



IM 2

M-Bus pulse collector

Your benefits

- Interface conversion from pulse to M-Bus:
System change without meter removal
- Power supply via the M-Bus or integrated battery:
No mains adapter required, thus saving time and costs per measuring point
- Regular storage of meter readings in the EEPROM:
No data loss

Application

- IM 2 enables the integration of two consumption meters, each with one pulse output, into the M-Bus data chain

Features

- 2-way M-Bus pulse collector
- Fixed date function – implemented clock with calendar function
- Parameters of both pulse inputs freely configurable
- Parameterisation via M-Bus with read only function
- M-Bus protocol according to EN 1434-3
- Automatic Baud rate detection (300 or 2400 baud)
- Supports primary and secondary addressing
- Full functionality in case of M-Bus failure (battery operation)
- Simple wall mounting

| Supply | |
|--|--|
| Remote supply from the M-Bus with automatic changeover to battery operation in case of Bus failure | |
| Bus operation | Max. 1.5mA (1 M-Bus standard load) |
| Battery operation | app. 50µA at 25°C |
| Battery | Lithium 3V, button cell, 230mAh, can be replaced |
| Battery service life without other supply | app. 1/2 year at 25°C |
| Permissible no. of days with battery operation per year during 10 years of operation | app. 18 days at 25°C |

| M-Bus protocol | |
|--|--|
| Reference standard | EN 1434-3 |
| Transfer rate | 300 or 2400 Baud with automatic detection |
| Addressing | Primary and secondary addressing |
| Supports telegrams | SND_NKE, REQ_UD2, SND_UD |
| Data structure: Variable structure, Low-Byte-First (identifier 72h) Length = 53 B | <ol style="list-style-type: none"> 1. Data record: Meter reading 2. Data record: Time and date 3. Data record: Last fixed date 4. Data record: Last fixed date value 5. Data record: Next fixed date 6. Data record: Company-specific attachment |

| Pulse contact requirements | |
|-----------------------------------|--|
| Potential | Potential-free, insulation to earth > 1MΩ |
| Resistance | Open > 1MΩ, closed < 2kΩ |
| Maximum capacity (incl. cable) | 2nF (short power feed), 12nF (long power feed) |
| Minimum contact duration | 30ms |
| Minimum interval between 2 pulses | 30ms |
| Maximum pulse frequency | 14Hz |
| Contact voltage | 2,5V to 3,6V |
| Contact current | 30µA |
| Guaranteed debouncing time | 5ms |
| Connection cable | Max. 10m (twisted pair recommended) |

Technical Data

| Housing | |
|------------------|---|
| Dimensions | 80x80x52mm |
| Installation | Wall-mounted |
| Material | Polystyrene |
| Colour | Light grey |
| Protection class | IP54 |
| Pulse inputs | 2, parameters individually configurable |

| Ambient conditions | |
|---------------------------|--------------|
| Operating temperature | 0 to +55°C |
| Storage temperature | -20 to +70°C |
| Humidity (non-condensing) | 10 to 70% |