

KNX-Heatmeter Dialog WZ R5.M

KNX-Heatmeter Dialog WZ R5.M

Product Group 10

The compact single-beam heat meter dialog WZ R5.M used to detect the heat energy in a closed heating system.

- Arithmetic unit with admission to bis 120° C
- Temperature difference: 3 ... 90 K
- Approval for symmetrical installation of the temperature sensor
- 16-Bit microcontroller
- 8-digit LCD
- 2 buttons for display switching
- Arithmetic unit housing rotatable
- 3V lithium battery
- Battery life 6 years plus 1 year power reserve

EG-Type Examination Certificate: DE-14-M1004-PTB004

Measuring accuracy: EN 1434-1:2007, class 3

KNX

Document: 4430_ex_WZ-R5.M.pdf



Product database:

KNX-GW-MBUS-NZR

KNX readable data:

Energy
 Volume
 Power
 Flow
 Return temperature
 Vorlauftemperatur
 Flow temperature

Reference of the last 18 months

Temperature range:
 Temperature difference:

2 .. 120°C
 3 .. 90 K

Arithmetic unit:
 KNX modul:

IP54
 IP52

Application Description

1 KNX Parameter

General Settings

Device: 1.1.1 KNX-GW-MBUS-NZR

General Settings	KNX Sending Cycle	Only on Change
Energy	MBUS Reading Cycle	10 sec
Volume		
Power		
Flow Rate		
Return Temperature		
Flow Temperature		
Temperature Difference		
Timestamp of the latest Energy Va		
Energy (Current Month - 1)		
Energy (Current Month - 2)		
▪		
▪		
Energy (Current Month - 17)		
Energy (Current Month - 18)		

General Settings

Parameter	Settings	Description
KNX Sending Cycle	Only on Change Minute: 1, 5, 15, 30 Hour: 1, 2, 4, 6, 12	In the set time, the data associated with GAs are sent to the KNX bus.
MBUS Reading Cycle	Second: 10 Minute: 1, 5, 15, 30 Hour: 1, 2, 4, 6, 12	In the set time, the counter data are updated to the MBUS.

All other parameter fields have identical settings.

Parameter fields

Parameter	Settings	Description
Send on Change	No Yes	Default: Yes As soon as there is a change in value, the value is sent to the KNX bus.
Send Cyclically	No Yes	Default: No If "Yes", the data is sent to the bus even if no change of the value present. The interval is under General Settings - KNX Sending Cycle.

2 KNX Objects

Number	Name	Object Function	Descripti...	Group Address...	Length	...	R	W	T	U	Data Type	Priority
0	Output, Energy [kWh]	Measured Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
1	Output, Volume [l]	Measured Value			4 Byte	C	R	-	T	-	4-byte float value	Low
2	Output, Power [W]	Measured Value			4 Byte	C	R	-	T	-	4-byte float value	Low
3	Output, Flowrate [l/h]	Measured Value			4 Byte	C	R	-	T	-	4-byte float value	Low
4	Output, Return Temperature [°C]	Measured Value			4 Byte	C	R	-	T	-	4-byte float value	Low
5	Output, Flow Temperature [°C]	Measured Value			4 Byte	C	R	-	T	-	4-byte float value	Low
6	Output, Temperature Difference [K]	Measured Value			4 Byte	C	R	-	T	-	4-byte float value	Low
7	Output, Timestamp of the latest Energy Value	Date of Storage			3 Byte	C	R	-	T	-	date	Low
8	Output, Energy [kWh] (Current Month - 1)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
9	Output, Energy [kWh] (Current Month - 2)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
10	Output, Energy [kWh] (Current Month - 3)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
11	Output, Energy [kWh] (Current Month - 4)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
12	Output, Energy [kWh] (Current Month - 5)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
13	Output, Energy [kWh] (Current Month - 6)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
14	Output, Energy [kWh] (Current Month - 7)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
15	Output, Energy [kWh] (Current Month - 8)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
16	Output, Energy [kWh] (Current Month - 9)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
17	Output, Energy [kWh] (Current Month - 10)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
18	Output, Energy [kWh] (Current Month - 11)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
19	Output, Energy [kWh] (Current Month - 12)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
20	Output, Energy [kWh] (Current Month - 13)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
21	Output, Energy [kWh] (Current Month - 14)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
22	Output, Energy [kWh] (Current Month - 15)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
23	Output, Energy [kWh] (Current Month - 16)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
24	Output, Energy [kWh] (Current Month - 17)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
25	Output, Energy [kWh] (Current Month - 18)	Storage Value			4 Byte	C	R	-	T	-	4-byte signed value	Low
32	Output, Serialnumber	System			14 Byte	C	R	-	T	-	Character String (ASCII)	Low
33	Output, System Date	System			3 Byte	C	R	-	T	-	date	Low

The relevant counter data are output via objects 0-6.

