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.				

DO1	1x00001 2x00001 I:0	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	1x00002 2x00002 I:1	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	1x00003 2x00003 I:2	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	1x00004 2x00004 I:3	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	1x00005 2x00005 I:4	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	1x00006 2x00006 I:5	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	1x00007 2x00007 I:6	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	1x00008 2x00008 I:7	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	1x00009 2x00009 I:8	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	1x00010 2x00010 I:9	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		

DO11	1x00011 2x00011 I:10	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	1x00012 2x00012 I:11	0,0x00 B:00		0	BIT R/W	YES
		Current state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DIAGNOSTIC DIGITAL OUTPUTS						
DIAGNOSTIC DO1	1x00013 2x00013 I:12	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO1:1=ON		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
Enables/disabled the diagnostic feature of the digital output DOx =0:Diagnostic is OFF, =1:Diagnostic is ON Writing on this register changes the diagnostic state of the corresponding digital output						
DIAGNOSTIC DO2	1x00014 2x00014 I:13	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO2:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO3	1x00015 2x00015 I:14	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO3:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO4	1x00016 2x00016 I:15	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO4:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO5	1x00017 2x00017 I:16	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO5:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO6	1x00018 2x00018 I:17	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO6:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO7	1x00019 2x00019 I:18	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO7:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO8	1x00020 2x00020 I:19	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO8:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		

DIAGNOSTIC DO9	1x00021 2x00021 I:20	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO9:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO10	1x00022 2x00022 I:21	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO10:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO11	1x00023 2x00023 I:22	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO11:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO12	1x00024 2x00024 I:23	1,0x01 B:01		1	BIT R/W	YES
		Current diagnostic setup of DO12:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC STATUS DIGITAL OUTPUTS						
DIAGNOSTIC STATE DO1	1x00025 2x00025 I:24	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO1:0=OK				
The current state of the diagnostic feature for the digital output DOx =0:No fault, =1:Fault						
DIAGNOSTIC STATE DO2	1x00026 2x00026 I:25	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO2:0=OK				
DIAGNOSTIC STATE DO3	1x00027 2x00027 I:26	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO3:0=OK				
DIAGNOSTIC STATE DO4	1x00028 2x00028 I:27	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO4:0=OK				
DIAGNOSTIC STATE DO5	1x00029 2x00029 I:28	1,0x01 B:01			BIT R/O	
		Current diagnostic state of DO5:1=FAULT				
DIAGNOSTIC STATE DO6	1x00030 2x00030 I:29	1,0x01 B:01			BIT R/O	
		Current diagnostic state of DO6:1=FAULT				
DIAGNOSTIC STATE DO7	1x00031 2x00031 I:30	0,0x00 B:00			BIT R/O	

		Current diagnostic state of DO7:0=OK				
DIAGNOSTIC STATE DO8	1x00032 2x00032 I:31	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO8:0=OK				
DIAGNOSTIC STATE DO9	1x00033 2x00033 I:32	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO9:0=OK				
DIAGNOSTIC STATE DO10	1x00034 2x00034 I:33	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO10:0=OK				
DIAGNOSTIC STATE DO11	1x00035 2x00035 I:34	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO11:0=OK				
DIAGNOSTIC STATE DO12	1x00036 2x00036 I:35	0,0x00 B:00			BIT R/O	
		Current diagnostic state of DO12:0=OK				
THERMAL WARNING DIGITAL OUTPUTS						
THERMAL WARNING DO1-DO6	1x00037 2x00037 I:36	0,0x00 B:00			BIT R/O	
		Current thermal warning of DO1-DO6:0=OK				
The current thermal warning state for the digital output group =0:No thermal warning, =1:Thermal warning						
THERMAL WARNING DO7-DO12	1x00038 2x00038 I:37	0,0x00 B:00			BIT R/O	
		Current thermal warning of DO7-DO12:0=OK				
POWER SUPPLY MONITORING DIGITAL OUTPUTS						
POWER SUPPLY MONITORING DO1-DO6	1x00039 2x00039 I:38	0,0x00 B:00			BIT R/O	
		Current power supply monitoring for DO1-DO6:0=NO FAULT				
The current monitoring state of the power supply for the digital output group =0:No fault, =1:Fault						
POWER SUPPLY MONITORING DO7-DO12	1x00040 2x00040 I:39	1,0x01 B:01			BIT R/O	
		Current power supply monitoring for DO7-DO12:1=FAULT				
SPI COMMUNICATION DIGITAL OUTPUTS						

