

M(ulti) C(ontrol) U(nit)

MODBUS Protocol Implementation

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I. Purpose of this document

This document describes the implementation of the MODBUS protocol in the MCU.

II. Distribution list

Project group, SMU

III. History

Version	Changes	Date
0.1	Initial version	2008-05-05
1.0	Updated register list, minor corrections	2009-02-16
1.1	Corrected register list, removed undone stuff (TCP, ...)	2009-03-19
1.2	Correcetd register list, added register descriptions	2009-04-14
1.3	Corrected AO Register	2009-04-15
1.4	Minor changes and corrections	2009-05-05
1.5	Added data archive access proposal	2009-06-05
1.6	Added MCU – E Registerlist	2009-07-05
1.7	Fixed Datalog – Readout Register definition	2009-08-10
1.8	Added Sensor Value Assignments	2010-01-11
1.9	Added Sensor Value Assignments – FL100 2 Path, added silent time notice	2010-04-30
2.0	Changed Data Archive request due to archive structure changes	2010-08-23
2.1	Improved register definition (No. 4100, 5001... 5005), changed Pressure unit for MCU-P	2010-10-05
2.2	Removed registers MCU-E (No. 3034, 3036, 5004-5006)	2010-11-26
2.4	Changed wrong register numbers for gas concentrations	2010-12-08
2.5	Added detailed system & sensor status information	2011-06-01
2.6	Updated Data Archive content for MCU-P	2011-06-09
3.0	Corrected MODBUS access rights for gas concentrations	2012-04-10
3.1	Added MCU-P Archiv feedback register (2500-2832)	2012-08-22
3.3	Fixed FLOAT -> UINT32 on mw.MWBlock[x].status for MCU-E	2012-10-04
3.4	Updates in MODBUS-TCP part	2013-04-17
3.6	Update Statusbits MCU-P	2014-06-24
3.7.	Insert FWE200DH meas value in overview table	2014-07-08
3.8	Insert comment under table "MCU Device Variant setting (only for MCU-E)"	2014-10-28
3.9	Fixed Description and Phys. Unit (1126...1132, 1226..1232, 1326..1332) for MCU-P	2015-02-03
4.1	Added Registers (3270..3281)	2015-10-14
4.2	Added Statusbits for DI3 and DI4 special functions MCU-E	2015-11-17
4.3	Added Registers for Project AUTEK Norway, DTI and AI rendundance with 12 transmitters	2016-06-17
4.4	Added Registers for Project AUTEK Norway, Archive data of current running period (6500..6832)	2016-08-01
4.5	Added Chapter 2.4 Bustiming	2016-08-30
4.6	Description corrected for registers #1126..#1140, #1226..#1240, #1326..#1340	2016-09-26
4.7	Added registers #1134, #1136, #1234, #1236, #1334, #1336 for MCU-P	2019-02-26
4.8	MCU-P Added Register #3282..#3287	2019-10-09
4.9	MCU-P Added Register #1153..#1156, #1253..#1256, #1353..#1356 Added new statusbits	2020-05-13
5.0	MCU-E Added Registers #1398..#1590	

5.1	MCU-P Added Noise Registers #6900..#6935	2021-03-18
5.2	MCU-E Added Registers #10000..#10001 for China, Province Guizhou	2022-02-10
5.3	MCU-E Changed value definitions fuer Register #10001 for China, Province Guizhou All writings of "check cycle" set to "checkcycle" for better searchresults in this file	2022-03-04
5.4	MCU-E Added Registers #4200..#4205, #10020..#10049 , #11000..#11287 MCU-E Added status codes for SB30 for China, Province Guizhou (Regs #10000..#10001) MCU-E Values for Reg #3900 changed	internal
5.5	MCU-E Added Registers #1070..#1079, #10020..#10039 (Internal note: #10020..#10039 resorted and #10040..#10050 removed – for release document merge comment 5.4 and 5.5) MCU-E Added Registers #10050..#10063 Chaper 1.6 definition of STRING changed -> Registers #3000..#3023 type Renamed	2023-05-15
5.6	Register #3110 and #3112 modified (lower and upper range AO_0) depend on the actual used range, if automatic switch between two ranges is enabled For MCU-E V01.26.00 and higher	2025-05-20

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List of abbreviations

MCU	Multi Control Unit
MCU-E	Multi Control Unit-EMISSION
MCU-P	Multi Control Unit-PROCESS
RTU	Remote Terminal Unit
ASCII	American Standard Code For Information Interchange
ISO	International Standards Organization
OSI	Open Systems Interconnection
CRC	Cyclic Redundancy Check
LRC	Longitudinal Redundancy Check
EIA/TIA	Electronic Industries Alliance / Telecommunications Industry Association
USB	Universal Serial Bus
TCP/IP	Transmission Control Protocol / Internet Protocol
MBAP	Modbus Application Protocol
PDA	Protocol Data Unit
ADU	Application Data Unit
TBD	To be done

1 General

1.1 References

This implementation guide is strictly orientated on the following documents:

- „Modbus Application Protocol Specification V1.1b“
- „Modbus over Serial Line Specification an Implementation guide V1.02“
- „Modbus Messaging on TCP/IP Implementation guide V1.0b“

by the Modbus IDA Organization.

Text parts written in **gray color** describes functionality witch is not implemented yet.

1.2 OSI Layer classification

The Modbus protocol can compared to to ISO/OSI reference model in the following way:

Table 1: OSI Layer classification

Layer	OSI meaning	Modbus meaning
7	Application	Modbus Application Protocol
6	Presentation	Empty
5	Session	Empty
4	Transport	Empty
3	Network	Empty
2	Data Link	MODBUS Serial Line Protocol
1	Physical	EIA/TIA -232

1.3 Modbus RTU

This protocol is a fully binary protocol. Start of message and end of message are defined by specific communication timeouts. Error detection is done by a CRC-16 calculation.

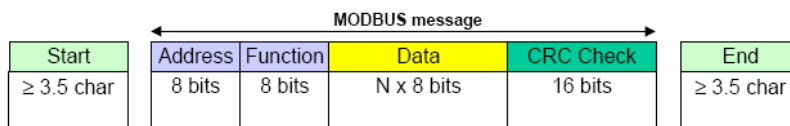


Figure 1: Modbus RTU Framing

Important Notice:

For a stable and error-free communication with multiple slaves on one busline, it is strongly recommended to use a silent time of at least 10 ms after the MCU's reply before sending the next request to any slave on the bus!

1.4 Modbus ASCII

Modbus ASCII describes a fully ASCII orientated protocol, starting with „:“ and ending with CRLF. Each data-byte is separated and transmitted as two ASCII bytes. Error detection is done here with a LRC check over the datablock.

Start	Address	Function	Data	LRC	End
1 char :	2 chars	2 chars	0 up to 2x252 char(s)	2 chars	2 chars CR,LF

Figure 2: Modbus ASCII Framing

1.5 Modbus TCP

Modbus TCP defines the transmission of datagrams over Ethernet TCP/IP line on **port 502**.

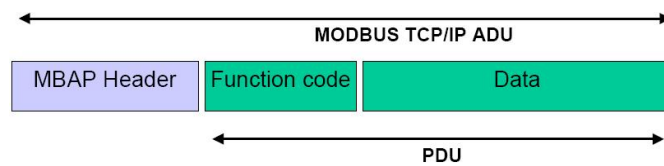


Figure 3 : Modbus TCP datagram

A dedicated header is used on TCP/IP to identify the MODBUS Application Data Unit. It is called the MBAP header (MODBUS Application Protocol header).

This header provides some differences compared to the MODBUS RTU application data unit used on serial line:

- The MODBUS 'slave address' field usually used on MODBUS Serial Line is replaced by a 'Unit Identifier' within the MBAP Header. The 'Unit Identifier' is used to communicate via devices such as bridges, routers and gateways that use a single IP address to support multiple independent MODBUS units.
- All MODBUS requests and responses are designed in such a way that the recipient can verify that a message is finished. For function codes where the MODBUS PDU has a fixed length, the function code alone is sufficient. For function codes carrying a variable amount of data in the request or response, the data field includes a byte count.
- When MODBUS is carried over TCP, additional length information is carried in the MBAP header to allow the recipient to recognize message boundaries even if the message has been split into multiple packets for transmission. The existence of explicit and implicit length rules and use of a CRC-32 error check code (on Ethernet) results in an infinitesimal chance of undetected corruption to a request or response message.

Content of the header:

Table 2 : MBAP header

Field	Length	Description
Transaction Identifier	2 Bytes	It is used for transaction pairing, the MODBUS server copies in the response the transaction identifier of the request.
Protocol Identifier	2 Bytes	It is used for intra-system multiplexing. The MODBUS protocol is identified by the value 0.
Length	2 Bytes	The length field is a byte count of the following fields, including the Unit Identifier and data fields.
Unit Identifier	1 Byte	This field is used for intra-system routing purpose. It is typically used to communicate to a MODBUS+ or a MODBUS serial line slave through a gateway between an Ethernet TCP-IP network and a MODBUS serial line. This field is set by the MODBUS Client in the request and must be returned with the same value in the response by the server.

1.6 Modbus Datatypes

With Modbus communication, it is defined that all values transferred in registers 16 bit width. That means, e.g. that a float value is transferred in two registers. It is also defined that MODBUS uses BigEndian Datatransfer.

Datatype	Width	used registers	Remark
(un)signed char	8 Bits	1	
(un)signed int	16 Bit	1	
(un)signed long	32 Bit	2	
float	32 bit	2	IEEE format
stringX	n * 8 Bit	n>2: (n/2)	used flipped high and low bytes
string	n * 8 Bit	n>2: (n/2)	not flipped high and low bytes

On the Modbus, the data is always represented in metric units, as described in the registerlist!

2 Physical requirements

2.1 Modbus ASCII / RTU via Service Interface

Possible connection types:

- a) USB: a USB Type-B plug is required at the MCU side
- b) RS232: screw clamps hold the RX, TX and ground line.
- c) opt. RS485 Converter installed in MCU housing, connection via screw clamps

2.2 Modbus ASCII / RTU via Expansion Interface

RS485 Connectors available on the Interface Module, marked as 'A' and 'B'.

2.3 Modbus TCP via Expansion Interface

Connection is possible via RJ45 socket on the Interface module.

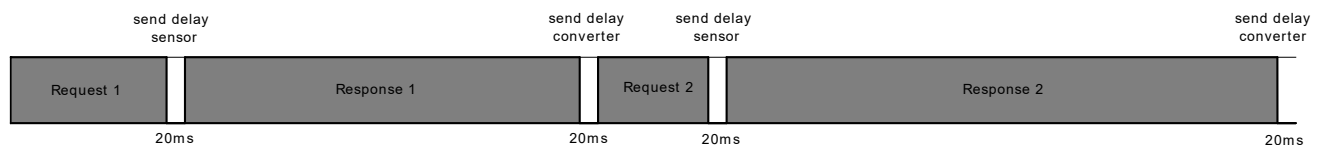
2.4 Bustiming

After the response of a device, there must be silence on the bus of at least 20ms before next request can be send to any device on the bus.

ModbusTCP to Modbus ASCII/RTU convertes must provide a function to configure the delay of 20ms.
This function is called "Serial TX delay" or "Silent Time" or similar.

If devices of foreign vendors installed on the same serial bus they must provide an option like "Send delay" to provide the necessary silence on the bus.

In other cases the devices must not be installed on the same serial bus with our MCU.



3 Protocol specification

3.1 Supported commands

3.1.1 Functioncode 0x03: Read Holding Registers

The „Read Holding Registers“ command is used to **read out parameters and other static data** from the MCU.

Request to the MCU:

Request functioncode:	1 byte	0x03
Starting address:	2 byte	0x0000..0xFFFF
Quantity of registers:	2 byte	0x0000..0x007D

Response from the MCU:

Functioncode:	1 byte	0x03
Byte count:	1 byte	(2 * register count)
Register value:	N bytes	

Error signalling:

Error code:	0x83
Exception code:	0x01, 0x02, 0x03 or 0x04

3.1.2 Functioncode 0x04: Read Input Registers

The „Read Input Register“ command is used to **read out measured values and diagnostic data** from the MCU.

Request to the MCU:

Request functioncode:	1 byte	0x04
Starting address:	2 byte	0x0000..0xFFFF
Quantity of registers:	2 byte	0x0000..0x007D

Response from the MCU:

Functioncode:	1 byte	0x04
Byte count:	1 byte	(2 * register count)
Register value:	N bytes	

Error signalling:

Error code:	0x84
Exception code:	0x01, 0x02, 0x03 or 0x04

3.1.3 Functioncode 0x06: Write single register

Not supported by device. Use function code 0x10 (write multiple registers).

3.1.4 Functioncode 0x10: Write multiple registers

Request to the MCU:

Request functioncode: 1 byte 0x10
Starting address: 2 byte 0x0000..0xFFFF
Quantity of Registers: 2 byte 0x0000..0x007B (0...123)
Byte count: 1 byte (2* register count)
Register values: N byte

Response from the MCU:

Functioncode: 1 byte 0x10
Starting Address: 2 byte 0x0000..0xFFFF
Quantity of Registers: 2 byte 0x0000..0x007B (0...123)

Error signalling:

Error code: 0x90
Exception code: 0x01, 0x02, 0x03 or 0x04

3.2 Execption codes

0x01 Illegal function

The function code received in the query is not an allowable action for the MCU. This may be because the function code is only applicable to newer devices, and was not implemented in the unit selected. It could also indicate that the MCU is in the wrong state to process a request of this type, for example because it is unconfigured and is being asked to return register values.

0x02 Illegal data address

The data address received in the query is not an allowable address for the MCU. More specifically, the combination of reference number and transfer length is invalid. For a controller with 100 registers, the PDU addresses the first register as 0, and the last one as 99. If a request is submitted with a starting register address of 96 and a quantity of registers of 4, then this request will successfully operate (address-wise at least) on registers 96, 97, 98, 99. If a request is submitted with a starting register address of 96 and a quantity of registers of 5, then this request will fail with Exception Code 0x02 "Illegal Data Address" since it attempts to operate on registers 96, 97, 98, 99 and 100, and there is no register with address 100.

0x03 Illegal data value

A value contained in the query data field is not an allowable value for server (or slave). This indicates a fault in the structure of the remainder of a complex request, such as that the implied length is incorrect. It specifically does NOT mean that a data item submitted for storage in a register has a value outside the expectation of the application program, since the MODBUS protocol is unaware of the significance of any particular value of any particular register.

0x04 Slave device failure

An unrecoverable error occurred while the server (or slave) was attempting to perform the requested action. This could be, for example, a write command without Maintenance mode.

3.3 Special communication requirements

3.3.1 SOPAS ET requirements

As shown before, it's essential to set the proper user level before write operations. Therefore, the SetAccess-Mode and CheckPassword functions are provided over the MODBUS.

Operations sequence:

1. Set Maintenance (Fct Code 0x03, Register 5000, Value: > 0)
2. Set User Level (Fct Code 0x03, Register 5001, Value: 0x04 or 0x08 or 0x10)
3. Write Parameter (Fct Code 0x03, any register and value)
4. Set Operation (Fct Code 0x03, Register 5000, Value: 0)

The userlevel is reset by going off maintenance, or by setting the Accesslevel to another value.

3.3.2 Switching between protocols

Only one protocol type can be handled on a serial port by the MCU at one time. To use another protocol, it is needed to switch the protocol by writing the corresponding variable/register. Register 3055 for the Serviceport setting, Register 3060 for the setting of the expansion interface.

Within SOPAS ET, these settings are adjustable under „Parametrization“->“Serial Interface“ -> „Protocol Type“

3.3.3 Data archive reading (only for MCU-PROCESS version)

1. Request data archive header

The data archive headers contain the basic information for a selected data archive (3...9 available). To manage the data communication, a (32 bit) control register (Reg. Low 4100; Reg. high 4101) is introduced. All data archive values can requested with the use of this control register over a common used data transfer block.

Content of the control register:

Bit	Function
0-3	Number of the requested data archive (1-9)
4-5	Function code 0: not defined 1 : Read header 2 : Read data sets
6-8	entry count (usable range: 1..2)
9-22	Dataset start number (usable range: 0...), max. Number depends on the archive settings; any unused number will generate a slave exception.
23-31	Reserved

After writing the control register, the device collects the information and provides them on a defined register range. (Input Registers, Register address 2000...2064)

Data area definition for the response data (header):

Byte	Register	Content
0-1	2000	number of used entries
2-3	2001	number of total entries
4-5	2002	size of one dataset in bytes

2. Sequential request of data archive entries

With the information from the archive header, it is possible to read out the used datasets.

After the control register is written, the MCU provides the data archive entries on the common used data transfer registers (Start at Reg. No. 2000).

Byt	Register	Type	Content
0-3	2000,2001	UINT32	Data set 1: Time stamp
	2002,2003	UINT32	Actual total volume counter [in selected Totalizer units (m³ or Liter)]
	2004,2005	UINT32	Normalized total volume counter [in selected Totalizer units (m³ or Liter)]
	2006,2007	UINT32	Mass counter [in selected Totalizer units (kg or Tons)]
	2008,2009	UINT32	Error Actual total volume counter [in selected Totalizer units (m³ or Liter)]
	2010,2011	UINT32	Error Normalized total volume counter [in selected Totalizer units (m³ or Liter)]
	2012,2013	UINT32	Error Mass counter [in selected Totalizer units (kg or Tons)]
	2014,2015	FLOAT	Temperature [°C] (significant decimal places: 1)
	2016,2017	FLOAT	Pressure [bar] (significant decimal places: 1)
	2018,2019	FLOAT	Molar mass (g/mol) (significant decimal places: 2)
	2020	UINT16	Performance [%]
	2021	UINT16	Status (bitcoded)
	2022,2023	UINT32	<i>Actual volume counter for selected period [in selected Totalizer units (m³ or Liter)]</i>
	2024,2025	UINT32	<i>Normalized volume counter for selected period [in selected Totalizer units (m³ or Liter)]</i>
	2026,2027	UINT32	<i>Mass counter for selected period [in selected Totalizer units (kg or Tons)]</i>
	2028		Data set 2: Time stamp 2
...			

The marked content is newly introduced in MCU-P since firmware version 01.04.06.

These requests can be executed sequentially, until all datasets are read.

Definition of time stamp:

Bit	Data
0-5	Year since 2000
6-9	Month
10-14	Day
15-19	Hour
20-25	Minute
26-31	Second

Definition of the status byte:

Bit	Data
0	Status error
1	Status warning
2	Status maintenance
3	Initialization
4	Limit noise
5	Function check
6	Transducer temperature
7	Power on

3.3.4 Measured Value Register Definition (only for MCU-E)

The connectable sensors (FL100, DUSTHUNTER, etc.) transmit a maximum of 8 Measured Values + 4 Byte Statusinformation. These and some calculated values are accessible via Modbus. Therefore, the registers 1100 to 1260 are used. Every sensortype has a unique value association, which is defined by the MCU variant selection.

M(ulti) C(ontrol) U(nit)

Reg. No.	MCU Device Variant setting (only for MCU-E)										
	FL100 1-Path	FL100 2-Path	DH_S	DH_T	DH_C	FL100+DH_S	FL100+DH_T	FL100+DH_C	FWE200DH SP200+FWE200	FWE200DH (SP200 + FWE200) FLOWSIC100	
1100	Q s.c. (m^3/h)	Q a.c. AVG (m^3/h)	Conc. s.c. (SL)		Conc. s.c. (SL)	Q s.c.	Q s.c.	Q s.c.	Conc. s.c. (SL)		M C U
1102	Molar Mass (g/mol)	Q s.c. AVG (m^3/h)		Conc. s.c. (Ext) (mg/m^3)	Conc. s.c. (Ext)	Conc. s.c.	Conc. s.c.	Conc. s.c.			
1104	Massflow (kg/h)	VoG (m/s)				Dust Massflow	Dust Massflow	Dust Massflow			
1106	Temperature ($^{\circ}C$)	VoS (m/s)									
1108	Pressure ($mbar$)	Massflow AVG (kg/h)	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	Temperature	
1110	Moisture (%)	Temperature ($^{\circ}C$)	Pressure	Pressure	Pressure	Pressure	Pressure	Pressure	Pressure	Pressure	
1112		Pressure ($mbar$)	Moisture	Moisture	Moisture	Moisture	Moisture	Moisture	Moisture	Moisture	
1114		Molar Mass (g/mol)	Oxygen (%)	Oxygen	Oxygen	Oxygen	Oxygen	Oxygen	Oxygen (%)	Oxygen (%)	
1116	32-Bit Status MCU										
1118	Q a.c. (m^3/h)	P Q a.c. (m^3/h)		Opacity	Opacity		Opacity	Opacity			S e n s o r 1
1120	VoG (m/s)	a VoG (m/s)	Conc. a.c. (SL)		Conc. a.c. (SL)	Conc. a.c. (SL)	Conc. a.c. (SL)	Conc. a.c. (SL)	Conc. a.c. (SL)	Conc. a.c. (SL)	
1122	VoS (m/s)	t VoS (m/s)		Conc. a.c. (Ext)	Conc. a.c. (Ext)		Conc. a.c. (Ext)	Conc. a.c. (Ext)			
1124	T acoustic ($^{\circ}C$)	h T acoustic ($^{\circ}C$)		Extinction	Extinction		Extinction	Extinction			
1126	T a ($^{\circ}C$)	1 T a ($^{\circ}C$)		rel. Opacity	rel. Opacity		rel. Opacity	rel. Opacity			
1128	T b ($^{\circ}C$)	1 T b ($^{\circ}C$)		Transmission	Transmission		Transmission	Transmission			
1130	SNR a	SNR a	SL		SL	SL		SL	SL		
1132	SNR b	SNR b									
1134			32-Bit Status	32-Bit Status	32-Bit Status	32-Bit Status	32-Bit Status	32-Bit Status	32-Bit Status	32-Bit Status	
1136		P Q a.c. (m^3/h)				Q a.c. (m^3/h)	Q a.c. (m^3/h)	Q a.c. (m^3/h)		Q a.c. (m^3/h)	S e n s o r 2
1138		t VoG (m/s)				VoG (m/s)	VoG (m/s)	VoG (m/s)		VoG (m/s)	
1140		h VoS (m/s)				VoS (m/s)	VoS (m/s)	VoS (m/s)		VoS (m/s)	
1142		2 T acoustic ($^{\circ}C$)				T acoustic ($^{\circ}C$)	T acoustic ($^{\circ}C$)	T acoustic ($^{\circ}C$)		T acoustic ($^{\circ}C$)	
1144		T a ($^{\circ}C$)				T a ($^{\circ}C$)	T a ($^{\circ}C$)	T a ($^{\circ}C$)		T a ($^{\circ}C$)	
1146		T b ($^{\circ}C$)				T b ($^{\circ}C$)	T b ($^{\circ}C$)	T b ($^{\circ}C$)		T b ($^{\circ}C$)	
1148		SNR a				SNR a	SNR a	SNR a		SNR a	
1150		SNR b				SNR b	SNR b	SNR b		SNR b	
1152						32-Bit Status	32-Bit Status	32-Bit Status		32-Bit Status	
1154									TGas2 ($^{\circ}C$)	TGas2 ($^{\circ}C$)	S e n s o r 3
1156									pGas (hPa)	pGas (hPa)	
1158									THeater 1 ($^{\circ}C$)	THeater 1 ($^{\circ}C$)	
1160									THeater 2 ($^{\circ}C$)	THeater 2 ($^{\circ}C$)	
1162									THeater 3 ($^{\circ}C$)	THeater 3 ($^{\circ}C$)	
1164									THeater 4 ($^{\circ}C$)	THeater 4 ($^{\circ}C$)	
1166									(TGas1 ($^{\circ}C$))	(TGas1 ($^{\circ}C$))	
1168									(20mA Input mA)	(20mA Input mA)	
1170									32-Bit Status	32-Bit Status	

Note: This table can be continued logically up to Sensor 8 for configuration “unlimited” (see register table below)

3.3.5 Sensor Status Coding (MCU-E)

Depending on the connected sensors, the status information registers (1116, 1134, ... will contain different values. The lowest 8 Bits has always the same meaning, the upper 24 bits can vary with each sensor type.

