



# PFM

## PFM1/AP-3H

Ind.M12,PNP-NO,M12 Plug,Sch-LD

M12 CYLINDRICAL INDUCTIVE SENSORS FOR FOOD AND BEVERAGE APPLICATIONS

## OVERVIEW

- AISI 316L (DIN 1.4404) stainless steel housing
- LED status indicator
- IP67 – IP68 – IP69K protection degree
- ATEX models, cat. 3, available on request
- Complete protection against electrical damages
- Standard and long distance models



## TECHNICAL FEATURES

### Detection properties

Nominal sensing distance	4mm
Operanting distance	0...3,24mm
Standard target	12x12mm FE360
Correction Factor	copper: 0,30 / aluminium: 0,35 / brass: 0,40 / stainless steel: 0,75
Thermal drift of Sr	< 10%

Repeat Accuracy	< 5% (UB 24V Ta=23°C ±5°C)
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Hysteresis	1 ... 20%
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#### Application

Description	M12 standard flush mount
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Functions	Proximity
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#### Outputs

Output type	PNP
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Output Function	NO
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Switching frequency	2kHz
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#### Electrical data

Operating Voltage	10...30Vdc
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No-Load supply current	≤ 15mA
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Load current	≤ 200mA
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Leakage current	≤ 15μA
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Output voltage drop	≤ 2V @200mA
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Max ripple content	≤ 10%
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LED indicators	Yellow LED output state
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Time delay before availability	≤ 50ms
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Short-circuit protection	Yes
Reverse Polarity Protection	Yes
Impulsive Overvoltage Protection	Yes
Protection against inductive loads	Yes

#### Mechanical data

Dimensions	M12 x 1 / L = 64,6mm
Mounting	Shielded
Material	AISI316L Stainless Steel
Housing material	AISI316L Stainless Steel
Weight	30g
Connections	M12 Plug
Active Head Material	PPS
Tightening torque	25Nm
Operating temperature	-40°C...+80°C (up to 100°C for short exposure during cleaning process)
Diameter/Dimension	M12

#### Test/Approvals

Approvals	CE cULus ECOLAB DIVERSEY
EMC compatibility	IEC 60947-5-2
Shocks and vibrations	Vibration IEC 60068-2-6 / Shock IEC 60068-2-27

Degree of protection	IP68, IP69K
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#### Accessories

Supplied Accessories	2 nuts M12x1
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#### Generical Data

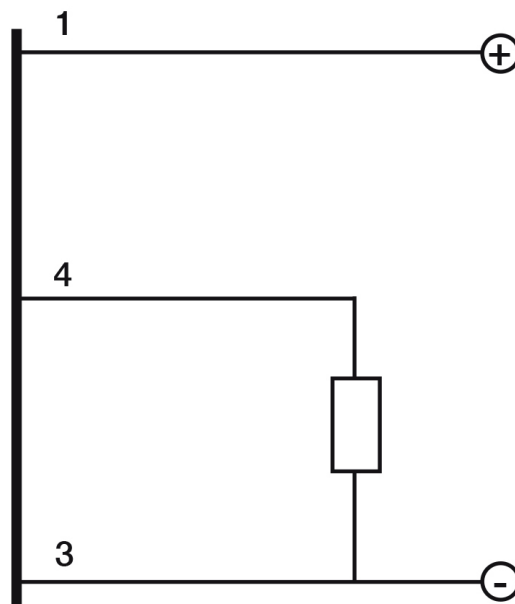
Dimensions	M12 x 1 / L = 64,6mm
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Operating Temperature	-40°C...+80°C (up to 100°C for short exposure during cleaning process)
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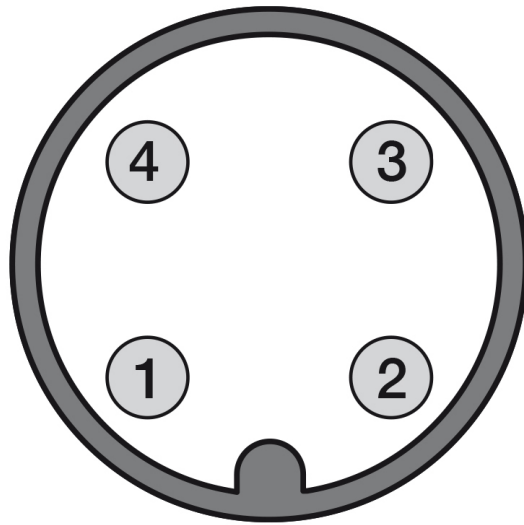
Mechanical Protection	IP67
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## CONNECTIONS

