



## UDM 200-P/UDM 200-M

### Mobile ultrasound flow measuring device

#### Benefits

- ▶ **Stable measuring precision, even with long measuring cycles**
- ▶ **Flow measurement without supply interruption**
- ▶ **Menu-guided operation**
- ▶ **Ideal for mobile use**



The UDM 200 is a light, portable ultrasound flow measuring device for precise flow measurements in pipes. The measurement is carried out from the outside wall of the pipe and without direct contact with the water column. There is no need to enter the piping system or to interrupt the supply. In this way,

pumps can be easily dimensioned, flow meters checked or zero-consumption measurements carried out in pipe sections. The long battery life and its compactness and robustness make the UDM 200 the ideal companion for the daily work of water suppliers, hydrologists and engineering offices.

| Technical Data                 |   |
|--------------------------------|---|
| Transmitter                    |   |
| Principle                      | Ultrasonic transit time difference correlation, clamp on sensors  |
| Measurable fluids              | Hot/cold water and all other acoustical conductive fluids with <10 % gaseous or solid content of volume |
| Max. pipe diameters            |   |
| UDM 200-P                      | 25 ... 1000 mm  |
| UDM 200-M                      | 50 ... 2000 mm  |
| Recommended pipe diameters     |   |
| UDM 200-P                      | 25 ... 600 mm   |
| UDM 200-M                      | 50 ... 1500 mm  |
| Flow velocity                  | 0.01 ... 25 m/s   |
| Repeatability                  | ± 0.25% v. MW ± 0.02 m/s  |
| Resolution                     | 0.025 cm/s  |
| Flow measurement               | 0.3 ... 1.000.000 l/min   |
| Accuracy                       | ± 1 % ... 3 % v. MW ± 0.02 m/s  |
| Signal damping                 | 0 s ... 100 s, adjustable   |
| LCD-Display                    | 2 x 16 character dot matrix (background light)  |
| Interface                      | RS 232  |
| Process outputs                | 0/4 ... 20 mA, Impuls/Reed 48 V, 100 mA   |
| Memory of internal data logger | >100,000 values   |
| Battery life                   | >24 h   |
| Power supply                   | 100 ... 240 VAC, 12 V (optional)  |
| Power consumption              | <15 W   |
| Weight                         | 2.9 kg  |

|                       |                    |
|-----------------------|--------------------|
| Dimensions (LxWxH)    | 230 x 110 x 190 mm |
| Protection class      | IP 67              |
| Operating temperature | -10 °C ... +60 °C  |
| Measuring cycle       | 100 ... 1000 Hz    |
| Response time         | 1 s                |

| Measuring functions       |  |
|---------------------------|--|
| Quantities of measurement | Volume and mass flow rate, flow velocity |
| Totalizer                 | Volume, mass of flow                     |
| Languages                 | different languages available            |

| Process outputs |  |
|-----------------|--|
| Current         |  |
| range           | (0/4 ... 20) mA  |
| accuracy        | 0.1 % v. MW 15 ± µA                                    |
| active output   | R <sub>ext</sub> < 500 Ω                               |
| Binary          |  |
| Open Collector  | 24 V/4 mA  |
| as state output | Limit, sign. Change or error                           |
| as pulse output | Value: (0.01 ... 1000) unit<br>Width: (80 ... 1000) ms |

| Sensors               |                       |
|-----------------------|-----------------------|
| Supported diameters   | 25 ... 1000 mm        |
| Dimensions (LxWxH)    | 58 x 28 x 31 mm       |
| Material              | PEEK /stainless steel |
| Operating temperature | -20 °C ... +100 °C    |
| Protection class      | IP 67                 |