Bit Number	MCU (OR'ed over all sensors)	FLAWSIC 100	DUSTHUNTER (all)	DH SP200	FWE200DH
0	Failure	Failure	Failure	Failure	Failure
1	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance
2	Maintenance Request	Maintenance Request	Maintenance Request	Maintenance Request	Maintenance Request
3	Function Check	Function Check	Function Check	Function Check	Function Check
4	Limit reached	Not used	AO output active	AO output active	
5	Initialization	Initialization	Not used		Initialization (Heating Up)
6	Change bit (internal used)	Change bit (internal used)	Change bit (internal used)	Change bit (internal used)	Change bit (internal used)
7	Operation	Operation	Operation	Operation	Operation
8	Internal used	Not used	Internal Used	Option 1 is active (Second calib. function)	
9		Signal Search			
10		Resonance Cycle			
11		Param. Invalid			
12		Range Error			
13		Limit Noise			
14		Slave Error			
15		No Signal			
16		Zero Offset			
17		Internal used			
18					
19					
20					
21					
22					
23					
24				Option 1 is enabled (Second calib. function)	Option 1 is enabled (Ball valve enabled)
25					
26					
27					
28					
29					
30					
31					

Notice: For information when new checkcycle result can be read use register #1263. Do not poll the corresponding bit in sensor status!

3.3.6 CheckCycle Status Coding (only for MCU-E)

Bit Number	Meaning
0	Sensor 1 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
1	Sensor 2 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
2	Sensor 3 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
3	Sensor 4 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
4	Sensor 5 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
5	Sensor 6 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
6	Sensor 7 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
7	Sensor 8 0=CheckCycle in progress or never started, 1=CheckCycle complete (fresh value can be read now)
8	Sensor 1 0=No value available, 1=A value is available (independent of time of measurement)
9	Sensor 2 0=No value available, 1=A value is available (independent of time of measurement)
10	Sensor 3 0=No value available, 1=A value is available (independent of time of measurement)
11	Sensor 4 0=No value available, 1=A value is available (independent of time of measurement)
12	Sensor 5 0=No value available, 1=A value is available (independent of time of measurement)
13	Sensor 6 0=No value available, 1=A value is available (independent of time of measurement)
14	Sensor 7 0=No value available, 1=A value is available (independent of time of measurement)
15	Sensor 8 0=No value available, 1=A value is available (independent of time of measurement)

3.3.7 System Status Coding for China, Province Guizhou (only for MCU-E)

Requires MCU-FW >=01.18.00

Main Status	Meaning	Comment
1	Automatic measurement	Sub state in Reg #10001 = 0
2	Auto checkcycle	cycle time controlled, not in maintenance state
5	Maintenance	higher priority as fault
6	Fault	Failure, warnings, limit relais (if sub state =0 means state from sensor not supporting detail information)

Sub Status	Meaning	Comment
0	No maintenance, no warning and no malfunction	
2	Manual calibration	Control filter measurement is active (only Dusthunter)
3	Manual modify range	Check box in Sopas set by technican
5	Manual cycle active	Checkcycle started in maintenance mode
1	Ready for maintenance	Hardware or Software maintenance is active
Sensor Status – DH SP30 / DH SB30 (V02.06.00 and higher)		
11	EEPROM hardware access	Failure
12	Amplifier not found	Failure
13	Overflow meas value	Failure
14	Self control	Failure
15	Blower	Failure
16	Filter measurement, signal too low	Failure
17	Laser current	Failure
18	Mean light to much	Failure
19	Span test error > 2%	Failure
20	Monitor value too low	Failure
21	Zero point	Failure
22	U24V < 18V	Failure
23	U24V > 30V	Failure
24	U24 hardware control	Failure
25	RTC not found	Failure
26	AO loop	Failure
27	Event memory	Failure
39	Unspecific sensor error	Failure
40	Device / values out of spec	Maintenance request
45	EEPROM restored from backup	Maintenance request
47	EEPROM restored from factory setting	Maintenance request

48	Default values	Maintenance request
49	Testmode active	Maintenance request
50	U24V too low	Maintenance request
51	U24V too high	Maintenance request
52	Laser current	Maintenance request
53	Passwords restored from backup	Maintenance request
54	blower flow too high	Maintenance request
55	internal	Maintenance request
56	blower flow too low	Maintenance request
57	Triggerpoint laser is not adjustable	Maintenance request
58	Analog output (20mA) is deactivated by hardware	Maintenance request
59	meas value can not output with to 4...20mA	Maintenance request
60	Overflow scattered light	Maintenance request
61	Event memory	Maintenance request
70	meas value over limit1 or limit2	Maintenance request
Sensor Status – DH SP100 / DH SP200 (V01.12.02 and higher)		
111	EEPROM hardware access	Failure
112	CRC sum parameter	Failure
113	Version parameter	Failure
114	CRC sum factory settings	Failure
115	Version factory settings	Failure
116	Contamination	Failure
117	Overflow measured value	Failure
118	Motor current	Failure
119	Laser temperature	Failure
120	Device temperature	Failure
121	Endposition not found	Failure
122	Signal too low for filter measurement	Failure
123	Laser current too high	Failure
124	No motor pulses	Failure
125	Threshold value	Failure
126	Span test	Failure
127	Monitor signal	Failure
128	Zero point	Failure
129	U24V < 18V	Failure
130	U24V > 30V	Failure
131	Number of checkcycles	Failure
132	Minimum device temp. detected	Failure
139	Unspecific sensor error	Failure

140	Reference value	Maintenance request
141	Contamination	Maintenance request
142	Default values	Maintenance request
143	Testmode activ	Maintenance request
144	U24V too low	Maintenance request
145	U24V too high	Maintenance request
146	Laser current	Maintenance request
147	Hold value Concentration	Maintenance request
148	Motor current	Maintenance request
149	Temperature laser	Maintenance request
150	Contamination invalid	Maintenance request
151	Number of checkcycles	Maintenance request
Sensor Status – FWE200DH (V01.04.02 and higher)		
211	EEPROM hardware access	Failure
212	CRC sum parameter	Failure
213	Version parameter	Failure
214	EC Sens not connected	Failure
215	Blower unit not connected	Failure
216	Flow too low	Failure
217	Heating up time > 1 hour	Failure
218	Ball valve not open	Failure
219	Blower unit	Failure
220	Device temperature	Failure
221	Overvoltage Heater1	Failure
222	Overvoltage Heater2	Failure
223	Overvoltage Blower unit	Failure
224	Undervoltage Blower unit	Failure
225	Plausibility T Gas2	Failure
226	Out of control range loop	Failure
229	Power supply (24V) < 18V	Failure
230	Power supply (24V) > 30V	Failure
239	Unspecific sensor error	Failure
240	start phase active - heating up	Maintenance request
241	Control range T Gas2	Maintenance request
242	Default values	Maintenance request
243	Testmode activ	Maintenance request
244	24V Voltage < 19V	Maintenance request
245	24V Voltage > 29V	Maintenance request
246	Warning_Flow_rate_2	Maintenance request

247	T max heater	Maintenance request
248	Plausibility analog input	Maintenance request
249	T Gas1 > 250°C	Maintenance request
250	Isokinetic out of range	Maintenance request
251	Ball valve not closed	Maintenance request
252	Filter watch	Maintenance request
253	Circuit breaker	Maintenance request
254	Temperature out of control range	Maintenance request
255	Simulation activ	Maintenance request
256	T Gas1 out of range	Maintenance request
Sensor Status – DH C200, T200, T100		
300		Reserved
...		Reserved
399		Reserved
Sensor Status – DH T50		
400		Reserved
...		Reserved
499		Reserved
Sensor Status – DH SB100, SB50		
500		Reserved
...		Reserved
599		Reserved
Sensor Status – Reserved		
600		Reserved
...		Reserved
999		Reserved
MCU Status (V01.18.00 and higher)		
1000	EEPROM access error	Failure
1001	Range check error	Failure
1002	I2C Module error	Failure
1003	Wrong firmware CRC	Failure
1004	Error signal via analog in	Failure
1005	Error on 5V power supply line	Failure
1006	Sensor temperature too high - emergency air active	Failure
1007	Error signal of device on DI3	Failure
1008	Error signal of device on DI4	Failure
1009	Error no purge air available	Failure
1040	Default values active	Maintenance request
1041	No sensor found	Maintenance request

1042	Systemtest active	Maintenance request
1043	RTC not operational	Maintenance request
1044	Temporary loss of I2C Modules	Maintenance request
1045	24V power supply <22V	Maintenance request
1046	24V power supply >29V	Maintenance request
1047	Flash read error - not relevant for measurement	Maintenance request
1048	Warning signal of device on DI3	Maintenance request
1049	Warning signal of device on DI4	Maintenance request
1050	At least one limit relais is aktive	Any limit switch is active (user configured limits)

3.3.8 Output value Status Coding (only for MCU-E)

Requires MCU-FW >=01.20.00

Actual state	Meaning	Comment
0	undefined	Value always 0
1	MeasValue	Normal operation
2	MaintenanceHoldLastValue	System in maintenance – last value will be hold until state is changed
3	MaintenanceUserValue	System in maintenance – user defined value is in use until state is changed
4	Errorcurrent	System in maintenance – user defined value is in use until state is changed
5	Testcurrent	Manual test on AO active – user defines value is active
6	CC_HoldMeasValue	Sensor is executing check cycle – last value is hold for this time
7	CC_ValueOutput_ZeroPoint	Result value Zeropoint
8	CC_ValueOutput_Span1	Result value Span1 – usually Span 70%
9	CC_ValueOutput_Contamination	Result value Contamination
10	CC_ValueOutput_Span2	Result value Span2 – optional value usually not in use
11	CC_ValueOutput_VCME_CC1	Result value from VICOTEC450/SMOTEC450 meaning is set in sensor
12	CC_ValueOutput_VCME_CC2	Result value from VICOTEC450/SMOTEC450 meaning is set in sensor
13	CC_ValueOutput_VCME_CC3	Result value from VICOTEC450/SMOTEC450 meaning is set in sensor
14	CC_ValueOutput_VCME_CC4	Result value from VICOTEC450/SMOTEC450 meaning is set in sensor
15	CC_ValueOutput_EPA_FilterValue	Result value EPA filter value

4 List of registers (MCU-P)

The Registernumber – Value coordination is handled SICK specific. All parameters own a unique registernumber in the 16Bit range.

R_FMIN = -1000000000.0f

R_FMAX = 1000000000.0f

4.1 (MCU-P) Input registers (Live Values) FC: 0x04

These registers are readable in every device and password state.

Table 3: Input Registers

Reg. Nr.	SOPAS Variable	Width	Low	High	Type	Description	Phy. Unit
100	fTestValue	2	R_FMIN	R_FMAX	FLOAT	2 fixed value registers, which always contains the Float Value 12.345678 This could be used to set the master to the correct byte alignment and endianness	
102	ui16TestValue	1	0	0	UINT16	A fixed value register, which always contains the 16Bit Value 12345 This could be used to set the master to the correct byte alignment and endianness	
103	ui8TestValue	1	0	0	UINT8	A fixed value register, which always contains the 8 Bit Value 123	
						Bitfield with the full MCU system status <Bool Name="EEPROM1" Desc:"E Fehler beim Zugriff auf EEPROM 1 <Bool Name="FRAM" Desc:"E Fehler beim Zugriff auf FRAM <Bool Name="FLASH" Desc:"E Fehler beim Zugriff auf FLASH <Bool Name="I2CModulesError" Desc:"Ein kritischer Fehler i aufgetreten <Bool Name="I2CModulesWarning <Bool Name="CRCCodeError <Bool Name="CRCParameterError" /> <Bool Name="SystemconfigInvalid" Desc:"Die Systemkonfiguration stimmtnicht <Bool Name="DefaultParameter" Desc:"W Es sind default Parameter geladen <Bool Name="MMC_FAT_Error <Bool Name="RealtimeClock" Desc:"W Die Uhr hat ein problem <Bool Name="IORangeError" Desc:"W Der AO Bereich wurde überschritten <Bool Name="NoSensorActive" Desc:"W Es wurde kein Sensor am Bus gefunden <Bool Name="SupplyVoltageError" Desc:"E Mindestens eine der Spannungsprüfungen meldet einen Fehler <Bool Name="RAMError" Desc:"E Interner Speicherfehler!!! -gt; Kritischer Fehler <Bool Name="AIErrorSignal" Desc:"W Ein Analogeingang hat einen Fehler festgestellt. <Bool Name="SensorWarning" Desc:"W FL100-2pfad warnung (Pfadausfallkompensation) <Bool Name="undefined" Desc:"E Internal System Error <Bool Name="Counter1CRCError" Desc:"W CRC Prüfung des ersten Counters fehlgeschlagen <Bool Name="Counter2CRCError" Desc:"W CRC Prüfung des zweiten Counters fehlgeschlagen <Bool Name="Counter3CRCError" Desc:"W CRC Prüfung des drittenCounters fehlgeschlagen <Bool Name="Archive1CRCError" Desc:"W CRC Prüfung des ersten Archivs fehlgeschlagen <Bool Name="Archive2CRCError" Desc:"W CRC Prüfung des zweiten Archivs fehlgeschlagen <Bool Name="Archive3CRCError" Desc:"W CRC Prüfung des dritten Archivs fehlgeschlagen <Bool Name="Archive1Full" Desc:"W Archiv 1 - max. Kapazität erreicht <Bool Name="Archive2Full" Desc:"W Archiv 2 - max. Kapazität erreicht <Bool Name="Archive3Full" Desc:"W Archiv 3 - max. Kapazität erreicht <Bool Name="FO1_RangeError" Desc:"W Ausgabegrenze des Impulsausgang 1 erreicht <Bool Name="FO2_RangeError" Desc:"W Ausgabegrenze des Impulsausgang 2 erreicht <Bool Name="FO3_RangeError" Desc:"W Ausgabegrenze des Impulsausgang 3 erreicht <Bool Name="Voltage_12V_OK <Bool Name="Voltage_5V_OK	
1000	InternalSystemState.CommonStatus[0]	2	0L	0L	UINT32		

						<p><Bool Name="Voltage_24V_OK"</p> <p><Bool Name="Logbook_full" Desc: "W wenn nicht rollend"</p> <p><Bool Name="Logbook_crcError" Desc: "W"</p> <p><Bool Name="CalculationNormalizeInvalid" Description="E: eine Berechnung nicht gültig"</p> <p><Bool Name="CalculationReynoldsInvalid" Description="E: Reynoldszahlberechnung fehlerhaft"</p> <p><Bool Name="CalculationCorrectionInvalid" Description="E: Korrekturfaktor k fehlerhaft"</p> <p><Bool Name="mwblock_validation" Description="E: Messwertabfrage zeigt fehlerhafte Werte, die durch Prüfung der Kommunikation nicht erkannt wurden (Range Check Error) (summary)"</p> <p><Bool Name="mwblock_validation_s1" Description="E: Messwertabfrage zeigt fehlerhafte Werte, die durch Prüfung der Kommunikation nicht erkannt wurden (Range Check Error) (Sensor 1)"</p> <p><Bool Name="mwblock_validation_s2" Description="E: Messwertabfrage zeigt fehlerhafte Werte, die durch Prüfung der Kommunikation nicht erkannt wurden (Range Check Error) (Sensor 2)"</p> <p><Bool Name="mwblock_validation_s3" Description="E: Messwertabfrage zeigt fehlerhafte Werte, die durch Prüfung der Kommunikation nicht erkannt wurden (Range Check Error) (Sensor 3)"</p> <p><Bool Name="External_MODBUS_PT_not_set_yet" Description="W P+T Werte seit booten nicht gesetzt worden via Modbus"</p> <p><Bool Name="AI_MaxDeviationWarning" Description="W: AI Processvalues haben eine Ueberschreitung der vorgeschrieben Abweichung festgestellt"</p> <p><Bool Name="DTI_General_Error" Description="E: DTI General Error"</p> <p><Bool Name="DTI_General_Warning" Description="W: DTI General Warning"</p> <p><Bool Name="DTI_MaxDeviationWarning" Description="W: DTI Processvalues haben eine Ueberschreitung der vorgeschrieben Abweichung festgestellt"</p> <p><Bool Name="ExtFlowRange_activ" Description="I: Extended Flow Range event active"</p> <p><Bool Name="ExtFlowRange_no_replacement_value_avail" Description="W: No replacement value available for Extended Flow Range event"</p> <p><Bool Name="SensorTypeNotMatch" Description="E: Sensor type not match"</p> <p><Bool Name="LowFlowCutOf_active_MP1" Description="I: LowFlowCutOf active Measpoint 1"</p> <p><Bool Name="LowFlowCutOf_active_MP2" Description="I: LowFlowCutOf active Measpoint 2"</p> <p><Bool Name="LowFlowCutOf_active_MP3" Description="I: LowFlowCutOf active Measpoint 3"</p> <p><Bool Name="Reduced_Accuracy_MP1" Description="W: Reduced Accuracy Measpoint 1"</p> <p><Bool Name="Reduced_Accuracy_MP2" Description="W: Reduced Accuracy Measpoint 2"</p> <p><Bool Name="Reduced_Accuracy_MP3" Description="W: Reduced Accuracy Measpoint 3"</p> <p><Bool Name="mwblock_validation_s4" Description="E: Range check error sensor 4"</p> <p><Bool Name="mwblock_validation_s5" Description="E: Range check error sensor 5"</p> <p><Bool Name="mwblock_validation_s6" Description="E: Range check error sensor 6"</p> <p><Bool Name="CCs_not_entered_for_MP1" Description="E: CCs for Measpoint 1 not entered yet"</p> <p><Bool Name="CCs_not_entered_for_MP2" Description="E: CCs for Measpoint 2 not entered yet "</p> <p><Bool Name="CCs_not_entered_for_MP3" Description="E: CCs for Measpoint 3 not entered yet "</p>	
1002	InternalSystemState.CommonStatus[4]	2	0L	0L	UINT32		
1004	InternalSystemState.CommonStatus[8]	2	0L	0L	UINT32	Reserved, always 0x00000000	
1006	InternalSystemState.CommonStatus[12]	2	0L	0L	UINT32	Reserved, always 0x00000000	

