for digital input <DINR> the counter for rising edges. As soon as the module detects a rising edge on a digital input, the rising edge counter for the affected digital input is incremented by 1.				
FALL ALL DIS	ASCII READ COMMAND	#FADIS<CR> Result: #FADIS:<FallDI1Dec>,...,<FallDIxDec>,<FallDI1Hex>,...,<FallDIxHex><CR>	ASCII	
	TX	#FADIS<CR>		
	RX	#1,FADIS:0,0,0,0,0,0,0x0,0x0,0x0,0x0,0x0,0x0<CR>		
		Current counter for falling edges on DI1:0		
		Current counter for falling edges on DI2:0		
		Current counter for falling edges on DI3:0		
		Current counter for falling edges on DI4:0		
		Current counter for falling edges on DI5:0		
		Current counter for falling edges on DI6:0		
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.				
FALL DIx	ASCII READ COMMAND	#FDI<DINR><CR> Result: #FDI<DINR>:<FallDec>,<FallHex><CR>	ASCII	
	DINR	6		
	TX	#FDI6<CR>		
	RX	#1,FDI6:0,0x0<CR>		
		Current counter for falling edges on digital input DI6:0		
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	YES
	TX	#RC<CR>		
	RX	N/A		
Resets all internal counters for digital inputs and events on this digital inputs to 0.				
DIGITAL OUTPUTS				
SET DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SDOS:<OutAllDOS><CR> Result: #OK<CR>	ASCII	YES

	DO1	1:ON		
	DO2	0:OFF		
	DO3	1:ON		
	DO4	0:OFF		
	DO5	0:OFF		
	DO6	0:OFF		
	TX	#SDOS:5<CR>		
	RX	N/A		
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 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				
SET DIGITAL OUTPUT DOx	ASCII WRITE COMMAND	#SDO<DONR>:<Out><CR> Result: #OK<CR>	ASCII	YES
	DONR	1		
	DO1	1:ON		
	TX	#SDO1:1<CR>		
	RX	N/A		
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	#GDOS<CR>		
	RX	#1,GDOS:0,0x0<CR>		
		Current status of digital outputs:00.0000		
Returns the current state of the digital outputs as decimal number and as hexadecimal number. DOSDec, DOSHex The current state of the digital outputs: Bit 0: State of DO1 (=0:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				
GET DIGITAL OUTPUT DOx	ASCII READ COMMAND	#GDO<DONR><CR> Result: #GDO<DONR>:<DOxDec>,<DOxHex><CR>	ASCII	
	DONR	1		
	TX	#GDO1<CR>		

	RX	#1,GDO1:0,0x0<CR>		
		Current status of digital output DO1:0=OFF		
Returns the current state of the digital output DOx as decimal number and as hexadecimal number. DOxDec, DOxHex The current state of the digital output DOx: =0: digital output is OFF =1: digital output is ON				
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	1:ENABLE		
	DO2	1:ENABLE		
	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	TX	#SDOEOWDONS:63<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 4: New mode for DO5 (=0:DISABLED, =1:ENABLED) Bit 5: New mode for DO6 (=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	1		
	DO1	0:DISABLE		
	TX	#SDOEOWDON1:0<CR>		
	RX	N/A		
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	#GDOEOWDONS<CR>		
	RX	#1,GDOEOWDONS:0,0x0<CR>		
		Current mode for open wire diagnostic while ON of digital outputs:00.0000		

Returns the current 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 4: Open wire diagnostic mode of DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: Open wire diagnostic mode of DO6 (=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	1		
	TX	#GDOEOWDON1<CR>		
	RX	#1,GDOEOWDON1:0,0x0<CR>		
		Current open wire diagnostic mode while ON of digital output DO1:0=DISABLED		

Returns the current open wire diagnostic mode while ON of the digital output DOx as decimal number and as hexadecimal number. X stands for the number of the digital output.
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	1:ENABLE		
	DO2	1:ENABLE		
	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	TX	#SDOEOWDOFFS:63<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 4: New mode for DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: New mode for DO6 (=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	1		
	DO1	0:DISABLE		
	TX	#SDOEOWDOFF1:0<CR>		
	RX	N/A		

