



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

Applications

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

Properties

- 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 13757-2 and -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

Technical Data

Supply

Remote supply from the M-Bus with automatic changeover to battery operation in case of Bus failure	
Bus operation	Max. 1,5 mA (1 M-Bus standard load)
Battery operation	app. 50 µA at 25 °C
Battery	Lithium 3 V, button cell, 230 mAh, 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 13757-2 and -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 72 h) Length = 53 B	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 >1 MΩ
Resistance	Open >1 MΩ, closed <2 kΩ
Maximum capacity (incl. cable)	2 nF (short power feed), 12 nF (long power feed)
Minimum contact duration	30 ms
Minimum interval between 2 pulses	30 ms
Maximum pulse frequency	14 Hz
Contact voltage	2,5 V to 3,6 V
Contact current	30 µA
Guaranteed debouncing time	5 ms
Connection cable	Max. 10 m (twisted pair recommended)

Housing

Dimensions	80 x 80 x 52 mm
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 %