SPI COMMUNICATION DO1-DO6	1x00041 2x00041 I:40	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	1x00042 2x00042 I:41	0,0x00 B:00			BIT R/O	
		Current SPI communication for DO7-DO12:0=NO FAULT				
STATUS DIGITAL OUTPUTS						
DO1	3x00001 4x00001 I:0	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO1:0=OFF		ENTER NEW STATE (0 or 1)		
Current state of the digital output DOx =0:DO is OFF, =1:DO is ON Writing on this register changes the state of the digital output						
DO2	3x00002 4x00002 I:1	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO2:0=OFF		ENTER NEW STATE (0 or 1)		
DO3	3x00003 4x00003 I:2	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO3:0=OFF		ENTER NEW STATE (0 or 1)		
DO4	3x00004 4x00004 I:3	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO4:0=OFF		ENTER NEW STATE (0 or 1)		
DO5	3x00005 4x00005 I:4	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO5:0=OFF		ENTER NEW STATE (0 or 1)		
DO6	3x00006 4x00006 I:5	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO6:0=OFF		ENTER NEW STATE (0 or 1)		
DO7	3x00007 4x00007 I:6	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO7:0=OFF		ENTER NEW STATE (0 or 1)		
DO8	3x00008 4x00008 I:7	0,0x0000 B:00 00		1	UINT16 R/W	NO

		Current state of DO8:0=OFF		ENTER NEW STATE (0 or 1)		
DO9	3x00009 4x00009 I:8	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO9:0=OFF		ENTER NEW STATE (0 or 1)		
DO10	3x00010 4x00010 I:9	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO10:0=OFF		ENTER NEW STATE (0 or 1)		
DO11	3x00011 4x00011 I:10	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO11:0=OFF		ENTER NEW STATE (0 or 1)		
DO12	3x00012 4x00012 I:11	0,0x0000 B:00 00		1	UINT16 R/W	NO
		Current state of DO12:0=OFF		ENTER NEW STATE (0 or 1)		
DIAGNOSTIC DIGITAL OUTPUTS						
DIAGNOSTIC DO1	3x00013 4x00013 I:12	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO1:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
Enables/disabled the diagnostic feature of the digital output DOx =0:Diagnostic is OFF, =1:Diagnostic is ON Writing on this register changes the diagnostic state of the corresponding digital output						
DIAGNOSTIC DO2	3x00014 4x00014 I:13	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO2:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO3	3x00015 4x00015 I:14	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO3:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO4	3x00016 4x00016 I:15	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO4:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO5	3x00017 4x00017 I:16	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO5:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO6	3x00018 4x00018 I:17	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO6:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		

DIAGNOSTIC DO7	3x00019 4x00019 I:18	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO7:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO8	3x00020 4x00020 I:19	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO8:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO9	3x00021 4x00021 I:20	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO9:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO10	3x00022 4x00022 I:21	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO10:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO11	3x00023 4x00023 I:22	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO11:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC DO12	3x00024 4x00024 I:23	1,0x01 B:01		1	UINT16 R/W	YES
		Current diagnostic setup of DO12:1=ENABLED		ENTER NEW DIAGNOSTIC STATE (0 or 1)		
DIAGNOSTIC STATUS DIGITAL OUTPUTS						
DIAGNOSTIC STATE DO1	3x00025 4x00025 I:24	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO1:0=OK				
The current state of the diagnostic feature for the digital output DOx =0:No fault, =1:Fault						
DIAGNOSTIC STATE DO2	3x00026 4x00026 I:25	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO2:0=OK				
DIAGNOSTIC STATE DO3	3x00027 4x00027 I:26	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO3:0=OK				
DIAGNOSTIC STATE DO4	3x00028 4x00028 I:27	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO4:0=OK				
DIAGNOSTIC STATE DO5	3x00029 4x00029 I:28	1,0x01 B:01			UINT16 R/O	