Electrical diagram



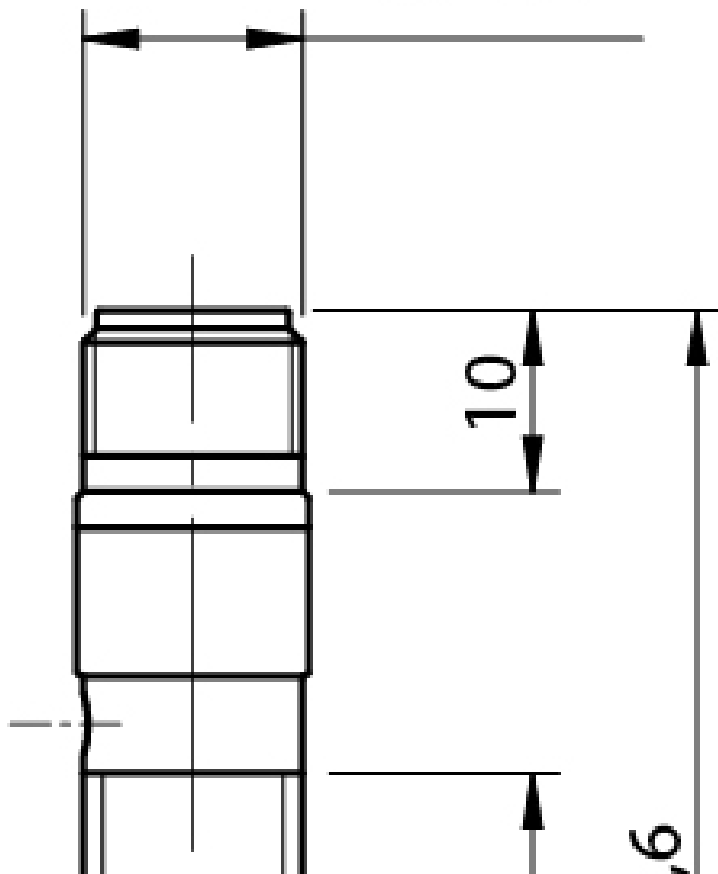
Connector

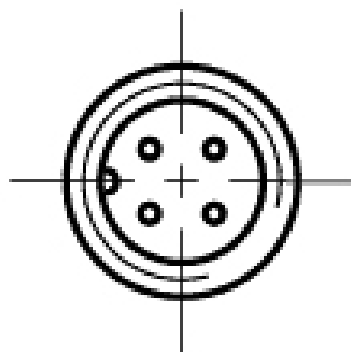
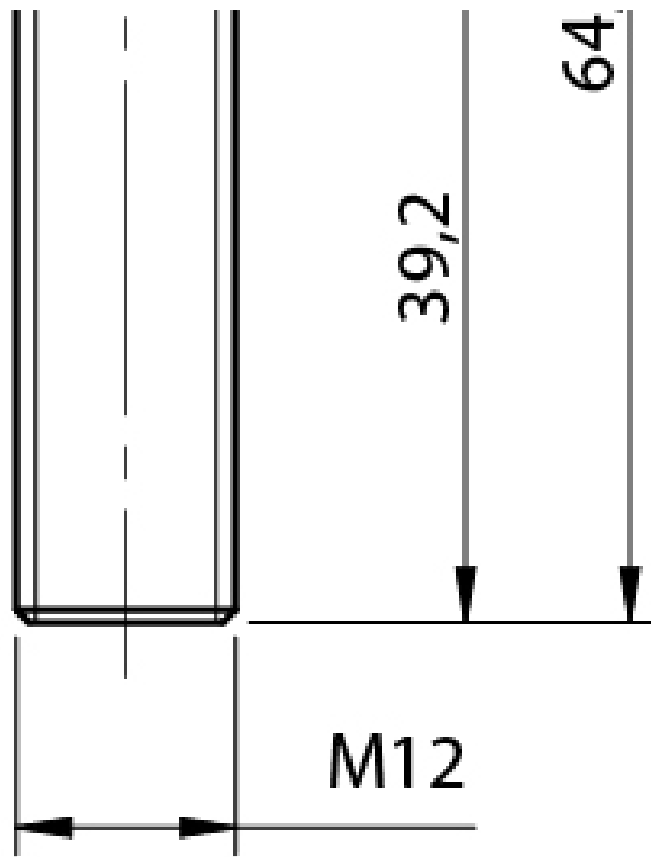


## OTHERS

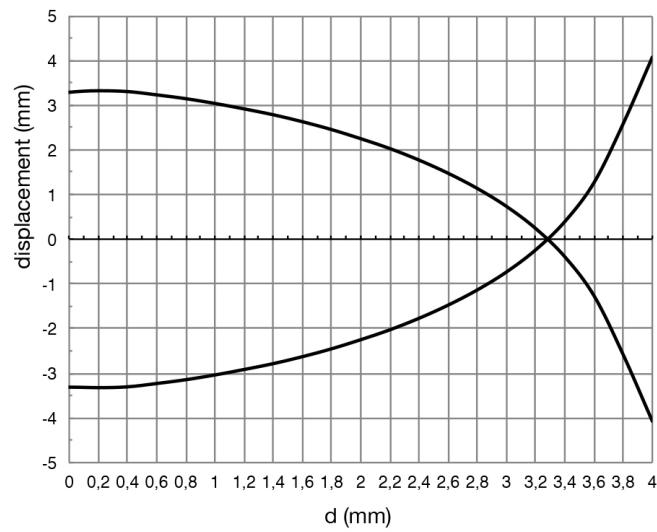
Dimensions

M12 x 1

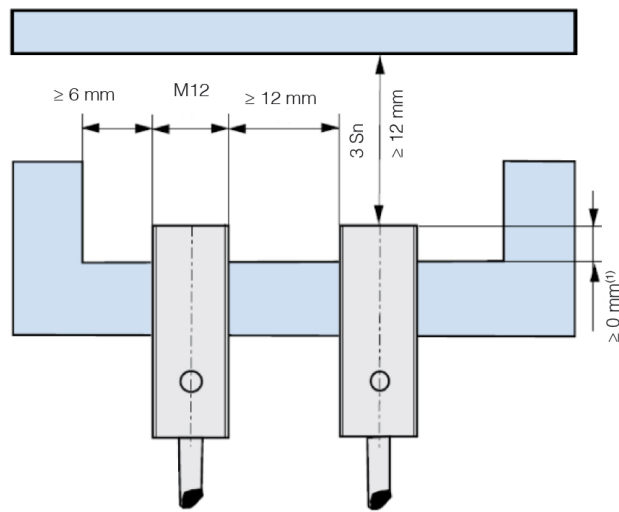




Response curves



### Installation



<sup>(1)</sup> ≥ 3,6 mm for non magnetic materials

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