DIP SWITCH	3x10100 4x10100 I:10099	????			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	????			UINT16 R/O	
This is the group of hardware of the current product						
SW_GROUP	3x65202 4x65202 I:65201	????			UINT16 R/O	
This is the group of software of the current product						
SW_VERSION	3x65203 4x65203 I:65202	????			UINT16 R/O	
		????				
This is the current software version of the firmware						
SW_AUTHOR	3x65204 4x65204 I:65203	????			UINT16 R/O	
This is the current software author of the firmware						
MODBUS SETTINGS						
UNIT_ID	3x65222 4x65222 I:65221	????			UINT16 R/O	
		UNIT ID:0				
f the host reads this register, the current defined unit ID is returned.						

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FLASH UNIT_ID	3x65223 4x65223 I:65222	????		27	UINT16 R/W	NO
		UNIT ID:0				
f 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	????	57600	57600	UINT32 R/W	NO
		0Bd		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	????		1:EVEN PARITY	UINT16 R/W	NO
		????		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	????		2:TWO STOPBITS	UINT16 R/W	NO
		????		SELECT STOPBITS		
f 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						
CPU DATA						
SERIAL1	3x65521 4x65521 I:65520	????			UINT16 R/O	

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Serial number of module as 96 bit unsigned integer number						
SERIAL2	3x65522 4x65522 I:65521	????			UINT16 R/O	
Serial number of module as 96 bit unsigned integer number						
SERIAL3	3x65523 4x65523 I:65522	????			UINT16 R/O	
Serial number of module as 96 bit unsigned integer number						
SERIAL4	3x65524 4x65524 I:65523	????			UINT16 R/O	
Serial number of module as 96 bit unsigned integer number						
SERIAL5	3x65525 4x65525 I:65524	????			UINT16 R/O	
Serial number of module as 96 bit unsigned integer number						
SERIAL6	3x65526 4x65526 I:65525	????			UINT16 R/O	
		SERIAL:????????????????????????				
Serial number of module as 96 bit unsigned integer number						
CPU TEMPERATURE	3x65527 4x65527 I:65526	????			UINT16 R/O	
		Current internal temperature of CPU:0,0°C				
Current internal temperature of CPU in ° Celsius multiplied by 10.						
CPU VOLTAGE	3x65528 4x65528 I:65527	????			UINT16 R/O	
		Current supply voltage of CPU:0,00V				
Current internal supply voltage of CPU in Volt multiplied by 1000.						
CPU BATTERY	3x65529 4x65529 I:65528	????			UINT16 R/O	
		Current battery voltage of CPU:0,00V				
Current internal backup battery voltage of CPU in Volt multiplied by 1000.						
CONVERTER STATUS						
CONVERTER STATUS	3x65534 4x65534 I:65533	????			UINT16 R/O	
Current status of the converter						

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FACTORY RESET	3x65535 4x65535 I:65534	????		1:PERFORM FACTORY RESET	UINT16 R/W	YES
Performs a factory reset of all internal saved parameters						
SOFTWARE RESET						
RESET	1x65536 2x65536 I:65535	????		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	????		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).						

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HEART BEAT	**ASCII READ COMMAND**	#HB<CR> Result: #HB<CR>	ASCII	
	TX	#HB<CR>		
	RX	#255,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	#255,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	#255,TYPE:RESI-16DI15DO-ETH<CR>		
		Current module type:RESI-16DI15DO-ETH		
Returns the current module type				
GET FEATURES	**ASCII READ COMMAND**	#FTRS<CR> Result: #FTRS:<Type><CR>	ASCII	
	TX	#FTRS<CR>		
	RX	#255,RESI-16DI15DO-ETH<CR>		
		Current module type:N/A		
		Number of digital inputs:N/A		
		Type of digital inputs:N/A		
Returns the current module type				
GET OWNER	**ASCII READ COMMAND**	#OWNER<CR> Result: #OWNER:<Owner><CR>	ASCII	
	TX	#OWNER<CR>		
	RX	#255,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	#255,CREATOR:DI HC SIGL,MSC<CR>		
		Current creator:DI HC SIGL,MSC		

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Returns the current creator of the module				
GET COPYRIGHT	**ASCII READ COMMAND**	#COPYRIGHT<CR> Result: #COPYRIGHT:<Copyright><CR>	ASCII	
	TX	#COPYRIGHT<CR>		
	RX	#255,COPYRIGHT:2015-22 BY RESI AND DI HC SIGL,MSC WWW.RESI.CC<CR>		
		Current copyright:2015-22 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	#255,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	#255,INTSTAT:<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	#255,<CR>		
		Current DIP SWITCH settings:0000.0000		
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	YES
	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		

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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	#255,GMBADR:255,15,0xFF,0xF<CR>		
		Current MODBUS unit ID:255,15,0xFF,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	#255,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>		

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	RX	#255,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	#255,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	#255,GMBADR:255,0xFF,15,0xF,115200,0x1C200,NONE,ONE<CR>		
		Current MODBUS unit ID used:255		
		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	YES
	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				

WADTCHDOG TIMER	**ASCII WRITE COMMAND**	#WD:<WDTIME><CR> Result: #OK<CR>	ASCII	NO
	WDTIME	10		
	TX	#WD:10<CR>		
	RX	N/A		
Enables or disables the WATCHDOG Timer for the Raspberry Pi module. WDTIME: 1..3600000: Time for Watchdog in Milliseconds (Maximum 60 Minutes) =0: No Watchdog is generated HINT: The Watchdog is internally handled every 10ms, so every value below 10 will reset immediately the Raspberry Pi computer.				
CPU PARAMETERS				
GET CPU VOLTAGE	**ASCII READ COMMAND**	#GCPUTEMP<CR> Result: #GCPUTEMP:<CPUTemp><CR>	ASCII	
	TX	#GCPUTEMP<CR>		
	RX	#255,GCPUTEMP:42.9048<CR>		
		Current internal temperature of CPU:42.9048°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	#255,GCPUVOLT:3.3604<CR>		
		Current supply voltage of CPU:3.3604V		
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	#255,GCPUBATT:3.1812<CR>		
		Current backup battery voltage of CPU:3.1812V		
Current internal backup battery voltage of CPU in Volt multiplied by 1000.				

8RTD STATUS	3x05052 4x05052 I:5051	0,0x0000 B:00 00			SINT16 R/O	
Shows the internal converter status: =0: Everything is ok !=0: Internal converter problem or error						
MEASUREMENT DATA						
CH1:VALID_TEMP	3x00001 4x00001 I:0	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Current valid temperature of the 1st channel. Value: temperature*10 Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH2:VALID_TEMP	3x00002 4x00002 I:1	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Current valid temperature of the 2nd channel. Value: temperature*10 Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH3:VALID_TEMP	3x00003 4x00003 I:2	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Current valid temperature of the 3rd channel. Value: temperature*10 Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH4:VALID_TEMP	3x00004 4x00004 I:3	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Current valid temperature of the 4th channel. Value: temperature*10 Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH5:VALID_TEMP	3x00005 4x00005 I:4	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

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Current valid temperature of the 5th channel. Value: temperature*10 Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH6:VALID_TEMP	3x00006 4x00006 I:5	262,0x0106 B:01 06			SINT16 R/O	
		26,2				
Current valid temperature of the 6th channel. Value: temperature*10 Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH7:VALID_TEMP	3x00007 4x00007 I:6	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Current valid temperature of the 7th channel. Value: temperature*10 Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH8:VALID_TEMP	3x00008 4x00008 I:7	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Current valid temperature of the 8th channel. Value: temperature*10 Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -9990 in °C will be returned.						
CH1:REAL_TEMP	3x00009 4x00009 I:8	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last measured temperature value for the 1st channel. Value: temperature*10 Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -9990 in °C.						
CH2:REAL_TEMP	3x00010 4x00010 I:9	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

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Last measured temperature value for the 2nd channel. Value: temperature*10 Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -9990 in °C.						
CH3:REAL_TEMP	3x00011 4x00011 I:10	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last measured temperature value for the 3rd channel. Value: temperature*10 Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -9990 in °C.						
CH4:REAL_TEMP	3x00012 4x00012 I:11	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last measured temperature value for the 4th channel. Value: temperature*10 Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -9990 in °C.						
CH5:REAL_TEMP	3x00013 4x00013 I:12	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last measured temperature value for the 5th channel. Value: temperature*10 Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -9990 in °C.						
CH6:REAL_TEMP	3x00014 4x00014 I:13	262,0x0106 B:01 06			SINT16 R/O	
		26,2				
Last measured temperature value for the 6th channel. Value: temperature*10 Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -9990 in °C.						

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CH7:REAL_TEMP	3x00015 4x00015 I:14	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

Last measured temperature value for the 7th channel.
Value: temperature*10
Unit: in the temperature unit set by CH7_UNIT

This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP.
If the measurement result is completely invalid this register returns the value
-999.0 -> -9990 in °C.

CH8:REAL_TEMP	3x00016 4x00016 I:15	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

Last measured temperature value for the 8th channel.
Value: temperature*10
Unit: in the temperature unit set by CH8_UNIT

This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP.
If the measurement result is completely invalid this register returns the value
-999.0 -> -9990 in °C.

CH1:AVG_TEMP	3x00017 4x00017 I:16	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

Last average temperature calculated for sensor channel 1.
Value: temperature*10
Unit: in the temperature unit set by CH1_UNIT

The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired,
the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running
this register delivers the value -999.0 -> -9990 in °C.

CH2:AVG_TEMP	3x00018 4x00018 I:17	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

Last average temperature calculated for sensor channel 2.
Value: temperature*10
Unit: in the temperature unit set by CH2_UNIT

The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired,
the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running
this register delivers the value -999.0 -> -9990 in °C.

CH3:AVG_TEMP	3x00019 4x00019 I:18	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				

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Last average temperature calculated for sensor channel 3. Value: temperature*10 Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -9990 in °C.						
CH4:AVG_TEMP	3x00020 4x00020 I:19	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last average temperature calculated for sensor channel 4. Value: temperature*10 Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -9990 in °C.						
CH5:AVG_TEMP	3x00021 4x00021 I:20	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last average temperature calculated for sensor channel 5. Value: temperature*10 Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -9990 in °C.						
CH6:AVG_TEMP	3x00022 4x00022 I:21	262,0x0106 B:01 06			SINT16 R/O	
		26,2				
Last average temperature calculated for sensor channel 6. Value: temperature*10 Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -9990 in °C.						
CH7:AVG_TEMP	3x00023 4x00023 I:22	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last average temperature calculated for sensor channel 7. Value: temperature*10 Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -9990 in °C.						

