KNX-Heatmeter Dialog SensoStarE

KNX-Heatmeter Dialog SensoStarE	**Product Group 10**

The compact single-beam heat meter dialog SensoStarE used to detect the heat energy in a closed heating system.

- Arithmetic unit Temperature range 0 - 150 ° C
- Ambient temperature Use: 5 - 55 °C
- Temperature difference range heat 3 - 100 K
- Reverse flow detection
- Measuring cycle temperature ; dynamic: 2 / 60 s
- LCD - 8 digits + special characters
- 3V lithium battery
- Battery life 6 years plus 1 year power reserve
- With conformity assessment according to MID

KNX

Product database:	**MBUS_v4.knxprod**
Sample project	MBus-SensoStarE.knxproj
KNX readable data:	Energy Power Volume Flow rate Flow temperature Return temperature Difference temperature Date Time Operational time
Temperature range:	0 .. 150°C
Temperature difference:	0 .. 100 K
Arithmetic unit:	IP54
KNX modul:	IP54/65

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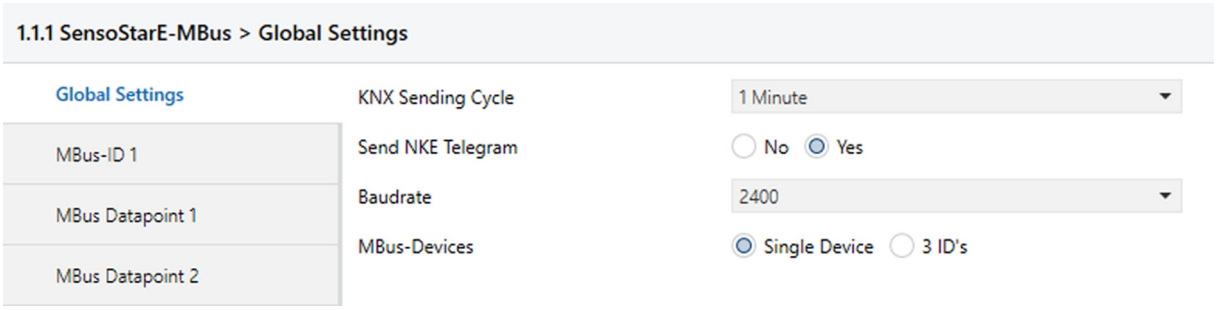
Application Description

