

MDH series

Maximum working pressure up to 1 MPa (10 bar) - Flow rate up to 500 l/min



TYPICAL FILTER SIZING Selection Software

Step ①

Select "FILTER SIZING SOFTWARE" after login

The screenshot shows the MP Filtri website's homepage. A user profile for 'WELCOME MARIO ROSSI' is displayed. Below it, a section titled 'Then here by selecting the tool wanted:' contains three buttons: 'FILTER SIZING SOFTWARE' (highlighted with a blue box), 'POWER TRANSMISSION SOFTWARE', and 'MODIFY PROFILE'. At the bottom of the page, there is contact information for MP Filtri srl.

OR

Select "FILTER SIZING" after login from a product page

The screenshot shows a product page for 'MPFX' filter elements. The 'FILTER SIZING' button is highlighted with a blue box at the bottom right of the page. To the right, there is a technical drawing of a filter element and some descriptive text about tank-mounted return filters.

Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

Step ②

The screenshot shows the 'FILTER SIZING SOFTWARE' interface. Under 'RETURN/SUCTION', the 'RETURN' tab is selected. The 'Product' dropdown is set to 'MPFX'. Input fields include Working Pressure (bar), Flow rate (l/min), Fluid type (ISO VG 46 SUS 216), Viscosity (cSt), and Viscosity (cSt). Filtration is set to 'A25 - 25 µm absolute inorganic microfibre'. Connection Type is 'G 1''. A 'CALCULATE' button is highlighted with a blue box at the bottom.

The screenshot shows the 'FILTER SIZING SOFTWARE' interface with the 'RETURN/SUCTION' tab selected. The 'Product' dropdown is set to 'MPFX'. The input fields are identical to the previous screenshot, with Working Pressure (bar) set to 8, Flow rate (l/min) set to 90, Fluid type set to ISO VG 46 SUS 216, Viscosity (cSt) set to 40, and Viscosity (cSt) set to 216. Filtration is set to 'A25 - 25 µm absolute inorganic microfibre'. Connection Type is 'G 1''. A 'CALCULATE' button is highlighted with a blue box at the bottom.

Select the desired options to choose the appropriate filter type for the application.

The screenshot shows the 'FILTER SIZING SOFTWARE' interface with various filter selection options. At the top, there are dropdowns for Working Pressure (8 bar), Fluid type (ISO VG 46 SUS 216), Seal (A - NBR), Working Temperature (-25 + 110 °C), Optional seals (V - FPM), Working Temperature with options (-20 + 110 °C), and Viscosity (40 cSt - 216 SUS). Below this is a 'Filter type' dropdown with 'MPFX - Tank lid mounting - [Pmax x l]' selected. There are also dropdowns for Valve ('B: 1.75 bar bypass') and Seal ('A: NBR'). Under 'Option1', there are dropdowns for Single or duplex ('Single') and DIN Standard ('NOT APPLICABLE'). An 'Indicator' dropdown is also present. At the bottom, there is a table with columns for Image, Code, Preex, Qmax, ΔP, Housing ΔP, Element ΔP, Connection, Seal, and Link. Two filter options are listed: MPFX-103-3-A-G3-A25-H-BP21 and MPFX-103-3-A-G3-A25-H-BP21. Each row has a 'Report' link.

TYPICAL FILTER SIZING

Step ④

Choose the most suitable filter from the proposed list.

| Filter type | Valve | Seal | XRESET | | | | | | | |
|---------------------------------------|----------------------------|----------------|------------|-------|------------|------------|--------|------|------|--|
| MPPX: Tank lid mounting - [Press fit] | B: 1.75 bar Bypass | A: NBR | | | | | | | | |
| Option1 | | DIN Standard | Indicator | | | | | | | |
| None | | NOT APPLICABLE | Visual | | | | | | | |
| CSV | Excel | Show | 10 entries | | | | | | | |
| | | Search: | | | | | | | | |
| | | | | | | | | | | |
| Image | Code | Max | Qmax | ΔP | Housing ΔP | Element ΔP | Connec | Seal | Link | |
| | MPPX-104-3-A-Q3-A25-H-BP91 | E | 116 | 25.74 | 25.3 | 8.47 | T | E.12 | 2 | |
| | MPPX-104-3-A-Q3-A25-H-BP91 | E | 116 | 25.74 | 25.3 | 8.47 | T | E.12 | 2 | |

Step ⑤

It is possible to change the filter modifying every parameter.