						<Bool Name="NeedCompleteInit <Bool Name="BusBlocked <Bool Name="NAK_Received <Bool Name="ChecksumError <Bool Name="CantSetNewAddress <Bool Name="CantEnableNextModule <Bool Name="NAK_ReceivedOnModuleAddress <Bool Name="NAK_ReceivedOnItemAddress <Bool Name="NAK_ReceivedOnByteCount <Bool Name="NAK_ReceivedOnBCC <Bool Name="NAK_ReceivedOnDataByte <Bool Name="CantReadStatus <Bool Name="NoModulesFound <Bool Name="CantRead5V <Bool Name="CantRead24V <Bool Name="CantReadNOOFAO <Bool Name="CantReadNOOFAI <Bool Name="CantReadNOOFDO <Bool Name="CantReadNOOFDI <Bool Name="CantReadFirmwareversion <Bool Name="CantSetTimeout <Bool Name="ErrorOnNewAddress <Bool Name="CantResetState <Bool Name="Status_Busy <Bool Name="Status_OV0 <Bool Name="Status_OV1 <Bool Name="Status_TO0 <Bool Name="Status_PF0 <Bool Name="IllegalModuleAddress <Bool Name="ChainNotComplete <Bool Name="DataNotAccepted	
1008	InternalSystemState.I2C_State[0]	2	0L	0L	UINT32		
1020	AnalogOut.ActValueCurrent[0]	2	0.0f	0.0f	FLOAT	Actual Current on AO 1	mA
1022	AnalogOut.ActValueCurrent[2]	2	0.0f	0.0f	FLOAT	Actual Current on AO 2	mA
1024	AnalogOut.ActValueCurrent[3]	2	0.0f	0.0f	FLOAT	Actual Current on AO 3	mA
1026	AnalogOut.ActValueCurrent[4]	2	0.0f	0.0f	FLOAT	Actual Current on AO 4	mA
1028	AnalogOut.ActValueCurrent[5]	2	0.0f	0.0f	FLOAT	Actual Current on AO 5	mA
1030	AnalogOut.ActValueCurrent[6]	2	0.0f	0.0f	FLOAT	Actual Current on AO 6	mA
1032	AnalogOut.ActValueCurrent[7]	2	0.0f	0.0f	FLOAT	Actual Current on AO 7	mA
1034	AnalogOut.ActValueCurrent[8]	2	0.0f	0.0f	FLOAT	Actual Current on AO 8	mA
1036	AnalogOut.ActValueCurrent[9]	2	0.0f	0.0f	FLOAT	Actual Current on AO 9	mA
1038	AnalogOut.ActValueCurrent[1]	2	0.0f	0.0f	FLOAT	Actual Current on AO 10	mA
1040	AnalogIn.AIActCurrent[0]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 1	mA
1042	AnalogIn.AIActCurrent[1]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 2	mA
1044	AnalogIn.AIActCurrent[2]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 3	mA
1046	AnalogIn.AIActCurrent[3]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 4	mA
1048	AnalogIn.AIActCurrent[4]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 5	mA
1040	AnalogIn.AIActCurrent[5]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 6	mA
1052	AnalogIn.AIActCurrent[6]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 7	mA
1054	AnalogIn.AIActCurrent[7]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 8	mA
1056	AnalogIn.AIActCurrent[8]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 9	mA
1058	AnalogIn.AIActCurrent[9]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 10	mA
1060	AnalogIn.AIActCurrent[10]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 11	mA
1062	AnalogIn.AIActCurrent[11]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 12	mA
1064	AnalogIn.AIActCurrent[12]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 13 (DTI CH1)	mA
1066	AnalogIn.AIActCurrent[13]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 14 (DTI CH2)	mA
1070	ImpulseOut.fo_actFrequency[0]	2	0.0f	0.0f	FLOAT	Actual Frequency on Impulse Port 1	Hz
1072	ImpulseOut.fo_actFrequency[1]	2	0.0f	0.0f	FLOAT	Actual Frequency on Impulse Port 2	Hz
1074	ImpulseOut.fo_actFrequency[2]	2	0.0f	0.0f	FLOAT	Actual Frequency on Impulse Port 3	Hz
1100	MeasurePoint1.mp1_values.VoG	2	0.0f	0.0f	FLOAT	Measure Point 1: Velocity of gas	m/s
1102	MeasurePoint1.mp1_values.VoS	2	0.0f	0.0f	FLOAT	Measure Point 1: Velocity of Sound	m/s
1104	MeasurePoint1.mp1_values.MolarMass	2	0.0f	0.0f	FLOAT	Measure Point 1: Molar Mass	g/mol
1106	MeasurePoint1.mp1_values.Massflow	2	0.0f	0.0f	FLOAT	Measure Point 1: Mass Flow	kg/h
1108	MeasurePoint1.mp1_values.Density	2	0.0f	0.0f	FLOAT	Measure Point 1: Gas density	g/cm³
1110	MeasurePoint1.mp1_values.NormDensity	2	0.0f	0.0f	FLOAT	Measure Point 1: Density under Norm conditions	g/cm³
1112	MeasurePoint1.mp1_values.FlowIB	2	0.0f	0.0f	FLOAT	Measure Point 1: Flow a.c.	m³/h

1114	MeasurePoint1.mp1_values.FlowIN	2	0.0f	0.0f	FLOAT	Measure Point 1: Flow s.c.	m³/h
1116	MeasurePoint1.mp1_values.Temperature	2	0.0f	0.0f	FLOAT	Measure Point 1: Temperature (°C)	°C
1118	MeasurePoint1.mp1_values.Pressure	2	0.0f	0.0f	FLOAT	Measure Point 1: Pressure (Bar)	Bar
1120	MeasurePoint1.mp1_values.AGC	2	0.0f	0.0f	FLOAT	Measure Point 1: AGC of the Flare sensor on adress 1 (dB)	digit
1122	MeasurePoint1.mp1_values.Compressibility	2	0.0f	0.0f	FLOAT	Measure Point 1: Calculated compressibility	
1124	MeasurePoint1.mp1_diagnosis.Re	2	0.0f	0.0f	FLOAT	Measure Point 1: Reynolds Number	
1126	MeasurePoint1.mp1_values.VolumeCount	2	0L	0L	UINT32	Measure Point 1: Volume Counter positive s.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1128	MeasurePoint1.mp1_values.ErrorVolumeCount	2	0L	0L	UINT32	Measure Point 1: Error Volume Counter s.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1130	MeasurePoint1.mp1_values.MassCount	2	0L	0L	UINT32	Measure Point 1: Mass Counter [in selected Totalizer units (kg or t)]	counts (kg or t)
1132	MeasurePoint1.mp1_values.ErrorMassCount	2	0L	0L	UINT32	Measure Point 1: Error Mass Counter [in selected Totalizer units (kg or t)]	counts (kg or t)
1134	MeasurePoint1.mp1_values.ActualVolumeCount	2	0L	0L	UINT32	Measure Point 1: Volume Counter positive a.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1136	MeasurePoint1.mp1_values.ActualErrorVolumeCount	2	0L	0L	UINT32	Measure Point 1: Error Volume Counter a.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1138	Reserved1	2	0L	0L	UINT32	Reserved (always 0)	
1140	Reserved2	1	0L	0L	UINT16	Reserved (always 0)	
1141	MeasurePoint1.mp1_values.Performance	1	0	0xFF	UINT8	Measure Point 1: Performance in percent	%
						Measure Point 1: Statusbits <Bool Name="Failure" Description="Measure Point Failure" <Bool Name="Warning" Description="Measure Point Warning" <Bool Name="Maintenance" Description="Maintenance" <Bool Name="Initialization" Description="Initialization" <Bool Name="LimitNoise" Description="Limit Noise" <Bool Name="NoSignal" Description="no Signal" <Bool Name="TransducerTemp" Description="Transducer Temperature too high" <Bool Name="Operation" Description="NO error"	
1142	MeasurePoint1.mp1_values.Status	1	0	0xFF	UINT8		
1143	Pressure_kPa.MP[0]	2	0	0	FLOAT	Measure Point 1: Pressure (same as reg. #1118 but in [kPa])	kPa
1145	mp_pt_detail_values.mp[0].pval[0].sens[0].value	2	0	0	FLOAT	Measure Point 1: T from Transmitter/AI	°C
1147	mp_pt_detail_values.mp[0].pval[0].sens[1].value	2	0	0	FLOAT	Measure Point 1: T from Transmitter/AI	°C
1149	mp_pt_detail_values.mp[0].pval[1].sens[0].value	2	0	0	FLOAT	Measure Point 1: P from Transmitter/AI	Bar
1151	mp_pt_detail_values.mp[0].pval[1].sens[1].value	2	0	0	FLOAT	Measure Point 1: P from Transmitter/AI	Bar
1153	mw.MWBlock[1].values[6]	2	0	0	FLOAT	SNR A	dB
1155	mw.MWBlock[1].values[7]	2	0	0	FLOAT	SNR B	dB
1157	mw.MWBlock[4].values[6]	2	0	0	FLOAT	SNR A Z60	dB
1159	mw.MWBlock[4].values[7]	2	0	0	FLOAT	SNR B Z60	dB
1200	MeasurePoint2.mp2_values.VoG	2	0.0f	0.0f	FLOAT	Measure Point 2: Velocity of gas	m/s
1202	MeasurePoint2.mp2_values.VoS	2	0.0f	0.0f	FLOAT	Measure Point 2: Velocity of Sound	m/s
1204	MeasurePoint2.mp2_values.MolarMass	2	0.0f	0.0f	FLOAT	Measure Point 2: Molar Mass	g/mol
1206	MeasurePoint2.mp2_values.Massflow	2	0.0f	0.0f	FLOAT	Measure Point 2: Mass Flow	kg/h
1208	MeasurePoint2.mp2_values.Density	2	0.0f	0.0f	FLOAT	Measure Point 2: Gas density	g/cm³
1210	MeasurePoint2.mp2_values.NormDensity	2	0.0f	0.0f	FLOAT	Measure Point 2: Density under Norm conditions	g/cm³
1212	MeasurePoint2.mp2_values.FlowiB	2	0.0f	0.0f	FLOAT	Measure Point 2: Flow a.c.	m³/h
1214	MeasurePoint2.mp2_values.FlowiN	2	0.0f	0.0f	FLOAT	Measure Point 2: Flow s.c.	m³/h
1216	MeasurePoint2.mp2_values.Temperature	2	0.0f	0.0f	FLOAT	Measure Point 2: Temperature	°C
1218	MeasurePoint2.mp2_values.Pressure	2	0.0f	0.0f	FLOAT	Measure Point 2: Pressure	Bar
1220	MeasurePoint2.mp2_values.AGC	2	0.0f	0.0f	FLOAT	Measure Point 2: AGC of the Flare sensor on adress 1	digit
1222	MeasurePoint1.mp1_values.Compressibility	2	0.0f	0.0f	FLOAT	Measure Point 2: Calculated compressibility	
1224	MeasurePoint2.mp2_diagnosis.Re	2	0.0f	0.0f	FLOAT	Measure Point 2: Reynolds Number	
1226	MeasurePoint2.mp2_values.VolumeCount	2	0L	0L	UINT32	Measure Point 2: Volume Counter positive s.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1228	MeasurePoint2.mp2_values.ErrorVolumeCount	2	0L	0L	UINT32	Measure Point 2: Error Volume Counter s.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1230	MeasurePoint2.mp2_values.MassCount	2	0L	0L	UINT32	Measure Point 2: Mass Counter [in selected Totalizer units (kg or t)]	counts (kg or t)
1232	MeasurePoint2.mp2_values.ErrorMassCount	2	0L	0L	UINT32	Measure Point 2: Error Mass Counter [in selected Totalizer units (kg or t)]	counts (kg or t)
1234	MeasurePoint2.mp2_values.ActualVolumeCount	2	0L	0L	UINT32	Measure Point 2: Volume Counter positive a.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1236	MeasurePoint2.mp2_values.ActualErrorVolumeCount	2	0L	0L	UINT32	Measure Point 2: Error Volume Counter a.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1238	Reserved3	2	0L	0L	UINT32	Reserved (always 0)	
1240	Reserved4	1	0L	0L	UINT16	Reserved (always 0)	
1241	MeasurePoint2.mp2_values.Performance	1	0L	0xFFL	UINT8	Measure Point 2: Performance in percent	%

						Measure Point 2: Statusbits <Bool Name="Failure" Description="Measure Point Failure" <Bool Name="Warning" Description=" Measure Point Warning" <Bool Name="Maintenance" Description="Maintenance" <Bool Name="Initialization" Description="Initialization" <Bool Name="LimitNoise" Description="Limit Noise" <Bool Name="NoSignal" Description="no Signal" <Bool Name="TransducerTemp" Description="Transducer Temperature too high" <Bool Name="Operation" Description="NO error"	
1242	MeasurePoint2.mp2_values.Status	1	0	0xFF	UINT8		
1243	Pressure_kPa.MP[1]	2	0	0	FLOAT	Measure Point 2: Pressure (same as reg. #1218 but in [kPa])	kPa
1245	mp_pt_detail_values.mp[1].pval[0].sens[0].value	2	0	0	FLOAT	Measure Point 2: T from Transmitter/AI	°C
1247	mp_pt_detail_values.mp[1].pval[0].sens[1].value	2	0	0	FLOAT	Measure Point 2: T from Transmitter/AI	°C
1249	mp_pt_detail_values.mp[1].pval[1].sens[0].value	2	0	0	FLOAT	Measure Point 2: P from Transmitter/AI	Bar
1251	mp_pt_detail_values.mp[1].pval[1].sens[1].value	2	0	0	FLOAT	Measure Point 2: P from Transmitter/AI	Bar
1253	mw.MWBlock[2].values[6]	2	0	0	FLOAT	SNR A	dB
1255	mw.MWBlock[2].values[7]	2	0	0	FLOAT	SNR B	dB
1257	mw.MWBlock[5].values[6]	2	0	0	FLOAT	SNR A Z60	dB
1259	mw.MWBlock[5].values[7]	2	0	0	FLOAT	SNR B Z60	dB
1300	MeasurePoint3.mp3_values.VoG	2	0.0f	0.0f	FLOAT	Measure Point 3: Velocity of gas	m/s
1302	MeasurePoint3.mp3_values.VoS	2	0.0f	0.0f	FLOAT	Measure Point 3: Velocity of Sound	m/s
1304	MeasurePoint3.mp3_values.MolarMass	2	0.0f	0.0f	FLOAT	Measure Point 3: Molar Mass	g/mol
1306	MeasurePoint3.mp3_values.Massflow	2	0.0f	0.0f	FLOAT	Measure Point 3: Mass Flow	kg/h
1308	MeasurePoint3.mp3_values.Density	2	0.0f	0.0f	FLOAT	Measure Point 3: Gas density	g/cm³
1310	MeasurePoint3.mp3_values.NormDensity	2	0.0f	0.0f	FLOAT	Measure Point 3: Density under Norm conditions	g/cm³
1312	MeasurePoint3.mp3_values.FlowiB	2	0.0f	0.0f	FLOAT	Measure Point 3: Flow a.c.	m³/h
1314	MeasurePoint3.mp3_values.FlowiN	2	0.0f	0.0f	FLOAT	Measure Point 3: Flow s.c.	m³/h
1316	MeasurePoint3.mp3_values.Temperature	2	0.0f	0.0f	FLOAT	Measure Point 3: Temperature	°C
1318	MeasurePoint3.mp3_values.Pressure	2	0.0f	0.0f	FLOAT	Measure Point 3: Pressure	Bar
1320	MeasurePoint3.mp3_values.AGC	2	0.0f	0.0f	FLOAT	Measure Point 3: AGC of the Flare sensor on adress 1	digit
1322	MeasurePoint1.mp1_values.Compressibility	2	0.0f	0.0f	FLOAT	Measure Point 3: Calculated compressibility	
1324	MeasurePoint3.mp3_diagnosis.Re	2	0.0f	0.0f	FLOAT	Measure Point 3: Reynolds Number	
1326	MeasurePoint3.mp3_values.VolumeCount	2	0L	0L	UINT32	Measure Point 3: Volume Counter positive s.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1328	MeasurePoint3.mp3_values.ErrorVolumeCount	2	0L	0L	UINT32	Measure Point 3: Error Volume Counter s.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1330	MeasurePoint3.mp3_values.MassCount	2	0L	0L	UINT32	Measure Point 3: Mass Counter [in selected Totalizer units (kg or t)]	counts (kg or t)
1332	MeasurePoint3.mp3_values.ErrorMassCount	2	0L	0L	UINT32	Measure Point 3: Error Mass Counter [in selected Totalizer units (kg or t)]	counts (kg or t)
1334	MeasurePoint3.mp3_values.ActualVolumeCount	2	0L	0L	UINT32	Measure Point 3: Volume Counter positive a.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1336	MeasurePoint3.mp3_values.ActualErrorVolumeCount	2	0L	0L	UINT32	Measure Point 3: Error Volume Counter a.c. [in selected Totalizer units (l or m³)]	counts (l or m³)
1338	Reserved5	2	0L	0L	UINT32	Reserved (always 0)	
1340	Reserved6	1	0L	0L	UINT16	Reserved (always 0)	
1341	MeasurePoint3.mp3_values.Performance	1	0L	0xFFL	UINT8	Measure Point 3: Performance in percent	%
						Measure Point 3: Statusbits <Bool Name="Failure" Description="Measure Point Failure" <Bool Name="Warning" Description=" Measure Point Warning" <Bool Name="Maintenance" Description="Maintenance" <Bool Name="Initialization" Description="Initialization" <Bool Name="LimitNoise" Description="Limit Noise" <Bool Name="NoSignal" Description="no Signal" <Bool Name="TransducerTemp" Description="Transducer Temperature too high" <Bool Name="Operation" Description="NO error"	
1342	MeasurePoint3.mp3_values.Status	1	0	0xFF	UINT8		
1343	Pressure_kPa.MP[2]	2	0	0	FLOAT	Measure Point 3: Pressure (same as reg. #1318 but in [kPa])	kPa
1345	mp_pt_detail_values.mp[2].pval[0].sens[0].value	2	0	0	FLOAT	Measure Point 3: T from Transmitter/AI	°C
1347	mp_pt_detail_values.mp[2].pval[0].sens[1].value	2	0	0	FLOAT	Measure Point 3: T from Transmitter/AI	°C
1349	mp_pt_detail_values.mp[2].pval[1].sens[0].value	2	0	0	FLOAT	Measure Point 3: P from Transmitter/AI	Bar
1351	mp_pt_detail_values.mp[2].pval[1].sens[1].value	2	0	0	FLOAT	Measure Point 3: P from Transmitter/AI	Bar
1353	mw.MWBlock[3].values[6]	2	0	0	FLOAT	SNR A	dB
1355	mw.MWBlock[3].values[7]	2	0	0	FLOAT	SNR B	dB
1357	mw.MWBlock[6].values[6]	2	0	0	FLOAT	SNR A Z60	dB
1359	mw.MWBlock[6].values[7]	2	0	0	FLOAT	SNR B Z60	dB
2000	CommonDataTransferBlock	63	0	0	UINT16	A common used memory area to transfer data archive entries	-
2500	archivvalues.archiv1.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Timestamp (See definition for details on page 10)	-

2502	archivvalues.archiv1.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Actual total volume counter	m³ or Liter
2504	archivvalues.archiv1.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Error Actual total volume counter	m³ or Liter
2506	archivvalues.archiv1.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Actual average flow period	m³/h
2508	archivvalues.archiv1.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Actual volume counter for selected period	m³ or Liter
2510	archivvalues.archiv1.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Normalized total volume counter	m³ or Liter
2512	archivvalues.archiv1.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Error Normalized total volume counter	m³ or Liter
2514	archivvalues.archiv1.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Normalized average flow period	m³/h
2516	archivvalues.archiv1.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Normalized volume counter for selected period	m³ or Liter
2518	archivvalues.archiv1.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Mass counter	kg or tons
2520	archivvalues.archiv1.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Error Mass counter	kg or tons
2522	archivvalues.archiv1.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Mass flow average period	kg/h
2524	archivvalues.archiv1.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 1: Mass counter for selected period	kg or tons
2526	archivvalues.archiv1.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Temperature	°C
2528	archivvalues.archiv1.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Pressure	bar
2530	archivvalues.archiv1.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Molar mass	g/mol
2532	archivvalues.archiv1.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 1: Density	kg/m³
2534	archivvalues.archiv1.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 1: AGC path 1 average period	dB
2535	archivvalues.archiv1.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 1: Performance	%
2536	archivvalues.archiv1.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 1: Status (bitcoded see definition on page 10)	-
2537	archivvalues.archiv2.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Timestamp (See definition for details on page 10)	-
2539	archivvalues.archiv2.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Actual total volume counter	m³ or Liter
2541	archivvalues.archiv2.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Error Actual total volume counter	m³ or Liter
2543	archivvalues.archiv2.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Actual average flow period	m³/h
2545	archivvalues.archiv2.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Actual volume counter for selected period	m³ or Liter
2547	archivvalues.archiv2.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Normalized total volume counter	m³ or Liter
2549	archivvalues.archiv2.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Error Normalized total volume counter	m³ or Liter
2551	archivvalues.archiv2.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Normalized average flow period	m³/h
2553	archivvalues.archiv2.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Normalized volume counter for selected period	m³ or Liter
2555	archivvalues.archiv2.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Mass counter	kg or tons
2557	archivvalues.archiv2.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Error Mass counter	kg or tons
2559	archivvalues.archiv2.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Mass flow average period	kg/h
2561	archivvalues.archiv2.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 2: Mass counter for selected period	kg or tons
2563	archivvalues.archiv2.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Temperature	°C
2565	archivvalues.archiv2.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Pressure	bar
2567	archivvalues.archiv2.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Molar mass	g/mol

2569	archivvalues.archiv2.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 2: Density	kg/m³
2571	archivvalues.archiv2.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 2: AGC path 1 average period	dB
2572	archivvalues.archiv2.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 2: Performance	%
2573	archivvalues.archiv2.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 2: Status (bitcoded see definition on page 10)	-
2574	archivvalues.archiv3.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Timestamp (See definition for details on page 10)	-
2576	archivvalues.archiv3.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Actual total volume counter	m³ or Liter
2578	archivvalues.archiv3.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Error Actual total volume counter	m³ or Liter
2580	archivvalues.archiv3.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Actual average flow period	m³/h
2582	archivvalues.archiv3.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Actual volume counter for selected period	m³ or Liter
2584	archivvalues.archiv3.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Normalized total volume counter	m³ or Liter
2586	archivvalues.archiv3.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Error Normalized total volume counter	m³ or Liter
2588	archivvalues.archiv3.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Normalized average flow period	m³/h
2590	archivvalues.archiv3.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Normalized volume counter for selected period	m³ or Liter
2592	archivvalues.archiv3.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Mass counter	kg or tons
2594	archivvalues.archiv3.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Error Mass counter	kg or tons
2596	archivvalues.archiv3.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Mass flow average period	kg/h
2598	archivvalues.archiv3.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 3: Mass counter for selected period	kg or tons
2600	archivvalues.archiv3.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Temperature	°C
2602	archivvalues.archiv3.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Pressure	bar
2604	archivvalues.archiv3.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Molar mass	g/mol
2606	archivvalues.archiv3.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 3: Density	kg/m³
2608	archivvalues.archiv3.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 3: AGC path 1 average period	dB
2609	archivvalues.archiv3.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 3: Performance	%
2610	archivvalues.archiv3.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 3: Status (bitcoded see definition on page 10)	-
2611	archivvalues.archiv4.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Timestamp (See definition for details on page 10)	-
2613	archivvalues.archiv4.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Actual total volume counter	m³ or Liter
2615	archivvalues.archiv4.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Error Actual total volume counter	m³ or Liter
2617	archivvalues.archiv4.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Actual average flow period	m³/h
2619	archivvalues.archiv4.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Actual volume counter for selected period	m³ or Liter
2621	archivvalues.archiv4.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Normalized total volume counter	m³ or Liter
2623	archivvalues.archiv4.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Error Normalized total volume counter	m³ or Liter
2625	archivvalues.archiv4.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Normalized average flow period	m³/h
2627	archivvalues.archiv4.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Normalized volume counter for selected period	m³ or Liter
2629	archivvalues.archiv4.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Mass counter	kg or tons

