

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 the 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 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	 Data record: Meter reading Data record: Time and date Data record: Last fixed date Data record: Last fixed date value Data record: Next fixed date Data record: Next fixed date Data record: Company-specific attachment 	

Pulse contact requirements		
Potential	Potential-free, insulation to earth >1M Ω	
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	30μΑ	
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%	