Hazardous Area
Electrical Differential Indicator
DEH Series
Electrical Differential Indicators are used on the pressure line to check the efficiency of the filter element. They measure the pressure upstream and downstream of the filter element (differential pressure).

Suitable for all MP Filtri differential indicator port connections

Environmental properties

- Suitable for use in Zone 1 Gas and Zone 21 Dust
- Maximum surface temperature: Temperature class T4 (135°C) and T6 (85°C)
- Ambient temperature range: T4 (-60°C to +120°C)
- IP 66/67/68 cable version

<table>
<thead>
<tr>
<th>BUILD OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cable</strong></td>
</tr>
<tr>
<td>5.0 m cable M20 and 1/2” NPT gland conduit options</td>
</tr>
<tr>
<td>Contact us for more options</td>
</tr>
</tbody>
</table>

Applications

- Marine
- Mining
- Petrochemical
- Offshore oil and gas
- Saw mills
- Paper mills
- Car plants
- Industrial plants
- Power generation
- Storage silos
- Hazardous environments
Filter elements are efficient only if their dirt holding capacity is fully exploited. This is achieved by using filter housings equipped with clogging indicators.

These devices trip when the clogging of the filter element causes an increasing in-pressure drop across the filter element.

The indicator is set to alarm before the element becomes fully clogged. This indicator will minimise the frequency of replacing filter elements as well as maximising the performance of each filter.

- Constructed from AISI 316L stainless steel
- 420 bar (6092 PSI) maximum working pressure
- Approved for use in hazardous environments
- ATEX, IECEx, UL/CSA, EAC TR CU and INMETRO certified

Performance Data
- Endurance tested up to 1,000,000 cycles at max working pressure
- Burst tested at 3x maximum pressure

Current Ratings
- 830 mA / 24 Vdc
- 180 mA / 110 Vac

Specification
- Temperature class T4 (135°C) and T6 (85°C)
- Protection grade IP 66/67/68 when used with suitable cable gland
- Indication range from 2 bar to 10 bar
- Suitable for use with all MP Filtri stainless steel pressure filters and cast iron pressure filters
Certification / Approvals

- ATEX, IECEx, EAC TR CU, INMETRO, Ex ia IIC T4/T6
- Certification included as standard

HAZARDOUS AREA ELECTRICAL DIFFERENTIAL INDICATOR
DEH 48 SERIES - 5 METER THREE-CORE CABLE INDICATOR Ex ia IIC T4/T6 M20

PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing material</td>
<td>AISI 316L Stainless steel</td>
</tr>
<tr>
<td>Body shape</td>
<td>Cylindrical</td>
</tr>
<tr>
<td>Connection type</td>
<td>M20 x 1.5 - Three-core polyrad cable supplied with 5 metres</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-60 °C to +125 °C</td>
</tr>
<tr>
<td>Contact type</td>
<td>SPCO/SPDT (Hermetically sealed - Volt-Free contacts)</td>
</tr>
<tr>
<td>Contact material</td>
<td>Rhodium (tungsten optional)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>114 x 28 mm</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP 66/67/68</td>
</tr>
</tbody>
</table>

Electrical ratings

<table>
<thead>
<tr>
<th>Ui</th>
<th>Li</th>
<th>Pi</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Vdc</td>
<td>250 mA</td>
<td>1.3 W</td>
</tr>
</tbody>
</table>
HAZARDOUS AREA ELECTRICAL DIFFERENTIAL INDICATOR
DEH 49 SERIES - 5 METER FOUR-CORE CABLE INDICATOR Ex d IIC T4/T6 1/2” NPT

Certification / Approvals
- ATEX, IECEx, EAC TR CU, INMETRO, Ex d IIC T4/T6
- UL/CSA Class I Division 1 Groups A-D
- UL/CSA Class II Division 1 Groups E-G
- Certification included as standard

PROPERTIES
- Housing material: AISI 316L Stainless steel
- Body shape: Cylindrical
- Connection type: 1/2” NPT - 3 core polyrad cable supplied with 5 metres
- Temperature range: -60 °C to +120 °C - ATEC, IECEx, EAC TR CU, INMETRO
  -60 °C to +105 °C - UL/CSA
- Contact type: SPCO/SPDT (Hermetically sealed - volt free contacts)
- Contact material: Rhodium (tungsten optional)
- Dimensions: 114 x 28 mm
- Ingress Protection: IP 66/67/68