2631	archivvalues.archiv4.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Error Mass counter	kg or tons
2633	archivvalues.archiv4.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Mass flow average period	kg/h
2635	archivvalues.archiv4.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 4: Mass counter for selected period	kg or tons
2637	archivvalues.archiv4.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Temperature	°C
2639	archivvalues.archiv4.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Pressure	bar
2641	archivvalues.archiv4.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Molar mass	g/mol
2643	archivvalues.archiv4.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 4: Density	kg/m³
2645	archivvalues.archiv4.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 4: AGC path 1 average period	dB
2646	archivvalues.archiv4.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 4: Performance	%
2647	archivvalues.archiv4.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 4: Status (bitcoded see definition on page 10)	-
2648	archivvalues.archiv5.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Timestamp (See definition for details on page 10)	-
2650	archivvalues.archiv5.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Actual total volume counter	m³ or Liter
2652	archivvalues.archiv5.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Error Actual total volume counter	m³ or Liter
2654	archivvalues.archiv5.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Actual average flow period	m³/h
2656	archivvalues.archiv5.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Actual volume counter for selected period	m³ or Liter
2658	archivvalues.archiv5.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Normalized total volume counter	m³ or Liter
2660	archivvalues.archiv5.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Error Normalized total volume counter	m³ or Liter
2662	archivvalues.archiv5.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Normalized average flow period	m³/h
2664	archivvalues.archiv5.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Normalized volume counter for selected period	m³ or Liter
2666	archivvalues.archiv5.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Mass counter	kg or tons
2668	archivvalues.archiv5.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Error Mass counter	kg or tons
2670	archivvalues.archiv5.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Mass flow average period	kg/h
2672	archivvalues.archiv5.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 5: Mass counter for selected period	kg or tons
2674	archivvalues.archiv5.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Temperature	°C
2676	archivvalues.archiv5.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Pressure	bar
2678	archivvalues.archiv5.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Molar mass	g/mol
2680	archivvalues.archiv5.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 5: Density	kg/m³
2682	archivvalues.archiv5.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 5: AGC path 1 average period	dB
2683	archivvalues.archiv5.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 5: Performance	%
2684	archivvalues.archiv5.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 5: Status (bitcoded see definition on page 10)	-
2685	archivvalues.archiv6.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Timestamp (See definition for details on page 10)	-
2687	archivvalues.archiv6.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Actual total volume counter	m³ or Liter
2689	archivvalues.archiv6.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Error Actual total volume counter	m³ or Liter
2691	archivvalues.archiv6.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Actual average flow period	m³/h

2693	archivvalues.archiv6.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Actual volume counter for selected period	m³ or Liter
2695	archivvalues.archiv6.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Normalized total volume counter	m³ or Liter
2697	archivvalues.archiv6.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Error Normalized total volume counter	m³ or Liter
2699	archivvalues.archiv6.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Normalized average flow period	m³/h
2701	archivvalues.archiv6.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Normalized volume counter for selected period	m³ or Liter
2703	archivvalues.archiv6.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Mass counter	kg or tons
2705	archivvalues.archiv6.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Error Mass counter	kg or tons
2707	archivvalues.archiv6.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Mass flow average period	kg/h
2709	archivvalues.archiv6.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 6: Mass counter for selected period	kg or tons
2711	archivvalues.archiv6.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Temperature	°C
2713	archivvalues.archiv6.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Pressure	bar
2715	archivvalues.archiv6.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Molar mass	g/mol
2717	archivvalues.archiv6.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 6: Density	kg/m³
2719	archivvalues.archiv6.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 6: AGC path 1 average period	dB
2720	archivvalues.archiv6.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 6: Performance	%
2721	archivvalues.archiv6.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 6: Status (bitcoded see definition on page 10)	-
2722	archivvalues.archiv7.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Timestamp (See definition for details on page 10)	-
2724	archivvalues.archiv7.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Actual total volume counter	m³ or Liter
2726	archivvalues.archiv7.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Error Actual total volume counter	m³ or Liter
2728	archivvalues.archiv7.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Actual average flow period	m³/h
2730	archivvalues.archiv7.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Actual volume counter for selected period	m³ or Liter
2732	archivvalues.archiv7.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Normalized total volume counter	m³ or Liter
2734	archivvalues.archiv7.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Error Normalized total volume counter	m³ or Liter
2736	archivvalues.archiv7.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Normalized average flow period	m³/h
2738	archivvalues.archiv7.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Normalized volume counter for selected period	m³ or Liter
2740	archivvalues.archiv7.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Mass counter	kg or tons
2742	archivvalues.archiv7.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Error Mass counter	kg or tons
2744	archivvalues.archiv7.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Mass flow average period	kg/h
2746	archivvalues.archiv7.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 7: Mass counter for selected period	kg or tons
2748	archivvalues.archiv7.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Temperature	°C
2750	archivvalues.archiv7.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Pressure	bar
2752	archivvalues.archiv7.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Molar mass	g/mol
2754	archivvalues.archiv7.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 7: Density	kg/m³
2756	archivvalues.archiv7.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 7: AGC path 1 average period	dB
2757	archivvalues.archiv7.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 7: Performance	%

2758	archivvalues.archiv7.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 7: Status (bitcoded see definition on page 10)	-
2759	archivvalues.archiv8.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Timestamp (See definition for details on page 10)	-
2761	archivvalues.archiv8.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Actual total volume counter	m³ or Liter
2763	archivvalues.archiv8.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Error Actual total volume counter	m³ or Liter
2765	archivvalues.archiv8.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Actual average flow period	m³/h
2767	archivvalues.archiv8.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Actual volume counter for selected period	m³ or Liter
2769	archivvalues.archiv8.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Normalized total volume counter	m³ or Liter
2771	archivvalues.archiv8.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Error Normalized total volume counter	m³ or Liter
2773	archivvalues.archiv8.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Normalized average flow period	m³/h
2775	archivvalues.archiv8.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Normalized volume counter for selected period	m³ or Liter
2777	archivvalues.archiv8.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Mass counter	kg or tons
2779	archivvalues.archiv8.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Error Mass counter	kg or tons
2781	archivvalues.archiv8.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Mass flow average period	kg/h
2783	archivvalues.archiv8.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 8: Mass counter for selected period	kg or tons
2785	archivvalues.archiv8.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Temperature	°C
2787	archivvalues.archiv8.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Pressure	bar
2789	archivvalues.archiv8.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Molar mass	g/mol
2791	archivvalues.archiv8.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 8: Density	kg/m³
2793	archivvalues.archiv8.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 8: AGC path 1 average period	dB
2794	archivvalues.archiv8.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 8: Performance	%
2795	archivvalues.archiv8.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 8: Status (bitcoded see definition on page 10)	-
2796	archivvalues.archiv9.Timestamp	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Timestamp (See definition for details on page 10)	-
2798	archivvalues.archiv9.VacTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Actual total volume counter	m³ or Liter
2800	archivvalues.archiv9.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Error Actual total volume counter	m³ or Liter
2802	archivvalues.archiv9.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Actual average flow period	m³/h
2804	archivvalues.archiv9.VacPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Actual volume counter for selected period	m³ or Liter
2806	archivvalues.archiv9.VscTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Normalized total volume counter	m³ or Liter
2808	archivvalues.archiv9.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Error Normalized total volume counter	m³ or Liter
2810	archivvalues.archiv9.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Normalized average flow period	m³/h
2812	archivvalues.archiv9.VscPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Normalized volume counter for selected period	m³ or Liter
2814	archivvalues.archiv9.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Mass counter	kg or tons
2816	archivvalues.archiv9.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Error Mass counter	kg or tons
2818	archivvalues.archiv9.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Mass flow average period	kg/h
2820	archivvalues.archiv9.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register – Archiv 9: Mass counter for selected period	kg or tons

2822	archivvalues.archiv9.Temperature	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Temperature	°C
2824	archivvalues.archiv9.Pressure	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Pressure	bar
2826	archivvalues.archiv9.MolarMass	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Molar mass	g/mol
2828	archivvalues.archiv9.Density	2	0L	0L	FLOAT	Archiv feedback register – Archiv 9: Density	kg/m³
2830	archivvalues.archiv9.AGC_P1	1	0L	0L	UINT16	Archiv feedback register – Archiv 9: AGC path 1 average period	dB
2831	archivvalues.archiv9.Performance	1	0L	0L	UINT16	Archiv feedback register – Archiv 9: Performance	%
2832	archivvalues.archiv9.Status	1	0L	0L	UINT16	Archiv feedback register – Archiv 9: Status (bitcoded see definition on page 10)	-
6500	archivvaluesrt.archiv1rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current period – Archiv 1: Timestamp (See definition for details on page 10)	-
6502	archivvaluesrt.archiv1rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Actual total volume counter	m³ or Liter
6504	archivvaluesrt.archiv1rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Error Actual total volume counter	m³ or Liter
6506	archivvaluesrt.archiv1rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Actual average flow period	m³/h
6508	archivvaluesrt.archiv1rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Actual volume counter for selected period	m³ or Liter
6510	archivvaluesrt.archiv1rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Normalized total volume counter	m³ or Liter
6512	archivvaluesrt.archiv1rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Error Normalized total volume counter	m³ or Liter
6514	archivvaluesrt.archiv1rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Normalized average flow period	m³/h
6516	archivvaluesrt.archiv1rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Normalized volume counter for selected period	m³ or Liter
6518	archivvaluesrt.archiv1rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Mass counter	kg or tons
6520	archivvaluesrt.archiv1rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Error Mass counter	kg or tons
6522	archivvaluesrt.archiv1rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Mass flow average period	kg/h
6524	archivvaluesrt.archiv1rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 1: Mass counter for selected period	kg or tons
6526	archivvaluesrt.archiv1rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Temperature	°C
6528	archivvaluesrt.archiv1rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Pressure	bar
6530	archivvaluesrt.archiv1rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Molar mass	g/mol
6532	archivvaluesrt.archiv1rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 1: Density	kg/m³
6534	archivvaluesrt.archiv1rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 1: AGC path 1 average period	dB
6535	archivvaluesrt.archiv1rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 1: Performance	%
6536	archivvaluesrt.archiv1rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 1: Status (bitcoded see definition on page 10)	-
6537	archivvaluesrt.archiv2rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Timestamp (See definition for details on page 10)	-
6539	archivvaluesrt.archiv2rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Actual total volume counter	m³ or Liter
6541	archivvaluesrt.archiv2rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Error Actual total volume counter	m³ or Liter
6543	archivvaluesrt.archiv2rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Actual average flow period	m³/h
6545	archivvaluesrt.archiv2rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Actual volume counter for selected period	m³ or Liter
6547	archivvaluesrt.archiv2rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Normalized total volume counter	m³ or Liter
6549	archivvaluesrt.archiv2rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Error Normalized total volume counter	m³ or Liter

6551	archivvaluesrt.archiv2rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Normalized average flow period	m³/h
6553	archivvaluesrt.archiv2rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Normalized volume counter for selected period	m³ or Liter
6555	archivvaluesrt.archiv2rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Mass counter	kg or tons
6557	archivvaluesrt.archiv2rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Error Mass counter	kg or tons
6559	archivvaluesrt.archiv2rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Mass flow average period	kg/h
6561	archivvaluesrt.archiv2rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 2: Mass counter for selected period	kg or tons
6563	archivvaluesrt.archiv2rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Temperature	°C
6565	archivvaluesrt.archiv2rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Pressure	bar
6567	archivvaluesrt.archiv2rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Molar mass	g/mol
6569	archivvaluesrt.archiv2rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 2: Density	kg/m³
6571	archivvaluesrt.archiv2rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 2: AGC path 1 average period	dB
6572	archivvaluesrt.archiv2rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 2: Performance	%
6573	archivvaluesrt.archiv2rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 2: Status (bitcoded see definition on page 10)	-
6574	archivvaluesrt.archiv3rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Timestamp (See definition for details on page 10)	-
6576	archivvaluesrt.archiv3rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Actual total volume counter	m³ or Liter
6578	archivvaluesrt.archiv3rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Error Actual total volume counter	m³ or Liter
6580	archivvaluesrt.archiv3rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Actual average flow period	m³/h
6582	archivvaluesrt.archiv3rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Actual volume counter for selected period	m³ or Liter
6584	archivvaluesrt.archiv3rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Normalized total volume counter	m³ or Liter
6586	archivvaluesrt.archiv3rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Error Normalized total volume counter	m³ or Liter
6588	archivvaluesrt.archiv3rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Normalized average flow period	m³/h
6590	archivvaluesrt.archiv3rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Normalized volume counter for selected period	m³ or Liter
6592	archivvaluesrt.archiv3rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Mass counter	kg or tons
6594	archivvaluesrt.archiv3rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Error Mass counter	kg or tons
6596	archivvaluesrt.archiv3rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Mass flow average period	kg/h
6598	archivvaluesrt.archiv3rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 3: Mass counter for selected period	kg or tons
6600	archivvaluesrt.archiv3rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Temperature	°C
6602	archivvaluesrt.archiv3rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Pressure	bar
6604	archivvaluesrt.archiv3rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Molar mass	g/mol
6606	archivvaluesrt.archiv3rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 3: Density	kg/m³
6608	archivvaluesrt.archiv3rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 3: AGC path 1 average period	dB
6609	archivvaluesrt.archiv3rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 3: Performance	%
6610	archivvaluesrt.archiv3rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 3: Status (bitcoded see definition on page 10)	-

6611	archivvaluesrt.archiv4rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Timestamp (See definition for details on page 10)	-
6613	archivvaluesrt.archiv4rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Actual total volume counter	m³ or Liter
6615	archivvaluesrt.archiv4rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Error Actual total volume counter	m³ or Liter
6617	archivvaluesrt.archiv4rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Actual average flow period	m³/h
6619	archivvaluesrt.archiv4rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Actual volume counter for selected period	m³ or Liter
6621	archivvaluesrt.archiv4rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Normalized total volume counter	m³ or Liter
6623	archivvaluesrt.archiv4rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Error Normalized total volume counter	m³ or Liter
6625	archivvaluesrt.archiv4rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Normalized average flow period	m³/h
6627	archivvaluesrt.archiv4rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Normalized volume counter for selected period	m³ or Liter
6629	archivvaluesrt.archiv4rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Mass counter	kg or tons
6631	archivvaluesrt.archiv4rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Error Mass counter	kg or tons
6633	archivvaluesrt.archiv4rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Mass flow average period	kg/h
6635	archivvaluesrt.archiv4rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 4: Mass counter for selected period	kg or tons
6637	archivvaluesrt.archiv4rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Temperature	°C
6639	archivvaluesrt.archiv4rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Pressure	bar
6641	archivvaluesrt.archiv4rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Molar mass	g/mol
6643	archivvaluesrt.archiv4rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 4: Density	kg/m³
6645	archivvaluesrt.archiv4rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 4: AGC path 1 average period	dB
6646	archivvaluesrt.archiv4rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 4: Performance	%
6647	archivvaluesrt.archiv4rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 4: Status (bitcoded see definition on page 10)	-
6648	archivvaluesrt.archiv5rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Timestamp (See definition for details on page 10)	-
6650	archivvaluesrt.archiv5rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Actual total volume counter	m³ or Liter
6652	archivvaluesrt.archiv5rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Error Actual total volume counter	m³ or Liter
6654	archivvaluesrt.archiv5rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Actual average flow period	m³/h
6656	archivvaluesrt.archiv5rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Actual volume counter for selected period	m³ or Liter
6658	archivvaluesrt.archiv5rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Normalized total volume counter	m³ or Liter
6660	archivvaluesrt.archiv5rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Error Normalized total volume counter	m³ or Liter
6662	archivvaluesrt.archiv5rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Normalized average flow period	m³/h
6664	archivvaluesrt.archiv5rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Normalized volume counter for selected period	m³ or Liter
6666	archivvaluesrt.archiv5rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Mass counter	kg or tons
6668	archivvaluesrt.archiv5rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Error Mass counter	kg or tons
6670	archivvaluesrt.archiv5rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Mass flow average period	kg/h
6672	archivvaluesrt.archiv5rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 5: Mass counter for selected period	kg or tons
6674	archivvaluesrt.archiv5rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Temperature	°C

6676	archivvaluesrt.archiv5rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Pressure	bar
6678	archivvaluesrt.archiv5rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Molar mass	g/mol
6680	archivvaluesrt.archiv5rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 5: Density	kg/m³
6682	archivvaluesrt.archiv5rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 5: AGC path 1 average period	dB
6683	archivvaluesrt.archiv5rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 5: Performance	%
6684	archivvaluesrt.archiv5rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 5: Status (bitcoded see definition on page 10)	-
6685	archivvaluesrt.archiv6rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Timestamp (See definition for details on page 10)	-
6687	archivvaluesrt.archiv6rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Actual total volume counter	m³ or Liter
6689	archivvaluesrt.archiv6rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Error Actual total volume counter	m³ or Liter
6691	archivvaluesrt.archiv6rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Actual average flow period	m³/h
6693	archivvaluesrt.archiv6rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Actual volume counter for selected period	m³ or Liter
6695	archivvaluesrt.archiv6rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Normalized total volume counter	m³ or Liter
6697	archivvaluesrt.archiv6rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Error Normalized total volume counter	m³ or Liter
6699	archivvaluesrt.archiv6rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Normalized average flow period	m³/h
6701	archivvaluesrt.archiv6rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Normalized volume counter for selected period	m³ or Liter
6703	archivvaluesrt.archiv6rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Mass counter	kg or tons
6705	archivvaluesrt.archiv6rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Error Mass counter	kg or tons
6707	archivvaluesrt.archiv6rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Mass flow average period	kg/h
6709	archivvaluesrt.archiv6rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 6: Mass counter for selected period	kg or tons
6711	archivvaluesrt.archiv6rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Temperature	°C
6713	archivvaluesrt.archiv6rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Pressure	bar
6715	archivvaluesrt.archiv6rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Molar mass	g/mol
6717	archivvaluesrt.archiv6rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 6: Density	kg/m³
6719	archivvaluesrt.archiv6rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 6: AGC path 1 average period	dB
6720	archivvaluesrt.archiv6rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 6: Performance	%
6721	archivvaluesrt.archiv6rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 6: Status (bitcoded see definition on page 10)	-
6722	archivvaluesrt.archiv7rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Timestamp (See definition for details on page 10)	-
6724	archivvaluesrt.archiv7rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Actual total volume counter	m³ or Liter
6726	archivvaluesrt.archiv7rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Error Actual total volume counter	m³ or Liter
6728	archivvaluesrt.archiv7rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Actual average flow period	m³/h
6730	archivvaluesrt.archiv7rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Actual volume counter for selected period	m³ or Liter
6732	archivvaluesrt.archiv7rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Normalized total volume counter	m³ or Liter
6734	archivvaluesrt.archiv7rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Error Normalized total volume counter	m³ or Liter

6736	archivvaluesrt.archiv7rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Normalized average flow period	m³/h
6738	archivvaluesrt.archiv7rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Normalized volume counter for selected period	m³ or Liter
6740	archivvaluesrt.archiv7rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Mass counter	kg or tons
6742	archivvaluesrt.archiv7rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Error Mass counter	kg or tons
6744	archivvaluesrt.archiv7rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Mass flow average period	kg/h
6746	archivvaluesrt.archiv7rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 7: Mass counter for selected period	kg or tons
6748	archivvaluesrt.archiv7rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Temperature	°C
6750	archivvaluesrt.archiv7rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Pressure	bar
6752	archivvaluesrt.archiv7rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Molar mass	g/mol
6754	archivvaluesrt.archiv7rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 7: Density	kg/m³
6756	archivvaluesrt.archiv7rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 7: AGC path 1 average period	dB
6757	archivvaluesrt.archiv7rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 7: Performance	%
6758	archivvaluesrt.archiv7rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 7: Status (bitcoded see definition on page 10)	-
6759	archivvaluesrt.archiv8rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Timestamp (See definition for details on page 10)	-
6761	archivvaluesrt.archiv8rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Actual total volume counter	m³ or Liter
6763	archivvaluesrt.archiv8rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Error Actual total volume counter	m³ or Liter
6765	archivvaluesrt.archiv8rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Actual average flow period	m³/h
6767	archivvaluesrt.archiv8rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Actual volume counter for selected period	m³ or Liter
6769	archivvaluesrt.archiv8rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Normalized total volume counter	m³ or Liter
6771	archivvaluesrt.archiv8rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Error Normalized total volume counter	m³ or Liter
6773	archivvaluesrt.archiv8rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Normalized average flow period	m³/h
6775	archivvaluesrt.archiv8rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Normalized volume counter for selected period	m³ or Liter
6777	archivvaluesrt.archiv8rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Mass counter	kg or tons
6779	archivvaluesrt.archiv8rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Error Mass counter	kg or tons
6781	archivvaluesrt.archiv8rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Mass flow average period	kg/h
6783	archivvaluesrt.archiv8rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 8: Mass counter for selected period	kg or tons
6785	archivvaluesrt.archiv8rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Temperature	°C
6787	archivvaluesrt.archiv8rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Pressure	bar
6789	archivvaluesrt.archiv8rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Molar mass	g/mol
6791	archivvaluesrt.archiv8rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 8: Density	kg/m³
6793	archivvaluesrt.archiv8rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 8: AGC path 1 average period	dB
6794	archivvaluesrt.archiv8rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 8: Performance	%
6795	archivvaluesrt.archiv8rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 8: Status (bitcoded see definition on page 10)	-