		Current diagnostic state of DO5:1=FAULT				
DIAGNOSTIC STATE DO6	3x00030 4x00030 I:29	1,0x01 B:01			UINT16 R/O	
		Current diagnostic state of DO6:1=FAULT				
DIAGNOSTIC STATE DO7	3x00031 4x00031 I:30	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO7:0=OK				
DIAGNOSTIC STATE DO8	3x00032 4x00032 I:31	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO8:0=OK				
DIAGNOSTIC STATE DO9	3x00033 4x00033 I:32	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO9:0=OK				
DIAGNOSTIC STATE DO10	3x00034 4x00034 I:33	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO10:0=OK				
DIAGNOSTIC STATE DO11	3x00035 4x00035 I:34	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO11:0=OK				
DIAGNOSTIC STATE DO12	3x00036 4x00036 I:35	0,0x00 B:00			UINT16 R/O	
		Current diagnostic state of DO12:0=OK				
THERMAL WARNING DIGITAL OUTPUTS						
THERMAL WARNING DO1-DO6	3x00037 4x00037 I:36	0,0x00 B:00			UINT16 R/O	
		Current thermal warning of DO1-DO6:0=OK				
The current thermal warning state for the digital output group =0:No thermal warning, =1:Thermal warning						
THERMAL WARNING DO7-DO12	3x00038 4x00038 I:37	0,0x00 B:00			UINT16 R/O	
		Current thermal warning of DO7-DO12:0=OK				
POWER SUPPLY MONITORING DIGITAL OUTPUTS						
POWER SUPPLY MONITORING DO1-DO6	3x00039 4x00039 I:38	0,0x00 B:00			UINT16 R/O	
		Current power supply monitoring for DO1-DO6:0=NO FAULT				

The current monitoring state of the power supply for the digital output group =0:No fault, =1:Fault						
POWER SUPPLY MONITORING DO7-DO12	3x00040 4x00040 I:39	1,0x01 B:01			UINT16 R/O	
		Current power supply monitoring for DO7-DO12:1=FAULT				
SPI COMMUNICATION DIGITAL OUTPUTS						
SPI COMMUNICATION DO1-DO6	3x00041 4x00041 I:40	0,0x00 B: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	3x00042 4x00042 I:41	0,0x00 B:00			UINT16 R/O	
		Current SPI communication for DO7-DO12:0=NO FAULT				
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 TIME DO7	3x00207 4x00207 I:206	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO8	3x00208 4x00208 I:207	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO

PULSE TIME DO9	3x00209 4x00209 I:208	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO10	3x00210 4x00210 I:209	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO11	3x00211 4x00211 I:210	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE TIME DO12	3x00212 4x00212 I:211	0,0x0000 B:00 00	20	2,0	UINT16 R/W	NO
PULSE 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 TIMER DO7	3x00313 4x00313 I:312	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO8	3x00315 4x00315 I:314	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				

PULSE TIMER DO9	3x00317 4x00317 I:316	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO10	3x00319 4x00319 I:318	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO11	3x00321 4x00321 I:320	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE TIMER DO12	3x00323 4x00323 I:322	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,0 seconds				
PULSE STATUS FOR DIGITAL OUTPUTS						
PULSE TIMER DO1	3x00325 4x00325 I:324	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	3x00327 4x00327 I:326	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO3	3x00329 4x00329 I:328	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO4	3x00331 4x00331 I:330	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO5	3x00333 4x00333 I:332	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO6	3x00335 4x00335 I:334	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO7	3x00337 4x00337 I:336	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				

PULSE TIMER DO8	3x00339 4x00339 I:338	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO9	3x00341 4x00341 I:340	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO10	3x00343 4x00343 I:342	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO11	3x00345 4x00345 I:344	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
PULSE TIMER DO12	3x00347 4x00347 I:346	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,0 seconds				
STATUS OF DIGITAL OUTPUTS						
STATUS OF DO1-DO12	3x10001 4x10001 I:10000	4095,0x0FFF B:0F FF		0x0FFF	UINT16 R/W	NO
		Current state of DO1:1=ON		1		
		Current state of DO2:1=ON		1		
		Current state of DO3:1=ON		1		
		Current state of DO4:1=ON		1		
		Current state of DO5:1=ON		1		
		Current state of DO6:1=ON		1		
		Current state of DO7:1=ON		1		
		Current state of DO8:1=ON		1		
		Current state of DO9:1=ON		1		
		Current state of DO10:1=ON		1		
		Current state of DO11:1=ON		1		
		Current state of DO12:1=ON		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 10: =0:DO11 is OFF, =1:DO11 is ON Bit 11: =0:DO12 is OFF, =1:DO12 is ON Write on this register sets all digital outputs to a new state						
DIAGNOSTIC SETUP FOR DIGITAL OUTPUTS						