Electrical ratings

<table>
<thead>
<tr>
<th>Supply Voltage</th>
<th>Maximum switching current</th>
<th>Maximum voltage</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 Vdc</td>
<td>830 mA</td>
<td>150 Vac/dc</td>
<td>20 W (VA)</td>
</tr>
<tr>
<td>110 Vac</td>
<td>180 mA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Connection diagram
- Max tightening torque: 100 N-m
- Flexible cable = 5000 to A
- Dimensions in mm
HAZARDOUS AREA ELECTRICAL DIFFERENTIAL INDICATOR
DEH 70 SERIES - M12 INDICATOR Ex ia IIC T6 RESIN SWITCH

Certification / Approvals
- ATEX, IECEx, EAC TR CU, INMETRO, Ex ia IIC T6
- Certification included as standard

Connection diagram

PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing material</td>
<td>AISI 316L Stainless steel housing with internal engineered resin switch</td>
</tr>
<tr>
<td>Body shape</td>
<td>Cylindrical</td>
</tr>
<tr>
<td>Connection type</td>
<td>4 pole male M12 connector - plastic</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-20 °C to +80 °C</td>
</tr>
<tr>
<td>Contact type</td>
<td>SPCO/SPDT (Hermetically sealed - volt free contacts)</td>
</tr>
<tr>
<td>Contact material</td>
<td>Rhodium</td>
</tr>
<tr>
<td>Dimensions</td>
<td>90 x 28 mm</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP 66/67</td>
</tr>
</tbody>
</table>

Electrical ratings

<table>
<thead>
<tr>
<th>Ui</th>
<th>Li</th>
<th>Pi</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Vdc</td>
<td>250 mA</td>
<td>1.3 W</td>
</tr>
</tbody>
</table>
### DESIGNATION AND ORDERING CODE

<table>
<thead>
<tr>
<th>SERIES</th>
<th>PRESSURE RATING</th>
<th>PRESSURE SETTING</th>
<th>SEALS</th>
<th>THERMOSTAT</th>
<th>CONNECTION</th>
<th>EXECUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE = Electrical Differential Indicator</td>
<td>H = 420 bar (6092 PSI)</td>
<td>50 =  5 bar</td>
<td>V = FPM</td>
<td>A = Without</td>
<td>48 = M20 Ex ia</td>
<td>P01 = MP Filtri Standard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70 =  7 bar</td>
<td>F = MFQ</td>
<td></td>
<td>49 = 1/2&quot; NPT Ex d</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>95 =  9.5 bar</td>
<td></td>
<td></td>
<td>70 = M12 Ex ia</td>
<td></td>
</tr>
</tbody>
</table>

**PRESSURE SETTING**

- **50 = 5 bar**
- **70 = 7 bar**
- **95 = 9.5 bar**

**SEALS**

- **V = FPM**
- **F = MFQ**

* Other options available on request

**THERMOSTAT**

- **A = Without**

**CONNECTION**

- **48 = M20 Ex ia**
- **49 = 1/2" NPT Ex d**
- **70 = M12 Ex ia**

**EXECUTION**

- **P01 = MP Filtri Standard**

Certification included as standard

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### EXPLORE OUR RANGE OF FILTERS

**Stainless In-line filter**

- **FZH 010-011 maximum pressure: 700 bar (10,152 PSI)*
- **FZP 039 maximum pressure: 420 bar (6092 PSI)**
- **FZH 039 maximum pressure 700 bar (10,152 PSI)*
- **FZP 136 maximum pressure 420 bar (6,091 PSI)**

* Provided max working pressure is limited to 420 bar

**Stainless Duplex pressure filter**

- **FZD 010 maximum pressure: 350 bar (5,076 PSI)**
- **FZD 021 maximum pressure: 350 bar (5,076 PSI)**
- **FZD 051 maximum pressure: 350 bar (5,076 PSI)**

**Standard High-Pressure Filters**

- **FHP maximum pressure: 420 bar (6,091 PSI)**
- **FMP maximum pressure: 110 bar/320 bar (1,595/4,641 PSI)**
- **FMM maximum pressure: 420 bar (6,091 PSI)**
- **FHB maximum pressure: 320 bar (4,641 PSI)**
- **FHM maximum pressure: 320 bar (4,641 PSI)**

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* Other options available on request
WORLDWIDE NETWORK

HEADQUARTERS
8 BRANCHES
OVER 300 DISTRIBUTORS

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France
USA
Russian Federation
China
United Kingdom
India
Canada

PASSION TO PERFORM

www.mpfiltri.com