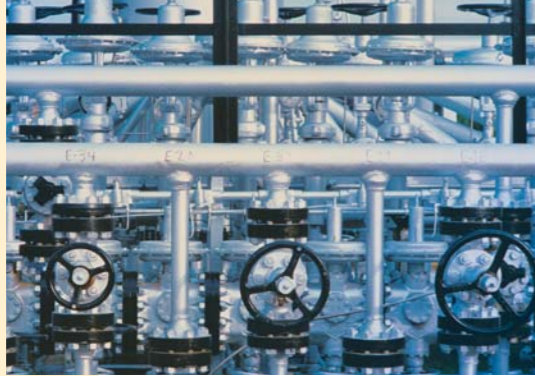


**TURCK**

Industrial  
Automation

**UNIVERSAL  
FLOW METER  
FCMI**



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# MAGNETIC-INDUCTIVE FLOW METER FCMI - FOR A BROAD RANGE OF APPLICATIONS

## Universally applicable

The magnetic-inductive flow meter FCMI is designed for the measuring of numerous electrically conductive liquids, which have a certain minimum conductivity.

This reveals a multitude of possibilities for application in various media and different industries. The strengths of the new flow meter are moreover, the high measuring dynamic and the measuring accuracy of 2 % of full scale. The measuring range between 1 and 40 l/min is ideally suited for applications with small to middle flow rates.



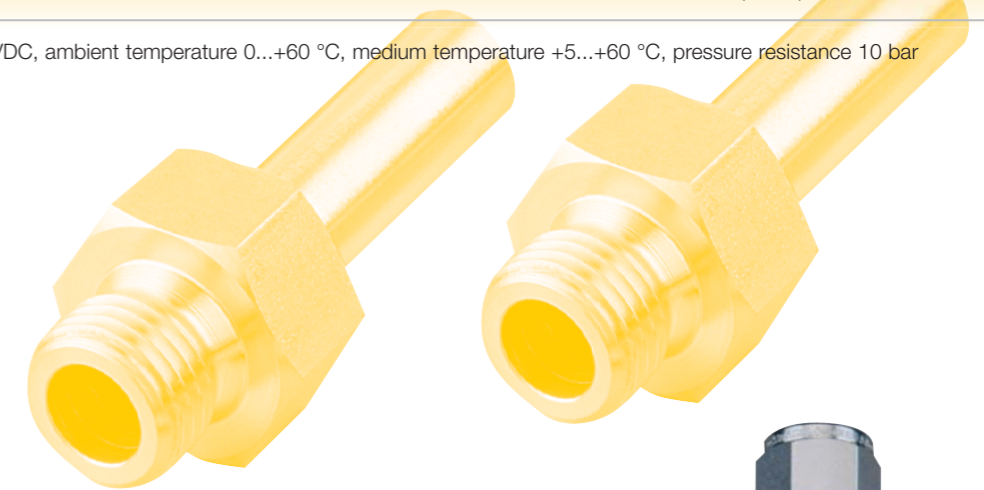
## Characteristics

- Universal flow meter for a broad range of applications
- Measuring accuracy: 2 % of full scale
- Free pipe diameter without inserts and without pressure loss
- Cost-savings due to higher availability
- Minimum conductivity: 10  $\mu\text{S}/\text{cm}$  (water 15  $\mu\text{S}/\text{cm}$ )
- Sensor programming via front buttons (access code-protected)
- Device available with switching output and linear 4...20 mA analogue output
- Process connection via compression ferrule fitting or adapter

## Technical data

Ident-no.	Type designation	Process connection outer diameter of pipe	Output function	Operating range
6870603	FCMI-10D08DYA4P-LI-UP8X-H1141	10 mm	1 x pnp, N.O./N.C. and 4...20 mA (linear)	1...40 l/min

Operating voltage 21...26 VDC, ambient temperature 0...+60 °C, medium temperature +5...+60 °C, pressure resistance 10 bar

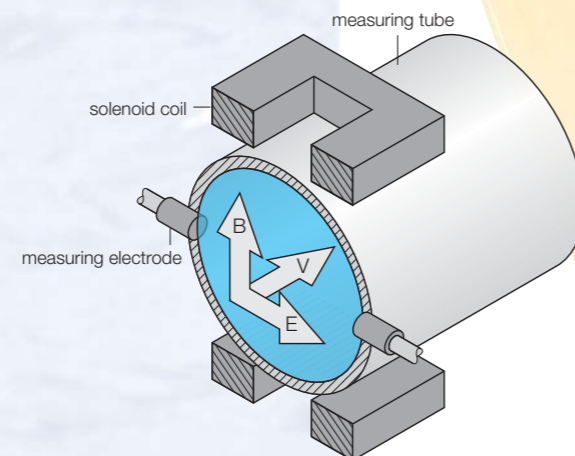


## Cost-saving

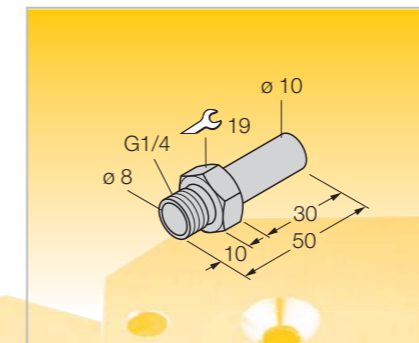
Magnetic-inductive flow meters feature no mechanically moving parts in the flow. The sensor is completely wear-free and resistant against residue in the medium. The maintenance free and robust sensor is cost-saving because of no early replacement and contributes to higher availability. In contrast to other measuring principles, a reduction of the pipe diameter and mounting of inserts are not necessary. This means practically, no pressure loss and therefore no increase of operating costs resulting from the application of the sensor.

## Magnetic-inductive principle

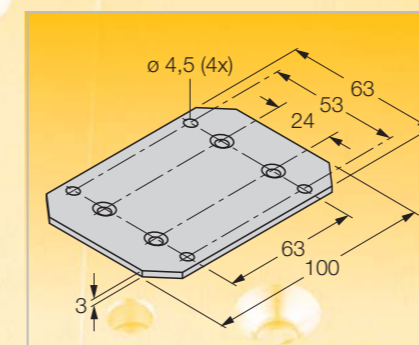
The measuring method is based on the inductive principle discovered by Faraday. The freely movable charge carriers in the media are deviated to the pipe wall due to the Lorentz-force, which is caused by a magnetic field that permeates the measuring pipe. Because of the load separation a potential difference is created, which is picked off by two laterally mounted electrodes. Based on the known magnetic field and the electrode spacing, the measured potential difference at the electrodes is proportionally dependent on the flow speed and therefore on the flow rate.



## Accessories



Adapter FTCI-G1/4A4-D10/L050 (Ident-no. 6870151) for conversion from  $\varnothing$  10 mm to G1/4.



The mounting plate FTCI-MP01AL (Ident-no. 6870040) can be mounted to the meter housing (matching screws are included in the delivery). This enables successive front mounting.