DIAGNOSTIC SETUP FOR DO1-DO12	3x10002 4x10002 I:10001	4095,0x0FFF B:0F FF		0x0FFF	UINT16 R/W	NO
		Current diagnostic setup of DO1:1=ENABLED		1		
		Current diagnostic setup of DO2:1=ENABLED		1		
		Current diagnostic setup of DO3:1=ENABLED		1		
		Current diagnostic setup of DO4:1=ENABLED		1		
		Current diagnostic setup of DO5:1=ENABLED		1		
		Current diagnostic setup of DO6:1=ENABLED		1		
		Current diagnostic setup of DO7:1=ENABLED		1		
		Current diagnostic setup of DO8:1=ENABLED		1		
		Current diagnostic setup of DO9:1=ENABLED		1		
		Current diagnostic setup of DO10:1=ENABLED		1		
		Current diagnostic setup of DO11:1=ENABLED		1		
		Current diagnostic setup of DO12:1=ENABLED		1		
Enables/disabled the diagnostic feature of the digital output DOx Bit=0:Diagnostic is DISABLED, Bit=1:Diagnostic is ENABLED Current diagnostic setup of all digital outputs Bit 0: =0:DO1 diagnostic is DISABLED, =1:DO1 DIAGNOSTIC is ENABLED Bit 1: =0:DO2 diagnostic is DISABLED, =1:DO2 DIAGNOSTIC is ENABLED ... Bit 10: =0:DO11 diagnostic is DISABLED, =1:DO11 DIAGNOSTIC is ENABLED Bit 11: =0:DO12 diagnostic is DISABLED, =1:DO12 DIAGNOSTIC is ENABLED Writing on this register changes the diagnostic state of all digital outputs						
DIAGNOSTIC STATE FOR DIGITAL OUTPUTS						
DIAGNOSTIC STATE FOR DO1-DO12	3x10003 4x10003 I:10002	4095,0x0FFF B:0F FF			UINT16 R/O	
		Current diagnostic state of DO1:1=FAULT				
		Current diagnostic state of DO2:1=FAULT				
		Current diagnostic state of DO3:1=FAULT				
		Current diagnostic state of DO4:1=FAULT				
		Current diagnostic state of DO5:1=FAULT				
		Current diagnostic state of DO6:1=FAULT				
		Current diagnostic state of DO7:1=FAULT				
		Current diagnostic state of DO8:1=FAULT				
		Current diagnostic state of DO9:1=FAULT				
		Current diagnostic state of DO10:1=FAULT				
		Current diagnostic state of DO11:1=FAULT				
		Current diagnostic state of DO12:1=FAULT				

The current state of the diagnostic feature for the digital output DOx =0:No fault, =1:Fault Current diagnostic setup of all digital outputs Bit 0: =0:DO1 no fault, =1:DO1 fault Bit 1: =0:DO2 no fault, =1:DO2 fault ... Bit 10: =0:DO11 no fault, =1:DO11 fault Bit 11: =0:DO12 no fault, =1:DO12 fault						
THERMAL WARNING DIGITAL OUTPUTS						
THERMAL WARNING DIGITAL OUTPUTS	3x10004 4x10004 I:10003	4095,0x0FFF B:0F FF			UINT16 R/O	
		Current thermal warning state of DO1-DO6:1=FAULT				
		Current thermal warning state of DO7-DO12:1=FAULT				
The current thermal warning state for the digital output group =0:No thermal warning, =1:Thermal warning Current thermal warning state of all digital output groups Bit 0: =0:DO1-DO6 No thermal warning, =1:DO1-DO6 Thermal warning Bit 1: =0:DO7-DO12 No thermal warning, =1:DO7-DO12 Thermal warning						
POWER SUPPLY MONITORING DIGITAL OUTPUTS						
POWER SUPPLY MONITORING DIGITAL OUTPUTS	3x10005 4x10005 I:10004	4095,0x0FFF B:0F FF			UINT16 R/O	
		Current power supply monitoring state of DO1-DO6:1=FAULT				
		Current power supply monitoring state of DO7-DO12:1=FAULT				
The current monitoring state of the power supply for the digital output group =0:No fault, =1:Fault Current power supply monitoring 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						
SPI COMMUNICATION DIGITAL OUTPUTS						
SPI COMMUNICATION DIGITAL OUTPUTS	3x10006 4x10006 I:10005	4095,0x0FFF B:0F FF			UINT16 R/O	
		Current SPI communcation state of DO1-DO6:1=FAULT				
		Current SPI communcation state of DO7-DO12:1=FAULT				
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						
INITIAL & WATCHDOG STATUS FOR ALL DIGITAL OUTPUTS						
INTIAL &WATCHDOG STATUS OF DO1-DO12	3x59001 4x59001 I:59000	0,0x0000 B:00 00		0x0FFF	UINT16 R/W	YES
		Current init & watchdog state of DO1:0=OFF		1		