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	#GDOEOWDOFFS<CR>		
	RX	#1,GDOEOWDOFFS:0,0x0<CR>		
		Current mode for open wire diagnostic while OFF of digital outputs:00.0000		
Returns the current 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 4: Open wire diagnostic mode of DO5 (=0:DISABLED, =1:ENABLED) Bit 5: Open wire diagnostic mode of DO6 (=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	1		
	TX	#GDOEOWDOFF1<CR>		
	RX	#1,GDOEOWDOFF1:0,0x0<CR>		
		Current open wire diagnostic mode while OFF of digital output DO1:0=DISABLED		
Returns the current open wire diagnostic mode while OFF of the digital output DOx as decimal number and as hexadecimal number. X stands for the number of the digital output. 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	1:ENABLE		
	DO2	1:ENABLE		
	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	TX	#SDOESVDDS:63<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 4: New mode for DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: New mode for DO6 (=0:DISABLED, =1:ENABLED)

SET DIGITAL OUTPUT ENABLE SHORTCUT TO VDD DETECTION WHILE OFF	ASCII WRITE COMMAND	#SDOESVDD<DONR>:<ShortCutDOx><CR> Result: #OK<CR>	ASCII	YES
	DONR	1		
	DO1	0:DISABLE		
	TX	#SDOESVDD1:0<CR>		
	RX	N/A		

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	#GDOESVDDS<CR>		
	RX	#1,GDOESVDDS:0,0x0<CR>		
		Current mode for shortcut to VDD diagnostic while OFF of digital outputs:00.0000		

Returns the current 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 4: Open wire diagnostic mode of DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: Open wire diagnostic mode of DO6 (=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	1		
	TX	#GDOESVDD1<CR>		
	RX	#1,GDOESVDDD1:0,0x0<CR>		
		Current shortcut to VDD diagnostic mode while OFF of digital output DO1:0=DISABLED		

Returns the current short cut to VDD diagnostic mode while OFF of the digital output DOx as decimal number and as hexadecimal number. X stands for the number of the digital output.
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	#GSSDOGS<CR>		
	RX	#1,GSSDOGS:0,0x0<CR>		
		Current SPI status of digital output groups:0		
Returns the current SPI communication state of the corresponding output group as decimal number and as hexadecimal number. SPIDOGSDec,SPIDOGSHex The current SPI communcation state of the digital output group: Bit 0: SPI communication state for digital output group #1 (DO1-DO6) (=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	1		
	TX	#GSSDOG1<CR>		
	RX	#1,GSSDOG1:0,0x0<CR>		
		Current SPI status of digital output group DOG1:0=NO FAULT		
Returns the current SPI communication state of the digital output group DOGRP as decimal number and as hexadecimal number. X stands for the number of the digital output group. SPIDOGxDec, SPIDOGxHex The current SPI communcation state of the digital output group DOGRP: =0: SPI communcation state for output group is OK (NO FAULT) =1: SPI communcation state for output group is FAULT Digital output group #1 is DO1-DO6				
DIGITAL OUTPUTS: INTERRUPT STATUS				
GET DIGITAL OUTPUTS INTERRUPT STATUS	ASCII READ COMMAND	#GDOINTS<CR> Result: #GDOINTS:<InterruptStatusDec>,<InterruptStatusHex><CR>	ASCII	
	TX	#GDOINTS<CR>		
	RX	#1,GDOINTS:0,0x0<CR>		
		Current interrupt status of all digital output groups:0000.0000		
Returns the current interrupt state state of all output groups as decimal number and as hexadecimal number. InterruptStatusDec,InterruptStatusHex The current interrupt state of all digital output groups Bit 0:DO1-DO6:Overload detected (0=OK,1=FAULT) Bit 1:DO1-DO6:Current limit detected(0=OK,1=FAULT) Bit 2:DO1-DO6:Open wire while OFF detected (0=OK,1=FAULT) Bit 3:DO1-DO6:Open wire while ON detected (0=OK,1=FAULT) Bit 4:DO1-DO6:Short to VDD while ON detected (0=OK,1=FAULT) Bit 5:DO1-DO6:Thermal error detected-shutdown (0=OK,1=FAULT) Bit 6:DO1-DO6:Supply error detected (0=OK,1=FAULT) Bit 7:DO1-DO6: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	1		
	TX	#GDOINT1<CR>		
	RX	#1,GDOINT1:0,0x0<CR>		
		Current interrupt status of digital output group 1:0000.0000		

Returns the current interrupt state of the digital output group DOGRP as decimal number and as hexadecimal number. X stands for the number of the digital output group.
InterruptStatusDec, InterruptStatusHex
Group 1: DO1-DO6
Group 2: DO7-DO12
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	#GDOERRS<CR>		
	RX	#1,GDOERRS:0,0x0<CR>		
		Current global errors of all digital output groups:0000.0000		