A SAVE YOUR FILTER'S REPORT

B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf

see A

By clicking your WELCOME button,
the SHOW REPORTS is displayed: select it to see your filters list.

MDH GENERAL INFORMATION

Description

Technical data

Return filter

Maximum working pressure up to 1 MPa (10 bar)

Flow rate up to 500 l/min

MDH, is a technically advanced filtration product line for efficient and compact, hydraulic reservoir management. Designed to ensure overall system cleanliness, the filters are either installed in a semi immersed or fully immersed position. This new design reduces the volume of the air coming into the tank space and dramatically reduces the velocity of the air through the filter which in turn allows the separation of the air from the fluid. This insures that the system is protected against the effects caused by air contamination such as incorrect system response, cavitation, foaming and fluid degradation. The filtration from inside to outside allows for a cleaner filter element replacement which insures that any contaminated fluid remains within the used filter element.

Available features:

- Female threaded connections up to 1 1/2" and flanged connections up to 1 1/2", for a maximum flow rate of 500 l/min
- Multiple connections, to connect several return lines or drains
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve, to relieve excessive pressure drop across the filter media
- Flat Seal to suit a variety of reservoir surfaces
- Oil dipstick, to easily check the level of the fluid into the reservoir (separate item)
- Anti-drain membrane, to reduce the volume of air coming to the tank
- Optimized flow path, to reduce the speed of the fluid through the filter
- Diffuser with optimized output, to promote the air separation and to reduce the risk of foaming and noise
- Optional filler plug, to fill cleaned fluid into the tank without an additional plug
- Visual, electrical and electronic clogging indicators and differential clogging indicators

Common applications:

Heavy duty industrial equipment

Large mobile machines with limited space for the tank

Filter housing materials

- Head and cover: Aluminium
- Anti-drain membrane: Polyamide
- Diffuser: AISI 430
- Valve: Polyamide / Steel

Bypass valve

- Opening pressure 175 kPa (1.75 bar) ±10%
- Opening pressure 300 kPa (3 bar) ±10%

Δp element type

- Microfibre filter elements - series DH: 10 bar
- Fluid flow through the filter element from IN to OUT

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

MDH filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

| Filter series | Weights [kg] | | | | Volumes [dm ³] | | | |
|----------------|--------------|------|------|--------|----------------------------|------|--|--|
| | Length | 2 | 4 | Length | 2 | 4 | | |
| MDH 250 | | 3.80 | 4.55 | | 4.65 | 6.90 | | |

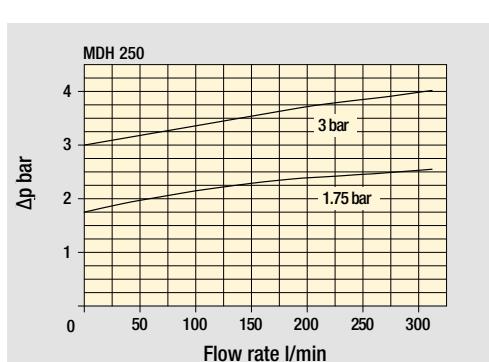
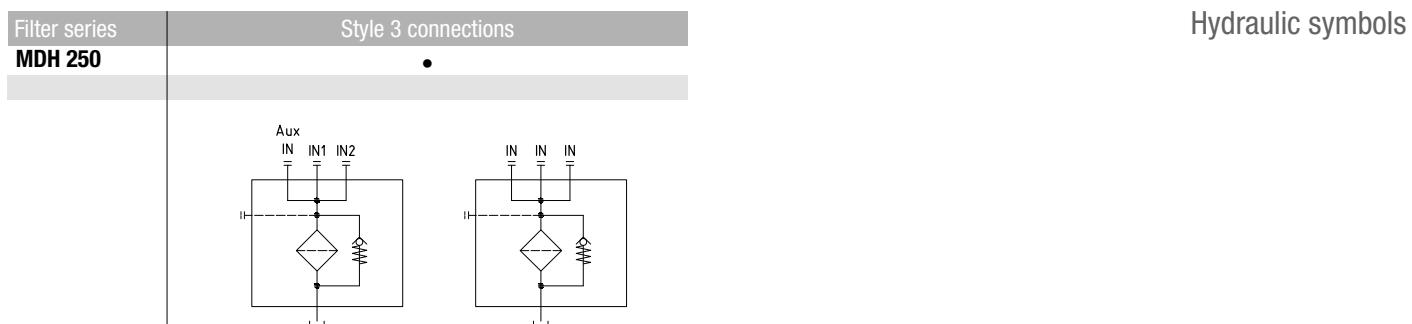
| Filter series | Length | A03 | A06 | A10 | A16 | A25 | M25 M60 M90 | P10 | P25 |
|----------------|----------|-----|-----|-----|-----|-----|-------------------|-----|-----|
| MDH 250 | 2 | 134 | 120 | 244 | 255 | 303 | 480 | 326 | 370 |
| | 4 | 217 | 256 | 338 | 419 | 487 | 465 | 437 | 694 |

Maximum flow rate for a complete return filter with a pressure drop $\Delta p = 0.5$ bar.

