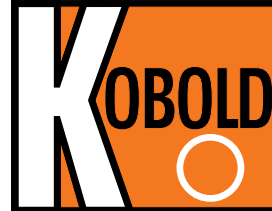




Ultrasonic Flow Meter / Monitor

EHEDG, 3-A approved



measuring
•
monitoring
•
analysing



- Measuring range: 0.1 - 2.5 m/s
- Measuring accuracy: 3 %
- Switch points: adjustable
- p_{max}: 10 bar; t_{max}: 140 °C
- Process connection: G 1/2
- Output:
 - switching output
 - analogue output (4 - 20 mA)
- Hygienic mounting with installation system type LZE (CIP/SIP-compatible)
- Independent of temperature effects and conductivity
- Very short response time (1 s)
- Food-compatible materials
- Status display with LED



KOBOLD offices exist in the following countries:

ARGENTINA, AUSTRIA, BELGIUM, BRAZIL, CANADA,
CHINA, FRANCE, GREAT BRITAIN, ITALY, NETHERLANDS,
POLAND, SWITZERLAND, USA, VENEZUELA

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Model:
LDU



Description

The KOBOLD ultrasonic flow monitor LDU serves to monitor flow in piping. The device uses the ultrasonic Doppler Effect. This technology is completely independent of variations in temperature and the conductivity of the medium, and has an extremely short response time. Non-conductive media can also be measured easily.

The active LDU output signals whether the medium in the pipeline is flowing or not. The limit values are adjustable with a teach-in key in the range 0.1 -2.5 m/s. The factory setting is 0.5 m/s.

The KOBOLD flow monitor type LDU forms in conjunction with the weld-in sleeves type LZE a hygienic measuring point that is free of dead pockets (EHEDG, 3-A report). The probe is manufactured exclusively from food-compatible, high-temperature resistant materials and is therefore ideally suited for CIP/SIP cleaning. Adaptor sleeves are also available for different process connections, so that the device can be integrated easily into existing plants. The electrical connection is PLC-compliant. The device is available with an optional M12 plug connector.

Areas of application

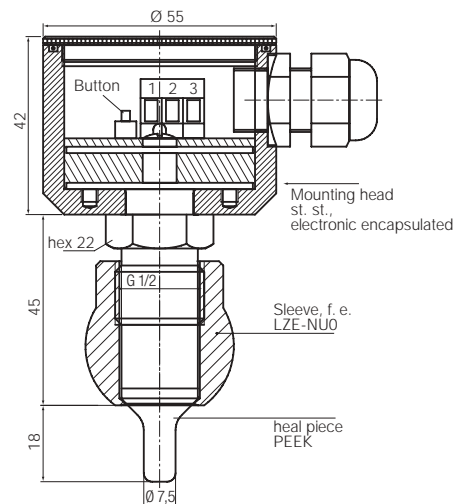
- Flow monitoring in processes
- Dry run protection for pumps
- Function monitoring of pumps
- Monitoring cooling circuits
- Controlling valve positions
- Detecting pipe blockages
- Control of filters
- Monitoring and control of irrigation plant

Hygienic installation systems (LZE, LZE-NR)

Technical details

Method of measurement: ultrasonic Doppler Effect
 Measuring range: 0.1 -2.5 m/s
 Accuracy: 3%
 Repeatability: < 2% of FS
 Process temperature: 0 -100 °C, short-time: 140 °C
 Operating pressure: max. 10 bar
 Materials
 head, screwed gland: stainless steel 1.4305 (V2A)
 head piece: PEEK
 Process connection: G 1/2", hygienic weld-in sleeve LZE (see page 119 ff)
 Limit values for flow rate: 0.1-2.5 m/s
 Hysteresis: 25% of limit value
 Damping: 0.8, 2.0, 5.0 s
 Outputs
 version ...S: switching output, 24 V, max. 30 mA short-circuit-proof
 version ...A*: analogue output, 4 - 20 mA (0-1 m/s)
 version ...K*: switchable between switching output and analogue output
 Delay (fixed): 1 s
 Power supply: 18 -36 V_{DC}, < 100 mA (without load)
 Protection: IP 67
 Noise immunity: acc. to EN 50082-2 (industrial)
 Weight: approximately 0.5 kg

Dimensions



Order Details (Example: LDU-N S 09)

Model	Description	Outputs	Electrical connection
LDU-N...	Ultrasonic flow monitor	S = switching output (adjustable) A* = analogue output 4-20 mA K* = switchable between switching output and analogue output	09 = Pg 9 12 = M12 plug connector

*in preparation