6796	archivvaluesrt.archiv9rt.Timestamp	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Timestamp (See definition for details on page 10)	-
6798	archivvaluesrt.archiv9rt.VacTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Actual total volume counter	m³ or Liter
6800	archivvaluesrt.archiv9rt.VacTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Error Actual total volume counter	m³ or Liter
6802	archivvaluesrt.archiv9rt.QacFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Actual average flow period	m³/h
6804	archivvaluesrt.archiv9rt.VacPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Actual volume counter for selected period	m³ or Liter
6806	archivvaluesrt.archiv9rt.VscTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Normalized total volume counter	m³ or Liter
6808	archivvaluesrt.archiv9rt.VscTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Error Normalized total volume counter	m³ or Liter
6810	archivvaluesrt.archiv9rt.QscFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Normalized average flow period	m³/h
6812	archivvaluesrt.archiv9rt.VscPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Normalized volume counter for selected period	m³ or Liter
6814	archivvaluesrt.archiv9rt.MassCountTotal	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Mass counter	kg or tons
6816	archivvaluesrt.archiv9rt.MassCountTotalDisturbed	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Error Mass counter	kg or tons
6818	archivvaluesrt.archiv9rt.MassCountFlowRate	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Mass flow average period	kg/h
6820	archivvaluesrt.archiv9rt.MassCountPeriod	2	0L	0L	UINT32	Archiv feedback register current running period – Archiv 9: Mass counter for selected period	kg or tons
6822	archivvaluesrt.archiv9rt.Temperature	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Temperature	°C
6824	archivvaluesrt.archiv9rt.Pressure	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Pressure	bar
6826	archivvaluesrt.archiv9rt.MolarMass	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Molar mass	g/mol
6828	archivvaluesrt.archiv9rt.Density	2	0L	0L	FLOAT	Archiv feedback register current running period – Archiv 9: Density	kg/m³
6830	archivvaluesrt.archiv9rt.AGC_P1	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 9: AGC path 1 average period	dB
6831	archivvaluesrt.archiv9rt.Performance	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 9: Performance	%
6832	archivvaluesrt.archiv9rt.Status	1	0L	0L	UINT16	Archiv feedback register current running period – Archiv 9: Status (bitcoded see definition on page 10)	-
6900	NoiseBlockMirror.NoiseBlock[0].NoiseMedianA	2	0L	0L	FLOAT	MP1 path 1 Noise Median A	-
6902	NoiseBlockMirror.NoiseBlock[0].NoiseMedianB	2	0L	0L	FLOAT	MP1 path 1 Noise Median B	-
6904	NoiseBlockMirror.NoiseBlock[0].NoiseValue	2	0L	0L	FLOAT	MP1 path 1 Noise Value	-
6906	NoiseBlockMirror.NoiseBlock[1].NoiseMedianA	2	0L	0L	FLOAT	MP1 path 2 or MP2 path 1 Noise Median A	-
6908	NoiseBlockMirror.NoiseBlock[1].NoiseMedianB	2	0L	0L	FLOAT	MP1 path 2 or MP2 path 1 Noise Median B	-
6910	NoiseBlockMirror.NoiseBlock[1].NoiseValue	2	0L	0L	FLOAT	MP1 path 2 or MP2 path 1 Noise Value	-
6912	NoiseBlockMirror.NoiseBlock[2].NoiseMedianA	2	0L	0L	FLOAT	MP3 path 1 Noise Median A	-
6914	NoiseBlockMirror.NoiseBlock[2].NoiseMedianB	2	0L	0L	FLOAT	MP3 path 1 Noise Median B	-
6916	NoiseBlockMirror.NoiseBlock[2].NoiseValue	2	0L	0L	FLOAT	MP3 path 1 Noise Value	-
6918	NoiseBlockMirror.NoiseBlock[3].NoiseMedianA	2	0L	0L	FLOAT	MP1 additional path Noise Median A	-
6920	NoiseBlockMirror.NoiseBlock[3].NoiseMedianB	2	0L	0L	FLOAT	MP1 additional path Noise Median B	-
6922	NoiseBlockMirror.NoiseBlock[3].NoiseValue	2	0L	0L	FLOAT	MP1 additional path Noise Value	-
6924	NoiseBlockMirror.NoiseBlock[4].NoiseMedianA	2	0L	0L	FLOAT	MP2 additional path Noise Median A	-
6926	NoiseBlockMirror.NoiseBlock[4].NoiseMedianB	2	0L	0L	FLOAT	MP2 additional path Noise Median B	-

6928	NoiseBlockMirror.NoiseBlock[4].NoiseValue	2	0L	0L	FLOAT	MP2 additional path Noise Value	-
6930	NoiseBlockMirror.NoiseBlock[5].NoiseMedianA	2	0L	0L	FLOAT	MP3 additional path Noise Median A	-
6932	NoiseBlockMirror.NoiseBlock[5].NoiseMedianB	2	0L	0L	FLOAT	MP3 additional path Noise Median B	-
6934	NoiseBlockMirror.NoiseBlock[5].NoiseValue	2	0L	0L	FLOAT	MP3 additional path Noise Value	-

4.2 (MCU-P) Holding registers (Parameter) FC:0x03

Table 4: Holding Registers

Reg Nr.	SOPAS Variable	Reg. Width	Low	High	Typ	ACCESS 1	ACCESS 2	ACCESS 3	Action after write	Description
3000	V100.DeviceIdent.Name.charData	5	0	0	STRINGX	DIR_READ			NO_POSTWRITE	The SOPAS Device Identification, should be „MCU-P“. Remark: The data is transferred as stored in the internal memory. So the response is „CM-U P“
3005	V100.LocationName.charData	10	0	0	STRINGX	DIR_READ			NO_POSTWRITE	The Locationname for this MCU. Remark: The data is also flipped bitwise!
3015	Param.MCUSerialNumber	4	0	0	STRINGX	DIR_READ			NO_POSTWRITE	The MCU's Serial Number
3020	Param.IdentNumber	3	0	0	STRINGX	DIR_READ			NO_POSTWRITE	Remark: The data is also flipped bitwise! Ident Number
3031	SystemConfiguration.ExpansionModule	1	0	0	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... ExpansionModule	Configuration of the connected interface module 0: no module 1: Profibus Module 2: Ethernet module 3: RS 485 module
3032	CommonParams.MeasPointConfiguration	1	0	0	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... MeasPointConfiguration	The MeasurePoint Configuration 0: 1 Path 1: 2 Path Average 2: 2 x 1 Path 3: 3 x 1 Path
3034	CommonParams.ReferenceTemperature	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... ReferenceTemperature	Reference Temperature ,default: 273.15°C
3036	CommonParams.ReferencePressure	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... ReferencePressure	Reference Pressure, Default: 1.01325 Bar
3050	UARTExpansionModule.ModbusAddress	1	1	127	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... ModbusAddress	Modbus Address (default 1)
Serial Interface Parameters										
3051	SerialInterface.UARTService.Baudrate	1	50	57600	UINT16	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTService	Service: Baudrate (default 57600)
3052	SerialInterface.UARTService.Parity	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTService	Service: Parity (default none) 1: Odd 2: Even 3: None
3053	SerialInterface.UARTService.Stopbits	1	1	2	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTService	Service: Stopbits (default 1)
3054	SerialInterface.UARTService.Databits	1	7	8	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTService	Service: Databits (default 8)
3055	SerialInterface.UARTService.ProtocolType	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTService	Service: Protocol Type 1: CoLA B 2: Modbus ASCII 3: Modbus RTU
3056	SerialInterface.UARTExpansion.Baudrate	1	50	57600	UINT16	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTExpansion	Expansion: Baudrate (default 57600)
3057	SerialInterface.UARTExpansion.Parity	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTExpansion	Expansion: Parity (default none) 1: Odd 2: Even 3: None
3058	SerialInterface.UARTExpansion.Stopbits	1	1	2	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTExpansion	Expansion Stopbits (default 1)
3059	SerialInterface.UARTExpansion.Databits	1	7	8	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTExpansion	Expansion Databits (default 8)
3060	SerialInterface.UARTExpansion.ProtocolType	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... UARTExpansion	Expansion Protocol Type 1: CoLA B 2: Modbus ASCII 3: Modbus RTU
System configuration:										
3070	SystemConfiguration.SCUModuleCount.AO	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... SCUModuleCount	Number of ext. Analog outputs
3071	SystemConfiguration.SCUModuleCount.AI	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... SCUModuleCount	Number of ext. Analog inputs
3072	SystemConfiguration.SCUModuleCount.DO	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... SCUModuleCount	Number of ext. Digital outputs
3073	SystemConfiguration.SCUModuleCount.DI	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S... SCUModuleCount	Number of ext. Digital inputs
Analog Output Parameter										
3110	AnalogOut.aodata0.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata0	Range low (Unit depends on the selected measured value)
3112	AnalogOut.aodata0.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata0	Range High (Unit depends on the selected measured value)
3114	AnalogOut.aodata0.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata0	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA

3115	AnalogOut.aodata0.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Source Value 1: Flow_ac 2: Flow_sc 3: MassFlow 4: MolarMass 5: VoG 6: VoS 128: notAssigned"
3116	AnalogOut.aodata0.SourceMeasPoint	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Source Measuring Point 0: MS1 1: MS2 2: MS3 128: NotUsed
3118	AnalogOut.aodata1.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Range low (Unit depends on the selected measured value)
3120	AnalogOut.aodata1.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Range High (Unit depends on the selected measured value)
3122	AnalogOut.aodata1.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3123	AnalogOut.aodata1.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Source Value 0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3124	AnalogOut.aodata1.SourceMeasPoint	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Source Measuring Point 0: MS1 1: MS2 2: MS3 128: NotUsed
3126	AnalogOut.aodata2.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Range low (Unit depends on the selected measured value)
3128	AnalogOut.aodata2.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Range High (Unit depends on the selected measured value)
3130	AnalogOut.aodata2.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3131	AnalogOut.aodata2.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Source Value 0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3132	AnalogOut.aodata2.SourceMeasPoint	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Source Measuring Point 0: MS1 1: MS2 2: MS3 128: NotUsed
3134	AnalogOut.aodata3.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Range low (Unit depends on the selected measured value)
3136	AnalogOut.aodata3.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Range High (Unit depends on the selected measured value)
3138	AnalogOut.aodata3.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3139	AnalogOut.aodata3.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Source Value 0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned

										Source Measuring Point 0: MS1 1: MS2 2: MS3 128: NotUsed
3140	AnalogOut.aodata3.SourceMeasPoint	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata4	
3142	AnalogOut.aodata4.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata5	Range low (Unit depends on the selected measured value)
3144	AnalogOut.aodata4.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata5	Range High (Unit depends on the selected measured value)
										Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3146	AnalogOut.aodata4.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata5	
										Source Value 0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3147	AnalogOut.aodata4.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata5	
										Source Measuring Point 0: MS1 1: MS2 2: MS3 128: NotUsed
3148	AnalogOut.aodata4.SourceMeasPoint	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata5	
3150	AnalogOut.aodata5.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	Range low (Unit depends on the selected measured value)
3152	AnalogOut.aodata5.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	Range High (Unit depends on the selected measured value)
										Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3154	AnalogOut.aodata5.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	
										Source Value 0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3155	AnalogOut.aodata5.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	
										Source Measuring Point 0: MS1 1: MS2 2: MS3 128: NotUsed
3156	AnalogOut.aodata5.SourceMeasPoint	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	
Analog input parameters										
3192	AnalogIn1.aidata12.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata12	Range Low (Unit depends on the selected value type)
3194	AnalogIn1.aidata12.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata12	Range High (Unit depends on the selected value type)
3196	AnalogIn1.aidata13.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata13	Range Low (Unit depends on the selected value type)
3198	AnalogIn1.aidata13.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata13	Range High (Unit depends on the selected value type)
3200	AnalogIn.aidata0.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata0	Range Low (Unit depends on the selected value type)
3202	AnalogIn.aidata0.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata0	Range High (Unit depends on the selected value type)
3204	AnalogIn.aidata1.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata1	Range Low (Unit depends on the selected value type)
3206	AnalogIn.aidata1.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata1	Range High (Unit depends on the selected value type)
3208	AnalogIn.aidata2.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata2	Range Low (Unit depends on the selected value type)
3210	AnalogIn.aidata2.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata2	Range High (Unit depends on the selected value type)
3212	AnalogIn.aidata3.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata3	Range Low (Unit depends on the selected value type)
3214	AnalogIn.aidata3.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata3	Range High (Unit depends on the selected value type)
3216	AnalogIn.aidata4.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata4	Range Low (Unit depends on the selected value type)
3218	AnalogIn.aidata4.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata4	Range High (Unit depends on the selected value type)
3220	AnalogIn.aidata5.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata5	Range Low (Unit depends on the selected value type)
3222	AnalogIn.aidata5.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata5	Range High (Unit depends on the selected value type)
3224	AnalogIn.aidata6.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata6	Range Low (Unit depends on the selected value type)
3226	AnalogIn.aidata6.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata6	Range High (Unit depends on the selected value type)
3228	AnalogIn.aidata7.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata7	Range Low (Unit depends on the selected value type)
3230	AnalogIn.aidata7.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata7	Range High (Unit depends on the selected value type)
3232	AnalogIn1.aidata8.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata8	Range Low (Unit depends on the selected value type)
3234	AnalogIn1.aidata8.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata8	Range High (Unit depends on the selected value type)

3236	AnalogIn1.aidata9.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... aidata9	Range Low (Unit depends on the selected value type)
3238	AnalogIn1.aidata9.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... aidata9	Range High (Unit depends on the selected value type)
3240	AnalogIn1.aidata10.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... aidata10	Range Low (Unit depends on the selected value type)
3242	AnalogIn1.aidata10.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... aidata10	Range High (Unit depends on the selected value type)
3244	AnalogIn1.aidata11.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... aidata11	Range Low (Unit depends on the selected value type)
3246	AnalogIn1.aidata11.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... aidata11	Range High (Unit depends on the selected value type)
3250	AnalogIn1.mp[0].pval[0].sens[0].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the temperature value (1...14)
3251	AnalogIn1.mp[1].pval[0].sens[0].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the temperature value (1...14)
3252	AnalogIn1.mp[2].pval[0].sens[0].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the temperature value (1...14)
3253	AnalogIn1.mp[0].pval[1].sens[0].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the pressure value (1...14)
3254	AnalogIn1.mp[1].pval[1].sens[0].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the pressure value (1...14)
3255	AnalogIn1.mp[2].pval[1].sens[0].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the pressure value (1...14)
3256	AnalogIn1.mp[0].pval[0].sens[1].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the temperature value (1...14)
3257	AnalogIn1.mp[1].pval[0].sens[1].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the temperature value (1...14)
3258	AnalogIn1.mp[2].pval[0].sens[1].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the temperature value (1...14)
3259	AnalogIn1.mp[0].pval[1].sens[1].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the pressure value (1...14)
3260	AnalogIn1.mp[1].pval[1].sens[1].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the pressure value (1...14)
3261	AnalogIn1.mp[2].pval[1].sens[1].AllIndex	1	0				UINT8	DIR	READ	AUTHUSER	MAINTENANCE	SU Actns vPostWriteOf mp	The Analog input number for the pressure value (1...14)
Process values													
3270	external_modbus_slave_values.temperature[0]	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		ModbusProcessValue-PostWriteOf mp1 temp	°C
3272	external_modbus_slave_values.pressure[0]	2	0		R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		ModbusProcessValue-PostWriteOf mp1 press	bar
3274	external_modbus_slave_values.temperature[1]	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		ModbusProcessValue-PostWriteOf mp2 temp	°C
3276	external_modbus_slave_values.pressure[1]	2	0		R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		ModbusProcessValue-PostWriteOf mp2 press	bar
3278	external_modbus_slave_values.temperature[2]	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		ModbusProcessValue-PostWriteOf mp3 temp	°C
3280	external_modbus_slave_values.pressure[2]	2	0		R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		ModbusProcessValue-PostWriteOf mp3 press	bar
3282	ExtFlowRangeReplacementLive[0].MolarMass	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	g/mol
3284	ExtFlowRangeReplacementLive[1].MolarMass	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	g/mol
3286	ExtFlowRangeReplacementLive[2].MolarMass	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	g/mol
Measure Point 1 - Parameter													
3300	MeasurePoint1.mp1_app_parameter.TAG	10	0	0			STRING	DIR	READ	AUTHUSER	MAINTENANCE	S... mp1_app_parameter	TAG Identifier for the Measure Point
3310	MeasurePoint1.mp1_app_parameter.Description	10	0	0			STRING	DIR	READ	AUTHUSER	MAINTENANCE	S... mp1_app_parameter	Description text
3320	MeasurePoint1.mp1_parameter.kappa	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	Adiabate coefficient kappa
3322	MeasurePoint1.mp1_parameter.compressibility	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	Gas Compressibility
3324	MeasurePoint1.mp1_parameter.PressureConstantValue	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	Constant pressure (Bar)
3326	MeasurePoint1.mp1_parameter.TemperatureConstantValue	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		NO POSTWRITE	Constant Temperature (°C)
3328	AnalogIn1.mp[0].pval[1].sens[0].PressureOffset	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		S... mp1_parameter	Ambient Pressure (Bar)
3330	MeasurePoint1.mp1_parameter.ReferenceDensity	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		S... mp1_parameter	Reference Density (g/cm³)
3332	MeasurePoint1.mp1_parameter.ReferenceDynViscosity	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		S... mp1_parameter	Reference Dyn. Viscosity
3334	MeasurePoint1.mp1_parameter.DensityUserParameter	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		S... mp1_parameter	User value for Density
3336	MeasurePoint1.mp1_parameter.dynViscosityUserParameter	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	DIR WRITE ALWAYS		S... mp1_parameter	User value for dyn. Viscosity
3338	MeasurePoint1.mp1_parameter.exactDiameter	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... mp1_parameter	exact Pipe diameter in m
3340	MeasurePoint1.linearization_parameter.AdjustFactor	2	R	FMIN	R	FMAX	FLOAT	DIR	READ	AUTHUSER	MAINTENANCE	S... mp1_linearization_parameter	Meter Adjust Factor
3342	MeasurePoint1.mp1_counterParameter.VolumeTotalizerResolution	1	0	0			UINT16	DIR	READ	AUTHUSER	MAINTENANCE	S... mp1_counterParameter	Totalizer resolution for volume counter
3344	MeasurePoint1.mp1_counterParameter.MassTotalizerResolution	1	0	0			UINT16	DIR	READ	AUTHUSER	MAINTENANCE	S... mp1_counterParameter	Totalizer resolution for mass counter

3346	MeasurePoint1.mp1_parameter.TemperatureSource	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_parameter	Temperature source selection
3347	MeasurePoint1.mp1_parameter.PressureSource	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_parameter	Pressure source selection
3348	MeasurePoint1.mp1_parameter.AbsHumidityConstant	2	0	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_parameter	Humidity Constant
3350	MeasurePoint1.mp1_parameter.nominalDiameter	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_parameter	nominal pipe diameter
3351	MeasurePoint1.mp1_parameter.LowFlowCutoff	2	0	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_parameter	Low Flow Cut (m/s)
3353	MeasurePoint1.mp1_GasCalculationParameter.CalculationAlgorithmSelector	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_GasCalculationParameter	2: SICK Standard 3: MR113
3354	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcMethane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3356	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcEthane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3358	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcPropane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3360	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcIsoButane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3362	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcNButane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3364	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcNPentane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3366	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcN2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3368	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcCO2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3370	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcWaterVapor	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3372	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcH2S	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3374	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcHexane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3376	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcHeptane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3378	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcO2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3380	MeasurePoint1.mp1_GasCalculationParameter.GasComposition.ConcIsoPentane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3382	ParamBlock1.AdditionalGasParams.temp_analysis[0]	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Analysis Temperature
3384	ParamBlock1.AdditionalGasParams.press_analysis[0]	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Analysis Pressure
3386	AnalogIn1.mp[0].pval[1].sens[1].PressureOffset	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp1_linearization_parameter	Ambient Pressure (Bar)
3388	AnalogIn1.mp[0].pval[0].maxDeviation	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_linearization_parameter	0.0 disable, !=0.0 max deviation in °C
3390	AnalogIn1.mp[0].pval[1].maxDeviation	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp1_linearization_parameter	0.0 disable, !=0.0 max deviation in bar
Measure Point 2 – Parameter										
3400	MeasurePoint2.mp2_app_parameter.TAG	10	0.0f	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_app_parameter	TAG Identifier for the Measure Point
3410	MeasurePoint2.mp2_app_parameter.Description	10	0.0f	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_app_parameter	Description text
3420	MeasurePoint2.mp2_parameter.kappa	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Adiabate coefficient kappa

3422	MeasurePoint2.mp2_parameter.compressibility	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas Compressibility
3424	MeasurePoint2.mp2_parameter.PressureConstantValue	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Constant pressure (Bar)
3426	MeasurePoint2.mp2_parameter.TemperatureConstantValue	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Constant Temperature (°C)
3428	AnalogIn1.mp1_pval[1].sens[0].PressureOffset	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_parameter	Ambient Pressure (Bar)
3430	MeasurePoint2.mp2_parameter.ReferenceDensity	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_parameter	Reference Density (g/cm³)
3432	MeasurePoint2.mp2_parameter.ReferenceDynViscosity	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_parameter	Reference Dyn. Viscosity
3434	MeasurePoint2.mp2_parameter.DensityUserParam	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_parameter	User value for Density
3436	MeasurePoint2.mp2_parameter.dynViscosityUserParam	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_parameter	User value for dyn. Viscosity
3438	MeasurePoint2.mp2_parameter.exactDiameter	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS	MAINTENANCE	S..._mp2_parameter	exact Pipe diameter in m
3440	MeasurePoint2.mp2_linearization_parameter.AdjustFactor	2	0.0f	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_linearization_parameter	Meter Adjust Factor
3442	MeasurePoint2.mp2_counterParameter.VolumeTotalizerResolution	1	0.0f	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_counterParameter	Totalizer resolution for volume counter
3444	MeasurePoint2.mp2_counterParameter.MassTotalizerResolution	1	0.0f	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_counterParameter	Totalizer resolution for mass counter
3446	MeasurePoint2.mp2_parameter.TemperatureSource	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_parameter	Temperature source selection
3447	MeasurePoint2.mp2_parameter.PressureSource	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_parameter	Pressure source selection
3448	MeasurePoint2.mp2_parameter.AbsHumidityConstant	2	0	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_parameter	Humidity Constant
3450	MeasurePoint2.mp2_parameter.nominalDiameter	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_parameter	nominal pipe diameter
3451	MeasurePoint2.mp2_parameter.LowFlowCutoff	2	0	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_parameter	Low Flow Cut (m/s)
3453	MeasurePoint2.mp2_GasCalculationParameter.CalculationAlgorithmSelector	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_GasCalculationParameter	2: SICK Standard 3: MR113
3454	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcMethane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3456	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcEthane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3458	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcPropane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3460	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcIsoButane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3462	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcNButane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3464	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcNPentane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3466	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcN2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3468	MeasurePoint2.mp2_GasCalculationParameter.GasComposition.ConcCO2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration

3470	Measure-Point2.mp2_GasCalculationParameter.GasComposition.ConcWaterVapor	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3472	Measure-Point2.mp2_GasCalculationParameter.GasComposition.ConcH2S	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3474	Measure-Point2.mp2_GasCalculationParameter.GasComposition.ConcHexane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3476	Measure-Point2.mp2_GasCalculationParameter.GasComposition.ConcHeptane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3478	Measure-Point2.mp2_GasCalculationParameter.GasComposition.ConcO2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3480	Measure-Point2.mp2_GasCalculationParameter.GasComposition.ConcIsoPentane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3482	Param-Block1.AdditionalGasParams.temp_analysis[1]	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Analysis Temperature
3484	Param-Block1.AdditionalGasParams.press_analysis[1]	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Analysis Pressure
3486	AnalogIn1.mp1.pval[1].sens[1].PressureOffset	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp2_linearization_parameter	Ambient Pressure (Bar)
3488	AnalogIn1.mp1.pval[0].maxDeviation	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_linearization_parameter	0.0 disable, !=0.0 max deviation in °C
3490	AnalogIn1.mp1.pval[1].maxDeviation	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp2_linearization_parameter	0.0 disable, !=0.0 max deviation in bar
Measure Point 3 - Parameter										
3500	MeasurePoint3.mp3_app_parameter.TAG	10	0.0f	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_app_parameter	TAG Identifier for the Measure Point
3510	MeasurePoint3.mp3_app_parameter.Description	10	0.0f	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_app_parameter	Description text
3520	MeasurePoint3.mp3_parameter.kappa	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Adiabate coefficient kappa
3522	MeasurePoint3.mp3_parameter.compressibility	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas Compressibility
3524	MeasurePoint3.mp3_parameter.PressureConstantValue	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Constant pressure (Bar)
3526	MeasurePoint3.mp3_parameter.TemperatureConstantValue	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Constant Temperature (°C)
3528	AnalogIn1.mp2.pval[1].sens[0].PressureOffset	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp3_parameter	Ambient Pressure (Bar)
3530	MeasurePoint3.mp3_parameter.ReferenceDensity	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp3_parameter	Reference Density (g/cm³)
3532	MeasurePoint3.mp3_parameter.ReferenceDynViscosity	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp3_parameter	Reference Dyn. Viscosity
3534	MeasurePoint3.mp3_parameter.DensityUserParam	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp3_parameter	User value for Density
3536	MeasurePoint3.mp3_parameter.dynViscosityUserParam	2	0.0f	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp3_parameter	User value for dyn. Viscosity
3538	MeasurePoint3.mp3_parameter.exactDiameter	2	0.0f	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_parameter	exact Pipe diameter in m
3540	MeasurePoint3.mp3_linearization_parameter.AdjustFactor	2	0.0f	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_linearization_parameter	Meter Adjust Factor
3542	MeasurePoint3.mp3_counterParameter.VolumeTotalizerResolution	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_counterParameter	Totalizer resolution for volume counter
3544	MeasurePoint3.mp3_counterParameter.MassTotalizerResolution	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_counterParameter	Totalizer resolution for mass counter
3546	MeasurePoint3.mp3_parameter.TemperatureSource	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_parameter	Temperature source selection
3547	MeasurePoint3.mp3_parameter.PressureSource	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_parameter	Pressure source selection
3548	MeasurePoint3.mp3_parameter.AbsHumidityConstant	2	0	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_parameter	Humidity Constant
3550	MeasurePoint3.mp3_parameter.nominalDiameter	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_parameter	nominal pipe diameter

3551	MeasurePoint3.mp3_parameter.LowFlowCutoff	2	0	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_parameter	Low Flow Cut (m/s)
3553	MeasurePoint3.mp3_GasCalculationParameter.CalculationAlgorithmSelector	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_GasCalculationParameter	2: SICK Standard 3: MR113
3554	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcMethane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3556	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcEthane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3558	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcPropane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3560	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcIsoButane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3562	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcNButane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3564	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcNPentane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3566	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcN2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3568	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcCO2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3570	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcWaterVapor	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3572	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcH2S	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3574	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcHexane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3576	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcHeptane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3578	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcO2	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3580	MeasurePoint3.mp3_GasCalculationParameter.GasComposition.ConcIsoPentane	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Gas concentration
3582	Param-Block1.AdditionalGasParams.temp_analysis[2]	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Analysis Temperature
3584	Param-Block1.AdditionalGasParams.press_analysis[2]	2	0	100.0f	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		NO_POSTWRITE	Analysis Pressure
3586	AnalogIn1.mp[2].pval[1].sens[1].PressureOffset	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._mp3_linearization_parameter	Ambient Pressure (Bar)
3588	AnalogIn1.mp[2].pval[0].maxDeviation	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_linearization_parameter	0.0 disable, !=0.0 max deviation in °C
3590	AnalogIn1.mp[2].pval[1].maxDeviation	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._mp3_linearization_parameter	0.0 disable, !=0.0 max deviation in bar
Display Parameter										
3600	DisplayLocalization.SelectedLanguage	1	0	0x03	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._SelectedLanguage	1: German 2: English 3: Russia
3601	DisplayLocalization.InternalUnitSystem	1	0	0x02	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._InternalUnitSystem	1: SI 2: Imperial
3610	OverviewScreen.ScreenScheme[0].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned

										0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3611	OverviewScreen.ScreenScheme[0].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	
3612	OverviewScreen.ScreenScheme[0].UseAOScaleForBarGraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3613	OverviewScreen.ScreenScheme[0].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3615	OverviewScreen.ScreenScheme[0].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3620	OverviewScreen.ScreenScheme[1].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned
3621	OverviewScreen.ScreenScheme[1].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3622	OverviewScreen.ScreenScheme[1].UseAOScaleForBarGraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3623	OverviewScreen.ScreenScheme[1].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3625	OverviewScreen.ScreenScheme[1].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3630	OverviewScreen.ScreenScheme[2].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned

										0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3631	OverviewScreen.ScreenScheme[2].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	
3632	OverviewScreen.ScreenScheme[2].UseAOScaleForBarGraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3633	OverviewScreen.ScreenScheme[2].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3635	OverviewScreen.ScreenScheme[2].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3640	OverviewScreen.ScreenScheme[3].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned
3641	OverviewScreen.ScreenScheme[3].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3642	OverviewScreen.ScreenScheme[3].UseAOScaleForBarGraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3643	OverviewScreen.ScreenScheme[3].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3645	OverviewScreen.ScreenScheme[3].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3650	OverviewScreen.ScreenScheme[4].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned

										0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3651	OverviewScreen.ScreenScheme[4].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	
3652	OverviewScreen.ScreenScheme[4].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3653	OverviewScreen.ScreenScheme[4].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3655	OverviewScreen.ScreenScheme[4].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3660	OverviewScreen.ScreenScheme[5].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned
3661	OverviewScreen.ScreenScheme[5].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3662	OScreen.ScreenScheme[5].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3663	OverviewScreen.ScreenScheme[5].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3665	OverviewScreen.ScreenScheme[5].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3670	OverviewScreen.ScreenScheme[6].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned

										0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3671	OverviewScreen.ScreenScheme[6].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	
3672	OverviewScreen.ScreenScheme[6].UseAOScaleForBarGraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3673	OverviewScreen.ScreenScheme[6].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3675	OverviewScreen.ScreenScheme[6].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3680	OverviewScreen.ScreenScheme[7].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	1: Meas Point 1 2: Meas Point 2 3: Meas Point 3 128: not assigned
3681	OverviewScreen.ScreenScheme[7].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: VoG 1: VoS 2: QiB 3: QiN 4: SNR A 5: SNR B 6: AGC A 7: AGC B 8: Molar Mass 9: Mass Flow 10: Density 11: Temp acou. 12: Temp A 13: Temp B 14: Volume Counter 15: Mass Counter 128: not assigned
3682	OverviewScreen.ScreenScheme[7].UseAOScaleForBarGraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3683	OverviewScreen.ScreenScheme[7].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
3685	OverviewScreen.ScreenScheme[7].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	not used
Value damping										
3700	ValueDamping.times[0]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 1 in sec.
3702	ValueDamping.times[1]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 2 in sec.
3704	ValueDamping.times[2]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 3 in sec.
Limit Switch settings										
3720	limits.LimitBlock0.SourceMeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	0: MS1 1: MS2 2: MS3 128: NotUsed

										0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3721	limits.LimitBlock0.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	
3722	limits.LimitBlock0.SwitchOnLevel	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	0: OverLimit 1: UnderLimit
3723	limits.LimitBlock0.HysteresisType	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	0: Percent 1: Absolute
3724	limits.LimitBlock0.LimitingValue	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	Phys. limit value, Unit depends on the selected value type
3726	limits.LimitBlock0.Hysteresis	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	Hysteresis value, in Percent or physical value
										0: MS1 1: MS2 2: MS3 128: NotUsed
3730	limits.LimitBlock1.SourceMeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	
										0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3731	limits.LimitBlock1.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	
3732	limits.LimitBlock1.SwitchOnLevel	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	0: OverLimit 1: UnderLimit
3733	limits.LimitBlock1.HysteresisType	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	0: Percent 1: Absolute
3734	limits.LimitBlock1.LimitingValue	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	Phys. limit value, Unit depends on the selected value type
3736	limits.LimitBlock1.Hysteresis	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	Hysteresis value, in Percent or physical value
										0: MS1 1: MS2 2: MS3 128: NotUsed
3740	limits.LimitBlock2.SourceMeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	
										0: Flow_ac 1: Flow_sc 2: MassFlow 3: MolarMass 4: VoG 5: VoS 128: notAssigned
3741	limits.LimitBlock2.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	
3742	limits.LimitBlock2.SwitchOnLevel	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	0: OverLimit 1: UnderLimit
3743	limits.LimitBlock2.HysteresisType	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	0: Percent 1: Absolute
3744	limits.LimitBlock2.LimitingValue	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	Phys. limit value, Unit depends on the selected value type
3746	limits.LimitBlock2.Hysteresis	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	Hysteresis value, in Percent or physical value
Impulse output settings										
										0: MS1 1: MS2 2: MS3 128: NotUsed
3800	ImpulseOut.fo_parameter[0].MeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	
3801	ImpulseOut.fo_parameter[0].TestFrequencyEnabled	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	1: Enabled 0: Disabled
3802	ImpulseOut.fo_parameter[0].ValueSelector	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	0: Flow a.c. 1: Flow s.c. 2: Mass Flow
3803	ImpulseOut.fo_parameter[0].UpdateRate	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	not used
3804	ImpulseOut.fo_parameter[0].ImpulseFactor	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	Impulse Factor (1/unit)
3805	ImpulseOut.fo_parameter[0].TestFrequencyValue	2	0	10000.0f	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	Test Frequency Value in Hz
										0: MS1 1: MS2 2: MS3 128: NotUsed
3810	ImpulseOut.fo_parameter[1].MeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... fo_parameter	

3811	ImpulseOut.fo_parameter[1].TestFrequencyEnabled	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	1: Enabled 0: Disabled
3812	ImpulseOut.fo_parameter[1].ValueSelector	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	0: Flow a.c. 1: Flow s.c. 2: Mass Flow
3813	ImpulseOut.fo_parameter[1].UpdateRate	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	not used
3814	ImpulseOut.fo_parameter[1].ImpulseFactor	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	Impulse Factor (1/unit)
3815	ImpulseOut.fo_parameter[1].TestFrequencyValue	2	0	10000.0f	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	Test Frequency Value in Hz
3820	ImpulseOut.fo_parameter[2].MeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	0: MS1 1: MS2 2: MS3 128: NotUsed
3821	ImpulseOut.fo_parameter[2].TestFrequencyEnabled	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	1: Enabled 0: Disabled
3822	ImpulseOut.fo_parameter[2].ValueSelector	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	0: Flow a.c. 1: Flow s.c. 2: Mass Flow
3823	ImpulseOut.fo_parameter[2].UpdateRate	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	not used
3824	ImpulseOut.fo_parameter[2].ImpulseFactor	1	0	0	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	Impulse Factor (1/unit)
3825	ImpulseOut.fo_parameter[2].TestFrequencyValue	2	0	10000.0f	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._fo_parameter	Test Frequency Value in Hz
Function Check settings										
3900	SensorStuff.CheckcycleInterval	1	0	10080	UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S..._CheckcycleInterval	Unit: Minutes, only predefined values possible: 1: Disabled 30: 30 Minutes 60: 60 minutes 90: 90 Minutes 120: 2 hours 300: 5 hours 480: 8 hours 720: 12 hours 1080: 18 hours 1440: 24 hours 2880: 48 hours 4320: 3 days 10080: 7 days
3901	SensorStuff.CheckcycleStarttime.hour	1	0	24	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._CheckcycleStarttime	starttime hour
3902	SensorStuff.CheckcycleStarttime.minute	1	0	60	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._CheckcycleStarttime	starttime minute
3903	SensorStuff.CheckcycleStarttime.second	1	0	60	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._CheckcycleStarttime	starttime second
Customer Parameter										
4000	CommonParams.InstallationData.CustomerName[0]	10	0	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._InstallationData	Name of the customer
4010	CommonParams.InstallationData.Address[0]	20	0	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._InstallationData	Address
4030	CommonParams.InstallationData.City[0]	10	0	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._InstallationData	City
4040	CommonParams.InstallationData.Country[0]	10	0	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._InstallationData	Country
4050	CommonParams.InstallationData.ZIPCode[0]	3	0	0	STRING	DIR_READ	AUTHUSER	MAINTENANCE	S..._InstallationData	ZIP Code
Special Parameter										
4100	mb_archive_control	2	0	0	UINT32	DIR_READ	DIR_WRITE_ALWAYS			The data archive readout control register
Clock										
4200	mb_trans_datetime.year	1	2000	2099	UINT16	DIR_READ	DIR_WRITE_ALWAYS			Require Reg #4205 to be written to save the value into the clock
4201	mb_trans_datetime.month	1	1	12	UINT16	DIR_READ	DIR_WRITE_ALWAYS			Require Reg #4205 to be written to save the value into the clock
4202	mb_trans_datetime.day	1	1	31	UINT16	DIR_READ	DIR_WRITE_ALWAYS			Require Reg #4205 to be written to save the value into the clock
4203	mb_trans_datetime.hour	1	0	23	UINT16	DIR_READ	DIR_WRITE_ALWAYS			Require Reg #4205 to be written to save the value into the clock
4204	mb_trans_datetime.min	1	0	59	UINT16	DIR_READ	DIR_WRITE_ALWAYS			Require Reg #4205 to be written to save the value into the clock
4205	mb_trans_datetime.sec	1	0	59	UINT16	DIR_READ	DIR_WRITE_ALWAYS		RTC_MBValidateAndSetDateTime	Set DateTime into RTC
4206	GasTime.gastime.hour	1	0	23	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._vPostWriteOf_gastime	Hour of gastime

4207	GasTime.gastime.minute	1	0	59	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S...vPostWriteOf_gastime	Minute of gastime
SOPAS ET – Methods										
5000	VarMethodExec	1	0	0xFF	UINT8	DIR_WRITE	DIR_WRITE_ALWAYS		MBAction_SetMaintenance	Set Maintenance / Operation Attention: this register is writable only. To examine the actual system status, request the status regs of each measuring point.
5001	varUserLevel	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		MBAction_SetAccessMode	Set Access Level DIR_WRITE_AUTHUSER 0x04 DIR_WRITE_SERVICE 0x08 DIR_WRITE_SICKSERVICE on request
5002	varMethodExec	1	0	0xFF	UINT8	DIR_WRITE	AUTHUSER		MBAction_ResetSystem	System restart. The MCU does not send any response to this command!
5003	varMethodExec	1	0	0xFF	UINT8	DIR_WRITE	AUTHUSER		MBAction_StartCheckcycle	enable checkcycle execution
5004	varMethodExec	1	0	0xFF	UINT8	DIR_WRITE	AUTHUSER	MAINTENANCE	MBAction_ResetCounter1	reset the Volume counter #1
5005	varMethodExec	1	0	0xFF	UINT8	DIR_WRITE	AUTHUSER	MAINTENANCE	MBAction_ResetCounter2	reset the Volume counter #2
5006	varMethodExec	1	0	0xFF	UINT8	DIR_WRITE	AUTHUSER	MAINTENANCE	MBAction_ResetCounter3	reset the Volume counter #3

5 List of registers (MCU-E)

The Registernumber – Value coordination is handled SICK specific. All parameters own a unique registernumber in the 16Bit range.

R_FMIN = -1000000000.0f

R_FMAX = 1000000000.0f

5.1 (MCU-E) Input registers (Live Values) FC: 0x04

These registers are readable in every device and password state.

Table 5: Input Registers

Reg. Nr.	SOPAS Variable	Width	Low	High	Type	Description	Phy. Unit
100	fTestValue	2	R_FMIN	R_FMAX	FLOAT	2 fixed value registers, which always contains the Float Value 12.345678 This could be used to set the master to the correct byte alignment and endianness	
102	ui16TestValue	1	0	0	UINT16	A fixed value register, which always contains the 16Bit Value 12345 This could be used to set the master to the correct byte alignment and endianness	
103	ui8TestValue	1	0	0	UINT8	A fixed value register, which always contains the 8 Bit Value 123	
						Bitfield with the full MCU system status <Bool Name="EEPROM1" Desc: E Fehler beim Zugriff auf EEPROM 1 <Bool Name="FRAM" Desc: E Fehler beim Zugriff auf FRAM <Bool Name="I2CModulesError" Desc: E Ein kritischer Fehler ist aufgetreten <Bool Name="I2CmodulesWarning <Bool Name="CRCCodeError <Bool Name="CRCParameterError" <Bool Name="SystemconfigInvalid" Desc: Die Systemkonfiguration stimmt nicht <Bool Name="DefaultParameter" Desc:W Es sind default Parameter geladen <Bool Name="MMC_FAT_Error <Bool Name="RealtimeClock" Desc:W Die Uhr hat ein problem <Bool Name="IORangeError" Desc:W Der AO Bereich wurde überschritten <Bool Name="NoSensorActive" Desc: W Es wurde kein Sensor am Bus gefunden <Bool Name="SupplyVoltageError" Desc: E Mindestens eine der Spannungsprüfungen meldet einen Fehler <Bool Name="RAMError" Desc: E Interner Speicherfehler!!! -gt; Kritischer Fehler <Bool Name="AIErrSignal" Desc: W Ein Analogeingang hat einen Fehler festgestellt. <Bool Name="SensorWarning" Desc: W FL100-2pfad warnung (Pfadausfallkompensation) <Bool Name="undefined" Desc: E Internal System Error <Bool Name="Counter1CRCErr" Desc: W CRC Prüfung des ersten Counters fehlgeschlagen <Bool Name="Counter2CRCErr" Desc: W CRC Prüfung des zweiten Counters fehlgeschlagen <Bool Name="Counter3CRCErr" Desc: W CRC Prüfung des dritten Counters fehlgeschlagen <Bool Name="Archive1CRCErr" Desc: W CRC Prüfung des ersten Archivs fehlgeschlagen <Bool Name="Archive2CRCErr" Desc: W CRC Prüfung des zweiten Archivs fehlgeschlagen <Bool Name="Archive3CRCErr" Desc: W CRC Prüfung des dritten Archivs fehlgeschlagen <Bool Name="Archive1Full" Desc: W Archiv 1 - max. Kapazität erreicht <Bool Name="Archive2Full" Desc: W Archiv 2 - max. Kapazität erreicht <Bool Name="Archive3Full" Desc: W Archiv 3 - max. Kapazität erreicht <Bool Name="FO1_RangeError" Desc: W Ausgabegrenze des Impulsausgang 1 erreicht <Bool Name="FO2_RangeError" Desc: W Ausgabegrenze des Impulsausgang 2 erreicht <Bool Name="FO3_RangeError" Desc: W Ausgabegrenze des Impulsausgang 3 erreicht <Bool Name="DefaultConfigDoesNotFit <Bool Name="InterfacemoduleInactive" Desc: Wenn Modul vorhanden aber nicht parametrier wurde <Bool Name="5V_ERROR" Desc: Wenn die Ueberwachung der 5V Betriebsspannung anschlaegt <Bool Name="12V_ERROR" Desc: Wenn die Ueberwachung der 12V Betriebsspannung anschlaegt <Bool Name="24V_ERROR_UNDERFLOW" Desc: Ueberwachung der 24V Betriebsspannung meldet <21V <Bool Name="24V_WARNING_UNDERFLOW" Desc: Ueberwachung der 24V Betriebsspannung meldet <22V <Bool Name="24V_WARNING_OVERFLOW" Desc: Ueberwachung der 24V Betriebsspannung meldet >29V <Bool Name="24V_ERROR_OVERFLOW" Desc: Ueberwachung der 24V Betriebsspannung meldet >30V <Bool Name="EPA_DIFFERENT" Desc: W Mehrere Dusthunter mit unterschiedlichen EPA Einstellungen sind installiert <Bool Name="NotEnoughDOsAvailableForMode2" Desc: ((Anzahl DOs modulo 4) ≠ 0), dann ist die Konfiguration „LimitAndStatus“ nicht moeglich	
1000	ErrorWarnings.statusbits[0]	2	0L	0L	UINT32		
1002	ErrorWarnings.statusbits[4]	2	0L	0L	UINT32		