		Current init & watchdog state of DO2:0=OFF	1		
		Current init & watchdog state of DO3:0=OFF	1		
		Current init & watchdog state of DO4:0=OFF	1		
		Current init & watchdog state of DO5:0=OFF	1		
		Current init & watchdog state of DO6:0=OFF	1		
		Current init & watchdog state of DO7:0=OFF	1		
		Current init & watchdog state of DO8:0=OFF	1		
		Current init & watchdog state of DO9:0=OFF	1		
		Current init & watchdog state of DO10:0=OFF	1		
		Current init & watchdog state of DO11:0=OFF	1		
		Current init & watchdog state of DO12:0=OFF	1		

Current 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 10: =0:DO11 is OFF, =1:DO11 is ON
Bit 11: =0:DO12 is OFF, =1:DO12 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

INTIAL &WATCHDOG STATUS OF DIAGNOSTIC DO1-DO12	3x59002 4x59002 I:59001	0,0x0000 B:00 00		0x0FFF	UINT16 R/W	YES
		Init & watchdog diagnostic state of DO1:0=OFF		1		
		Init & watchdog diagnostic state of DO2:0=OFF		1		
		Init & watchdog diagnostic state of DO3:0=OFF		1		
		Init & watchdog diagnostic state of DO4:0=OFF		1		
		Init & watchdog diagnostic state of DO5:0=OFF		1		
		Init & watchdog diagnostic state of DO6:0=OFF		1		
		Init & watchdog diagnostic state of DO7:0=OFF		1		
		Init & watchdog diagnostic state of DO8:0=OFF		1		
		Init & watchdog diagnostic state of DO9:0=OFF		1		
		Init & watchdog diagnostic state of DO10:0=OFF		1		
		Init & watchdog diagnostic state of DO11:0=OFF		1		
		Init & watchdog diagnostic state of DO12:0=OFF		1		

The current initial & watchdog state of the diagnostic feature for the digital output DOx. This state is used after power on and after a communcation watchdog timeout, if a watchdog time is confgured
=0:No fault, =1:Fault

Bit 0: =0:DO1 no fault, =1:DO1 fault
Bit 1: =0:DO2 no fault, =1:DO2 fault
...
Bit 10: =0:DO11 no fault, =1:DO11 fault
Bit 11: =0:DO12 no fault, =1:DO12 fault

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

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		
	DO7	0:OFF		
	DO8	0:OFF		
	DO9	0:OFF		
	DO10	0:OFF		
	DO11	0:OFF		
	DO12	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 22: State of DO23 (=0:OFF, =1:ON) Bit 23: State of DO24 (=0:OFF, =1:ON)				
SET DIGITAL OUTPUT DOx	ASCII WRITE COMMAND	#SDO<DONR>:<Out><CR> Result: #OK<CR>	ASCII	YES
	DONR	12		
	DO1	1:ON		
	TX	#SDO12:1<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:0000.0000.0000		

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 10: State of DO11 (=0:OFF, =1:ON)
Bit 11: State of DO12 (=0:OFF, =1:ON)

GET DIGITAL OUTPUT DOx	ASCII READ COMMAND	#GDO<DONR><CR> Result: #GDO<DONR>:<DOxDec>,<DOxHex><CR>	ASCII	
	DONR	12		
	TX	#GDO12<CR>		
	RX	#1,GDO12:0,0x0<CR>		
		Current status of digital output DO12:0=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

