



PFM

PFM1/BP-3H

Ind.M12,PNP-NO+NC,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) |
|-----------------|----------------------------|

| | |
|------------|-----------|
| Hysteresis | 1 ... 20% |
|------------|-----------|

Application

| | |
|-------------|--------------------------|
| Description | M12 standard flush mount |
|-------------|--------------------------|

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|-----------|-----------|
| Functions | Proximity |
|-----------|-----------|

Outputs

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|-------------|-----|
| Output type | PNP |
|-------------|-----|

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|-----------------|---------|
| Output Function | NO + NC |
|-----------------|---------|

| | |
|---------------------|------|
| Switching frequency | 2kHz |
|---------------------|------|

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 |
|--------------------------------|--------|

| | |
|------------------------------------|-----|
| 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

Accessories

Supplied Accessories

2 nuts M12x1

Generical Data

Dimensions

M12 x 1 / L = 64,6mm

Operating Temperature

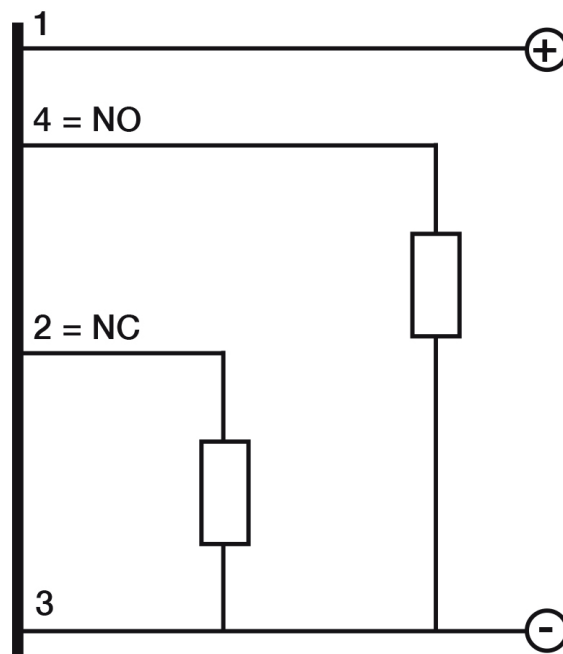
-40°C...+80°C (up to 100°C for short exposure during cleaning process)

