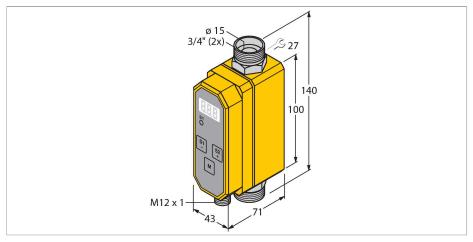


FCMI-3/4D12DYA4P-LIUP8X-H1141 Flow Rate Measurement – Inline Sensor with Integrated Processor



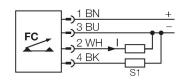
Technical data

| TypeFCMI-3/4D12DYA4P-LIUP8X-H1141Mounting conditionsInline sensorApplication arealiquidsFlow operating range075.7 l/minStand-by time610 sSwitch-on time0.58 sMedium temperature5+60 °CAmbient temperature0+60 °CElectrical dataOperating voltage21.626.4 VDCCurrent consumption≤ 100 mAOutput functionPNP/Analog output, NO/NC programmableRated operational current0.2 AShort-circuit protectionyesReverse polarity protectionyesCurrent output420 mALoad200500 ΩProtection classIP65Mechanical dataPlastic, PBTSensor materialStainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDFElectrical connectionConnector, M12 × 1 | ID | 6870817 |
|--|-----------------------------|-------------------------------|
| Application area liquids Flow operating range 075.7 l/min Stand-by time 610 s Switch-on time 0.58 s Medium temperature 5+60 °C Ambient temperature 0+60 °C Electrical data Current consumption Operating voltage 21.626.4 VDC Current consumption ≤ 100 mA Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Туре | FCMI-3/4D12DYA4P-LIUP8X-H1141 |
| Flow operating range 075.7 l/min Stand-by time 610 s Switch-on time 0.58 s Medium temperature 5+60 °C Ambient temperature 0+60 °C Electrical data Operating voltage 21.626.4 VDC Current consumption ≤ 100 mA Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Design Inline Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Mounting conditions | Inline sensor |
| Stand-by time 610 s Switch-on time 0.58 s Medium temperature 5+60 °C Ambient temperature 0+60 °C Electrical data Current consumption Operating voltage 21.626.4 VDC Current consumption ≤ 100 mA Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Design Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Application area | liquids |
| Switch-on time 0.58 s Medium temperature 5+60 °C Ambient temperature 0+60 °C Electrical data 21.626.4 VDC Current consumption ≤ 100 mA Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Design Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Flow operating range | 075.7 l/min |
| Medium temperature 5+60 °C Ambient temperature 0+60 °C Electrical data Operating voltage 21.626.4 VDC Current consumption ≤ 100 mA Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Stand-by time | 610 s |
| Ambient temperature 0+60 °C Electrical data 21.626.4 VDC Current consumption ≤ 100 mA Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Switch-on time | 0.58 s |
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| Output function PNP/Analog output, NO/NC programmable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Operating voltage | 21.626.4 VDC |
| grammable Rated operational current 0.2 A Short-circuit protection yes Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Current consumption | ≤ 100 mA |
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| Reverse polarity protection yes Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Inline Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Rated operational current | 0.2 A |
| Current output 420 mA Load 200500 Ω Protection class IP65 Mechanical data Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Short-circuit protection | yes |
| Load 200500 Ω Protection class IP65 Mechanical data Inline Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Reverse polarity protection | yes |
| Protection class IP65 Mechanical data Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Current output | 420 mA |
| Mechanical data Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Load | 200500 Ω |
| Design Inline Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Protection class | IP65 |
| Housing material Plastic, PBT Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Mechanical data | |
| Sensor material Stainless-steel/Plastic, 1.4571 (AISI 316Ti)/PVDF | Design | Inline |
| 316Ti)/PVDF | Housing material | Plastic, PBT |
| Electrical connection Connector, M12 × 1 | Sensor material | |
| | Electrical connection | Connector, M12 × 1 |

Features

- Programmable flow meter for electrically conductive liquids
- Magnetic-inductive principle
- Display and monitoring of flow
- ■3-digit display [Gpm or I/min]
- Measuring accuracy 0...7.6 l/min: <+/-0.37 l/min
- Measuring accuracy 7.7...75.7 l/min: < +/-2% of measured value
- Minimum conductivity > 20 µS/cm (water > 30 µS/cm)
- Prog. via pushbutton, code-protected
- ■Unit can be set: Gallon (default) Liter
- ■DC 4-wire, 21.6...26.4 VDC
- ■NO/NC prog., PNP output
- ■4...20 mA analog output
- Analog output provides a current signal proportional to the flow rate for the overall operating range
- Plug-in device, M12 x 1

Wiring diagram



Functional principle

The magnetic-inductive inline flow meter FCMI by TURCK is based on the Faraday principle. A measuring tube permeating magnetic field deviates the free charge carriers in the targeted medium to the tube walls. Voltage is created by electrical separation and picked up by two laterally mounted electrodes. The voltage quantity depends on the flow rate i.e.flow if the magnetic field is known. Thus the FCMI flow meter monitor reliably and wear-free the flow of various different liquid media which feature a determined minimum conductivity.



Technical data

| Pressure resistance | 10 bar |
|---------------------|---|
| Process connection | 3/4" Swagelok |
| Programming options | Access code, switchpoint, NC/NO, hysteresis, switch ON/OFF delay, signal filter, switchable unit (gallon - liter) |
| Tests/approvals | |