



Opto-Encoder ER56/ER66

For C&I water meters

Applications

The Opto-Encoder register, combining the advantages of an electronic and a mechanical register, offers an easy way for remote reading of meter index.

It provides a maintenance free operation with no need for an internal battery or for any external power supply. The required energy needed for reading index and serial number is provided by the reading device while reading.

The main applications are:

- Automated mobile meter reading
 - Inductive
 - Radio
- Fixed net remote reading
 - wired M-Bus
 - wireless
- Smart Metering applications
- Readout of meters installed in places difficult to access (flooded pits, industry, banks etc.)

MAIN CHARACTERISTICS

- Opto-electronic encoder for absolute reading of the index and number of the meter
- Maintenance free operation without internal battery
- Absolute correlation between electronic readout and mechanical register is guaranteed
- Plug and play functionality without any programming
- Meter performance is not affected by any mechanical friction within encoder register
- Readout energy is supplied by the reading device
- Available in IP68 glass/copper register
- HRI pulse module can be retrofitted 5 m serial output cable

Data Interface Options

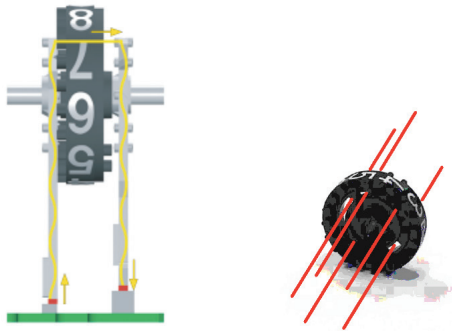
| | |
|---------------------------|--|
| M-Bus M-Bus (ER66) | Wired M-Bus acc. EN13757 <= 2 M-Bus loads Baudrate: 2400 (300) Baud Serial No. with 8 (17) digit |
| MiniBus (ER56) | Protocol acc. EN13757 Baudrate: 2400 (300) Baud Low voltage physical layer Serial No. with 8 (17) digit |
| Sensus (ER56) | Protocol acc. UI-1203 |

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Principle

The absolute Opto-Encoder is an ideal combination of the advantages of mechanical and electronic technology. In this system, the individual rollers of the mechanical index are scanned optoelectronically. For this purpose, each roller has slots, which vary in length and are arranged asymmetrically. Five beams of light scan the slots to determine their position. Intermediate positions can also be precisely determined. The counter reading is then transferred as a predefined data protocol to the supplementary device via the electrical interface. This functioning principle has been patented.



READOUT DEVICE COMPATIBILITY

| | |
|----------------|--|
| M-Bus | Level converter and other M-Bus compliant devices acc. EN13757 |
| MiniBus | Waterbox (at 300 Baud) |
| Sensus | Sensus - Touchread Systems |
| MeiStream | DN 40 - 300 |
| MeiStream Plus | DN 40 - 150 |
| MeiTwin | DN 50 - 100 |
| WPV-MS 150 | DN 150 |

DATA PACKAGE

| Absolute meter reading | | |
|--------------------------|--------------|-----------------------------|
| MeiStream | DN 40 - 125 | 123456 m ³ |
| MeiStream | DN 150 - 300 | 123456 x10 m ³ |
| MeiTwin Main meter | DN 50 - 100 | 123456 m ³ |
| MeiTwin By-pass meter | | 123456 x 0.1 m ³ |
| WPV-MS 150 Main meter | DN 150 | 123456 x10 m ³ |
| WPV-MS 150 By-pass meter | | 123456 m ³ |
| Meter ID number | | 8 (17) digit |
| M-Bus Address* | | Primary & Secondary |
| Medium* | | Water (07) |

*other information depending on the used data protocol interface



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