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CH8:AVG_TEMP	3x00024 4x00024 I:23	-9990,0xD8FA B:D8 FA			SINT16 R/O	
		-999,0				
Last average temperature calculated for sensor channel 8. Value: temperature*10 Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -9990 in °C.						
CH1:STATUS	3x00025 4x00025 I:24	129,0x0081 B:00 81			UINT16 R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 1st sensor channel. Value: Each bit has an individual meaning						

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Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00026 4x00026 I:25	129,0x0081 B:00 81			UINT16 R/O	
		CH2:Sensor status bits:0000.0000.1000.0001				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:0				
		CH2:BIT3:SENSOR OVER RANGE:0				
		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00027 4x00027 I:26	129,0x0081 B:00 81			UINT16 R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00028 4x00028 I:27	129,0x0081 B:00 81			UINT16 R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00029 4x00029 I:28	129,0x0081 B:00 81			UINT16 R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00030 4x00030 I:29	1,0x0001 B:00 01			UINT16 R/O	
		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				

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		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00031 4x00031 I:30	133,0x0085 B:00 85			UINT16 R/O	
		CH7:Sensor status bits:0000.0000.1000.0101				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:1				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00032 4x00032 I:31	129,0x0081 B:00 81			UINT16 R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 8th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						

MEASUREMENT DATA						
CH1:VALID_TEMP	3x00101 4x00101 I:100	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Current valid temperature of the 1st channel. Value: temperature*10000 Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						

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CH2:VALID_TEMP	3x00103 4x00103 I:102	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Current valid temperature of the 2nd channel. Value: temperature*10000 Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH3:VALID_TEMP	3x00105 4x00105 I:104	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Current valid temperature of the 3rd channel. Value: temperature*10000 Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH4:VALID_TEMP	3x00107 4x00107 I:106	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Current valid temperature of the 4th channel. Value: temperature*10000 Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH5:VALID_TEMP	3x00109 4x00109 I:108	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Current valid temperature of the 5th channel. Value: temperature*10000 Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH6:VALID_TEMP	3x00111 4x00111 I:110	2622070,0x00280276 B:00 28 02 76			SINT32 R/O	
		26,22070				
Current valid temperature of the 6th channel. Value: temperature*10000 Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH7:VALID_TEMP	3x00113 4x00113 I:112	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				

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Current valid temperature of the 7th channel. Value: temperature*10000 Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH8:VALID_TEMP	3x00115 4x00115 I:114	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Current valid temperature of the 8th channel. Value: temperature*10000 Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH1:REAL_TEMP	3x00117 4x00117 I:116	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last measured temperature value for the 1st channel. Value: temperature*10000 Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH2:REAL_TEMP	3x00119 4x00119 I:118	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last measured temperature value for the 2nd channel. Value: temperature*100000 Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH3:REAL_TEMP	3x00121 4x00121 I:120	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last measured temperature value for the 3rd channel. Value: temperature*100000 Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH4:REAL_TEMP	3x00123 4x00123 I:122	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				

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Last measured temperature value for the 4th channel. Value: temperature*100000 Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH5:REAL_TEMP	3x00125 4x00125 I:124	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last measured temperature value for the 5th channel. Value: temperature*100000 Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH6:REAL_TEMP	3x00127 4x00127 I:126	2622070,0x00280276 B:00 28 02 76			SINT32 R/O	
		26,22070				
Last measured temperature value for the 6th channel. Value: temperature*100000 Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH7:REAL_TEMP	3x00129 4x00129 I:128	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last measured temperature value for the 7th channel. Value: temperature*100000 Unit: in the temperature unit set by CH7_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH8:REAL_TEMP	3x00131 4x00131 I:130	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last measured temperature value for the 8th channel. Value: temperature*100000 Unit: in the temperature unit set by CH8_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						

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CH1:AVG_TEMP	3x00133 4x00133 I:132	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last average temperature calculated for sensor channel 1. Value: temperature*100000 Unit: in the temperature unit set by CH1_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH2:AVG_TEMP	3x00135 4x00135 I:134	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last average temperature calculated for sensor channel 2. Value: temperature*100000 Unit: in the temperature unit set by CH2_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH3:AVG_TEMP	3x00137 4x00137 I:136	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last average temperature calculated for sensor channel 3. Value: temperature*100000 Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH4:AVG_TEMP	3x00139 4x00139 I:138	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last average temperature calculated for sensor channel 4. Value: temperature*100000 Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH5:AVG_TEMP	3x00141 4x00141 I:140	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				

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Last average temperature calculated for sensor channel 5. Value: temperature*100000 Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH6:AVG_TEMP	3x00143 4x00143 I:142	2622119,0x002802A7 B:00 28 02 A7			SINT32 R/O	
		26,22119				
Last average temperature calculated for sensor channel 6. Value: temperature*100000 Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH7:AVG_TEMP	3x00145 4x00145 I:144	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last average temperature calculated for sensor channel 7. Value: temperature*100000 Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH8:AVG_TEMP	3x00147 4x00147 I:146	-99900000,0xFA0BA5A0 B:FA 0B A5 A0			SINT32 R/O	
		-999,00000				
Last average temperature calculated for sensor channel 8. Value: temperature*100000 Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH1:STATUS	3x00149 4x00149 I:148	129,0x00000081 B:00 00 00 81			UINT32 R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 1st sensor channel.
Value: Each bit has an individual meaning

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00151 4x00151 I:150	129,0x00000081 B:00 00 00 81			UINT32 R/O	
		CH2:Sensor status bits:0000.0000.1000.0001				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:0				
		CH2:BIT3:SENSOR OVER RANGE:0				

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		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00153 4x00153 I:152	129,0x00000081 B:00 00 00 81			UINT32 R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00155 4x00155 I:154	129,0x00000081 B:00 00 00 81			UINT32 R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00157 4x00157 I:156	129,0x00000081 B:00 00 00 81			UINT32 R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00159 4x00159 I:158	1,0x00000001 B:00 00 00 01			UINT32 R/O	

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		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				
		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00161 4x00161 I:160	133,0x00000085 B:00 00 00 85			UINT32 R/O	
		CH7:Sensor status bits:0000.0000.1000.0101				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:1				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00163 4x00163 I:162	129,0x00000081 B:00 00 00 81			UINT32 R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 8th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						

MEASUREMENT DATA						
CH1:VALID_TEMP	3x00201 4x00201 I:200	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Current valid temperature of the 1st channel. Value: temperature*10000 Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						

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CH2:VALID_TEMP	3x00203 4x00203 I:202	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Current valid temperature of the 2nd channel. Value: temperature*10000 Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH3:VALID_TEMP	3x00205 4x00205 I:204	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Current valid temperature of the 3rd channel. Value: temperature*10000 Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH4:VALID_TEMP	3x00207 4x00207 I:206	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Current valid temperature of the 4th channel. Value: temperature*10000 Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH5:VALID_TEMP	3x00209 4x00209 I:208	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Current valid temperature of the 5th channel. Value: temperature*10000 Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH6:VALID_TEMP	3x00211 4x00211 I:210	2622070,0x00280276 B:02 76 00 28			SINT32R R/O	
		26,22070				
Current valid temperature of the 6th channel. Value: temperature*10000 Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH7:VALID_TEMP	3x00213 4x00213 I:212	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				

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Current valid temperature of the 7th channel. Value: temperature*10000 Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH8:VALID_TEMP	3x00215 4x00215 I:214	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Current valid temperature of the 8th channel. Value: temperature*10000 Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 -> -99900000 in °C will be returned.						
CH1:REAL_TEMP	3x00217 4x00217 I:216	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last measured temperature value for the 1st channel. Value: temperature*10000 Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH2:REAL_TEMP	3x00219 4x00219 I:218	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last measured temperature value for the 2nd channel. Value: temperature*100000 Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH3:REAL_TEMP	3x00221 4x00221 I:220	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last measured temperature value for the 3rd channel. Value: temperature*100000 Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH4:REAL_TEMP	3x00223 4x00223 I:222	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				

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Last measured temperature value for the 4th channel. Value: temperature*100000 Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH5:REAL_TEMP	3x00225 4x00225 I:224	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last measured temperature value for the 5th channel. Value: temperature*100000 Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH6:REAL_TEMP	3x00227 4x00227 I:226	2622070,0x00280276 B:02 76 00 28			SINT32R R/O	
		26,22070				
Last measured temperature value for the 6th channel. Value: temperature*100000 Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH7:REAL_TEMP	3x00229 4x00229 I:228	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last measured temperature value for the 7th channel. Value: temperature*100000 Unit: in the temperature unit set by CH7_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						
CH8:REAL_TEMP	3x00231 4x00231 I:230	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last measured temperature value for the 8th channel. Value: temperature*100000 Unit: in the temperature unit set by CH8_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 -> -99900000 in °C.						

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CH1:AVG_TEMP	3x00233 4x00233 I:232	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last average temperature calculated for sensor channel 1. Value: temperature*100000 Unit: in the temperature unit set by CH1_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH2:AVG_TEMP	3x00235 4x00235 I:234	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last average temperature calculated for sensor channel 2. Value: temperature*100000 Unit: in the temperature unit set by CH2_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH3:AVG_TEMP	3x00237 4x00237 I:236	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last average temperature calculated for sensor channel 3. Value: temperature*100000 Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH4:AVG_TEMP	3x00239 4x00239 I:238	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last average temperature calculated for sensor channel 4. Value: temperature*100000 Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH5:AVG_TEMP	3x00241 4x00241 I:240	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				

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Last average temperature calculated for sensor channel 5. Value: temperature*100000 Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH6:AVG_TEMP	3x00243 4x00243 I:242	2622119,0x002802A7 B:02 A7 00 28			SINT32R R/O	
		26,22119				
Last average temperature calculated for sensor channel 6. Value: temperature*100000 Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH7:AVG_TEMP	3x00245 4x00245 I:244	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last average temperature calculated for sensor channel 7. Value: temperature*100000 Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH8:AVG_TEMP	3x00247 4x00247 I:246	-99900000,0xFA0BA5A0 B:A5 A0 FA 0B			SINT32R R/O	
		-999,00000				
Last average temperature calculated for sensor channel 8. Value: temperature*100000 Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 -> -99900000 in °C.						
CH1:STATUS	3x00249 4x00249 I:248	129,0x00000081 B:00 81 00 00			UINT32R R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 1st sensor channel.
Value: Each bit has an individual meaning

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00251 4x00251 I:250	129,0x00000081 B:00 81 00 00			UINT32R R/O	
		CH2:Sensor status bits:0000.0000.1000.0001				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:0				
		CH2:BIT3:SENSOR OVER RANGE:0				

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		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00253 4x00253 I:252	129,0x00000081 B:00 81 00 00			UINT32R R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00255 4x00255 I:254	129,0x00000081 B:00 81 00 00			UINT32R R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00257 4x00257 I:256	129,0x00000081 B:00 81 00 00			UINT32R R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00259 4x00259 I:258	1,0x00000001 B:00 01 00 00			UINT32R R/O	

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		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				
		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00261 4x00261 I:260	133,0x00000085 B:00 85 00 00			UINT32R R/O	
		CH7:Sensor status bits:0000.0000.1000.0101				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:1				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00263 4x00263 I:262	129,0x00000081 B:00 81 00 00			UINT32R R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 8th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						