Returns the current interrupt state state of all output groups as decimal number and as hexadecimal number.
InterruptStatusDec,InterruptStatusHex
The current interrupt state of all digital output groups
Bit 0:DO1-DO6:Internal under voltage detected (0=OK,1=FAULT)
Bit 1:DO1-DO6:VA under voltage detected (<2.3V) (0=OK,1=FAULT)
Bit 2:DO1-DO6:VDD not good detected (<17V) (0=OK,1=FAULT)
Bit 3:DO1-DO6:VDD warning detected (<12V) (0=OK,1=FAULT)
Bit 4:DO1-DO6:VDD under voltage detected (<8V) (0=OK,1=FAULT)
Bit 5:DO1-DO6:Thermal shutdown (0=OK,1=FAULT)
Bit 6:DO1-DO6:Synchronisation error detected (0=OK,1=FAULT)
Bit 7:DO1-DO6: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	1		
	TX	#GDOERR1<CR>		
	RX	#1,GDOERR1:0,0x0<CR>		
		Current global errors of digital output group 1:0000.0000		

Returns the current interrupt state of the digital output group DOGRP as decimal number and as hexadecimal number. X stands for the number of the digital output group.
InterruptStatusDec, InterruptStatusHex
Group 1: DO1-DO6
Group 2: DO7-DO12
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	#GDOTOS<CR>		
	RX	#1,GDOTOS:0,0x0<CR>		
		Current thermal overload detection status of digital outputs:00.0000		
Returns the current 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: State of DO1 (=0:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				
GET DIGITAL OUTPUT DOx THERMAL OVERLOAD DETECTION	ASCII READ COMMAND	#GDOTO<DONR><CR> Result: #GDOTO<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	1		
	TX	#GDOTO1<CR>		
	RX	#1,GDOTO1:0,0x0<CR>		
		Current thermal overload detection status of DO1:0=OFF		
Returns the current 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	#GDOCLS<CR>		
	RX	#1,GDOCLS:0,0x0<CR>		
		Current current limit detection status of digital outputs:00.0000		
Returns the current 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: State of DO1 (=0:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				
GET DIGITAL OUTPUT DOx CURRENT LIMIT DETECTION	ASCII READ COMMAND	#GDOCL<DONR><CR> Result: #GDOCL<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	1		
	TX	#GDOCL1<CR>		
	RX	#1,GDOCL1:0,0x0<CR>		

		Current current limit detection status of DO1:0=OFF		
Returns the current 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	#GDOOWFONS<CR>		
	RX	#1,GDOOWFONS:0,0x0<CR>		
		Current open wire fault detection status while ON of digital outputs:00.0000		
Returns the current 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:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				
GET DIGITAL OUTPUT DOx OPEN WIRE FAULT DETECTION WHILE ON	ASCII READ COMMAND	#GDOOWFON<DONR><CR> Result: #GDOOWFON<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	1		
	TX	#GDOOWFON1<CR>		
	RX	#1,GDOOWFON1:0,0x0<CR>		
		Current open wire fault detection status while ON of DO1:0=OFF		
Returns the current 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	#GDOOWFOFFS<CR>		
	RX	#1,GDOOWFOFFS:0,0x0<CR>		
		Current open wire fault detection status while OFF of digital outputs:00.0000		
Returns the current 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:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				

GET DIGITAL OUTPUT DOx OPEN WIRE FAULT DETECTION WHILE OFF	ASCII READ COMMAND	#GDOOWFOFF<DONR><CR> Result: #GDOOWFOFF<DONR>:<StatusDOxDec>,<StatusDOxHex><CR>	ASCII	
	DONR	1		
	TX	#GDOOWFOFF1<CR>		
	RX	#1,GDOOWFOFF1:0,0x0<CR>		
		Current open wire fault detection status while OFF of DO1:0=OFF		
Returns the current 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	#GDOSVDDS<CR>		
	RX	#1,GDOSVDDS:0,0x0<CR>		
		Current shortcut to VDD fault detection status while OFF of digital outputs:00.0000		
Returns the current 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:OFF, =1:ON) Bit 1: State of DO2 (=0:OFF, =1:ON) ... Bit 4: State of DO5 (=0:OFF, =1:ON) Bit 5: State of DO6 (=0:OFF, =1:ON)				
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	1		
	TX	#GDOSVDD1<CR>		
	RX	#1,GDOSVDD1:0,0x0<CR>		
		Current shortcut to VDD fault detection status while OFF of DO1:0=OFF		
Returns the current 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				
DIGITAL OUTPUTS: PULSE OUTPUT				
PULSE DOx	ASCII WRITE COMMAND	#PDO<DONR>:<Time><CR> Result: #OK<CR>	ASCII	YES
	DONR	1		
	TIME	200		
	TX	#PDO1:200<CR>		
	RX	N/A		

