

ACM M-BUS WIRE, ACM SCR+ WIRE

Absolute ENCODER
communication modules for
smart metering



Applications

Media: natural gas, propane and butane*
Industries: gas industry
Tasks: remote data readout

System description

The absolute meter reading is provided by the Absolute ENCODER AE2 index. The communication modules ACM M-BUS WIRE and ACM SCR+ WIRE transfer the data by cable to a downstream receiving unit.

The communication module is designed as a plug & play solution and is simply plugged into and sealed to the ENCODER index. The connected receiving unit is synchronized automatically. The communication module is delivered fully programmed. The modular connection between the communication module and ENCODER index enables communication modules to be replaced at any time without further programming effort. The metrology-relevant part of the gas meter thus remains unaffected.

ACM M-BUS WIRE

The cable-based communication module ACM M-BUS WIRE is connected to an M-Bus master which operates in accordance with standard M-Bus, DSMR M-Bus (Dutch Smart Meter Requirements) or OMS M-Bus (Open Metering System).

ACM SCR+ WIRE

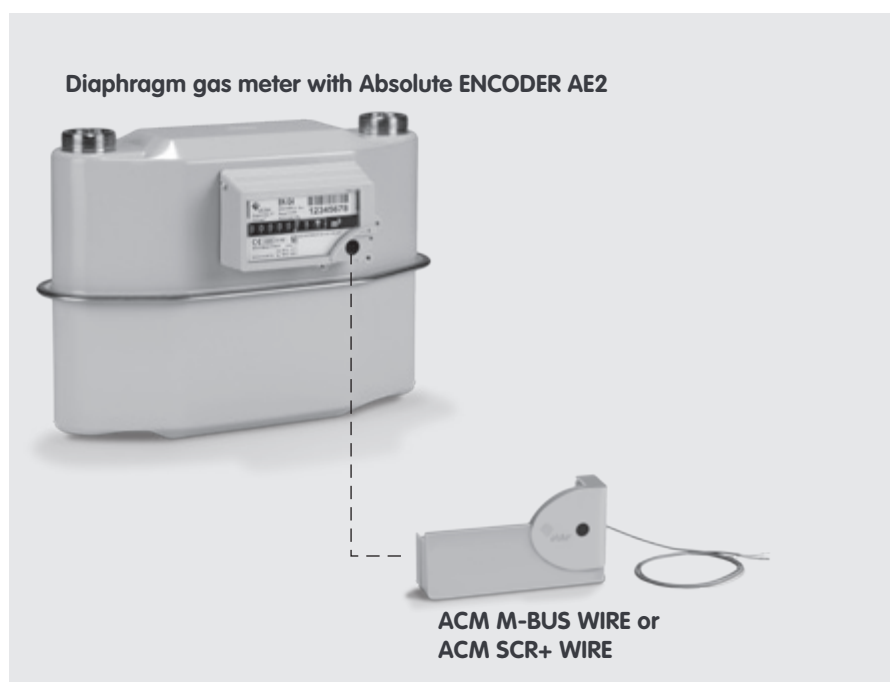
The cable-based ACM connects the Absolute ENCODER AE2 and the receiving unit with an SCR+ interface.

Main features

- Forwarding absolute meter readings.
- ACM M-BUS WIRE and ACM SCR+ WIRE operate without a battery.
- Simple plug-in installation of the communication module with immediate availability.
- Encrypted data transmission possible.

Options

- Communication modules for Absolute ENCODER AE2 can be retrofitted in the field.
- Remotely switchable valve in gas meter (see Smart valve data sheet) for Elster P2 transmission protocol.



Diaphragm gas meter with Absolute ENCODER AE2

ACM M-BUS WIRE or
ACM SCR+ WIRE

* Gases in acc. with EN 437

Absolut ENCODER Communication Module for Smart Metering

Energy supply

The cable-based communication operates without a battery. The energy required is supplied via the receiving unit. If no data is transferred or the valve is not activated, the communication module can be disconnected from the electrical power supply.

ACM M-BUS WIRE V-Drive

In addition to data transmission, the ACM M-BUS WIRE V-Drive offers the optional function of remote switching of a valve integrated in the diaphragm gas meter (see Smart valve data sheet).

An internal energy accumulator ensures a minimum waiting time of < 1 minute between each valve operation. The charging process of the energy accumulator following commissioning or after a power shut-down causes a start-up time of max. 20 minutes. During this time period, transfer of the meter reading is still possible.

The valve status "Open/Released" and "Closed" can be called up at any time from the customer's data management software.

Installation

The plug-in communication module is plugged into the Absolute ENCODER AE2 index via a 4-pin plug. The plug connector automatically produces synchronization. A screw to secure the connection, a 2 m connection cable and a seal are included in the delivery. Thanks to this separate seal, which does not affect the metrology-relevant part of the gas meter, the connection cable of the ACM..WIRE can be installed on site and simply replaced at any time. The plug in the communication module is designed for connection cables of 0.14 to 1.5 mm².

Technical data

Enclosure: IP 54.

Ambient temperature: -25 to +55°C.

M-BUS transfer of status and error messages in accordance with EN 13757.

Connection cable design: 2 m (other dimensions on request), flexible, two-core cable LiYY, fireproof pursuant to IEC 60332-1, Ø = 0.25 mm².

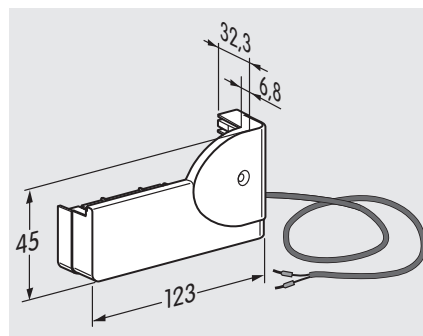
The free cable end has 2 wire end ferrules.

ACM M-BUS WIRE and ACM SCR+ WIRE support data transmission protocols based on standard M-Bus, DSMR M-Bus (Dutch Smart Meter Requirements), OMS M-Bus (Open Metering System) and SCR+.

Power supply via SCR+: 3 mA.

Power supply via M-BUS: 6 mA (4 M-Bus loads).

Dimensions:



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