Mechanical Protection

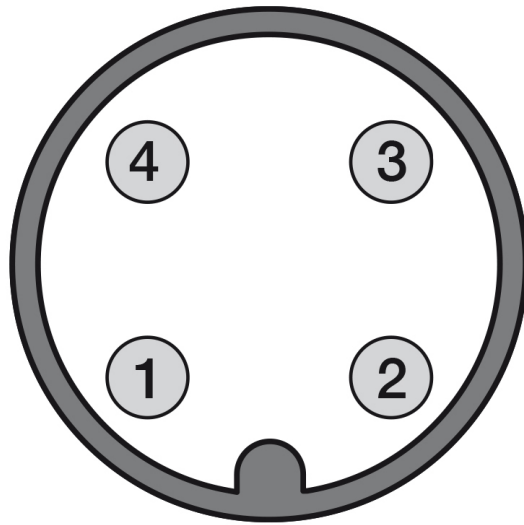
IP67

CONNECTIONS

Electrical diagram



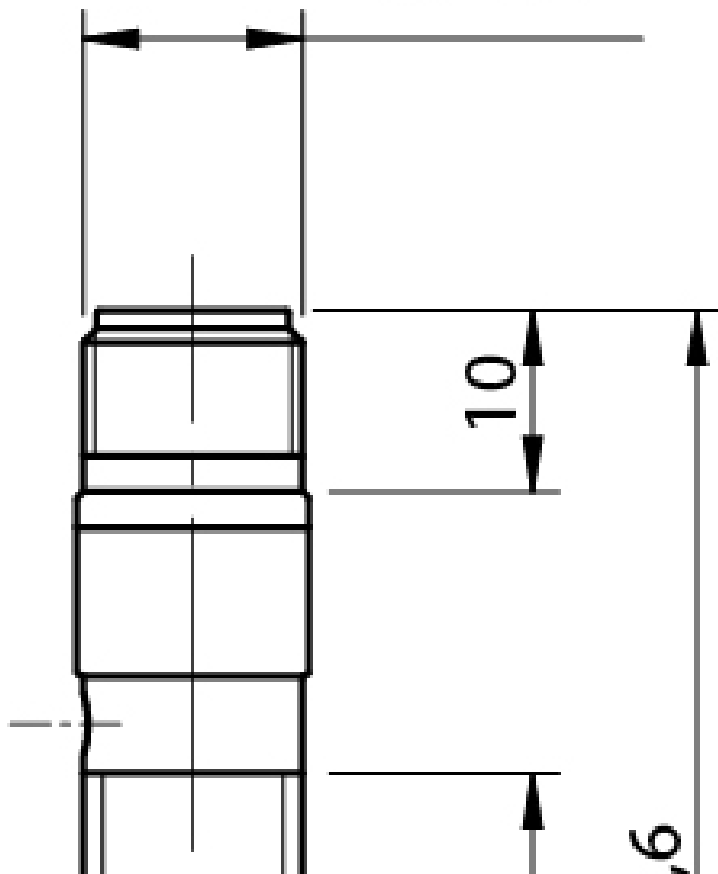
Connector

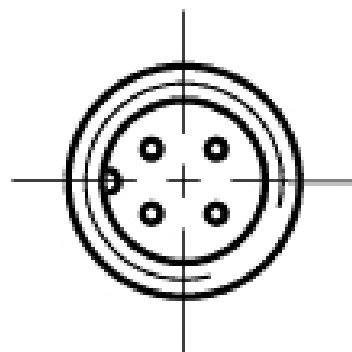
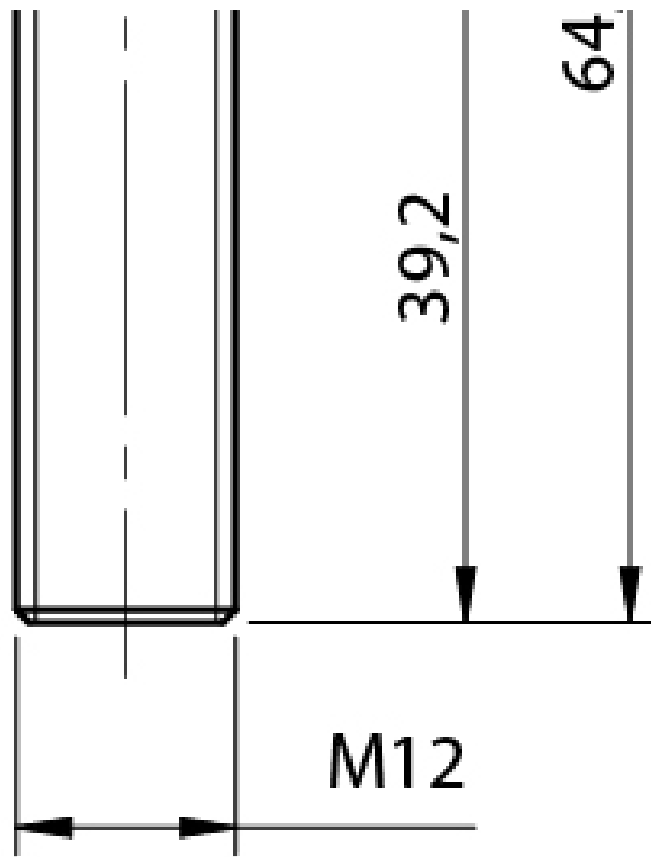


OTHERS

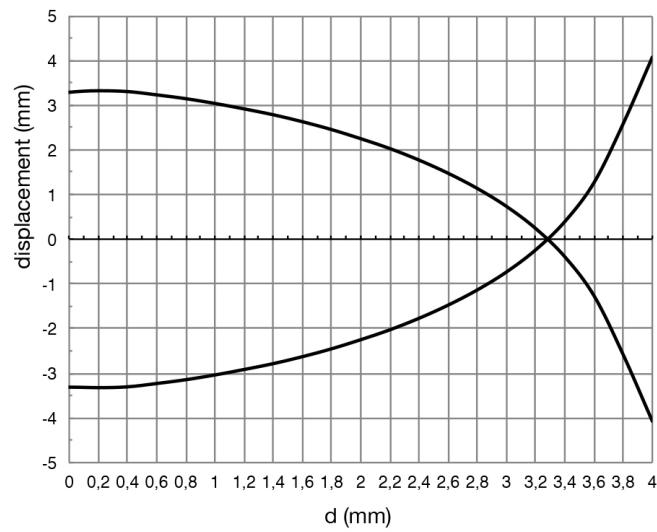
Dimensions

M12 x 1

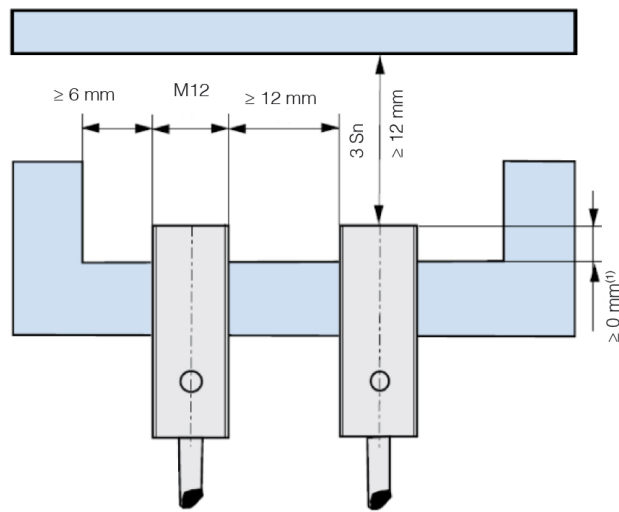




Response curves



Installation



⁽¹⁾ ≥ 3,6 mm for non magnetic materials

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