MEASUREMENT DATA						
CH1:VALID_TEMP	3x00301 4x00301 I:300	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Current valid temperature of the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						

CH2:VALID_TEMP	3x00303 4x00303 I:302	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Current valid temperature of the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH3:VALID_TEMP	3x00305 4x00305 I:304	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Current valid temperature of the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH4:VALID_TEMP	3x00307 4x00307 I:306	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Current valid temperature of the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH5:VALID_TEMP	3x00309 4x00309 I:308	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Current valid temperature of the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH6:VALID_TEMP	3x00311 4x00311 I:310	26.220703,0x41D1C400 B:41 D1 C4 00			FLOAT32 R/O	
		26,220703				
Current valid temperature of the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH7:VALID_TEMP	3x00313 4x00313 I:312	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				

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Current valid temperature of the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH8:VALID_TEMP	3x00315 4x00315 I:314	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Current valid temperature of the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH1:REAL_TEMP	3x00317 4x00317 I:316	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last measured temperature value for the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH2:REAL_TEMP	3x00319 4x00319 I:318	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last measured temperature value for the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH3:REAL_TEMP	3x00321 4x00321 I:320	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last measured temperature value for the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH4:REAL_TEMP	3x00323 4x00323 I:322	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				

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Last measured temperature value for the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH5:REAL_TEMP	3x00325 4x00325 I:324	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last measured temperature value for the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH6:REAL_TEMP	3x00327 4x00327 I:326	26.223633,0x41D1CA00 B:41 D1 CA 00			FLOAT32 R/O	
		26,223633				
Last measured temperature value for the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH7:REAL_TEMP	3x00329 4x00329 I:328	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last measured temperature value for the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH8:REAL_TEMP	3x00331 4x00331 I:330	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last measured temperature value for the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						

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CH1:AVG_TEMP	3x00333 4x00333 I:332	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 1. Value: temperature Unit: in the temperature unit set by CH1_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH2:AVG_TEMP	3x00335 4x00335 I:334	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 2. Value: temperature Unit: in the temperature unit set by CH2_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH3:AVG_TEMP	3x00337 4x00337 I:336	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 3. Value: temperature Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH4:AVG_TEMP	3x00339 4x00339 I:338	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 4. Value: temperature Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH5:AVG_TEMP	3x00341 4x00341 I:340	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				

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Last average temperature calculated for sensor channel 5. Value: temperature Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH6:AVG_TEMP	3x00343 4x00343 I:342	26.221191,0x41D1C500 B:41 D1 C5 00			FLOAT32 R/O	
		26,221191				
Last average temperature calculated for sensor channel 6. Value: temperature Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH7:AVG_TEMP	3x00345 4x00345 I:344	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 7. Value: temperature Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH8:AVG_TEMP	3x00347 4x00347 I:346	-999.000000,0xC479C000 B:C4 79 C0 00			FLOAT32 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 8. Value: temperature Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH1:STATUS	3x00349 4x00349 I:348	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 1st sensor channel.
Value: Each bit has an individual meaning

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00351 4x00351 I:350	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH2:Sensor status bits:0000.0000.1000.0001				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:0				
		CH2:BIT3:SENSOR OVER RANGE:0				

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		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00353 4x00353 I:352	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00355 4x00355 I:354	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00357 4x00357 I:356	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00359 4x00359 I:358	1.000000,0x3F800000 B:3F 80 00 00			FLOAT32 R/O	

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		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				
		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00361 4x00361 I:360	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH7:Sensor status bits:0000.0000.1000.0001				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:0				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00363 4x00363 I:362	129.000000,0x43010000 B:43 01 00 00			FLOAT32 R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 8th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						

MEASUREMENT DATA						
CH1:VALID_TEMP	3x00401 4x00401 I:400	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Current valid temperature of the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						

CH2:VALID_TEMP	3x00403 4x00403 I:402	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Current valid temperature of the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH3:VALID_TEMP	3x00405 4x00405 I:404	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Current valid temperature of the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH4:VALID_TEMP	3x00407 4x00407 I:406	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Current valid temperature of the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH5:VALID_TEMP	3x00409 4x00409 I:408	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Current valid temperature of the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH6:VALID_TEMP	3x00411 4x00411 I:410	26.223633,0x41D1CA00 B:CA 00 41 D1			FLOAT32R R/O	
		26,223633				
Current valid temperature of the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH7:VALID_TEMP	3x00413 4x00413 I:412	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				

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Current valid temperature of the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH8:VALID_TEMP	3x00415 4x00415 I:414	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Current valid temperature of the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH1:REAL_TEMP	3x00417 4x00417 I:416	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last measured temperature value for the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH2:REAL_TEMP	3x00419 4x00419 I:418	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last measured temperature value for the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH3:REAL_TEMP	3x00421 4x00421 I:420	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last measured temperature value for the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH4:REAL_TEMP	3x00423 4x00423 I:422	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				

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Last measured temperature value for the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH5:REAL_TEMP	3x00425 4x00425 I:424	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last measured temperature value for the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH6:REAL_TEMP	3x00427 4x00427 I:426	26.223633,0x41D1CA00 B:CA 00 41 D1			FLOAT32R R/O	
		26,223633				
Last measured temperature value for the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH7:REAL_TEMP	3x00429 4x00429 I:428	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last measured temperature value for the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH8:REAL_TEMP	3x00431 4x00431 I:430	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last measured temperature value for the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						

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CH1:AVG_TEMP	3x00433 4x00433 I:432	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 1. Value: temperature Unit: in the temperature unit set by CH1_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH2:AVG_TEMP	3x00435 4x00435 I:434	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 2. Value: temperature Unit: in the temperature unit set by CH2_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH3:AVG_TEMP	3x00437 4x00437 I:436	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 3. Value: temperature Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH4:AVG_TEMP	3x00439 4x00439 I:438	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 4. Value: temperature Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH5:AVG_TEMP	3x00441 4x00441 I:440	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				

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Last average temperature calculated for sensor channel 5. Value: temperature Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH6:AVG_TEMP	3x00443 4x00443 I:442	26.221191,0x41D1C500 B:C5 00 41 D1			FLOAT32R R/O	
		26,221191				
Last average temperature calculated for sensor channel 6. Value: temperature Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH7:AVG_TEMP	3x00445 4x00445 I:444	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 7. Value: temperature Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH8:AVG_TEMP	3x00447 4x00447 I:446	-999.000000,0xC479C000 B:C0 00 C4 79			FLOAT32R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 8. Value: temperature Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH1:STATUS	3x00449 4x00449 I:448	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 1st sensor channel.
Value: Each bit has an individual meaning

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00451 4x00451 I:450	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH2:Sensor status bits:0000.0000.1000.0001				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:0				
		CH2:BIT3:SENSOR OVER RANGE:0				

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		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00453 4x00453 I:452	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00455 4x00455 I:454	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00457 4x00457 I:456	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00459 4x00459 I:458	1.000000,0x3F800000 B:00 00 3F 80			FLOAT32R R/O	

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		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				
		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00461 4x00461 I:460	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH7:Sensor status bits:0000.0000.1000.0001				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:0				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00463 4x00463 I:462	129.000000,0x43010000 B:00 00 43 01			FLOAT32R R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 8th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						

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CH1:VALID_TEMP	3x00501 4x00501 I:500	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Current valid temperature of the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						

CH2:VALID_TEMP	3x00505 4x00505 I:504	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Current valid temperature of the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH3:VALID_TEMP	3x00509 4x00509 I:508	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Current valid temperature of the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH4:VALID_TEMP	3x00513 4x00513 I:512	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Current valid temperature of the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH5:VALID_TEMP	3x00517 4x00517 I:516	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Current valid temperature of the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH6:VALID_TEMP	3x00521 4x00521 I:520	26.223633,0x403A394000000000 B:40 3A 39 40 00 00 00 00			DOUBLE64 R/O	
		26,223633				
Current valid temperature of the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH7:VALID_TEMP	3x00525 4x00525 I:524	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				

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Current valid temperature of the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH8:VALID_TEMP	3x00529 4x00529 I:528	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Current valid temperature of the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH1:REAL_TEMP	3x00533 4x00533 I:532	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last measured temperature value for the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH2:REAL_TEMP	3x00537 4x00537 I:536	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last measured temperature value for the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH3:REAL_TEMP	3x00541 4x00541 I:540	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last measured temperature value for the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH4:REAL_TEMP	3x00545 4x00545 I:544	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				

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Last measured temperature value for the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH5:REAL_TEMP	3x00549 4x00549 I:548	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last measured temperature value for the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH6:REAL_TEMP	3x00553 4x00553 I:552	26.223633,0x403A394000000000 B:40 3A 39 40 00 00 00 00			DOUBLE64 R/O	
		26,223633				
Last measured temperature value for the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH7:REAL_TEMP	3x00557 4x00557 I:556	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last measured temperature value for the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH8:REAL_TEMP	3x00561 4x00561 I:560	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last measured temperature value for the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						

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CH1:AVG_TEMP	3x00565 4x00565 I:564	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 1. Value: temperature Unit: in the temperature unit set by CH1_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH2:AVG_TEMP	3x00569 4x00569 I:568	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 2. Value: temperature Unit: in the temperature unit set by CH2_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH3:AVG_TEMP	3x00573 4x00573 I:572	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 3. Value: temperature Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH4:AVG_TEMP	3x00577 4x00577 I:576	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 4. Value: temperature Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH5:AVG_TEMP	3x00581 4x00581 I:580	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				

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Last average temperature calculated for sensor channel 5. Value: temperature Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH6:AVG_TEMP	3x00585 4x00585 I:584	26.221191,0x403A38A000000000 B:40 3A 38 A0 00 00 00 00			DOUBLE64 R/O	
		26,221191				
Last average temperature calculated for sensor channel 6. Value: temperature Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH7:AVG_TEMP	3x00589 4x00589 I:588	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 7. Value: temperature Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH8:AVG_TEMP	3x00593 4x00593 I:592	-999.000000,0xC08F380000000000 B:C0 8F 38 00 00 00 00 00			DOUBLE64 R/O	
		-999,000000				
Last average temperature calculated for sensor channel 8. Value: temperature Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH1:STATUS	3x00597 4x00597 I:596	129.000000,0x4060200000000000 B:40 60 20 00 00 00 00 00			DOUBLE64 R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 1st sensor channel.
Value: Each bit has an individual meaning

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00601 4x00601 I:600	133.000000,0x4060A00000000000 B:40 60 A0 00 00 00 00 00			DOUBLE64 R/O	
		CH2:Sensor status bits:0000.0000.1000.0101				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:1				
		CH2:BIT3:SENSOR OVER RANGE:0				