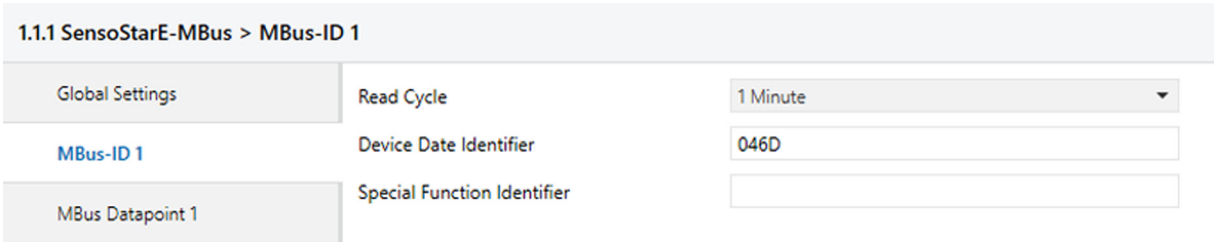
1 KNX Parameter

General Settings



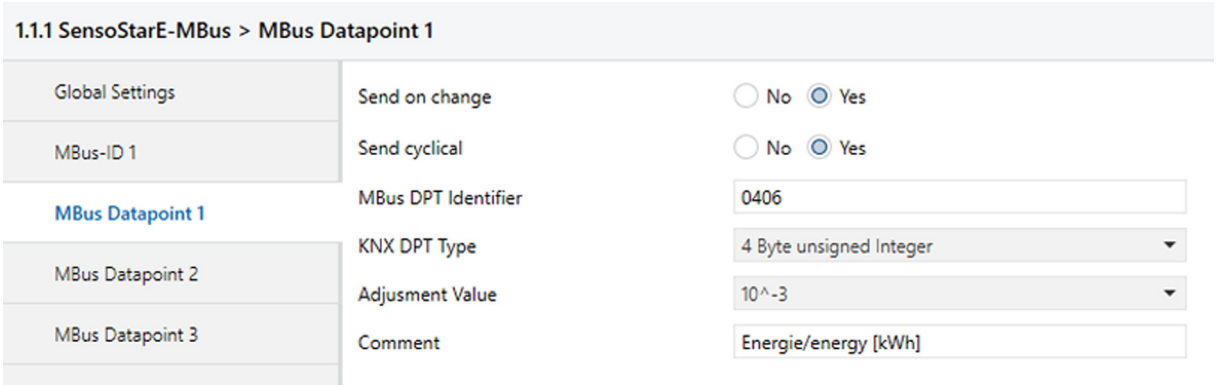
The KNX sending cycle should be adjusted for operation.
The other settings are to be retained.

MBus-ID 1



The reading cycle should be adapted to the requirements.
The „Device Date Identifier“ DIF=0x04 and VIF=0x6D is required for the date on object 33.
The „Special Function Identifier“ has no meaning for the heat meter.

MBus Datapoint 1



This data point serves as an example.
For the data points used, the two parameters "Send on changes" and "Send cyclically" should be adapted to the requirements.
The remaining parameters are preset in a sample project which can be found on our website.
Download sample project: MBus-SensoStarE.knxproj

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2 KNX Objects in the sample project

Number	Name	Object Function	Description	Length
0	Output, Value 1	MBus Value	Energie/energy [kWh]	4 bytes
1	Output, Value 2	MBus Value	Leistung/power [W]	4 bytes
2	Output, Value 3	MBus Value	Volumen/volume [m³]	4 bytes
3	Output, Value 4	MBus Value	Durchfluß/flow: 0,001 m³/h	4 bytes
4	Output, Value 5	MBus Value	Vorlauf Temp/flow temp: 1°C	4 bytes
5	Output, Value 6	MBus Value	Rücklauf Temp/return temp: 1°C	4 bytes
6	Output, Value 7	MBus Value	Differenz Temp/diff temp: 0,01°K	4 bytes
7	Output, Date 8	MBus Date	Datum/date	3 bytes
8	Output, Time 9	MBus Time	Uhrzeit/time	3 bytes
9	Output, Value 10	MBus Value	Laufzeit/operational time: Tage/days	4 bytes
10	Output, Value 11	MBus Value	Seriennummer/serial number	4 bytes
11	Output, Value 12	MBus Value		6 bytes
12	Output, Value 13	MBus Value		6 bytes
13	Output, Value 14	MBus Value		6 bytes
14	Output, Value 15	MBus Value		6 bytes
15	Output, Value 16	MBus Value		6 bytes
16	Output, Value 17	MBus Value		6 bytes
17	Output, Value 18	MBus Value		6 bytes
18	Output, Value 19	MBus Value		6 bytes
19	Output, Value 20	MBus Value		6 bytes
20	Output, Value 21	MBus Value		6 bytes
21	Output, Value 22	MBus Value		6 bytes
22	Output, Value 23	MBus Value		6 bytes
23	Output, Value 24	MBus Value		6 bytes
24	Output, Value 25	MBus Value		6 bytes
25	Output, Value 26	MBus Value		6 bytes
26	Output, Value 27	MBus Value		6 bytes
27	Output, Value 28	MBus Value		6 bytes
28	Output, Value 29	MBus Value		6 bytes
29	Output, Value 30	MBus Value		6 bytes
30	Output, Value 31	MBus Value		6 bytes
31	Output, Value 32	MBus Value		6 bytes
32	Output, Secondary Address Device 1	Secondary Address	Sekundäradresse/secondary address	14 bytes
33	Output, Date Device 1	System Date	Datum/date	3 bytes
38	IO, ID programming	ID programming		1 byte
39	Output, Status	Status	Status/status	1 byte
40	Output, Special Function ID 1	Send Special Function		1 bit

Object 32 "Output, Secondary Address Device 1" indicates the secondary address of the counter.

Object 33 "Output, System Date Device 1" outputs the counter internal date.