						<p><Bool Name="I2C_ModulCountDifference" Desc: I: Erkannte Portanzahl bei den I2C Modulen stimmt nicht mit der gespeicherten ueberein. Dieses Flag loest weder Fehler noch Warnung aus, es dient nur dazu den Uebernehmenbutton unter Anwendungseinstellung einzublenden, damit der Nutzer in der Lage ist ohne ResetPara die neue Hardware in Betrieb zu nehmen</p> <p><Bool Name="PressureTransmitterType_not_supported" Desc: E: Es wird nur noch Absolutdruck unterstuetzt, aber falls jemand es vor dem Update eingestellt hat, muss es abgefangen werden</p> <p><Bool Name="ErrorCurrentOverlapLZ" Desc: E: Configuration error, error current overlaps with current of live zero</p> <p><Bool Name="EmergencyAirActive" Desc: E: BUG #7287 Flag, das die Notluft zugeschaltet ist</p> <p><Bool Name="EmergencyAirNotPossible" Desc: E: BUG #7287 Wenn Konfiguration fuer Notluft nicht aktiviert werden kann (Kein Modul oder falscher Modultyp)</p> <p><Bool Name="CoprocesorToOld" Desc: E: speziell das Interface!</p> <p><Bool Name="PurgeAirFailure" Desc: E: Generated by DI</p> <p><Bool Name="DI3_Warning" Desc: W: Warning generated by DI3</p> <p><Bool Name="DI3_Failure" Desc: E: Failure generated by DI3</p> <p><Bool Name="DI4_Warning" Desc: W: Warning generated by DI4</p> <p><Bool Name="DI4_Failure" Desc: E: Failure generated by DI4</p>	
1004	ErrorWarnings.statusbits[8]	2	0L	0L	UINT32	Reserved, always 0x00000000	
1006	ErrorWarnings.statusbits[12]	2	0L	0L	UINT32	Reserved, always 0x00000000	
1008	InternalSystemState.I2C_State[0]	2	0L	0L	UINT32	<p><Bool Name="NeedCompleteInit</p> <p><Bool Name="BusBlocked</p> <p><Bool Name="NAK_Received</p> <p><Bool Name="ChecksumError</p> <p><Bool Name="CantSetNewAddress</p> <p><Bool Name="CantEnableNextModule</p> <p><Bool Name="NAK_ReceivedOnModuleAddress</p> <p><Bool Name="NAK_ReceivedOnItemAddress</p> <p><Bool Name="NAK_ReceivedOnByteCount</p> <p><Bool Name="NAK_ReceivedOnBCC</p> <p><Bool Name="NAK_ReceivedOnDataByte</p> <p><Bool Name="CantReadStatus</p> <p><Bool Name="NoModulesFound</p> <p><Bool Name="CantRead5V</p> <p><Bool Name="CantRead24V</p> <p><Bool Name="CantReadNOOFAO</p> <p><Bool Name="CantReadNOOFAI</p> <p><Bool Name="CantReadNOOFDO</p> <p><Bool Name="CantReadNOOFDI</p> <p><Bool Name="CantReadFirmwareversion</p> <p><Bool Name="CantSetTimeout</p> <p><Bool Name="ErrorOnNewAddress</p> <p><Bool Name="CantResetState</p> <p><Bool Name="Status_Busy</p> <p><Bool Name="Status_OV0</p> <p><Bool Name="Status_OV1</p> <p><Bool Name="Status_TO0</p> <p><Bool Name="Status_PF0</p> <p><Bool Name="IllegalModuleAddress</p> <p><Bool Name="ChainNotComplete</p> <p><Bool Name="DataNotAccepted</p>	
Analog output current							
1020	AnalogOut.ActValueCurrent[0]	2	0.0f	0.0f	FLOAT	Actual Current on AO 1	mA
1022	AnalogOut.ActValueCurrent[1]	2	0.0f	0.0f	FLOAT	Actual Current on AO 10 (Reserved for HART – Only implemented on MCU-P)	mA
1024	AnalogOut.ActValueCurrent[2]	2	0.0f	0.0f	FLOAT	Actual Current on AO 2	mA
1026	AnalogOut.ActValueCurrent[3]	2	0.0f	0.0f	FLOAT	Actual Current on AO 3	mA
1028	AnalogOut.ActValueCurrent[4]	2	0.0f	0.0f	FLOAT	Actual Current on AO 4	mA
1030	AnalogOut.ActValueCurrent[5]	2	0.0f	0.0f	FLOAT	Actual Current on AO 5	mA
1032	AnalogOut.ActValueCurrent[6]	2	0.0f	0.0f	FLOAT	Actual Current on AO 6	mA
1034	AnalogOut.ActValueCurrent[7]	2	0.0f	0.0f	FLOAT	Actual Current on AO 7	mA
1036	AnalogOut.ActValueCurrent[8]	2	0.0f	0.0f	FLOAT	Actual Current on AO 8	mA
1038	AnalogOut.ActValueCurrent[9]	2	0.0f	0.0f	FLOAT	Actual Current on AO 9	mA
Analog input current							
1040	AnalogIn.AIActCurrent[0]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 1	mA
1042	AnalogIn.AIActCurrent[1]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 2	mA

AnalogOut.A

1044	AnalogIn.AIActCurrent[2]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 3	mA
1046	AnalogIn.AIActCurrent[3]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 4	mA
1048	AnalogIn.AIActCurrent[4]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 5	mA
1050	AnalogIn.AIActCurrent[5]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 6	mA
1052	AnalogIn.AIActCurrent[6]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 7	mA
1054	AnalogIn.AIActCurrent[7]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 8	mA
1056	AnalogIn.AIActCurrent[8]	2	0.0f	0.0f	FLOAT	Actual Current on Analog Input 9	mA
Digital output state							
1060	DigitalOut.dostate	2	0	-	UINT32	Digital output state (coded bitwise)	
Digital input state							
1062	DigitalIn.distate	2	0	-	UINT32	Digital input state (coded bitwise)	
Analog output state							
1070	AnalogOut.ActualState[0]	1	0	0	UINT8	AO 1 State which value is output on AO (see chapter #Output value Status Coding for details)	
1071	AnalogOut.ActualState[1]	1	0	0	UINT8	AO 10 state (Reserved for HART – Only implemented on MCU-P)	
1072	AnalogOut.ActualState[2]	1	0	0	UINT8	AO 2 State which value is output on AO (see chapter #Output value Status Coding for details)	
1073	AnalogOut.ActualState[3]	1	0	0	UINT8	AO 3 State which value is output on AO (see chapter #Output value Status Coding for details)	
1074	AnalogOut.ActualState[4]	1	0	0	UINT8	AO 4 State which value is output on AO (see chapter #Output value Status Coding for details)	
1075	AnalogOut.ActualState[5]	1	0	0	UINT8	AO 5 State which value is output on AO (see chapter #Output value Status Coding for details)	
1076	AnalogOut.ActualState[6]	1	0	0	UINT8	AO 6 State which value is output on AO (see chapter #Output value Status Coding for details)	
1077	AnalogOut.ActualState[7]	1	0	0	UINT8	AO 7 State which value is output on AO (see chapter #Output value Status Coding for details)	
1078	AnalogOut.ActualState[8]	1	0	0	UINT8	AO 8 State which value is output on AO (see chapter #Output value Status Coding for details)	
1079	AnalogOut.ActualState[9]	1	0	0	UINT8	AO 9 State which value is output on AO (see chapter #Output value Status Coding for details)	
Measured Values & calculated values							
1100	mw.MWBBlock[0].values[0]	2	R FMIN	R FMAX	FLOAT	MCU Value 1	
1102	mw.MWBBlock[0].values[1]	2	R FMIN	R FMAX	FLOAT	MCU Value 2	
1104	mw.MWBBlock[0].values[2]	2	R FMIN	R FMAX	FLOAT	MCU Value 3	
1106	mw.MWBBlock[0].values[3]	2	R FMIN	R FMAX	FLOAT	MCU Value 4	
1108	mw.MWBBlock[0].values[4]	2	R FMIN	R FMAX	FLOAT	MCU Value 5	
1110	mw.MWBBlock[0].values[5]	2	R FMIN	R FMAX	FLOAT	MCU Value 6	
1112	mw.MWBBlock[0].values[6]	2	R FMIN	R FMAX	FLOAT	MCU Value 7	
1114	mw.MWBBlock[0].values[7]	2	R FMIN	R FMAX	FLOAT	MCU Value 8	
1116	mw.MWBBlock[0].Status	2	0	-	UINT32	MCU Status (bitwise) (see chapter #Sensor Status Coding for details)	
1118	mw.MWBBlock[1].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 1	
1120	mw.MWBBlock[1].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 2	
1122	mw.MWBBlock[1].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 3	
1124	mw.MWBBlock[1].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 4	
1126	mw.MWBBlock[1].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 5	
1128	mw.MWBBlock[1].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 6	
1130	mw.MWBBlock[1].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 7	
1132	mw.MWBBlock[1].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Value 8	
1134	mw.MWBBlock[1].Status	2	0	-	UINT32	Sensor 1 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1136	mw.MWBBlock[2].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 1	
1138	mw.MWBBlock[2].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 2	
1140	mw.MWBBlock[2].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 3	
1142	mw.MWBBlock[2].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 4	
1144	mw.MWBBlock[2].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 5	
1146	mw.MWBBlock[2].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 6	
1148	mw.MWBBlock[2].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 7	
1150	mw.MWBBlock[2].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Value 8	
1152	mw.MWBBlock[2].Status	2	0	-	UINT32	Sensor 2 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1154	mw.MWBBlock[3].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 1	
1156	mw.MWBBlock[3].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 2	
1158	mw.MWBBlock[3].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 3	
1160	mw.MWBBlock[3].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 4	
1162	mw.MWBBlock[3].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 5	
1164	mw.MWBBlock[3].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 6	
1166	mw.MWBBlock[3].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 7	
1168	mw.MWBBlock[3].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Value 8	
1170	mw.MWBBlock[3].Status	2	0	-	UINT32	Sensor 3 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1172	mw.MWBBlock[4].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 1	
1174	mw.MWBBlock[4].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 2	
1176	mw.MWBBlock[4].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 3	
1178	mw.MWBBlock[4].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 4	

1180	mw.MWBlock[4].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 5	
1182	mw.MWBlock[4].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 6	
1184	mw.MWBlock[4].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 7	
1186	mw.MWBlock[4].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Value 8	
1188	mw.MWBlock[4].Status	2	0	-	UINT32	Sensor 4 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1190	mw.MWBlock[5].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 1	
1192	mw.MWBlock[5].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 2	
1194	mw.MWBlock[5].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 3	
1196	mw.MWBlock[5].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 4	
1198	mw.MWBlock[5].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 5	
1200	mw.MWBlock[5].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 6	
1202	mw.MWBlock[5].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 7	
1204	mw.MWBlock[5].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Value 8	
1206	mw.MWBlock[5].Status	2	0	-	UINT32	Sensor 5 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1208	mw.MWBlock[6].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 1	
1210	mw.MWBlock[6].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 2	
1212	mw.MWBlock[6].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 3	
1214	mw.MWBlock[6].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 4	
1216	mw.MWBlock[6].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 5	
1218	mw.MWBlock[6].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 6	
1220	mw.MWBlock[6].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 7	
1222	mw.MWBlock[6].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Value 8	
1224	mw.MWBlock[6].Status	2	0	-	UINT32	Sensor 6 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1226	mw.MWBlock[7].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 1	
1228	mw.MWBlock[7].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 2	
1230	mw.MWBlock[7].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 3	
1232	mw.MWBlock[7].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 4	
1234	mw.MWBlock[7].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 5	
1236	mw.MWBlock[7].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 6	
1238	mw.MWBlock[7].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 7	
1240	mw.MWBlock[7].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Value 8	
1242	mw.MWBlock[7].Status	2	0	-	UINT32	Sensor 7 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1244	mw.MWBlock[8].values[0]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 1	
1246	mw.MWBlock[8].values[1]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 2	
1248	mw.MWBlock[8].values[2]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 3	
1250	mw.MWBlock[8].values[3]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 4	
1252	mw.MWBlock[8].values[4]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 5	
1254	mw.MWBlock[8].values[5]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 6	
1256	mw.MWBlock[8].values[6]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 7	
1258	mw.MWBlock[8].values[7]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Value 8	
1260	mw.MWBlock[8].Status	2	0	-	UINT32	Sensor 8 Status (bitwise) (see chapter #Sensor Status Coding for details)	
1263	CCValues.status	1	0	0xFFFF	UINT16	CC Flags (bitwise) (see chapter #CheckCycle Status Coding for details)	
1264	CCValues.CCValues[0].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1266	CCValues.CCValues[0].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1268	CCValues.CCValues[0].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1270	CCValues.CCValues[0].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 1 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1272	CCValues.CCValues[1].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1274	CCValues.CCValues[1].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1276	CCValues.CCValues[1].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1278	CCValues.CCValues[1].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 2 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1280	CCValues.CCValues[2].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1282	CCValues.CCValues[2].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1284	CCValues.CCValues[2].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1286	CCValues.CCValues[2].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 3 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1288	CCValues.CCValues[3].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1290	CCValues.CCValues[3].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1292	CCValues.CCValues[3].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1294	CCValues.CCValues[3].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 4 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1296	CCValues.CCValues[4].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1298	CCValues.CCValues[4].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1300	CCValues.CCValues[4].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1302	CCValues.CCValues[4].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 5 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1304	CCValues.CCValues[5].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%

1306	CCValues.CCValues[5].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1308	CCValues.CCValues[5].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1310	CCValues.CCValues[5].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 6 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1312	CCValues.CCValues[6].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1314	CCValues.CCValues[6].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1316	CCValues.CCValues[6].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1318	CCValues.CCValues[6].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 7 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1320	CCValues.CCValues[7].value[0]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Zero Point (for VICOTEC/SMOTEC as defined in Sensor)	%
1322	CCValues.CCValues[7].value[1]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Span 70% (for VICOTEC/SMOTEC as defined in Sensor)	%
1324	CCValues.CCValues[7].value[2]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Contamination(if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
1326	CCValues.CCValues[7].value[3]	2	R FMIN	R FMAX	FLOAT	Sensor 8 Span 50% (if provided by sensor or 0 if not) (for VICOTEC/SMOTEC as defined in Sensor)	%
SensorCCs Block							
						<Bool Name="S1_set1" DefaultValue="False"/> <Bool Name="S1_set2" DefaultValue="False"/> <Bool Name="S1_set3" DefaultValue="False"/> <Bool Name="S1_set4" DefaultValue="False"/> <Bool Name="S2_set1" DefaultValue="False"/> <Bool Name="S2_set2" DefaultValue="False"/> <Bool Name="S2_set3" DefaultValue="False"/> <Bool Name="S2_set4" DefaultValue="False"/> <Bool Name="S3_set1" DefaultValue="False"/> <Bool Name="S3_set2" DefaultValue="False"/> <Bool Name="S3_set3" DefaultValue="False"/> <Bool Name="S3_set4" DefaultValue="False"/> <Bool Name="S4_set1" DefaultValue="False"/> <Bool Name="S4_set2" DefaultValue="False"/> <Bool Name="S4_set3" DefaultValue="False"/> <Bool Name="S4_set4" DefaultValue="False"/> <Bool Name="S5_set1" DefaultValue="False"/> <Bool Name="S5_set2" DefaultValue="False"/> <Bool Name="S5_set3" DefaultValue="False"/> <Bool Name="S5_set4" DefaultValue="False"/> <Bool Name="S6_set1" DefaultValue="False"/> <Bool Name="S6_set2" DefaultValue="False"/> <Bool Name="S6_set3" DefaultValue="False"/> <Bool Name="S6_set4" DefaultValue="False"/> <Bool Name="S7_set1" DefaultValue="False"/> <Bool Name="S7_set2" DefaultValue="False"/> <Bool Name="S7_set3" DefaultValue="False"/> <Bool Name="S7_set4" DefaultValue="False"/> <Bool Name="S8_set1" DefaultValue="False"/> <Bool Name="S8_set2" DefaultValue="False"/> <Bool Name="S8_set3" DefaultValue="False"/> <Bool Name="S8_set4" DefaultValue="False"/>	
1398	coc.StatusActivatedCCsMask[0]	2	0L	0L	UINT32		
1400	coc.SensorCCs[0][0][0]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 1 calibration coefficient 1	
1402	coc.SensorCCs[0][0][1]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 1 calibration coefficient 2	
1404	coc.SensorCCs[0][0][2]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 1 calibration coefficient 3	
1406	coc.SensorCCs[0][1][0]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 2 calibration coefficient 1	
1408	coc.SensorCCs[0][1][1]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 2 calibration coefficient 2	
1410	coc.SensorCCs[0][1][2]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 2 calibration coefficient 3	
1412	coc.SensorCCs[0][2][0]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 3 calibration coefficient 1	
1414	coc.SensorCCs[0][2][1]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 3 calibration coefficient 2	
1416	coc.SensorCCs[0][2][2]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 3 calibration coefficient 3	
1418	coc.SensorCCs[0][3][0]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 4 calibration coefficient 1	
1420	coc.SensorCCs[0][3][1]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 4 calibration coefficient 2	
1422	coc.SensorCCs[0][3][2]	2	R FMIN	R FMAX	FLOAT	Sensor 1 set 4 calibration coefficient 3	
1424	coc.SensorCCs[1][0][0]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 1 calibration coefficient 1	
1426	coc.SensorCCs[1][0][1]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 1 calibration coefficient 2	
1428	coc.SensorCCs[1][0][2]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 1 calibration coefficient 3	
1430	coc.SensorCCs[1][1][0]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 2 calibration coefficient 1	
1432	coc.SensorCCs[1][1][1]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 2 calibration coefficient 2	
1434	coc.SensorCCs[1][1][2]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 2 calibration coefficient 3	
1436	coc.SensorCCs[1][2][0]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 3 calibration coefficient 1	
1438	coc.SensorCCs[1][2][1]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 3 calibration coefficient 2	
1440	coc.SensorCCs[1][2][2]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 3 calibration coefficient 3	
1442	coc.SensorCCs[1][3][0]	2	R FMIN	R FMAX	FLOAT	Sensor 2 set 4 calibration coefficient 1	

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1570	coc.SensorCCs[7][0][1]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 1 calibration coefficient 2	
1572	coc.SensorCCs[7][0][2]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 1 calibration coefficient 3	
1574	coc.SensorCCs[7][1][0]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 2 calibration coefficient 1	
1576	coc.SensorCCs[7][1][1]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 2 calibration coefficient 2	
1578	coc.SensorCCs[7][1][2]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 2 calibration coefficient 3	
1580	coc.SensorCCs[7][2][0]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 3 calibration coefficient 1	
1582	coc.SensorCCs[7][2][1]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 3 calibration coefficient 2	
1584	coc.SensorCCs[7][2][2]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 3 calibration coefficient 3	
1586	coc.SensorCCs[7][3][0]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 4 calibration coefficient 1	
1588	coc.SensorCCs[7][3][1]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 4 calibration coefficient 2	
1590	coc.SensorCCs[7][3][2]	2	R	FMIN	R	FMAX	FLOAT	Sensor 8 set 4 calibration coefficient 3	
10000	Region_CN_Province_Guizhou.AAC_State.MainState_merged	1	0	0	0	0	UINT16	System Main state for China, Province Guizhou (merged MCU and all sensors) (see table)	
10001	Region_CN_Province_Guizhou.AAC_State.SubState_merged	1	0	0	0	0	UINT16	System Sub state for China, Province Guizhou (merged MCU and all sensors) (see table)	
SensorCC value output follow AO – Region China Sichuan und Guangdong									
10020	Region_CN_Province_Sichuan.AO_phys_Modbus_value[0]	2	R	FMIN	R	FMAX	FLOAT	AO 1 Measurement value, CC value, maintenance value (if set) or error value	
10022	Region_CN_Province_Sichuan.AO_phys_Modbus_value[1]	2	R	FMIN	R	FMAX	FLOAT	AO 10 value (Reserved for HART – Only implemented on MCU-P)	
10024	Region_CN_Province_Sichuan.AO_phys_Modbus_value[2]	2	R	FMIN	R	FMAX	FLOAT	AO 2 Measurement value, CC value, maintenance value (if set) or error value	
10026	Region_CN_Province_Sichuan.AO_phys_Modbus_value[3]	2	R	FMIN	R	FMAX	FLOAT	AO 3 Measurement value, CC value, maintenance value (if set) or error value	
10028	Region_CN_Province_Sichuan.AO_phys_Modbus_value[4]	2	R	FMIN	R	FMAX	FLOAT	AO 4 Measurement value, CC value, maintenance value (if set) or error value	
10030	Region_CN_Province_Sichuan.AO_phys_Modbus_value[5]	2	R	FMIN	R	FMAX	FLOAT	AO 5 Measurement value, CC value, maintenance value (if set) or error value	
10032	Region_CN_Province_Sichuan.AO_phys_Modbus_value[6]	2	R	FMIN	R	FMAX	FLOAT	AO 6 Measurement value, CC value, maintenance value (if set) or error value	
10034	Region_CN_Province_Sichuan.AO_phys_Modbus_value[7]	2	R	FMIN	R	FMAX	FLOAT	AO 7 Measurement value, CC value, maintenance value (if set) or error value	
10036	Region_CN_Province_Sichuan.AO_phys_Modbus_value[8]	2	R	FMIN	R	FMAX	FLOAT	AO 8 Measurement value, CC value, maintenance value (if set) or error value	
10038	Region_CN_Province_Sichuan.AO_phys_Modbus_value[9]	2	R	FMIN	R	FMAX	FLOAT	AO 9 Measurement value, CC value, maintenance value (if set) or error value	
CC start time and end time – Region China Shanxi and Xinjiang									
10050	CC_Runtime.CC_StartTime_Str[0]	1	0	0	0	0	STRING	CC start time YY (century)	
10051	CC_Runtime.CC_StartTime_Str[2]	1	0	0	0	0	STRING	CC start time YY (year)	
10052	CC_Runtime.CC_StartTime_Str[4]	1	0	0	0	0	STRING	CC start time MM (month)	
10053	CC_Runtime.CC_StartTime_Str[6]	1	0	0	0	0	STRING	CC start time DD (day)	
10054	CC_Runtime.CC_StartTime_Str[8]	1	0	0	0	0	STRING	CC start time hh (hour)	
10055	CC_Runtime.CC_StartTime_Str[10]	1	0	0	0	0	STRING	CC start time mm (minute)	
10056	CC_Runtime.CC_StartTime_Str[12]	1	0	0	0	0	STRING	CC start time ss (second)	
10057	CC_Runtime.CC_EndTime_Str[0]	1	0	0	0	0	STRING	CC end time YY (century)	
10058	CC_Runtime.CC_EndTime_Str[2]	1	0	0	0	0	STRING	CC end time YY (year)	
10059	CC_Runtime.CC_EndTime_Str[4]	1	0	0	0	0	STRING	CC end time MM (month)	
10060	CC_Runtime.CC_EndTime_Str[6]	1	0	0	0	0	STRING	CC end time DD (day)	
10061	CC_Runtime.CC_EndTime_Str[8]	1	0	0	0	0	STRING	CC end time hh (hour)	
10062	CC_Runtime.CC_EndTime_Str[10]	1	0	0	0	0	STRING	CC end time mm (minute)	
10063	CC_Runtime.CC_EndTime_Str[12]	1	0	0	0	0	STRING	CC end time ss (second)	
Transparent routing of sensor values									
11000	mw.MWBlockExtended[0].F32values[0]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11002	mw.MWBlockExtended[0].F32values[1]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11004	mw.MWBlockExtended[0].F32values[2]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11006	mw.MWBlockExtended[0].F32values[3]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11008	mw.MWBlockExtended[0].F32values[4]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11010	mw.MWBlockExtended[0].F32values[5]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11012	mw.MWBlockExtended[0].F32values[6]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11014	mw.MWBlockExtended[0].F32values[7]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11016	mw.MWBlockExtended[0].F32values[8]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11018	mw.MWBlockExtended[0].F32values[9]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11020	mw.MWBlockExtended[0].F32values[10]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11022	mw.MWBlockExtended[0].F32values[11]	2	0	0	0	0	FLOAT	Generic 32bits from MCU – current 0	
11024	mw.MWBlockExtended[0].UI32values[0]	2	0	0	0	0	UINT32	Generic 32bits from MCU – current 0	
11026	mw.MWBlockExtended[0].UI32values[1]	2	0	0	0	0	UINT32	Generic 32bits from MCU – current 0	
11028	mw.MWBlockExtended[0].UI32values[2]	2	0	0	0	0	UINT32	Generic 32bits from MCU – current 0	
11030	mw.MWBlockExtended[0].UI32values[3]	2	0	0	0	0	UINT32	Generic 32bits from MCU – current 0	
11032	mw.MWBlockExtended[1].F32values[0]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	
11034	mw.MWBlockExtended[1].F32values[1]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	
11036	mw.MWBlockExtended[1].F32values[2]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	
11038	mw.MWBlockExtended[1].F32values[3]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	
11040	mw.MWBlockExtended[1].F32values[4]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	
11042	mw.MWBlockExtended[1].F32values[5]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	
11044	mw.MWBlockExtended[1].F32values[6]	2	0	0	0	0	FLOAT	Generic 32bits from Sensor 1, usual interpreted as float32 – see definition and meaning in sensor definition	