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		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00605 4x00605 I:604	129.000000,0x4060200000000000 B:40 60 20 00 00 00 00 00			DOUBLE64 R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00609 4x00609 I:608	129.000000,0x4060200000000000 B:40 60 20 00 00 00 00 00			DOUBLE64 R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00613 4x00613 I:612	129.000000,0x4060200000000000 B:40 60 20 00 00 00 00 00			DOUBLE64 R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00617 4x00617 I:616	1.000000,0x3FF0000000000000 B:3F F0 00 00 00 00 00 00			DOUBLE64 R/O	

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		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				
		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00621 4x00621 I:620	129.000000,0x4060200000000000 B:40 60 20 00 00 00 00 00			DOUBLE64 R/O	
		CH7:Sensor status bits:0000.0000.1000.0001				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:0				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00625 4x00625 I:624	129.000000,0x4060200000000000 B:40 60 20 00 00 00 00 00			DOUBLE64 R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 8th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						

MEASUREMENT DATA						
CH1:VALID_TEMP	3x00701 4x00701 I:700	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Current valid temperature of the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						

CH2:VALID_TEMP	3x00705 4x00705 I:704	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Current valid temperature of the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH3:VALID_TEMP	3x00709 4x00709 I:708	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Current valid temperature of the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH4:VALID_TEMP	3x00713 4x00713 I:712	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Current valid temperature of the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH5:VALID_TEMP	3x00717 4x00717 I:716	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Current valid temperature of the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH6:VALID_TEMP	3x00721 4x00721 I:720	26.223633,0x403A394000000000 B:00 00 00 00 39 40 40 3A			DOUBLE64R R/O	
		26,223633				
Current valid temperature of the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH7:VALID_TEMP	3x00725 4x00725 I:724	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				

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Current valid temperature of the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH8:VALID_TEMP	3x00729 4x00729 I:728	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Current valid temperature of the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last valid measured temperature. If there was no valid measurement in the past, the value -999.0 in °C will be returned.						
CH1:REAL_TEMP	3x00733 4x00733 I:732	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last measured temperature value for the 1st channel. Value: temperature Unit: in the temperature unit set by CH1_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH2:REAL_TEMP	3x00737 4x00737 I:736	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last measured temperature value for the 2nd channel. Value: temperature Unit: in the temperature unit set by CH2_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH3:REAL_TEMP	3x00741 4x00741 I:740	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last measured temperature value for the 3rd channel. Value: temperature Unit: in the temperature unit set by CH3_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH4:REAL_TEMP	3x00745 4x00745 I:744	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				

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Last measured temperature value for the 4th channel. Value: temperature Unit: in the temperature unit set by CH4_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH5:REAL_TEMP	3x00749 4x00749 I:748	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last measured temperature value for the 5th channel. Value: temperature Unit: in the temperature unit set by CH5_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH6:REAL_TEMP	3x00753 4x00753 I:752	26.223633,0x403A394000000000 B:00 00 00 00 39 40 40 3A			DOUBLE64R R/O	
		26,223633				
Last measured temperature value for the 6th channel. Value: temperature Unit: in the temperature unit set by CH6_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH7:REAL_TEMP	3x00757 4x00757 I:756	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last measured temperature value for the 7th channel. Value: temperature Unit: in the temperature unit set by CH7_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						
CH8:REAL_TEMP	3x00761 4x00761 I:760	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last measured temperature value for the 8th channel. Value: temperature Unit: in the temperature unit set by CH8_UNIT This is the last measured temperature on the ADC. If the was an erroneous conversion, this value will not be stored into the register VALID_TEMP. If the measurement result is completely invalid this register returns the value -999.0 in °C.						

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CH1:AVG_TEMP	3x00765 4x00765 I:764	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 1. Value: temperature Unit: in the temperature unit set by CH1_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH2:AVG_TEMP	3x00769 4x00769 I:768	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 2. Value: temperature Unit: in the temperature unit set by CH2_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH3:AVG_TEMP	3x00773 4x00773 I:772	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 3. Value: temperature Unit: in the temperature unit set by CH3_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH4:AVG_TEMP	3x00777 4x00777 I:776	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 4. Value: temperature Unit: in the temperature unit set by CH4_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH5:AVG_TEMP	3x00781 4x00781 I:780	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				

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Last average temperature calculated for sensor channel 5. Value: temperature Unit: in the temperature unit set by CH5_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH6:AVG_TEMP	3x00785 4x00785 I:784	26.221191,0x403A38A000000000 B:00 00 00 00 38 A0 40 3A			DOUBLE64R R/O	
		26,221191				
Last average temperature calculated for sensor channel 6. Value: temperature Unit: in the temperature unit set by CH6_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH7:AVG_TEMP	3x00789 4x00789 I:788	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 7. Value: temperature Unit: in the temperature unit set by CH7_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH8:AVG_TEMP	3x00793 4x00793 I:792	-999.000000,0xC08F380000000000 B:00 00 00 00 38 00 C0 8F			DOUBLE64R R/O	
		-999,000000				
Last average temperature calculated for sensor channel 8. Value: temperature Unit: in the temperature unit set by CH8_UNIT The module adds internally all values of the register VALID_TEMP_IN_C for a configured time span. After the time span has expired, the module calculates the average temperature and stores the result into this register. After a module reboot while the first time span is running this register delivers the value -999.0 in °C.						
CH1:STATUS	3x00797 4x00797 I:796	129.000000,0x4060200000000000 B:00 00 00 00 20 00 40 60			DOUBLE64R R/O	
		CH1:Sensor status bits:0000.0000.1000.0001				
		CH1:BIT0:VALID:1				
		CH1:BIT1:ADC OUT OF RANGE:0				
		CH1:BIT2:SENSOR UNDER RANGE:0				
		CH1:BIT3:SENSOR OVER RANGE:0				
		CH1:BIT6:HART ADC OUT OF RANGE:0				
		CH1:BIT7:SENSOR HART FAULT:1				

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This registers delivers the current status of the last measurement of the 1st sensor channel.
Value: Each bit has an individual meaning

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

CH2:STATUS	3x00801 4x00801 I:800	133.000000,0x4060A00000000000 B:00 00 00 00 A0 00 40 60			DOUBLE64R R/O	
		CH2:Sensor status bits:0000.0000.1000.0101				
		CH2:BIT0:VALID:1				
		CH2:BIT1:ADC OUT OF RANGE:0				
		CH2:BIT2:SENSOR UNDER RANGE:1				
		CH2:BIT3:SENSOR OVER RANGE:0				

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		CH2:BIT6:HART ADC OUT OF RANGE:0				
		CH2:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 2nd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH3:STATUS	3x00805 4x00805 I:804	129.000000,0x4060200000000000 B:00 00 00 00 20 00 40 60			DOUBLE64R R/O	
		CH3:Sensor status bits:0000.0000.1000.0001				
		CH3:BIT0:VALID:1				
		CH3:BIT1:ADC OUT OF RANGE:0				
		CH3:BIT2:SENSOR UNDER RANGE:0				
		CH3:BIT3:SENSOR OVER RANGE:0				
		CH3:BIT6:HART ADC OUT OF RANGE:0				
		CH3:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 3rd sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH4:STATUS	3x00809 4x00809 I:808	129.000000,0x4060200000000000 B:00 00 00 00 20 00 40 60			DOUBLE64R R/O	
		CH4:Sensor status bits:0000.0000.1000.0001				
		CH4:BIT0:VALID:1				
		CH4:BIT1:ADC OUT OF RANGE:0				
		CH4:BIT2:SENSOR UNDER RANGE:0				
		CH4:BIT3:SENSOR OVER RANGE:0				
		CH4:BIT6:HART ADC OUT OF RANGE:0				
		CH4:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 4th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH5:STATUS	3x00813 4x00813 I:812	129.000000,0x4060200000000000 B:00 00 00 00 20 00 40 60			DOUBLE64R R/O	
		CH5:Sensor status bits:0000.0000.1000.0001				
		CH5:BIT0:VALID:1				
		CH5:BIT1:ADC OUT OF RANGE:0				
		CH5:BIT2:SENSOR UNDER RANGE:0				
		CH5:BIT3:SENSOR OVER RANGE:0				
		CH5:BIT6:HART ADC OUT OF RANGE:0				
		CH5:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 5th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH6:STATUS	3x00817 4x00817 I:816	1.000000,0x3FF0000000000000 B:00 00 00 00 00 00 3F F0			DOUBLE64R R/O	

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		CH6:Sensor status bits:0000.0000.0000.0001				
		CH6:BIT0:VALID:1				
		CH6:BIT1:ADC OUT OF RANGE:0				
		CH6:BIT2:SENSOR UNDER RANGE:0				
		CH6:BIT3:SENSOR OVER RANGE:0				
		CH6:BIT6:HART ADC OUT OF RANGE:0				
		CH6:BIT7:SENSOR HART FAULT:0				
This registers delivers the current status of the last measurement of the 6th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH7:STATUS	3x00821 4x00821 I:820	129.000000,0x4060200000000000 B:00 00 00 00 20 00 40 60			DOUBLE64R R/O	
		CH7:Sensor status bits:0000.0000.1000.0001				
		CH7:BIT0:VALID:1				
		CH7:BIT1:ADC OUT OF RANGE:0				
		CH7:BIT2:SENSOR UNDER RANGE:0				
		CH7:BIT3:SENSOR OVER RANGE:0				
		CH7:BIT6:HART ADC OUT OF RANGE:0				
		CH7:BIT7:SENSOR HART FAULT:1				
This registers delivers the current status of the last measurement of the 7th sensor channel. Value: Each bit has an individual meaning See CH1:STATUS						
CH8:STATUS	3x00825 4x00825 I:824	129.000000,0x4060200000000000 B:00 00 00 00 20 00 40 60			DOUBLE64R R/O	
		CH8:Sensor status bits:0000.0000.1000.0001				
		CH8:BIT0:VALID:1				
		CH8:BIT1:ADC OUT OF RANGE:0				
		CH8:BIT2:SENSOR UNDER RANGE:0				
		CH8:BIT3:SENSOR OVER RANGE:0				
		CH8:BIT6:HART ADC OUT OF RANGE:0				
		CH8:BIT7:SENSOR HART FAULT:1				

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CH1:AVG_SUM	3x00901 4x00901 I:900	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 1st channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH2:AVG_SUM	3x00905 4x00905 I:904	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 2nd channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH3:AVG_SUM	3x00909 4x00909 I:908	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 3rd channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH4:AVG_SUM	3x00913 4x00913 I:912	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 4th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH5:AVG_SUM	3x00917 4x00917 I:916	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 5th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH6:AVG_SUM	3x00921 4x00921 I:920	1580.190430,0x4098B0C300000000 B:40 98 B0 C3 00 00 00 00			DOUBLE64 R/O	
		1580,190430				