SET DIAGNOSTIC DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SDDOS:<DiagnosticDOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ENABLE		
	DO2	1:ENABLE		
	DO3	1:ENABLE		
	DO4	1:ENABLE		
	DO5	1:ENABLE		
	DO6	1:ENABLE		
	DO7	1:ENABLE		
	DO8	1:ENABLE		
	DO9	1:ENABLE		
	DO10	1:ENABLE		
	DO11	1:ENABLE		
	DO12	1:ENABLE		
	TX	#SDDOS:4095<CR>		
	RX	N/A		

Sets the diagnostic mode for all thirty digital outputs to the new diagnostic mode DiagnosticDOS
The new diagnostic state for all digital outputs
Bit 0: Diagnostic state of DO1 (=0:DISABLED, =1:ENABLED)
Bit 1: Diagnostic state of DO2 (=0:DISABLED, =1:ENABLED)
...
Bit 10: Diagnostic state of DO11 (=0:DISABLED, =1:ENABLED)
Bit1: Diagnostic state of DO12 (=0:DISABLED, =1:ENABLED)

SET DIAGNOSTIC DIGITAL OUTPUT DOx	ASCII WRITE COMMAND	#SDDO<DONR>:<DiagnosticDOx><CR> Result: #OK<CR>	ASCII	YES
	DONR	12		
	DO1	0:DISABLE		
	TX	#SDDO12:0<CR>		
	RX	N/A		
Sets the new diagnostic state for digital output DOx. The diagnostic state is defined with <DiagnosticDOx>. The new diagnostic state of the digital output DOx: =0: diagnostic mode for digital output is DISABLED =1: diagnostic mode for digital output is ENABLED				
GET DIAGNOSTIC DIGITAL OUTPUTS	ASCII READ COMMAND	#GDDOS<CR> Result: #GDDOS:<DiagnosticDOSDec>,<DiagnosticDOSHex><CR>	ASCII	
	TX	#GDDOS<CR>		
	RX	#1,GDDOS:4095,0xFFF<CR>		
		Current diagnostic mode of digital outputs:1111.1111.1111		
Returns the current diagnostic mode of the digital outputs as decimal number and as hexadecimal number. DiagnosticDOSDec, DiagnosticDOSHex The current diagnostic mode of the digital outputs: Bit 0: Diagnostic mode of DO1 (=0:DISABLED, =1:ENABLED) Bit 1: Diagnostic mode of DO2 (=0:DISABLED, =1:ENABLED) ... Bit 10: Diagnostic mode of DO11 (=0:DISABLED, =1:ENABLED) Bit 11: Diagnostic mode of DO12 (=0:DISABLED, =1:ENABLED)				
GET DIAGNOSTIC DIGITAL OUTPUT DOx	ASCII READ COMMAND	#GDDO<DONR><CR> Result: #GDDO<DONR>:<DiagnosticDOxDec>,<DiagnosticDOxHex><CR>	ASCII	
	DONR	12		
	TX	#GDDO12<CR>		
	RX	#1,GDDO12:1,0x1<CR>		
		Current diagnostic mode of digital output DO12:1=ENABLED		
Returns the current diagnostic mode of the digital output DOx as decimal number and as hexadecimal number. X stands for the number of the digital output. DiagnosticDOxDec, DiagnosticDOxHex The current diagnostic mode of the digital output DOx: =0: diagnostic mode for digital output is DISABLED =1: diagnostic mode for digital output is ENABLED				
GET DIAGNOSTIC STATUS DIGITAL OUTPUTS	ASCII READ COMMAND	#GDSDOS<CR> Result: #GDSDOS:<DiagStateDOSDec>,<DiagStateDOSHex><CR>	ASCII	
	TX	#GDSDOS<CR>		
	RX	#1,GDSDOS:3,0x3<CR>		
		Current diagnostic status of digital outputs:0000.0000.0011		

