M-Bus / SCR P

Interface GWFcoder®

Your benefits

- Interface converter between SCR(IEC) and M-Bus: **Conversion without meter exchange**
- Automatic allocation of primary address: **Simplified start-up of electric meters with integrated M Bus master interface (Smart Metering)**
- Simplifies logistics: **Only meters with SCR(IEC) must be keep on stock**
- Polarity independent: **Easy on-site installation**

Applications

- Using the interface, installed GWFcoder® cold water and gas meters can be readout via an M-Bus master (except BGZcoder® MP and MTKcoder® MP)
- Several meters can be interconnected and readout via the M-Bus

Properties

- Data compatibility – for the M-Bus master, the interface acts like a GWFcoder® meter with integrated M-Bus
- Adjustable parameters for baud rate and primary address
- Due to the connected meter, the primary address is automatically defined:
  Water meter = Primary address 1
  Gas meter = Primary address 2
- 4 M-Bus unit loads (6 mA) per GWFcoder® register (in Version ⩽3.0)
- 5 M-Bus unit loads (7,5 mA) per GWFcoder® register (in Version ⩾4.0)
- Polarity independent connection of GWFcoder® meter to the interface

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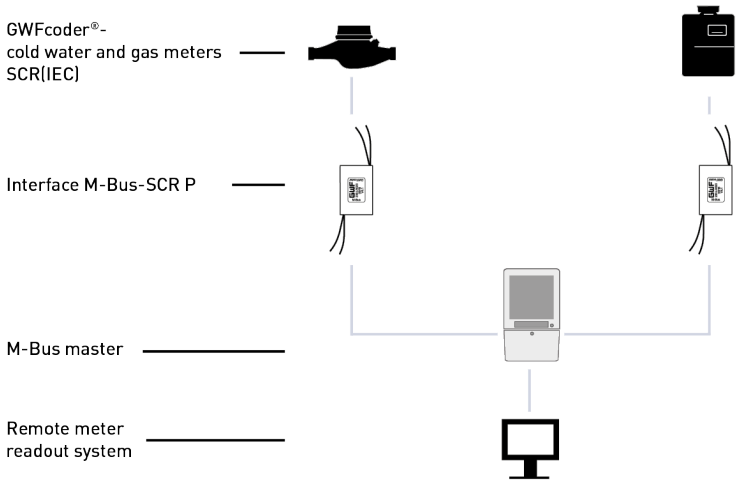
Components



General performance

- The waiting period after «Power ON» is max. 15 seconds. The interface reads out data automatically from the GWFcoder® register.
- After successful reading of the GWFcoder® register, the interface can be selected and readout via the M-Bus master.
- Due to the connected meter, the primary address is automatically defined (water = 1, gas = 2). If the installer programs a different primary address the automatic allocation of primary addresses is permanently deactivated.
- The readout software must support the data interpretation of the GWFcoder® data set. The data set is compatible with the data set of GWFcoder® registers with integrated M-Bus. This data set is already supported by the majority of suppliers.

Readout interval

- The register reading is updated in the interface after each readout and every 15 minutes.
- If the meters in the M-Bus network are read-out in a cyclic manner, there should be a pause of at least 15 seconds at the end of the cycle.
- The interface readout interval should not be less than 15 seconds.

Commissioning

- During commissioning the parameters for the baud rate and, in case of use of the primary address, for the address must entered. The interface reads out the secondary address directly from the GWFcoder® register.
- After exchanging the meter, the M-Bus must be restarted («Power OFF / ON») and the meter list in the readout software adjusted.
- After exchanging the interface, the parameters of the baud rate and, if necessary, the primary address must be adjusted.

Technical Data

Data transfer	
Baud rate	2400 baud (default) or 300 baud
Primary address	Water meter = 1 (automatic) Gas meter = 2 (automatic) Automatic allocation of primary address only possible for interface modules ≥V3.0 1-250 (by installer)
Secondary address	Meter number (eight digits)

M-Bus unit load	
Load	4 M-Bus unit loads (6 mA) per GWFcoder® register SCR(IEC) (in Version ≤3.0) 5 M-Bus unit loads (7,5 mA) per GWFcoder® register SCR(IEC) (in Version ≥4.0)

Installation
The interface can be installed at the M-Bus master or the meter.

Max. cable length	
SCR connection cable	150m
M-Bus connection cable	Network-dependent

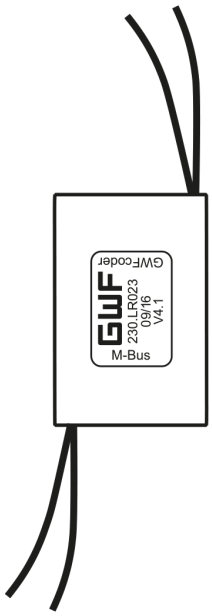
Dimensions and weight	
Dimensions	50x26x11 mm (+ 2x85 mm cable)
Weight	app. 20 g

Application area	
Temperature	-10 to +60 °C
Protection class	IP54

Interfaces
M-Bus according to EN 13757-2
SCR / Protocol IEC 62056-21

Supported meters

GWFcoder®-cold water- and gas meters with SCR(IEC) interface (except BGZcoder® MP and MTKcoder® MP)



Connection and signal transfer

M-Bus (blau)	M-Bus master according to EN 13757-2 After «Power ON», the interface requires app. 15 seconds before it is ready for operation.
GWFcoder® (rot)	GWFcoder® register (polarity independent)