Object 39 "Output, Status" indicates the counter found (value = 1).
If this is not the case, please check the MBus connection.

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3 DIF and VIF codes of the readable data

Counter value	DIF	VIF	Unit
Energy	**0x04**	**0x06**	**MWh**
Power	**0x04**	**0x2B**	**kW**
Volume	**0x04**	**0x13**	**m³**
Flow Rate	**0x04**	**0x3B**	**m³/h**
Flow Temperature	**0x02**	**0x5B**	**°C**
Return Temperature	**0x02**	**0x5F**	**°C**
Differential Temperature	**0x02**	**0x61**	**0,01°K**
Date	**0x04**	**0x6D**	
Time	**0x04**	**0x6D**	
Operational Time	**0x02**	**0x23**	**Days**
Serial Number	**0x04**	**0x78**	

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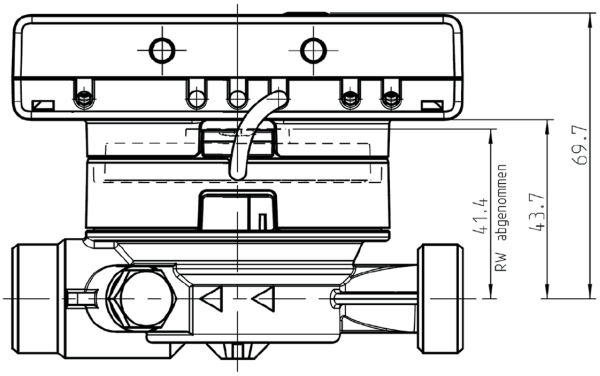
4 Product Page

Dimensioned sketch SensoStarE



KNX-Heatmeter Dialog
SensoStarE

5 KNX Startup

The KNX-GW-MBUS is set up using the ETS and the applicable application program.
The gateway is delivered unprogrammed.
All functions are programmed and parameterized with ETS.
Please read the ETS instructions.

In Case of Bus Voltage Recurrence

All changes made using the help key for the KNX bus are saved if the device has been correctly parameterized.
The controller and outputs start with their current values and the ETS parameter settings are saved.

Discharge Program and Reset Sensor

In order to delete the programming (projecting) and to reset the module back to delivery status, it must be switched to zero potential (disconnect the KNX bus coupler).
Press and hold the programming button while reconnecting the KNX bus coupler and wait until the programming LED lights up (approx. 5-10 seconds).
Now you can release the programming button.
The module is ready for renewed projecting.
If you release the programming button too early, repeat the aforementioned procedure.

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6 Technical Data

Technical Data

KNX	
Operating Voltage	KNX bus voltage 21 .. 32VDC
Power consumption	approx. 240 mW (at 24VDC)
Bus coupler	integrated
Environment temperature KNX module	Operation: 0 .. +55 °C Storage: -20 .. +60 °C
Commissioning with the ETS	**MBUS_v4.knxprod**
Sample project	MBus-SensoStarE.knxproj
Connections	KNX-2-pin Terminal (red / black)

SensoStarE		Temperature probe	Article No.
Nominal Diameter (DN) Minimum flow Connection AG meter Connection AG thread Length	15 0,6 m³/h 3/4 Zoll 1/2 Zoll 110mm	PT1000 2-wire Cable length: 1,5m direct measurement	6041-85223106
Nominal Diameter (DN) Minimum flow Connection AG meter Connection AG thread Length	15 1,5 m³/h 3/4 Zoll 1/2 Zoll 110mm		6041-85223115
Nominal Diameter (DN) Minimum flow Connection AG meter Connection AG thread Length	20 2,5 m³/h 1 Zoll 3/4 Zoll 130mm		6041-85223125

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Imprint

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The buyer/operator of the facility has to make sure that all relevant safety regulations, issued by VDE, TÜV and the responsible energy suppliers are respected. There is no warranty for defects and damages caused by improper use of the devices or by non-compliance with the operating manuals.

Warranty

We take over guarantees as required by law.
Please contact us if malfunctions occur. In this case, please send the device including a description of the error to the company's address named below.

Manufacturer

KNX arcus-eds electronic design services gmbh

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