Returns the current diagnostic state of the digital outputs as decimal number and as hexadecimal number.
Be aware that you have to enable the diagnostic mode for the DOs, if you want to use this feature.
DiagStateDOSDec, DiagStateDOSHex
The current diagnostic state of the digital outputs:
Bit 0: Diagnostic state of DO1 (=0:NO FAULT, =1:FAULT)
Bit 1: Diagnostic state of DO2 (=0:NO FAULT, =1:FAULT)
...
Bit 10: Diagnostic state of DO11 (=0:NO FAULT, =1:FAULT)
Bit 11: Diagnostic state of DO12 (=0:NO FAULT, =1:FAULT)

GET DIAGNOSTIC STATUS DIGITAL OUTPUT DOx	ASCII READ COMMAND	#GDSDO<DONR><CR> Result: #GDSDO<DONR>:<DiagStateDOxDec>,<DiagStateDOxHex><CR>	ASCII	
	DONR	12		
	TX	#GDSDO12<CR>		
	RX	#1,GDSDO12:0,0x0<CR>		
		Current diagnostic status of digital output DO12:0=NO FAULT		

Returns the current diagnostic state of the digital output DOx as decimal number and as hexadecimal number. X stands for the number of the digital output.
DiagStateDOxDec, DiagStateDOxHex
The current diagnostic state of the digital output DOx:
=0: Diagnostic state for digital output x is NO FAULT
=1: Diagnostic state for digital output x is FAULT

DIGITAL OUTPUTS

GET THERMAL STATUS DIGITAL OUTPUT GROUPS	ASCII READ COMMAND	#GTSDOGS<CR> Result: #GTSDOGS:<ThermalDOGSDec>,<ThermalDOGSHex><CR>	ASCII	
	TX	#GTSDOGS<CR>		
	RX	#1,GTSDOGS:0,0x0<CR>		
		Current thermal status of digital output groups:00		

Returns the current thermal state of the corresponding output group as decimal number and as hexadecimal number.
ThermalDOGSDec,ThermalDOGSHex
The current thermal state of the digital output group:
Bit 0: Thermal state of digital output group #1 (DO1-DO6) (=0:NO FAULT, =1:FAULT)
Bit 1: Thermal state of digital output group #2 (DO7-DO12) (=0:NO FAULT, =1:FAULT)

GET THERMAL STATUS DIGITAL OUTPUT GROUPx	ASCII READ COMMAND	#GTSDOG<DOGRP><CR> Result: #GTSDOG<DOGRP>:<ThermalDOGxDec>,<ThermalDOGxHex><CR>	ASCII	
	DOGRP	2		
	TX	#GTSDOG2<CR>		
	RX	#1,GTSDOG2:0,0x0<CR>		
		Current thermal status of digital output group DOG2:0=NO FAULT		

Returns the current thermal state of the digital output group DOGRP as decimal number and as hexadecimal number. X stands for the number of the digital output group.
ThermalDOGxDec, ThermalDOGxHex
The current thermal state of the digital output group DOGRP:
=0: Thermal state for output group is OK (NO FAULT)
=1: Thermal state for output group is FAULT

Digital output group #1 is DO1-DO6, #2 is DO7-DO12

GET POWER STATUS DIGITAL OUTPUT GROUPS	ASCII READ COMMAND	#GPSDOGS<CR> Result: #GPSDOGS:<PowerDOGSDec>,<PowerDOGSHex><CR>	ASCII	
	TX	#GPSDOGS<CR>		
	RX	#1,GPSDOGS:2,0x2<CR>		
		Current power status of digital output groups:10		
Returns the current power supply state of the corresponding output group as decimal number and as hexadecimal number. PowerDOGSDec,PowerDOGSHex The current power supply state of the digital output group: Bit 0: Power supply state of digital output group #1 (DO1-DO6) (=0:NO FAULT, =1:FAULT) Bit 1: Power supply state of digital output group #2 (DO7-DO12) (=0:NO FAULT, =1:FAULT)				
GET POWER STATUS DIGITAL OUTPUT GROUPx	ASCII READ COMMAND	#GPSDOG<DOGRP><CR> Result: #GPSDOG<DOGRP>:<PowerDOGxDec>,<PowerDOGxHex><CR>	ASCII	
	DOGRP	2		
	TX	#GPSDOG2<CR>		
	RX	#1,GPSDOG2:1,0x1<CR>		
		Current power status of digital output group DOG2:1=FAULT		
Returns the current power supply state of the digital output group DOGRP as decimal number and as hexadecimal number. X stands for the number of the digital output group. PowerDOGxDec, PowerDOGxHex The current power supply state of the digital output group DOGRP: =0: Power supply state for output group is OK (NO FAULT) =1: Power supply state for output group is FAULT Digital output group #1 is DO1-DO6, #2 is DO7-DO12				
GET SPI STATUS DIGITAL OUTPUT GROUPS	ASCII READ COMMAND	#GSSDOGS<CR> Result: #GSSDOGS:<SPIDOGSDec>,<SPIDOGSHex><CR>	ASCII	
	TX	#GSSDOGS<CR>		
	RX	#1,GSSDOS:0,0x0<CR>		
		Current SPI status of digital output groups:00		
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) Bit 1: SPI communication state for digital output group #2 (DO7-DO12) (=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	2		
	TX	#GSSDOG2<CR>		
	RX	#1,GSSDO2:0,0x0<CR>		
		Current SPI status of digital output group DOG2:0=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, #2 is DO7-DO12