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Current sum of the average calculation for the 6th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH7:AVG_SUM	3x00925 4x00925 I:924	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 7th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH8:AVG_SUM	3x00929 4x00929 I:928	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64 R/O	
		0,000000				
Current sum of the average calculation for the 8th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH1:AVG_SUM	3x00933 4x00933 I:932	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 1st channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH2:AVG_SUM	3x00937 4x00937 I:936	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 2nd channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH3:AVG_SUM	3x00941 4x00941 I:940	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 3rd channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						

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CH4:AVG_SUM	3x00945 4x00945 I:944	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 4th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH5:AVG_SUM	3x00949 4x00949 I:948	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 5th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH6:AVG_SUM	3x00953 4x00953 I:952	0.000000,0xB0C34098 B:40 98 B0 C3 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 6th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH7:AVG_SUM	3x00957 4x00957 I:956	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 7th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH8:AVG_SUM	3x00961 4x00961 I:960	0.000000,0x00000000 B:00 00 00 00 00 00 00 00			DOUBLE64R R/O	
		0,000000				
Current sum of the average calculation for the 8th channel. Value: temperature Unit: in °Celsius [°C] This is current temporary temperature sum for the average calculation.						
CH1:AVG_COUNTER	3x00965 4x00965 I:964	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				

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Current count of summated temperature values for the average temperature calculation for the 1st channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH2:AVG_COUNTER	3x00967 4x00967 I:966	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 2nd channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH3:AVG_COUNTER	3x00969 4x00969 I:968	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 3rd channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH4:AVG_COUNTER	3x00971 4x00971 I:970	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 4th channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH5:AVG_COUNTER	3x00973 4x00973 I:972	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 5th channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH6:AVG_COUNTER	3x00975 4x00975 I:974	57,0x00000039 B:00 00 00 39			UINT32 R/O	
		57,000000				

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Current count of summated temperature values for the average temperature calculation for the 6th channel Value: Count Unit: in pieces This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1. At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.						
CH7:AVG_COUNTER	3x00977 4x00977 I:976	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				
Current count of summated temperature values for the average temperature calculation for the 7th channel Value: Count Unit: in pieces This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1. At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.						
CH8:AVG_COUNTER	3x00979 4x00979 I:978	0,0x00000000 B:00 00 00 00			UINT32 R/O	
		0,000000				
Current count of summated temperature values for the average temperature calculation for the 8th channel Value: Count Unit: in pieces This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1. At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.						
CH1:AVG_COUNTER	3x00981 4x00981 I:980	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				
Current count of summated temperature values for the average temperature calculation for the 1st channel Value: Count Unit: in pieces This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1. At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.						
CH2:AVG_COUNTER	3x00983 4x00983 I:982	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				
Current count of summated temperature values for the average temperature calculation for the 2nd channel Value: Count Unit: in pieces This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1. At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.						
CH3:AVG_COUNTER	3x00985 4x00985 I:984	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				

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Current count of summated temperature values for the average temperature calculation for the 3rd channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH4:AVG_COUNTER	3x00987 4x00987 I:986	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 4th channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH5:AVG_COUNTER	3x00989 4x00989 I:988	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 5th channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH6:AVG_COUNTER	3x00991 4x00991 I:990	57,0x00000039 B:00 39 00 00			UINT32R R/O	
		57,000000				

Current count of summated temperature values for the average temperature calculation for the 6th channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH7:AVG_COUNTER	3x00993 4x00993 I:992	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				

Current count of summated temperature values for the average temperature calculation for the 7th channel
Value: Count
Unit: in pieces

This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1.
At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.

CH8:AVG_COUNTER	3x00995 4x00995 I:994	0,0x00000000 B:00 00 00 00			UINT32R R/O	
		0,000000				

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Current count of summated temperature values for the average temperature calculation for the 8th channel Value: Count Unit: in pieces This is the counter register for the average value calculation. Each time the average sum is updated this counter will be incremented by 1. At the end of the time span, the module divides the sum by this counter value to calculate the average temperature value.						
CH1:AVG_TIMER	3x00997 4x00997 I:996	787,0x00000313 B:00 00 03 13			UINT32 R/O	
		787,000000				
Current interval downcounter timer value for average calculation of 1st channel in Milliseconds.						
CH2:AVG_TIMER	3x00999 4x00999 I:998	12034,0x00002F02 B:00 00 2F 02			UINT32 R/O	
		12034,000000				
Current interval downcounter timer value for average calculation of 2nd channel in Milliseconds.						
CH3:AVG_TIMER	3x01001 4x01001 I:1000	789381120,0x2F0D0000 B:00 00 2F 0D			UINT32R R/O	
		789381120,000000				
Current interval downcounter timer value for average calculation of 3rd channel in Milliseconds.						
CH4:AVG_TIMER	3x01003 4x01003 I:1002	790495232,0x2F1E0000 B:00 00 2F 1E			UINT32R R/O	
		790495232,000000				
Current interval downcounter timer value for average calculation of 4th channel in Milliseconds.						
CH5:AVG_TIMER	3x01005 4x01005 I:1004	12074,0x00002F2A B:00 00 2F 2A			UINT32 R/O	
		12074,000000				
Current interval downcounter timer value for average calculation of 5th channel in Milliseconds.						
CH6:AVG_TIMER	3x01007 4x01007 I:1006	12091,0x00002F3B B:00 00 2F 3B			UINT32 R/O	
		12091,000000				
Current interval downcounter timer value for average calculation of 6th channel in Milliseconds.						
CH7:AVG_TIMER	3x01009 4x01009 I:1008	12108,0x00002F4C B:00 00 2F 4C			UINT32 R/O	
		12108,000000				
Current interval downcounter timer value for average calculation of 7th channel in Milliseconds.						
CH8:AVG_TIMER	3x01011 4x01011 I:1010	12125,0x00002F5D B:00 00 2F 5D			UINT32 R/O	
		12125,000000				
Current interval downcounter timer value for average calculation of 8th channel in Milliseconds.						

CH1:AVG_TIMER	3x01013 4x01013 I:1012	769,0x00000301 B:03 01 00 00			UINT32R R/O	
		769,000000				
Current interval downcounter timer value for average calculation of 1st channel in Milliseconds.						
CH2:AVG_TIMER	3x01015 4x01015 I:1014	12016,0x00002EF0 B:2E F0 00 00			UINT32R R/O	
		12016,000000				
Current interval downcounter timer value for average calculation of 2nd channel in Milliseconds.						
CH3:AVG_TIMER	3x01017 4x01017 I:1016	12033,0x00002F01 B:2F 01 00 00			UINT32R R/O	
		12033,000000				
Current interval downcounter timer value for average calculation of 3rd channel in Milliseconds.						
CH4:AVG_TIMER	3x01019 4x01019 I:1018	12050,0x00002F12 B:2F 12 00 00			UINT32R R/O	
		12050,000000				
Current interval downcounter timer value for average calculation of 4th channel in Milliseconds.						
CH5:AVG_TIMER	3x01021 4x01021 I:1020	12067,0x00002F23 B:2F 23 00 00			UINT32R R/O	
		12067,000000				
Current interval downcounter timer value for average calculation of 5th channel in Milliseconds.						
CH6:AVG_TIMER	3x01023 4x01023 I:1022	12084,0x00002F34 B:2F 34 00 00			UINT32R R/O	
		12084,000000				
Current interval downcounter timer value for average calculation of 6th channel in Milliseconds.						
CH7:AVG_TIMER	3x01025 4x01025 I:1024	12101,0x00002F45 B:2F 45 00 00			UINT32R R/O	
		12101,000000				
Current interval downcounter timer value for average calculation of 7th channel in Milliseconds.						
CH8:AVG_TIMER	3x01027 4x01027 I:1026	12118,0x00002F56 B:2F 56 00 00			UINT32R R/O	
		12118,000000				
Current interval downcounter timer value for average calculation of 8th channel in Milliseconds.						

CH1:SENSOR CONFIGURATION						
CH1:SENSOR TYPE	3x06021 4x06021 I:6020	51,0x0033 B:00 33		0x0033	UINT16 R/W	YES

		CH1:Sensor type:Platin Sensor 10Ω	3:Platin Sensor 10Ω	TYPE	
		CH1:Excitation current:Measurement current 10µA	3:Measurement current 10µA	CURRENT	
		CH1:Linearisation curve:EUROPE	0:EUROPE	LIN.TYPE	
		CH1:Temperature unit:CELSIUS	0:CELSIUS	UNIT	

This register defines the type of the connected sensor to sensor channel 1.
Format
Bit 0..3:CH1_TYPE:Sensor type
0:PT100
1:PT1000
2:PT1000 α=0.00375
3:PT10
4:PT50
5:PT200
6:PT500
7:NI120
8:NI1000-DIN43760
9:R
Bit 4..7:CH1_CURRENT:Excitation current
0:500µA
1:1mA
2:5µA
3:10µA
4:25µA
5:50µA
6:100µA
7:250µA
Bit 8..11:CH1_LINEARISATION:Linearization standard
0:Europe
1:America
2:Japan
3:ITS-90
4:DON'T CARE
Bit 12..15:CH1_UNIT:Display unit: 15,
0:°Celsius [°C]
1:°Fahrenheit [°F]
2:°Kelvin [°K]

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!

