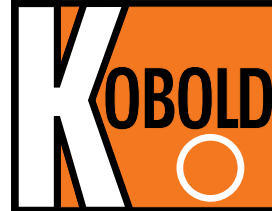




## Magnetic-Inductive Flow Meter/Counter for Food Applications



measuring  
•  
monitoring  
•  
analysing



- Measuring range: 0-12 m/s
- Measuring accuracy:  
± 0.2% of measured value
- $p_{max}$ : 10 bar, optional 16 bar,  
 $t_{max}$ : 150 °C
- Process connection:  
pipe sleeve DIN 11851, DN 25-150
- Analogue output: 4 - 20 mA
- Designed for use as counter and  
batching system



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KOBOLD Messring GmbH  
Nordring 22-24  
D-65719 Hofheim/Ts.  
☎ (06192) 299-0  
Fax (06192) 23398  
E-mail: info.de@kobold.com  
Internet: www.kobold.com

**Model:**  
LDI



**Description**

The magnetic-inductive flow meter LDI from KOBOLD measures and monitors the flow of electrically conductive liquids, pastes and suspensions. In the compact version the transmitter is mounted on the sensor, whereas the transmitter is connected by cable with the sensor in the separately mounted version. The process connection of the sensor (pipe sleeve DIN 11851) enables food and hygienic applications. The LDI is CIP/SIP compliant. The measuring technique allows the flow rate to be measured to a high degree of accuracy with negligible pressure loss and without moving parts.

**Description of Functions**

When an electrical wire moves in a magnetic field, a voltage is induced in the wire. The wire is the electrically conductive medium in this case. The magnetic field is at right angles to the direction of flow. The induced voltage is directly proportional to the local flow velocity.

**Areas of application**

- For all electrically conductive liquids

**Technical details**

**Sensor**

Measuring technique:	magnetic-inductive flow measurement
Measuring range:	0.1 - 12 m/s
Accuracy:	±0.2% of measured value (> 0.6 m/s)
Operating temperature:	- 40 to 150 °C
Ambient temperature:	- 30 to 80 °C
Minimum conductivity:	5 µS/cm
Max. pressure:	10 bar (optional 16 bar)
Materials	
sensor:	st. steel, 1.4301 and 1.4401
lining:	PTFE
gaskets:	polyurethane resin
electrodes:	stainless steel 1.4404 optional: titanium, hastelloy B, hastelloy C
Process connection:	pipe sleeve DIN 11851
Nominal size:	DN 25 -150 (see Order Details)
Connection to transmitter (separately mounted version):	moulded plug connector
Power supply:	from transmitter (24 V <sub>DC</sub> )
Power consumption:	4 W
Burn-in time:	120 hours
Protection:	IP 66
Weight:	see table dimensions

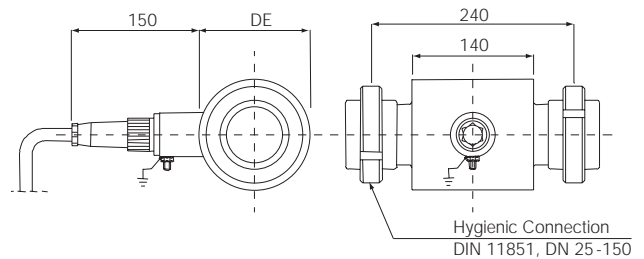
**Transmitter**

Measuring range:	0 - 12 m/s
Ambient temperature:	-10 to 50 °C
Max. humidity:	90% noncondensing
Display:	16-segment LCD
Transmitter dimensions:	
compact version:	field housing: 192 x 168 x 83 mm (h x w x d)
separately mounted version:	field housing: 240 x 210 x 110 mm (h x w x d) panel housing: 213 x 128 x 185 mm (h x w x d)
1 digital input:	programmable as <ul style="list-style-type: none"> <li>• totalizer reset</li> <li>• measuring signal suppression</li> <li>• batching system reset</li> </ul>
Analogue output:	4 - 20 mA, electrical isolation enabled
Load:	max. 600 Ω
4 digital outputs:	programmable as <ul style="list-style-type: none"> <li>• counter</li> <li>• down counter</li> <li>• flow alarm (min/max)</li> <li>• empty pipe monitoring</li> <li>• flow direction indication</li> <li>• batching system, presetting counter max. 50 V<sub>DC</sub>, 0.2 A</li> </ul>
Zero-point correction:	automatic
Metering function:	2 resettable counters, 2 absolute counters, 1 presetting counter (for dosing)
Creep suppression:	compact version: 0.75 - 10% of FS separately mounted version: 1.5 - 20% of FS
Empty pipe monitoring:	<ul style="list-style-type: none"> <li>• measuring signal suppression</li> <li>• display on the screen</li> <li>• alarm by digital output</li> </ul>
Electrical connection:	panel housing: terminal connection field housing: cable gland Pg 13.5 option S: moulded plug connector for output sensor
Supply voltage:	230 / 115 V <sub>AC</sub> ± 10% 24 V <sub>DC</sub> ± 10%
Protection:	IP 66
Weight:	approximately 2 kg

**Characteristic data for measuring ranges**

Nominal size	Lower range limit (m³/h)	Minimum Full scale value (m³/h)	Maximum Full scale value (m³/h)
25	0.16	1	20
32	0.33	2	40
40	0.5	3	60
50	0.66	4	80
65	1	6	120
80	1.66	10	200
100	3.33	20	400
150	6.66	40	800

**Dimensions**



Nominal size	DE (mm)	Weight (kg)
DN 25	105	6
DN 32	105	6
DN 40	105	6
DN 50	105	7
DN 65	127	7
DN 80	142	8
DN 100	162	9
DN 150	220	11

**Order Details** (Example: LDI-K L25 L V 0)

Model	Description	Sensor	Process connection DIN 11851	Pressure range	Electrode material	Power supply
LDI-	Magnetic-inductive flow measurement system	<b>K</b> = compact version <b>E</b> = separate mounted version with panel-mount housing <b>F</b> = separate mounted version with field housing <b>S</b> = separate mounted version with field housing and connector	<b>L25</b> = DN 25 <b>L32</b> = DN 32 <b>L40</b> = DN 40 <b>L50</b> = DN 50 <b>L65</b> = DN 65 <b>L80</b> = DN 80 <b>L1H</b> = DN 100 <b>L1F</b> = DN 150	<b>L</b> = 10 bar <b>H</b> = 16 bar	<b>V</b> = st. steel 1.4404 <b>T</b> = titanium <b>B</b> = hastelloy B <b>C</b> = hastelloy C	<b>0</b> = 230 V <sub>AC</sub> ± 10% <b>3</b> = 24 V <sub>DC</sub> ± 10%

**Order Details** (Example: LDK-1 05)

Model	Description	Sensor	Length
LDK-	Special cable between sensor and transmitter (for separate mounted version only)	<b>1</b> = cable end, 1 connector for sensor (for version E/F) <b>2</b> = 2 connectors (for version S)	<b>05</b> = 5 m <b>10</b> = 10 m

**For flow meters/monitors...**



**...please refer to our brochure "S1"**