This command switches the digital output DOx on for the pulse duration <PulseTimeIn100ms>*100ms. PulseTimeIn100ms: A duration in 100ms units. The corresponding digital output is switched on for this time period.				
GET PULSE TIMER DOx	ASCII READ COMMAND	#GPT<DONR><CR> Result: #GPT:<TimeDec>,<TimeHex><CR>	ASCII	
	DONR	1		
	TX	#GPT1<CR>		
	RX	#1,GPT1:0,0x0<CR>		
		Current pulse time for DO1:0,0s		
Returns the remaining timer value of the pulse for digital output DOx in ms. PulseTimeInMSDec, PulseTimeInMSHex The remaining time of the pulse in Milliseconds				
INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS				
SET INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SCDOS:<OutAllDOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	0:OFF		
	DO2	0:OFF		
	DO3	0:OFF		
	DO4	0:OFF		
	DO5	0:OFF		
	DO6	0:OFF		
	TX	#SCDOS:0<CR>		
	RX	N/A		
Write on this register sets all digital outputs to a new state for module restart and watchdog function. The state is saved in FLASH. This state is used after power on and after a communcation watchdog timeout, if a watchdog time is confgured. 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 4: New state of DO5 (=0:OFF, =1:ON) Bit 5: New state of DO6 (=0:OFF, =1:ON)				
GET INITIAL & WATCHDOG STATE FOR DIGITAL OUTPUTS	ASCII READ COMMAND	#GDOS<CR> Result: #GDOS:<DOSDec>,<DOSHex><CR>	ASCII	
	TX	#GDOS<CR>		
	RX	#1,GDOS:0,0x0<CR>		
		Current status of digital outputs:00.0000		

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

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 4: State of DO5 (=0:OFF, =1:ON)
Bit 5: State of DO6 (=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		
	TX	#SCDOEOWDONS:63<CR>		
	RX	N/A		

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 communcation watchdog timeout, if a watchdog time is confgured
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 4: New mode for DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: New mode for DO6 (=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	#GCDOEOWDONS<CR>		
	RX	#1,GCDOEOWDONS:0,0x0<CR>		
		Init & watchdog mode for open wire diagnostic while ON of digital outputs:00.0000		

Returns the current 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 4: Open wire diagnostic mode of DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: Open wire diagnostic mode of DO6 (=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		
	TX	#SCDOEOWDOFFS:63<CR>		
	RX	N/A		

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 communcation watchdog timeout, if a watchdog time is confgured
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 4: New mode for DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: New mode for DO6 (=0:DISABLED, =1:ENABLED)

GET CONFIG DIGITAL OUTPUTS ENABLE OPEN WIRE DETECTION WHILE OFF	ASCII READ COMMAND	#GCDOEOWDOFFS<CR> Result: #GCDOEOWDOFFS:<OpenWireDOSDec>,<OpenWireDOSHex><CR>	ASCII	
	TX	#GCDOEOWDOFFS<CR>		
	RX	#1,GCDOEOWDOFFS:0,0x0<CR>		
		Current mode for open wire diagnostic while OFF of digital outputs:00.0000		

Returns the current 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 4: Open wire diagnostic mode of DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: Open wire diagnostic mode of DO6 (=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		
	TX	#SCDOESVDDS:63<CR>		
	RX	N/A		

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 communcation watchdog timeout, if a watchdog time is confgured
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 4: New mode for DO5 (=0:DISABLED, =1:ENABLED)
Bit 5: New mode for DO6 (=0:DISABLED, =1:ENABLED)

GET CONFIG DIGITAL OUTPUTS ENABLE SHORT CUT TO VDD DETECTION WHILE OFF	ASCII READ COMMAND	#GCDOESVDDS<CR> Result: #GCDOESDDS:<ShortCutDOSDec>,<ShortCutDOSHex><CR>	ASCII	
	TX	#GCDOESVDDS<CR>		
	RX	#1,GCDOESVDDS:0,0x0<CR>		
		Current mode for shortcut to VDD diagnostic while OFF of digital outputs:00.0000		

Returns the current 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 4: Open wire diagnostic mode of DO51 (=0:DISABLED, =1:ENABLED)
Bit 5: Open wire diagnostic mode of DO6 (=0:DISABLED, =1:ENABLED)

GET DIGITAL OUTPUTS CHIPSET NAME	ASCII READ COMMAND	#GDOCHIPSET<CR> Result: #GDOCHIPSET:<ChipSetName>	ASCII	
	TX	#GDOCHIPSET<CR>		
	RX	#1,GDOCHIPSET:MAX14915<CR>		
		Current name of chipset for digital outputs:MAX14915		

Returns the current name of the chipset of the digital outputs