CH1:ZERO_OFFSET	3x06022 4x06022 I:6021	-1012345,0xFFF08D87 B:8D 87 FF F0	-1012345	-10,12345	SINT32R R/W	YES
		-10,12345		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH1:AVG_INTERVAL	3x06024 4x06024 I:6023	100,0x00000064 B:00 64 00 00	100	100	UINT32R R/W	YES
		100		ENTER AVERAGE INTERVAL		

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This register contains the time span in Seconds for the average calculation of the 1st sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH2:SENSOR CONFIGURATION

CH2:SENSOR TYPE	3x06041 4x06041 I:6040	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH2:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH2:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH2:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH2:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 2.
See CH1:SENSOR TYPE

CH2:ZERO_OFFSET	3x06042 4x06042 I:6041	150000,0x000249F0 B:49 F0 00 02	150000	1,50000	SINT32R R/W	YES
		1,50000		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH2:AVG_INTERVAL	3x06044 4x06044 I:6043	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH3:SENSOR CONFIGURATION

CH3:SENSOR TYPE	3x06061 4x06061 I:6060	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH3:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH3:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH3:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH3:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 3.
See CH1:SENSOR TYPE

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CH3:ZERO_OFFSET	3x06062 4x06062 I:6061	150000,0x000249F0 B:49 F0 00 02	150000	1,50000	SINT32R R/W	YES
		1,50000		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH3:AVG_INTERVAL	3x06064 4x06064 I:6063	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH4:SENSOR CONFIGURATION

CH4:SENSOR TYPE	3x06081 4x06081 I:6080	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH4:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH4:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH4:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH4:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 4.
See CH1:SENSOR TYPE

CH4:ZERO_OFFSET	3x06082 4x06082 I:6081	150000,0x000249F0 B:49 F0 00 02	150000	1,50000	SINT32R R/W	YES
		1,50000		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH4:AVG_INTERVAL	3x06084 4x06084 I:6083	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

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This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH5:SENSOR CONFIGURATION

CH5:SENSOR TYPE	3x06101 4x06101 I:6100	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH5:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH5:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH5:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH5:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 5.
See CH1:SENSOR TYPE

CH5:ZERO_OFFSET	3x06102 4x06102 I:6101	150000,0x000249F0 B:49 F0 00 02	150000	1,50000	SINT32R R/W	YES
		1,50000		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH5:AVG_INTERVAL	3x06104 4x06104 I:6103	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH6:SENSOR CONFIGURATION

CH6:SENSOR TYPE	3x06121 4x06121 I:6120	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH6:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH6:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH6:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH6:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 6.
See CH1:SENSOR TYPE

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CH6:ZERO_OFFSET	3x06122 4x06122 I:6121	150000,0x000249F0 B:49 F0 00 02	150000	1,50000	SINT32R R/W	YES
		1,50000		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH6:AVG_INTERVAL	3x06124 4x06124 I:6123	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH7:SENSOR CONFIGURATION

CH7:SENSOR TYPE	3x06141 4x06141 I:6140	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH7:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH7:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH7:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH7:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 7.
See CH1:SENSOR TYPE

CH7:ZERO_OFFSET	3x06142 4x06142 I:6141	150000,0x000249F0 B:49 F0 00 02	150000	1,50000	SINT32R R/W	YES
		1,50000		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH7:AVG_INTERVAL	3x06144 4x06144 I:6143	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

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This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH8:SENSOR CONFIGURATION

CH8:SENSOR TYPE	3x06161 4x06161 I:6160	4433,0x1151 B:11 51		0x1151	UINT16 R/W	YES
		CH8:Sensor type:Platin Sensor 1000Ω		1:Platin Sensor 1000Ω	TYPE	
		CH8:Excitation current:Measurement current 50µA		5:Measurement current 50µA	CURRENT	
		CH8:Linearisation curve:AMERICA		1:AMERICA	LIN.TYPE	
		CH8:Temperature unit:FAHRENHEIT		1:FAHRENHEIT	UNIT	

This register defines the type of the connected sensor to sensor channel 8.
See CH1:SENSOR TYPE

CH8:ZERO_OFFSET	3x06162 4x06162 I:6161	-123456,0xFFFE1DC0 B:1D C0 FF FE	-123456	-1,23456	SINT32R R/W	YES
		-1,23456		ENTER ZERO OFFSET		

In this register you can set up a zero offset value to compensate a long cable.
The value represents a temperature value as an integer value in the format °C *100000!
The offset -1.23456 will be -123456.
Therefore you can define an offset with five digits after the comma!

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

CH8:AVG_INTERVAL	3x06164 4x06164 I:6163	200,0x000000C8 B:00 C8 00 00	200	200	UINT32R R/W	YES
		200		ENTER AVERAGE INTERVAL		

This register contains the time span in Seconds for the average calculation of the sensor channel

This value will be stored into an internal FLASH memory. The new setting will be valid after a REBOOT of the module!
IMPORTANT: The internal FLASH memory cannot be written indefinitely!

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GET TEMPx	**ASCII** **READ** **COMMAND**	#GT<CHNR><CR> Result: #GT<CHNR>:<SENSORxDbl><CR>	ASCII	
	CHNR	1		
	TX	#GT1<CR>		
	RX	#1,GT1:-999.000<CR>		
		Current sensor temperature CH1:-999		
Returns the last measured valid temperature on channel sensor 1 to 8 as a floating point number. SENSOR1Dbl The last valid measured temperature value of sensor as floating point number with a . as a decimal point character. The temperature value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
GET TEMPS	**ASCII** **READ** **COMMAND**	#GTS<CR> Result: #GTS:<SENSOR1Dbl>,<SENSOR2Dbl>,...<SENSOR8Dbl><CR>	ASCII	
	TX	#GTS<CR>		
	RX	#1,GTS:-999.000,-999.000,-999.000,-999.000,-999.000,-999.000,-999.000,-999.000<CR>		
		Current sensor temperature CH1:-999		
		Current sensor temperature CH2:-999		
		Current sensor temperature CH3:-999		
		Current sensor temperature CH4:-999		
		Current sensor temperature CH5:-999		
		Current sensor temperature CH6:-999		
		Current sensor temperature CH7:-999		
		Current sensor temperature CH8:-999		
Returns the last measured valid temperatures on all channels as a floating point number. SENSOR1Dbl..SENSOR8Dbl The last valid measured temperature value of sensor x as floating point number with a . as a decimal point character. The temperature value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
GET REAL TEMPx	**ASCII** **READ** **COMMAND**	#GRT<CHNR><CR> Result: #GRT<CHNR>:<REALTEMPxDbl><CR>	ASCII	
	CHNR	1		
	TX	#GRT1<CR>		
	RX	#1,GRT1:-999.000<CR>		
		Real sensor temperature CH1:-999		
Returns the last measured temperature values on sensor input x as a floating point number. The measured value can be an erroneous or invalid measurement result or a valid measurement result. REALTEMPxDbl The last temperature measurement result from sensor x as floating point number with a . for the decimal point. The temperature value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
GET REAL TEMPS	**ASCII** **READ** **COMMAND**	#GRTS<CR> Result: #GRTS:<REALTEMP1Dbl>,<REALTEMP2Dbl><CR>	ASCII	
	TX	#GRTS<CR>		
	RX	#1,GRTS:-999.000,-999.000,-999.000,-999.000,-999.000,-217.410,-999.000,-999.000<CR>		

		Real sensor temperature CH1:-999		
		Real sensor temperature CH2:-999		
		Real sensor temperature CH3:-999		
		Real sensor temperature CH4:-999		
		Real sensor temperature CH5:-999		
		Real sensor temperature CH6:-217,41		
		Real sensor temperature CH7:-999		
		Real sensor temperature CH8:-999		
Returns the last measured temperature values on all sensor inputs as floating point numbers. The measured values can be erroneous or invalid measurement results or valid measurement results. REALTEMPxDbl The last temperature measurement result from sensor x as floating point number with a . for the decimal point. The temperature value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
GET AVG TEMPx	**ASCII READ COMMAND**	#GAT<CHNR><CR> Result: #GAT<CHNR>:<AVGTEMPxDbl><CR>	ASCII	
	CHNR	1		
	TX	#GAT1<CR>		
	RX	#1,GAT1:-999.000<CR>		
		Average sensor temperature CH1:-999		
Returns the last calculated average temperature for sensor input x as a floating point number. AVGTEMPxDbl The last calculated average temperature result for sensor x as floating point number with a . for the decimal point. The temperature value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
GET AVG TEMPS	**ASCII READ COMMAND**	#GATS<CR> Result: GATS:<AVGTEMP1Dbl>,<AVGTEMP2Dbl><CR>	ASCII	
	TX	#GATS<CR>		
	RX	#1,GATS:-999.000,-999.000,-999.000,-999.000,-999.000,-999.000,-999.000,-999.000<CR>		
		Average sensor temperature CH1:-999		
		Average sensor temperature CH2:-999		
		Average sensor temperature CH3:-999		
		Average sensor temperature CH4:-999		
		Average sensor temperature CH5:-999		
		Average sensor temperature CH6:-999		
		Average sensor temperature CH7:-999		
		Average sensor temperature CH8:-999		
Returns the last calculated average temperatures for all sensor inputs as floating point numbers. AVGTEMPxDbl The last calculated average temperature result for sensor x as floating point number with a . for the decimal point. The temperature value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				

SET AVG INTERVAL1	**ASCII WRITE COMMAND**	#SAI<CHNR>:<AVGINTERVALx><CR> Result: #OK<CR>	ASCII	YES
	CHNR	1		
	AVGINTERVALx	11		
	TX	#SAI1:11<CR>		
	RX	#1,OK<CR>		
Defines a new time interval for the average calculation in Seconds for channel x. AVGINTERVALx The new time span for the average calculation on sensor input x in Seconds. This value is stored in the internal FLASH memory.				
SET AVG INTERVALS	**ASCII WRITE COMMAND**	#SAIS:<AVG1>,<AVG2>,<AVG3>,<AVG4>,<AVG5>,<AVG6>,<AVG7>,<AVG8><CR> Result: #OK<CR>	ASCII	YES
	AVG1	10		
	AVG2	11		
	AVG3	12		
	AVG4	13		
	AVG5	14		
	AVG6	15		
	AVG7	16		
	AVG8	17		
	TX	#SAIS:10,11,12,13,14,15,16,17<CR>		
	RX	#1,OK<CR>		
Defines a new time interval for the average calculation in Seconds for all channels. AVG1..AVG8 The new time span for the average calculation on sensor input x in Seconds. All values are stored in the internal FLASH memory.				
GET AVG INTERVALx	**ASCII READ COMMAND**	#GAI<CHNR><CR> Result: #<CHNR>:<AVGINTERVALxDec>,<AVGINTERVALxHex><CR>	ASCII	
	CHNR	1		
	TX	#GAI1<CR>		
	RX	#1,GAI1:10,0xA<CR>		
		Average interval CH1:10		
Returns the current configured time span for the average calculation in Seconds as decimal or hexadecimal value for sensor channel x. AVGINTERVALxDec AVGINTERVALxHex The configured time span for the average calculation for sensor input x in Seconds				
GET AVG INTERVALS	**ASCII READ COMMAND**	#GAIS<CR> Result: #GAIS:<AVG1Dec>,<AVG2Dec>,...,<AVG8Dec>, <AVG1Hex>,<AVG2Hex>,...,<AVG8Hex><CR>	ASCII	
	TX	#GAIS<CR>		

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	RX	#1,GAIS:10,11,12,13,14,15,16,17,0xa,0xb,0xc,0xd,0xe,0xf,0x10,0x11<CR>		
		Average interval CH1:10		
		Average interval CH2:11		
		Average interval CH3:12		
		Average interval CH4:13		
		Average interval CH5:14		
		Average interval CH6:15		
		Average interval CH7:16		
		Average interval CH8:17		

Returns the current configured time span for the average calculation in Seconds as decimal or hexadecimal value for all sensor channels.
AVGxDec
AVGxHex
The configured time span for the average calculation for sensor input x in Seconds

SET OFFSET TEMPx	**ASCII WRITE COMMAND**	#SOT<CHNR>:<OFSTEMPx><CR> Result: #OK	ASCII	YES
	CHNR	1		
	OFSTEMPx	1,234		
	TX	#SOT1:1.234<CR>		
	RX	#1,OK<CR>		

Defines a new zero offset value for sensor input x as a temperature value in the current configured temperature unit.

