



Water



Heat / Cooling



Gas

GWF



M-Bus/M-Bus - SCR MP (IEC)

GWFcoder®-Interface



Your benefits

- Interface multiplication:
Multiple use of meter data
- Use of a GWFcoder® meter with SCR(IEC) interface in a M-Bus network:
Meter data can be made available to the end customer
- Labeled connection terminals:
Easy on-site installation

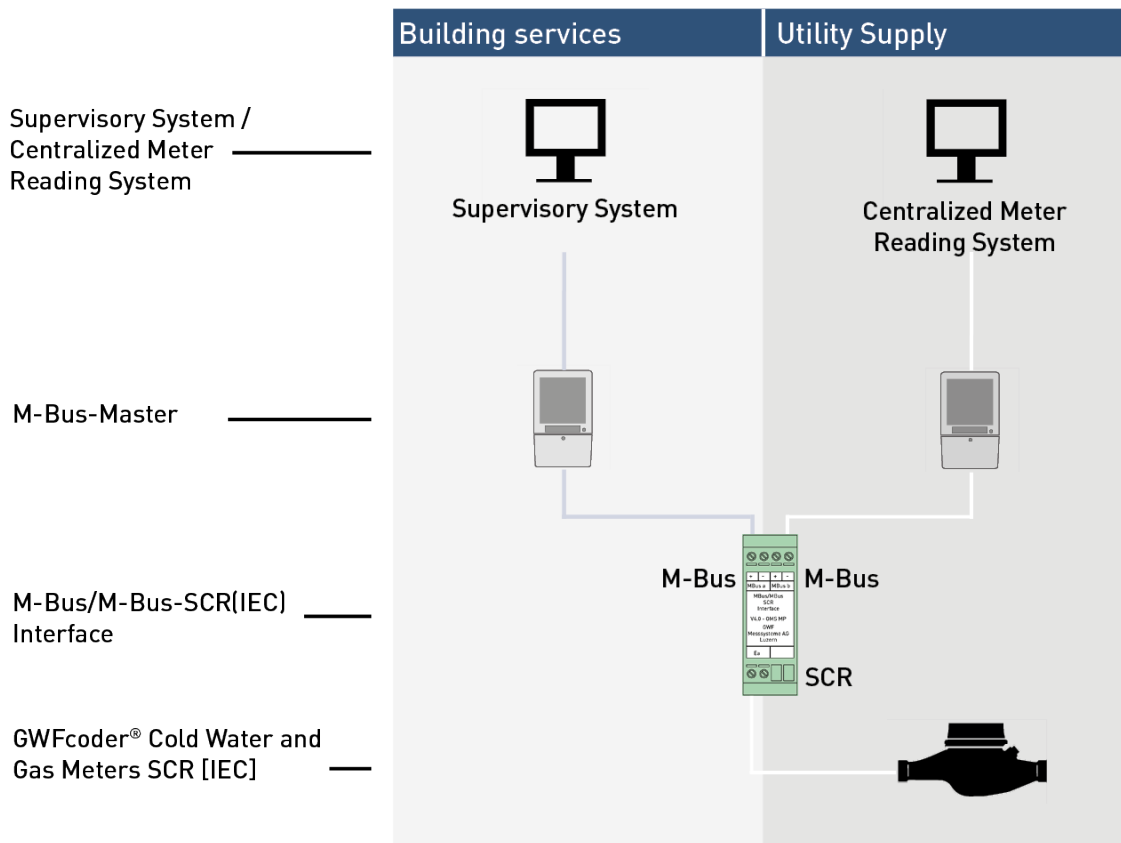
Applications

- With the interface, water and gas meters equipped with GWFcoder® registers can be read by the utility for billing purposes and by the building management system for energy optimization

Properties

- Data compatibility – for the M-Bus master, the interface behaves like a GWFcoder® meter with integrated M-Bus
- Polarity-independent connection of GWFcoder® meters to the interface
- DIN rail mounting
- With the interface, a GWFcoder® meter with SCR(IEC) interface can be integrated simultaneously into two separate M-Bus networks. The interface automatically reads the GWFcoder® register at predefined intervals and stores the current data set in the internal memory. When a readout via M-Bus is performed, the data are immediately available and transmitted to the master.