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5.2 (MCU-E) Holding registers (Parameter) FC:0x03

Table 6: Holding Registers

Reg Nr.	SOPAS Variable	Reg. Width	Low	High	Typ	ACCESS 1	ACCESS 2	ACCESS 3	Action after write	Description
3000	V100.DeviceIdent.Name.charData	5	0	0	STRINGX	DIR_READ			NO_POSTWRITE	The SOPAS Device Identification, should be „MCU-E“. Remark: The data is transferred as stored in the internal memory. So the response is „CM-U E“
3005	V100.LocationName.charData	10	0	0	STRINGX	DIR_READ			NO_POSTWRITE	The Locationname for this MCU. Remark: The data is also flipped bitwise!
3015	Param.MCUSerialNumber	4	0	0	STRINGX	DIR_READ			NO_POSTWRITE	The MCU's Serial Number
3020	Param.IdentNumber	3	0	0	STRINGX	DIR_READ			NO_POSTWRITE	Remark: The data is also flipped bitwise!
										Ident Number
3031	SystemConfiguration.ExpansionModule	1	0	0	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._ExpansionModule	Configuration of the connected interface module 0: no module 1: Profibus Module 2: Ethernet module 3: RS 485 module
3050	UARTExpansionModule.ModbusAddress	1	1	127	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._ModbusAddress	Modbus Address (default 1)
Serial Interface Parameters										
3051	SerialInterface.UARTService.Baudrate	1	50	57600	UINT16	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTService	Service: Baudrate (default 57600)
										Service: Parity (default none) 1: Odd 2: Even 3: None
3052	SerialInterface.UARTService.Parity	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTService	
3053	SerialInterface.UARTService.Stopbits	1	1	2	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTService	Service: Stopbits (default 1)
3054	SerialInterface.UARTService.Databits	1	7	8	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTService	Service: Databits (default 8)
										Service: Protocol Type 1: CoLA B 2: Modbus ASCII 3: Modbus RTU
3055	SerialInterface.UARTService.ProtocolType	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTService	
3056	SerialInterface.UARTExpansion.Baudrate	1	50	57600	UINT16	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTExpansion	Expansion: Baudrate (default 57600)
										Expansion: Parity (default none) 1: Odd 2: Even 3: None
3057	SerialInterface.UARTExpansion.Parity	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTExpansion	
3058	SerialInterface.UARTExpansion.Stopbits	1	1	2	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTExpansion	Expansion Stopbits (default 1)
3059	SerialInterface.UARTExpansion.Databits	1	7	8	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTExpansion	Expansion Databits (default 8)
										Expansion Protocol Type 1: CoLA B 2: Modbus ASCII 3: Modbus RTU
3060	SerialInterface.UARTExpansion.ProtocolType	1	1	3	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._UARTExpansion	
System configuration:										
3070	SystemConfiguration.SCUModuleCount.AO	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._SCUModuleCount	Number of ext. Analog outputs
3071	SystemConfiguration.SCUModuleCount.AI	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._SCUModuleCount	Number of ext. Analog inputs
3072	SystemConfiguration.SCUModuleCount.DO	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._SCUModuleCount	Number of ext. Digital outputs
3073	SystemConfiguration.SCUModuleCount.DI	1	0	20	UINT8	DIR_READ	SICKSERVICE	MAINTENANCE	S..._SCUModuleCount	Number of ext. Digital inputs
Analog Output Parameter										
3110	AnalogOut.aodata0.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Actual Range low (Unit depends on the selected measured value) (Value depends on the automatic range switch conditions)
3112	AnalogOut.aodata0.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Actual Range High (Unit depends on the selected measured value) (Value depends on the automatic range switch conditions)

3114	AnalogOut.aodata0.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3115	AnalogOut.aodata0.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Source Value 0...7 MWBlock array index 128: notAssigned
3116	AnalogOut.aodata0.SourceDevice	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata0	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3118	AnalogOut.aodata2.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Range low (Unit depends on the selected measured value)
3120	AnalogOut.aodata2.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Range High (Unit depends on the selected measured value)
3122	AnalogOut.aodata2.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3123	AnalogOut.aodata2.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Source Value 0...7 MWBlock array index 128: notAssigned
3124	AnalogOut.aodata2.SourceDevice	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata2	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3126	AnalogOut.aodata3.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Range low (Unit depends on the selected measured value)
3128	AnalogOut.aodata3.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Range High (Unit depends on the selected measured value)
3130	AnalogOut.aodata3.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3131	AnalogOut.aodata3.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Source Value 0...7 MWBlock array index 128: notAssigned
3132	AnalogOut.aodata3.SourceDevice	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata3	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3134	AnalogOut.aodata4.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Range low (Unit depends on the selected measured value)
3136	AnalogOut.aodata4.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Range High (Unit depends on the selected measured value)
3138	AnalogOut.aodata4.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3139	AnalogOut.aodata4.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Source Value 0...7 MWBlock array index 128: notAssigned
3140	AnalogOut.aodata4.SourceDevice	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata4	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3142	AnalogOut.aodata5.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata5	Range low (Unit depends on the selected measured value)
3144	AnalogOut.aodata5.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata5	Range High (Unit depends on the selected measured value)
3146	AnalogOut.aodata5.LiveZero	1	0	4	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata5	Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3147	AnalogOut.aodata5.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata5	Source Value 128: notAssigned
3148	AnalogOut.aodata5.SourceDevice	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata5	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3150	AnalogOut.aodata6.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aodata6	Range low (Unit depends on the selected measured value)

3152	AnalogOut.aodata6.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	Range High (Unit depends on the selected measured value)
												Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3154	AnalogOut.aodata6.LiveZero	1	0	4			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	
3155	AnalogOut.aodata6.SourceValue	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	Source Value 0...7 MWBlock array index 128: notAssigned
3156	AnalogOut.aodata6.SourceDevice	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata6	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3158	AnalogOut.aodata7.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata7	Range low (Unit depends on the selected measured value)
3160	AnalogOut.aodata7.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata7	Range High (Unit depends on the selected measured value)
												Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3162	AnalogOut.aodata7.LiveZero	1	0	4			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata7	
3163	AnalogOut.aodata7.SourceValue	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata7	Source Value 0...7 MWBlock array index 128: notAssigned
3164	AnalogOut.aodata7.SourceDevice	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata7	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3166	AnalogOut.aodata8.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata8	Range low (Unit depends on the selected measured value)
3168	AnalogOut.aodata8.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata8	Range High (Unit depends on the selected measured value)
												Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3170	AnalogOut.aodata8.LiveZero	1	0	4			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata8	
3171	AnalogOut.aodata8.SourceValue	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata8	Source Value 0...7 MWBlock array index 128: notAssigned
3172	AnalogOut.aodata8.SourceDevice	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata8	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
3174	AnalogOut.aodata9.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata9	Range low (Unit depends on the selected measured value)
3176	AnalogOut.aodata9.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata9	Range High (Unit depends on the selected measured value)
												Live Zero 0: 0 mA 1: 2 mA 2: 4 mA
3178	AnalogOut.aodata9.LiveZero	1	0	4			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata9	
3179	AnalogOut.aodata9.SourceValue	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata9	Source Value 0...7 MWBlock array index 128: notAssigned
3180	AnalogOut.aodata9.SourceDevice	1	0	0xFF			UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... aodata9	Source Measuring Point 0:MCU; 1-8 Sensors 128: NotUsed
Analog input parameters												
3200	AnalogIn.aidata0.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata0	Range Low (Unit depends on the selected value type)
3202	AnalogIn.aidata0.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata0	Range High (Unit depends on the selected value type)
3204	AnalogIn.aidata0.DestValueIndex	1	0	0x08			UINT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata0	Destination index in MWBlock
3205	AnalogIn.aidata0.UseNAMURErrorSignal	1	0	0xFF			UINT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata0	Recognize a NAMUR error
3206	AnalogIn.aidata1.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata1	Range Low (Unit depends on the selected value type)
3208	AnalogIn.aidata1.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata1	Range High (Unit depends on the selected value type)
3210	AnalogIn.aidata1.DestValueIndex	1	0	0x08			UINT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata1	Destination index in MWBlock
3211	AnalogIn.aidata1.UseNAMURErrorSignal	1	0	0xFF			UINT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata1	Recognize a NAMUR error
3212	AnalogIn.aidata2.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata2	Range Low (Unit depends on the selected value type)
3214	AnalogIn.aidata2.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata2	Range High (Unit depends on the selected value type)
3216	AnalogIn.aidata2.DestValueIndex	1	0	0x08			UINT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata2	Destination index in MWBlock
3217	AnalogIn.aidata2.UseNAMURErrorSignal	1	0	0xFF			UINT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata2	Recognize a NAMUR error
3218	AnalogIn.aidata3.RangeLow	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata3	Range Low (Unit depends on the selected value type)
3220	AnalogIn.aidata3.RangeHigh	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... aidata3	Range High (Unit depends on the selected value type)

3222	AnalogIn.aidata3.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata3	Destination index in MWBlock
3223	AnalogIn.aidata3.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata3	Recognize a NAMUR error
3224	AnalogIn.aidata4.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata4	Range Low (Unit depends on the selected value type)
3226	AnalogIn.aidata4.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata4	Range High (Unit depends on the selected value type)
3228	AnalogIn.aidata4.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata4	Destination index in MWBlock
3229	AnalogIn.aidata4.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata4	Recognize a NAMUR error
3230	AnalogIn.aidata5.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata5	Range Low (Unit depends on the selected value type)
3232	AnalogIn.aidata5.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata5	Range High (Unit depends on the selected value type)
3234	AnalogIn.aidata5.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata5	Destination index in MWBlock
3235	AnalogIn.aidata5.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata5	Recognize a NAMUR error
3236	AnalogIn.aidata6.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata6	Range Low (Unit depends on the selected value type)
3238	AnalogIn.aidata6.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata6	Range High (Unit depends on the selected value type)
3240	AnalogIn.aidata6.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata6	Destination index in MWBlock
3241	AnalogIn.aidata6.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata6	Recognize a NAMUR error
3242	AnalogIn.aidata7.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata7	Range Low (Unit depends on the selected value type)
3244	AnalogIn.aidata7.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata7	Range High (Unit depends on the selected value type)
3246	AnalogIn.aidata7.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata7	Destination index in MWBlock
3247	AnalogIn.aidata7.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata7	Recognize a NAMUR error
3248	AnalogIn.aidata8.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata8	Range Low (Unit depends on the selected value type)
3250	AnalogIn.aidata8.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata8	Range High (Unit depends on the selected value type)
3252	AnalogIn.aidata8.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata8	Destination index in MWBlock
3253	AnalogIn.aidata8.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata8	Recognize a NAMUR error
3254	AnalogIn.aidata9.RangeLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata9	Range Low (Unit depends on the selected value type)
3256	AnalogIn.aidata9.RangeHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata9	Range High (Unit depends on the selected value type)
3258	AnalogIn.aidata9.DestValueIndex	1	0	0x08	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata9	Destination index in MWBlock
3259	AnalogIn.aidata9.UseNAMURErrorSignal	1	0	0xFF	UINT	DIR_READ	AUTHUSER	MAINTENANCE	S..._aidata9	Recognize a NAMUR error

Display Parameter

3600	DisplayLocalization.SelectedLanguage	1	0	0x03	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._SelectedLanguage	1: German 2: English 3: Russia
3601	DisplayLocalization.InternalUnitSystem	1	0	0x02	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._InternalUnitSystem	1: SI 2: Imperial
3610	OverviewScreen.ScreenScheme[0].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3611	OverviewScreen.ScreenScheme[0].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0..7 Value index 128: not used
3612	OverviewScreen.ScreenScheme[0].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3613	OverviewScreen.ScreenScheme[0].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	Lower bar limit
3615	OverviewScreen.ScreenScheme[0].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	Upper bar limit
3620	OverviewScreen.ScreenScheme[1].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3621	OverviewScreen.ScreenScheme[1].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0..7 Value index 128: not used
3622	OverviewScreen.ScreenScheme[1].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3623	OverviewScreen.ScreenScheme[1].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	Lower bar limit
3625	OverviewScreen.ScreenScheme[1].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	Upper bar limit
3630	OverviewScreen.ScreenScheme[2].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3631	OverviewScreen.ScreenScheme[2].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0..7 Value index 128: not used
3632	OverviewScreen.ScreenScheme[2].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3633	OverviewScreen.ScreenScheme[2].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	Lower bar limit
3635	OverviewScreen.ScreenScheme[2].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	Upper bar limit
3640	OverviewScreen.ScreenScheme[3].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S..._ScreenScheme	0: MCU 1...8: Sensor

										128: not assigned
3641	OverviewScreen.ScreenScheme[3].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0..7 Value index 128: not used
3642	OverviewScreen.ScreenScheme[3].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3643	OverviewScreen.ScreenScheme[3].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Lower bar limit
3645	OverviewScreen.ScreenScheme[3].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Upper bar limit
3650	OverviewScreen.ScreenScheme[4].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3651	OverviewScreen.ScreenScheme[4].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0..7 Value index 128: not used
3652	OverviewScreen.ScreenScheme[4].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3653	OverviewScreen.ScreenScheme[4].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Lower bar limit
3655	OverviewScreen.ScreenScheme[4].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Upper bar limit
3660	OverviewScreen.ScreenScheme[5].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3661	OverviewScreen.ScreenScheme[5].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0..7 Value index 128: not used
3662	OScreen.ScreenScheme[5].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3663	OverviewScreen.ScreenScheme[5].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Lower bar limit
3665	OverviewScreen.ScreenScheme[5].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Upper bar limit
3670	OverviewScreen.ScreenScheme[6].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3671	OverviewScreen.ScreenScheme[6].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0..7 Value index 128: not used
3672	OverviewScreen.ScreenScheme[6].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3673	OverviewScreen.ScreenScheme[6].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Lower bar limit
3675	OverviewScreen.ScreenScheme[6].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Upper bar limit
3680	OverviewScreen.ScreenScheme[7].SrcSensor	1	0	3	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0: MCU 1...8: Sensor 128: not assigned
3681	OverviewScreen.ScreenScheme[7].SrcValue	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	0..7 Value index 128: not used
3682	OverviewScreen.ScreenScheme[7].UseAOScaleForBargraph	1	0	0xFF	UINT8	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	True: The Display uses a correspondig AO setting fort he bargraph scale False: The manual setting (below) is used
3683	OverviewScreen.ScreenScheme[7].BarLimitLow	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Lower bar limit
3685	OverviewScreen.ScreenScheme[7].BarLimitHigh	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	DIR_WRITE_ALWAYS		S... ScreenScheme	Upper bar limit
Value damping										
3700	ValueDamping.times[0]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 1 in sec.
3702	ValueDamping.times[1]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 2 in sec.
3704	ValueDamping.times[2]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 3 in sec.
3706	ValueDamping.times[3]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 4 in sec.
3708	ValueDamping.times[4]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 5 in sec.
3710	ValueDamping.times[5]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 6 in sec.
3712	ValueDamping.times[6]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 7 in sec.
3714	ValueDamping.times[7]	2	R_FMIN	R_FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... times	Damping time for Measure Point 8 in sec.
Limit Switch settings										
3720	limits.block0.SourceMeasPoint	1	0	3	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	128: NotUsed
3721	limits.block0.SourceValue	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	128: notAssigned
3722	limits.block0.SwitchOnLevel	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	0: OverLimit 1: UnderLimit
3723	limits.block0.HysteresisType	1	0	0xFF	UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	0: Percent 1: Absolute

3724	limits.block0.LimitingValue	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	Phys. limit value, Unit depends on the selected value type
3726	limits.block0.Hysteresis	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock0	Hysteresis value, in Percent or physical value
3730	limits.block1.SourceMeasPoint	1	0		3		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	128: NotUsed
3731	limits.block1.SourceValue	1	0		0xFF		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	128: notAssigned
3732	limits.block1.SwitchOnLevel	1	0		0xFF		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	0: OverLimit 1: UnderLimit
3733	limits.block1.HysteresisType	1	0		0xFF		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	0: Percent 1: Absolute
3734	limits.block1.LimitingValue	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	Phys.limit value, Unit depends on the selected value type
3736	limits.block1.Hysteresis	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock1	Hysteresis value, in Percent or physical value
3740	limits.block2.SourceMeasPoint	1	0		3		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	128: NotUsed
3741	limits.block2.SourceValue	1	0		0xFF		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	128: notAssigned
3742	limits.block2.SwitchOnLevel	1	0		0xFF		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	0: OverLimit 1: UnderLimit
3743	limits.block2.HysteresisType	1	0		0xFF		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	0: Percent 1: Absolute
3744	limits.block2.LimitingValue	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	Phys.limit value, Unit depends on the selected value type
3746	limits.block2.Hysteresis	2	R	FMIN	R	FMAX	FLOAT	DIR_READ	AUTHUSER	MAINTENANCE	S... LimitBlock2	Hysteresis value, in Percent or physical value
Function Check settings												
												Unit: Minutes, only predefined values possible: 1: Disabled 10: 10 Minutes 30: 30 Minutes 60: 60 minutes 90: 90 Minutes 120: 2 hours 300: 5 hours 480: 8 hours 720: 12 hours 1440: 24 hours
3900	AnalogOut.AOCheckcycleInterval	1	1		10080		UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S... CheckcycleInterval	starttime hour
3901	AnalogOut.CheckcycleStarttime.hour	1	0		24		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... CheckcycleStarttime	starttime minute
3902	AnalogOut.CheckcycleStarttime.minute	1	0		60		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... CheckcycleStarttime	starttime second – not used
3903	AnalogOut.CheckcycleStarttime.second	1	0		60		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... CheckcycleStarttime	Output duration for every function check value
3904	AnalogOut.CheckcycleDuration	1	10		270		UINT16	DIR_READ	AUTHUSER	MAINTENANCE	S... AOCheckcycleDuration	Enable / Disable output of function check results on AO 0: Disabled 1: Enabled
3905	AnalogOut.OutputCheckcycleOnAO	1	0		1		UINT8	DIR_READ	AUTHUSER	MAINTENANCE	S... OutputCheckcycleOnAO	
Clock												
4200	mb_trans_datetime.year	1		2000	2099		UINT16	DIR_READ	DIR_WRITE_ALWAYS			Reg #4200..#4205 must be written in one command. Reading this register got current system time (update interval 1..3s)
4201	mb_trans_datetime.month	1	1		12		UINT16	DIR_READ	DIR_WRITE_ALWAYS			Reg #4200..#4205 must be written in one command. Reading this register got current system time (update interval 1..3s)
4202	mb_trans_datetime.day	1	1		31		UINT16	DIR_READ	DIR_WRITE_ALWAYS			Reg #4200..#4205 must be written in one command. Reading this register got current system time (update interval 1..3s)
4203	mb_trans_datetime.hour	1	0		23		UINT16	DIR_READ	DIR_WRITE_ALWAYS			Reg #4200..#4205 must be written in one command. Reading this register got current system time (update interval 1..3s)
4204	mb_trans_datetime.min	1	0		59		UINT16	DIR_READ	DIR_WRITE_ALWAYS			Reg #4200..#4205 must be written in one command. Reading this register got current system time (update interval 1..3s)
4205	mb_trans_datetime.sec	1	0		59		UINT16	DIR_READ	DIR_WRITE_ALWAYS		RTC_MBValidateAndSetDateTime	Reg #4200..#4205 must be written in one command. Reading this register got current system time (update interval 1..3s)
SOPAS ET - Methods												
5000	varMethodExec	1	0		0xFF		UINT8	DIR_READ	DIR_WRITE_ALWAYS		MBAction_SetMaintenance	Set Maintenance / Operation
												Set Access Level DIR_WRITE_AUTHUSER 0x04 DIR_WRITE_SERVICE 0x08 DIR_WRITE_SICKSERVICE on request
5001	VarUserLevel	1	0		0xFF		UINT8	DIR_WRITE	DIR_WRITE_ALWAYS		MBAction_SetAccessMode	
5002	VarMethodExec	1	0		0xFF		UINT8	DIR_READ	AUTHUSER		MBAction_ResetSystem	System restart. The MCU does not send any response to this

										command!
5003	VarMethodExec	1	0	0xFF	UINT8	DIR_WRITE	DIR_WRITE_ALWAYS		MBAction_StartCheckcylce	Start checkcycle execution (0=has no effect, 0x01..0xFF starts CC)

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