OFSTEMPx
the new zero offset as a floating point number for sensor channel x with a . as a comma sign.

This value is stored in the internal FLASH memory.

SET OFFSET TEMPS	**ASCII WRITE COMMAND**	#SOTS:<OFS1>,<OFS2>,<OFS3>,<OFS4>,<OFS5>,<OFS6>,<OFS7>,<OFS8><CR> Result: #OK<CR>	ASCII	YES
	OFS1	1,234		
	OFS2	2,3456		
	OFS3	0		
	OFS4	0,1		
	OFS5	0,2		
	OFS6	-0,5		
	OFS7	-0,3		
	OFS8	-0,234		
	TX	#SOTS:1.234,2.3456,0,0.1,0.2,-0.5,-0.3,-0.234<CR>		
	RX	#1,OK<CR>		

Defines a new zero offset value for all sensor inputs as a temperature value in the current configured temperature unit.

OFS1...OFS8
the new zero offset as a floating point number for sensor channel x with a . as a comma sign.

All values are stored in the internal FLASH memory.

GET OFFSET TEMPx	**ASCII READ COMMAND**	#GOT<CHNR><CR> Result: #GOT<CHNR>:<OFSTEMPxDbl><CR>	ASCII	
	CHNR	1		
	TX	#GOT1<CR>		
	RX	#1,GOT1:1.23400<CR>		
		Current offset for CH1:1,234		
Returns the current configured zero offset values for sensor channel x as a floating point number. OFSTEMPxDbl The configured zero offset value for sensor input x as floating point number with a . as a comma sign. The offset value is returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
GET OFFSET TEMPS	**ASCII READ COMMAND**	#GOTS<CR> Result: #GOTS:,<OFS1Dbl>,<OFS2Dbl>,...,<OFS8Dbl><CR>	ASCII	
	TX	#GOTS<CR>		
	RX	#1,GOTS:1.23400,2.34560,0.00000,0.10000,0.20000,-0.50000,-0.30000,-0.23400<CR>		
		Current offsets CH1:1,234		
		Current offsets CH2:2,3456		
		Current offsets CH3:0		
		Current offsets CH4:0,1		
		Current offsets CH5:0,2		
		Current offsets CH6:-0,5		
		Current offsets CH7:-0,3		
		Current offsets CH8:-0,234		
Returns the current configured zero offset values for all sensor channels as a floating point number. OFS1Dbl...OFS8Dbl The configured zero offset value for sensor input x as floating point number with a . as a comma sign. The offset values are returned in the actual configured unit in register CHx_UNIT (°Celsius, °Fahrenheit or °Kelvin).				
SET SENSOR CONFIGx	**ASCII WRITE COMMAND**	#SSC<CHNR>:<STYPE>,<SCURRENT>,<SLINEARISATION>,<SUNIT><CR> Result: #OK	ASCII	YES
	CHNR	1		
	STYPE	NI1000-DIN43760:Nickel Sensor 1000Ω according to DIN43760		
	SCURRENT	5MYA:Measurement current 5µA		
	SLINEARISATION	ITS90		
	SUNIT	KELVIN		
	TX	#SSC1:NI1000-DIN43760,5MYA,ITS90,KELVIN<CR>		
	RX	#1,OK<CR>		
Defines a new configuration for sensor input x. The changes are valid after a REBOOT of the module. The configuration data will be written to the internal FLASH memory.				

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SType
The current type of the sensor:
PT100 Platin 100Ω
PT1000 Platin 1000Ω
PT1000_375 Platin 1000Ω α=0.00375
PT10 Platin 10Ω
PT50 Platin 50Ω
PT200 Platin 200Ω
PT500 Platin 500Ω
NI120 Nickel 120Ω
NI1000-DIN43760 Nickel 1000Ω DIN43760 linearization
R pure resistor measurement

SCurrent
The actual measurement current for the sensor
500MYA 500µA
1MA 1mA
5MYA 5µA
10MYA 10µA
20MYA 20µA
50MYA 50µA
100MYA 100µA
250MYA 250µA

SLinearisation
The actual linearization method for the sensor
EUROPE
AMERICA
JAPAN
ITS90
DONT_CARE

SUnit
The actual temperature unit for the sensor
CELSIUS
FAHRENHEIT
KELVIN

SET SENSOR CONFIG2	**ASCII WRITE COMMAND**	#SSC2:<STYPE>,<SCURRENT>,<SLINEARISATION>,<SUNIT><CR> Result: #OK<CR>	ASCII	YES
	STYPE	NI1000-DIN43760:Nickel Sensor 1000Ω according to DIN43760		
	SCURRENT	5MYA:Measurement current 5µA		
	SLINEARISATION	ITS90		
	SUNIT	KELVIN		
	TX	#SSC2:NI1000-DIN43760,5MYA,ITS90,KELVIN<CR>		
	RX	#1,OK<CR>		

Defines a new configuration for sensor input 2. The changes are valid after a REBOOT of the module. The configuration data will be written to the internal FLASH memory.

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SType
The current type of the sensor:
PT100 Platin 100Ω
PT1000 Platin 1000Ω
PT1000_375 Platin 1000Ω α=0.00375
PT10 Platin 10Ω
PT50 Platin 50Ω
PT200 Platin 200Ω
PT500 Platin 500Ω
NI120 Nickel 120Ω
NI1000-DIN43760 Nickel 1000Ω DIN43760 linearization
R pure resistor measurement

SCurrent
The actual measurement current for the sensor
500MYA 500µA
1MA 1mA
5MYA 5µA
10MYA 10µA
20MYA 20µA
50MYA 50µA
100MYA 100µA
250MYA 250µA

SLinearisation
The actual linearization method for the sensor
EUROPE
AMERICA
JAPAN
ITS90
DONT_CARE

SUnit
The actual temperature unit for the sensor
CELSIUS
FAHRENHEIT
KELVIN

SET SENSOR CONFIGS	**ASCII WRITE COMMAND**	#SSCS:S1,<S1TYPE>,<S1CURRENT>,<S1LINEARISATION>,<S1UNIT>, S2,<S2TYPE>,<S2CURRENT>,<S2LINEARISATION>,<S2UNIT>, S3,<S3TYPE>,<S3CURRENT>,<S3LINEARISATION>,<S3UNIT>, S4,<S4TYPE>,<S4CURRENT>,<S4LINEARISATION>,<S4UNIT>, S5,<S5TYPE>,<S5CURRENT>,<S5LINEARISATION>,<S5UNIT>, S6,<S6TYPE>,<S6CURRENT>,<S6LINEARISATION>,<S6UNIT>, S7,<S7TYPE>,<S7CURRENT>,<S7LINEARISATION>,<S7UNIT>, S8,<S8TYPE>,<S8CURRENT>,<S8LINEARISATION>,<S8UNIT><CR> Result: #OK	ASCII	YES
	S1TYPE	PT1000:Platin Sensor 1000Ω		
	S1CURRENT	500MYA:Measurement current 500µA		
	S1LINEARISATION	EUROPE		
	S1UNIT	CELSIUS		
	S2TYPE	PT1000:Platin Sensor 1000Ω		
	S2CURRENT	500MYA:Measurement current 500µA		
	S2LINEARISATION	EUROPE		
	S2UNIT	CELSIUS		

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	S3TYPE	PT1000:Platin Sensor 1000Ω		
	S3CURRENT	500MYA:Measurement current 500µA		
	S3LINEARISATION	EUROPE		
	S3UNIT	CELSIUS		
	S4TYPE	PT1000:Platin Sensor 1000Ω		
	S4CURRENT	500MYA:Measurement current 500µA		
	S4LINEARISATION	EUROPE		
	S4UNIT	CELSIUS		
	S5TYPE	PT1000:Platin Sensor 1000Ω		
	S5CURRENT	500MYA:Measurement current 500µA		
	S5LINEARISATION	EUROPE		
	S5UNIT	CELSIUS		
	S6TYPE	PT1000:Platin Sensor 1000Ω		
	S6CURRENT	500MYA:Measurement current 500µA		
	S6LINEARISATION	EUROPE		
	S6UNIT	CELSIUS		
	S7TYPE	PT1000:Platin Sensor 1000Ω		
	S7CURRENT	500MYA:Measurement current 500µA		
	S7LINEARISATION	EUROPE		
	S7UNIT	CELSIUS		
	S8TYPE	PT1000:Platin Sensor 1000Ω		
	S8CURRENT	500MYA:Measurement current 500µA		
	S8LINEARISATION	EUROPE		
	S8UNIT	CELSIUS		
	TX	#SSCS:S1,PT1000,500MYA,EUROPE,CELSIUS,S2,PT1000,500MYA,EUROPE,CELSIUS,S3,PT1000,500MYA,EUROPE,CELSIUS,S4,PT1000,500MYA,EUROPE,CELSIUS,S5,PT1000,500MYA,EUROPE,CELSIUS,S6,PT1000,500MYA,EUROPE,CELSIUS,S7,PT1000,500MYA,EUROPE,CELSIUS,S8,PT1000,500MYA,EUROPE,CELSIUS<CR>		
	RX	#1,OK<CR>		

Defines a new configuration for all sensor inputs. The changes are valid after a REBOOT of the module. The configuration data will be written to the internal FLASH memory.