Components



General Operating Behavior

- The start-up time after power «ON» is max. 15 s. The interface automatically reads the data from the GWFcoder® register.
- After successful readout of the GWFcoder® register, the interface can be selected and read out by the M-Bus master.
- The readout software must support interpretation of the GWFcoder® data record. The data record is compatible with the data record of GWFcoder® meters with integrated M-Bus. This data record is already supported by most providers.

Readout Interval

- The meter reading is updated in the interface after each readout and additionally every 15 min.
- If the meters are read cyclically within the M-Bus network, a pause of at least 15 s must be observed at the end of each cycle.
- The readout interval of the interface must not be less than 15 s.

Commissioning

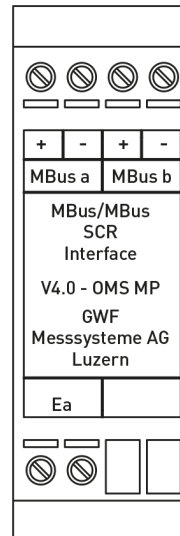
- During commissioning, the baud rate for «M-Bus a» and «M-Bus b» must be verified and, when using primary addressing, the address must be parameterized. The secondary address is read directly by the interface from the GWFcoder® register.
- «M-Bus a» must be connected, as the interface is powered via this connection.
- After replacing a meter, «M-Bus a» must be restarted (power ON/OFF), and the meter list of both M-Bus networks must be updated in the readout software.
- After replacing the interface, the baud rate and, if applicable, the primary address must be reconfigured.

Meter Connection Scheme

Meter Type		Connection Wires
MTKcoder® IP67	Without approval, CE Conformity (MID)	white, brown
MTKcoder® IP68	Without approval, CE Conformity (MID)	black, red (cut green wire)
MTKcoder® MP IP67	CE Conformity (MID)	white, brown
MTKcoder® MP IP68	CE Conformity (MID)	black, red (cut green wire)
WPKDcoder WSDKcoder Meitwin with GWFcoder® WPVD with GWFcoder®	Without approval	black, red (cut brown wire)
Meistream with GWFcoder® Meistream Plus with GWFcoder® Meitwin with GWFcoder® WPV-MS with GWFcoder®	CE Conformity (MID)	white, brown
Meistream with GWFcoder® MP Meistream Plus with GWFcoder® MP Meitwin with GWFcoder® MP WPV-MS with GWFcoder® MP	CE Conformity (MID)	black, red (cut green wire)

Connection and Signal Transmission / Interface

M-Bus a +/-	M-Bus master acc. to EN 13757-2, supervisory system. After power «ON», the interface requires 15 s to become operational. Power supply via «M-Bus a».
M-Bus b +/-	M-Bus master acc. to EN 13757-2, supervisory system. After power «ON», the interface requires 15 s to become operational.
Ea	GWFcoder® register (polarity-independent)



Technical Data

Data Transmission – M-Bus

Baud rate M-Bus a / M-Bus b	2400 Baud (Standard) or 300 Baud
Primary address M-Bus a / M-Bus b	1–250
Secondary address	GWFcoder@ meter number – 8 digits, numeric

M-Bus Load

Load	M-Bus a: 5 M-Bus unit loads (7,5 mA – supply)
Load	M-Bus b: 2 M-Bus unit loads (3 mA – supply)

Installation

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

Maximum Cable Length

SCR connection cable	150 m
M-Bus connection cable	Depending on network configuration

Dimensions and weights

Dimensions	25 x 78 x 47 mm
Weight	app. 50 g

Operating Conditions

Temperature	-10 to + 60 °C
Protection class	IP40

Interfaces

M-Bus acc. to EN 13757
Inductive via SCR / protocol IEC 62056-21

Supported Meters

GWFcoder® cold water and gas meters with SCR(IEC) interface