Object 7 outputs the time stamp of the most recent memory value.

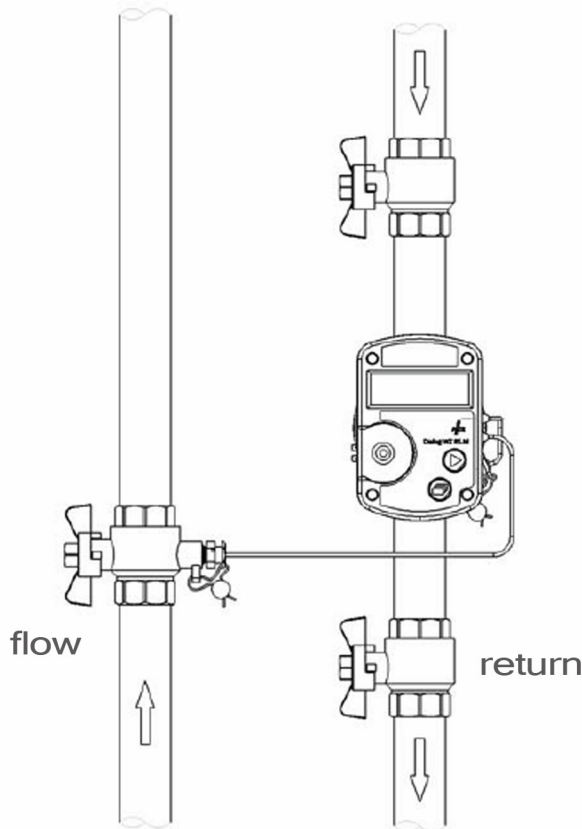
In objects 8-25 "Output, Energy [kWh] (Current Month - x)", the monthly values of the total energy consumption are stored.

When the time stamp of the next reference value is reached, all stored reference values are shifted by one month.

Object 32 "Output, serial number" indicates the serial number of the counter.

Object 33 "Output, system date" outputs the counter internal date.

3 Product Page



4 KNX Startup

The KNX-GW-MBUS is set up using the ETS (KNX Tool Software) 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.


5 Technical Data

Technical Data

KNX	
Operating Voltage	KNX bus voltage 21 .. 32VDC
Power consumption	approx. 240 mW (at 24VDC)
Bus coupler	integrated
Environment temperature	Storage: 0 .. +55 °C Operation: -20 .. +60 °C
Inbetriebnahme mit der ETS	KNX-GW-MBUS-NZR
Connections	KNX-2-pin Terminal (red / black)

WZ R5.M		Temperature probe	Article No.
Nominal Diameter (DN)	15	PT500 2-wire Cable length: 1,2m direct measurement	6040-85123106
Minimum flow	0,6 m³/h		
Connection AG meter	3/4 Zoll		
Connection AG thread	1/2 Zoll		
Length	110mm		
Nominal Diameter (DN)	15		6040-85123115
Minimum flow	1,5 m³/h		
Connection AG meter	3/4 Zoll		
Connection AG thread	1/2 Zoll		
Length	110mm		
Nominal Diameter (DN)	20		6040-85123125
Minimum flow	2,5 m³/h		
Connection AG meter	1 Zoll		
Connection AG thread	3/4 Zoll		
Length	130mm		

	Other heat meters, technical data and companion dimensions as well as informations about mounting kits and adapters are available at NZR www.nzr.de . The NZR-article no. equals the second part of our article no.
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	All meters of the series WZ-HY are equipped with an internal KNX coupling unit, they are MID approved, sealed and calibrated.
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Imprint

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Safety Regulations

Attention! Installation and mounting must be carried out by a qualified electrician.
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.

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We take over guarantees as required by law.
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