SxType
The current type of the sensor:
PT100 Platin 100Ω
PT1000 Platin 1000Ω
PT1000_375 Platin 1000Ω α=0.00375
PT10 Platin 10Ω
PT50 Platin 50Ω
PT200 Platin 200Ω
PT500 Platin 500Ω
NI120 Nickel 120Ω
NI1000-DIN43760 Nickel 1000Ω DIN43760 linearization
R pure resistor measurement

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SxCurrent
The actual measurement current for the sensor
500MYA 500µA
1MA 1mA
5MYA 5µA
10MYA 10µA
20MYA 20µA
50MYA 50µA
100MYA 100µA
250MYA 250µA

SxLinearisation
The actual linearization method for the sensor
EUROPE
AMERICA
JAPAN
ITS90
DONT_CARE

SxUnit
The actual temperature unit for the sensor
CELSIUS
FAHRENHEIT
KELVIN

GET SENSOR CONFIGx	**ASCII READ COMMAND**	#GSC<CHNR><CR> Result: #GSC<CHNR>:<SType>,<SCurrent>,<SLinearisation>,<SUnit><CR>	ASCII	
	CHNR	1		
	TX	#GSC1<CR>		
	RX	#1,GSC1:PT1000,500MYA,EUROPE,CELSIUS<CR>		
		CH1:Sensor type:PT1000		
		CH1:Measurement current:500MYA		
		CH1:Linearisation:EUROPE		
		CH1:Temperature unit:CELSIUS		

Shows the current configuration of sensor input x:

SType
The current type of the sensor:
PT100 Platin 100Ω
PT1000 Platin 1000Ω
PT1000_375 Platin 1000Ω α=0.00375
PT10 Platin 10Ω
PT50 Platin 50Ω
PT200 Platin 200Ω
PT500 Platin 500Ω
NI120 Nickel 120Ω
NI1000-DIN43760 Nickel 1000Ω DIN43760 linearization
R pure resistor measurement

SCurrent
The actual measurement current for the sensor
500MYA 500µA
1MA 1mA
5MYA 5µA
10MYA 10µA
20MYA 20µA
50MYA 50µA
100MYA 100µA
250MYA 250µA

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SLinearisation The actual linearization method for the sensor EUROPE AMERICA JAPAN ITS90 DONT_CARE				
SUnit The actual temperature unit for the sensor CELSIUS FAHRENHEIT KELVIN				
GET SENSOR CONFIGS	**ASCII READ COMMAND**	#GSCS<CR> Result: #GSCS:S1,<S1Type>,<S1Current>,<S1Linearisation>,<S1Unit>, S2,<S2Type>,<S2Current>,<S2Linearisation>,<S2Unit>, S3,<S3Type>,<S3Current>,<S3Linearisation>,<S3Unit>, S4,<S4Type>,<S4Current>,<S4Linearisation>,<S4Unit>, S5,<S5Type>,<S5Current>,<S5Linearisation>,<S5Unit>, S6,<S6Type>,<S6Current>,<S6Linearisation>,<S6Unit>, S7,<S7Type>,<S7Current>,<S7Linearisation>,<S7Unit>, S8,<S8Type>,<S8Current>,<S8Linearisation>,<S8Unit><CR>	ASCII	
	TX	#GSCS<CR>		
	RX	#1,GSCS:S1,PT1000,500MYA,EUROPE,CELSIUS,S2,PT1000,500MYA,EUROPE,CELSIUS,S3,PT1000,500MYA,EUROPE,CELSIUS,S4,PT1000,500MYA,EUROPE,CELSIUS,S5,PT1000,500MYA,EUROPE,CELSIUS,S6,PT1000,500MYA,EUROPE,CELSIUS,S7,PT1000,500MYA,EUROPE,CELSIUS,S8,PT1000,500MYA,EUROPE,CELSIUS<CR>		
		CH1:Sensor type:PT1000		
		CH1:Measurement current:500MYA		
		CH1:Linearisation:EUROPE		
		CH1:Temperature unit:CELSIUS		
		CH2:Sensor type:PT1000		
		CH2:Measurement current:500MYA		
		CH2:Linearisation:EUROPE		
		CH2:Temperature unit:CELSIUS		
		CH3:Sensor type:PT1000		
		CH3:Measurement current:500MYA		
		CH3:Linearisation:EUROPE		
		CH3:Temperature unit:CELSIUS		
		CH4:Sensor type:PT1000		
		CH4:Measurement current:500MYA		
		CH4:Linearisation:EUROPE		
		CH4:Temperature unit:CELSIUS		
		CH5:Sensor type:PT1000		
		CH5:Measurement current:500MYA		
		CH5:Linearisation:EUROPE		
		CH5:Temperature unit:CELSIUS		

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		CH6:Sensor type:PT1000		
		CH6:Measurement current:500MYA		
		CH6:Linearisation:EUROPE		
		CH6:Temperature unit:CELSIUS		
		CH7:Sensor type:PT1000		
		CH7:Measurement current:500MYA		
		CH7:Linearisation:EUROPE		
		CH7:Temperature unit:CELSIUS		
		CH8:Sensor type:PT1000		
		CH8:Measurement current:500MYA		
		CH8:Linearisation:EUROPE		
		CH8:Temperature unit:CELSIUS		
Show the current configuration of both sensor inputs:				
SxType The current type of the sensor: PT100 Platin 100Ω PT1000 Platin 1000Ω PT1000_375 Platin 1000Ω α=0.00375 PT10 Platin 10Ω PT50 Platin 50Ω PT200 Platin 200Ω PT500 Platin 500Ω NI120 Nickel 120Ω NI1000-DIN43760 Nickel 1000Ω DIN43760 linearization R pure resistor measurement				
SxCurrent The actual measurement current for the sensor 500MYA 500µA 1MA 1mA 5MYA 5µA 10MYA 10µA 20MYA 20µA 50MYA 50µA 100MYA 100µA 250MYA 250µA				
SxLinearisation The actual linearization method for the sensor EUROPE AMERICA JAPAN ITS90 DONT_CARE				
SxUnit The actual temperature unit for the sensor CELSIUS FAHRENHEIT KELVIN				
GET SENSOR STATUS	**ASCII READ COMMAND**	#GSS<CR> Result: #GSS:<S1StatusDec>,<S2StatusDec>,...,<S8StatusDec>, <S1StatusHex>,<S2StatusHex>,...,<S8StatusHex><CR>	ASCII	
	TX	#GSS<CR>		
	RX	#1,GSS:133,133,133,133,133,5,133,133,0x85,0x85,0x85,0x85,0x85,0x5,0x85,0x85<CR>		

		CH1:Sensor status bits:0000.0000.1000.0101		
		CH1:BIT0:VALID:1		
		CH1:BIT1:ADC OUT OF RANGE:0		
		CH1:BIT2:SENSOR UNDER RANGE:1		
		CH1:BIT3:SENSOR OVER RANGE:0		
		CH1:BIT6:HART ADC OUT OF RANGE:0		
		CH1:BIT7:SENSOR HART FAULT:1		
		CH2:Sensor status bits:0000.0000.1000.0101		
		CH2:BIT0:VALID:1		
		CH2:BIT1:ADC OUT OF RANGE:0		
		CH2:BIT2:SENSOR UNDER RANGE:1		
		CH2:BIT3:SENSOR OVER RANGE:0		
		CH2:BIT6:HART ADC OUT OF RANGE:0		
		CH2:BIT7:SENSOR HART FAULT:1		
		CH3:Sensor status bits:0000.0000.1000.0101		
		CH3:BIT0:VALID:1		
		CH3:BIT1:ADC OUT OF RANGE:0		
		CH3:BIT2:SENSOR UNDER RANGE:1		
		CH3:BIT3:SENSOR OVER RANGE:0		
		CH3:BIT6:HART ADC OUT OF RANGE:0		
		CH3:BIT7:SENSOR HART FAULT:1		
		CH4:Sensor status bits:0000.0000.1000.0101		
		CH4:BIT0:VALID:1		
		CH4:BIT1:ADC OUT OF RANGE:0		
		CH4:BIT2:SENSOR UNDER RANGE:1		
		CH4:BIT3:SENSOR OVER RANGE:0		
		CH4:BIT6:HART ADC OUT OF RANGE:0		
		CH4:BIT7:SENSOR HART FAULT:1		
		CH5:Sensor status bits:0000.0000.1000.0101		
		CH5:BIT0:VALID:1		
		CH5:BIT1:ADC OUT OF RANGE:0		
		CH5:BIT2:SENSOR UNDER RANGE:1		
		CH5:BIT3:SENSOR OVER RANGE:0		
		CH5:BIT6:HART ADC OUT OF RANGE:0		
		CH5:BIT7:SENSOR HART FAULT:1		
		CH6:Sensor status bits:0000.0000.0000.0101		
		CH6:BIT0:VALID:1		
		CH6:BIT1:ADC OUT OF RANGE:0		
		CH6:BIT2:SENSOR UNDER RANGE:1		
		CH6:BIT3:SENSOR OVER RANGE:0		
		CH6:BIT6:HART ADC OUT OF RANGE:0		
		CH6:BIT7:SENSOR HART FAULT:0		
		CH7:Sensor status bits:0000.0000.1000.0101		

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		CH7:BIT0:VALID:1		
		CH7:BIT1:ADC OUT OF RANGE:0		
		CH7:BIT2:SENSOR UNDER RANGE:1		
		CH7:BIT3:SENSOR OVER RANGE:0		
		CH7:BIT6:HART ADC OUT OF RANGE:0		
		CH7:BIT7:SENSOR HART FAULT:1		
		CH8:Sensor status bits:0000.0000.1000.0101		
		CH8:BIT0:VALID:1		
		CH8:BIT1:ADC OUT OF RANGE:0		
		CH8:BIT2:SENSOR UNDER RANGE:1		
		CH8:BIT3:SENSOR OVER RANGE:0		
		CH8:BIT6:HART ADC OUT OF RANGE:0		
		CH8:BIT7:SENSOR HART FAULT:1		

Returns the current status for all sensor inputs:

SxStatusDec
SxStatusHex
Status for sensor input x

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

GET SENSOR STATUSx	**ASCII READ COMMAND**	#GSS<CHNR><CR> Result: #GSS<CHNR>:<SStatusDec>,<SStatusHex><CR>	ASCII	
	CHNR	1		
	TX	#GSS1<CR>		
	RX	#1,GSS1:133,0x85<CR>		
		CH1:Sensor status bits:0000.0000.1000.0101		
		CH1:BIT0:VALID:1		
		CH1:BIT1:ADC OUT OF RANGE:0		
		CH1:BIT2:SENSOR UNDER RANGE:1		

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		CH1:BIT3:SENSOR OVER RANGE:0		
		CH1:BIT6:HART ADC OUT OF RANGE:0		
		CH1:BIT7:SENSOR HART FAULT:1		

Returns the status for the first sensor input x.

SStatusDec
SStatusHex
Status of the sensor channel x

Explanation of status bits:
Bit 0:VALID
=1: If the measurement result is valid, this bit is set and all other bits in the status are 0!

=0: if the system detects a conversion error or problem, this bit is 0 and the measurement result must be discarded!

Bit 1:ADC OUT OF RANGE
=1: If the product of 2kΩ * excitation current >1V, this bit is 1 and the measurement result is invalid.

The absolute input voltage of the ACD beyond ±1.125 • VREF/2

=0: Everything is ok

Bit 2: SENSOR UNDER RANGE
=1: The current measured temperature is beyond the lower limit for the selected sensor type.
For PT: -200°C, for NI-120: -80°C

=0: Everything is ok

Bit 3: SENSOR OVER RANGE
=1: The current measured temperature is above the upper limit for the selected sensor type.
For PT: +850°C, for NI-120: +260°C

=0: Everything is ok

Bit 4: NOT USED
Ignore this bit

Bit 5: NOT USED
Ignore this bit

Bit 6: HARD ADC OUT OF RANGE
=1: Erroneous readout of the ADC value. A possibility is an extreme high noise level on the signal. The sensor value will be discarded. A second option is an open wiring for the sensor.

=0: Everything is ok

Bit 7: SENSOR HARD FAULT
=1: Sensor wiring is open or no sensor is cabled to the module. Sensor has a shortcut or the internal sense resistor has an error.

=0: Everything is ok
Bits 8..15: ALWAYS ZERO
Are always 0

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