PULSE DOx	ASCII WRITE COMMAND	#PDO<DONR>:<Time><CR> Result: #OK<CR>	ASCII	YES
	DONR	12		
	TIME	200		
	TX	#PDO12:200<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	12		
	TX	#GPT12<CR>		
	RX	#1,GPT12:0,0x0<CR>		
		Current pulse time for DO12:0,0s		

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	1:ON		
	DO2	0:OFF		
	DO3	1:ON		
	DO4	0:OFF		
	DO5	0:OFF		
	DO6	0:OFF		
	DO7	0:OFF		
	DO8	0:OFF		
	DO9	0:OFF		
	DO10	0:OFF		
	DO11	0:OFF		
	DO12	0:OFF		
	TX	#SCDOS:5<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 10: New state of DO11 (=0:OFF, =1:ON)
Bit 11: New state of DO12 (=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:0000.0000.0000		

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 10: State of DO11 (=0:OFF, =1:ON)
Bit 11: State of DO12 (=0:OFF, =1:ON)

SET INITIAL & WATCHDOG STATE FOR DIAGNOSTIC STATE OF DIGITAL OUTPUTS	ASCII WRITE COMMAND	#SCDDOS:<OutAllDIAGNOSTIC_DOS><CR> Result: #OK<CR>	ASCII	YES
	DO1	1:ON		
	DO2	0:OFF		
	DO3	1:ON		
	DO4	0:OFF		
	DO5	0:OFF		
	DO6	0:OFF		
	DO7	0:OFF		
	DO8	0:OFF		
	DO9	0:OFF		
	DO10	0:OFF		
	DO11	0:OFF		
	DO12	0:OFF		
	TX	#SCDDOS:<OutAllDIAGNOSTIC_DOS><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.

OutAllDIAGNOSTIC_DOS
The new diagnostic state state for the digital outputs:
Bit 0: Diagnostic State of DO1 (=0:DISBALED, =1:ENABLED)
Bit 1: Diagnostic State of DO2 (=0:DISBALED, =1:ENABLED)
..
Bit 10: Diagnostic State of DO11 (=0:DISBALED, =1:ENABLED)
Bit 11: Diagnostic State of DO12 (=0:DISBALED, =1:ENABLED)

GET INITIAL & WATCHDOG STATE FOR DIAGNOSTIC STATE OF DIGITAL OUTPUTS	ASCII READ COMMAND	#GDDOS<CR> Result: #GDDOS:<DIAGNOSTIC_DOSDec>,<DIAGNOSTIC_DOSHex><CR>	ASCII	
	TX	#GDDOS<CR>		
	RX	#1,GDDOS:4095,0xFFF<CR>		
		Current diagnostic status of digital outputs:1111.1111.1111		

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

DIAGNOSTIC_DOSDec, DIAGNOSTIC_DOSHex
The current diagnostic state state of the digital outputs:
Bit 0: Diagnostic State of DO1 (=0:DISBALED, =1:ENABLED)
Bit 1: Diagnostic State of DO2 (=0:DISBALED, =1:ENABLED)
..
Bit 10: Diagnostic State of DO11 (=0:DISBALED, =1:ENABLED)
Bit 11: Diagnostic State of DO12 (=0:DISBALED, =1:ENABLED)