The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfilttri.com.

You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure.
Please, contact our Sales Department for further additional information.



The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

MDH250

Designation & Ordering code

COMPLETE FILTER

| | | | | | | | | | | | |
|---|---|--------|--|---|---|---|---|---|---|-----|-----|
| Series and size | Configuration example: | MDH250 | 2 | C | F | S | A | B | 2 | A10 | P01 |
| MDH250 | | | | | | | | | | | |
| Length | 2 4 | | | | | | | | | | |
| Bypass valve | | | | | | | | | | | |
| C 1.75 bar | | | | | | | | | | | |
| E 3 bar | | | | | | | | | | | |
| Diffuser | | | | | | | | | | | |
| F With diffuser | | | | | | | | | | | |
| Air breather | | | | | | | | | | | |
| S Without air breather | | | | | | | | | | | |
| Filtration rating | | | | | | | | | | | |
| Seals and treatments | Axx | Mxx | Pxx | | | | | | | | |
| A NBR | • | • | • | | | | | | | | |
| V FPM | • | • | • | | | | | | | | |
| W NBR head anodized filter element compatible with fluids HFA-HFB-HFC | • | • | - | | | | | | | | |
| Z FPM head anodized | • | • | - | | | | | | | | |
| Connections | | | | | | | | | | | |
| Front | Left | | Right | | | | | | | | |
| A G 1 1/2" | 1 1/2" SAE 3000 psi/M + G 1 1/4" | | 1 1/4" SAE 3000 psi/M + G 1" | | | | | | | | |
| B 1 1/2" NPT | 1 1/2" SAE 3000 psi/UNC + 1 1/4" NPT | | 1 1/4" SAE 3000 psi/UNC + 1" NPT | | | | | | | | |
| C SAE 24 - 1 7/8" - 12 UN | 1 1/2" SAE 3000 psi/UNC + SAE 20 - 1 5/8" - 12 UN | | 1 1/4" SAE 3000 psi/UNC + SAE 16 - 1 5/16" - 12 UN | | | | | | | | |
| Connection indicator | | | | | | | | | | | |
| 1 Without connection | | | | | | | | | | | |
| 2 With 2 plugged connections (pressure indicator + differential indicator) | | | | | | | | | | | |
| Filtration rating (filter media) | | | | | | | | | | | |
| A03 Inorganic microfiber 3 µm | M25 Wire mesh 25 µm | | | | | | | | | | |
| A06 Inorganic microfiber 6 µm | M60 Wire mesh 60 µm | | | | | | | | | | |
| A10 Inorganic microfiber 10 µm | M90 Wire mesh 90 µm | | | | | | | | | | |
| A16 Inorganic microfiber 16 µm | P10 Resin impregnated paper 10 µm | | | | | | | | | | |
| A25 Inorganic microfiber 25 µm | P25 Resin impregnated paper 25 µm | | | | | | | | | | |
| Execution | | | | | | | | | | | |
| P01 MP Filtri standard | | | | | | | | | | | |
| Pxx Customized | | | | | | | | | | | |

All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC

FILTER ELEMENT

| | | | | | | | | | | | |
|---|--|-------|---|-----|---|-----|--|--|--|--|--|
| Element series and size | Configuration example: | DH250 | 2 | A10 | A | P01 | | | | | |
| DH250 | | | | | | | | | | | |
| Element length | 2 4 | | | | | | | | | | |
| Filtration rating (filter media) | | | | | | | | | | | |
| A03 Inorganic microfiber 3 µm | M25 Wire mesh 25 µm | | | | | | | | | | |
| A06 Inorganic microfiber 6 µm | M60 Wire mesh 60 µm | | | | | | | | | | |
| A10 Inorganic microfiber 10 µm | M90 Wire mesh 90 µm | | | | | | | | | | |
| A16 Inorganic microfiber 16 µm | P10 Resin impregnated paper 10 µm | | | | | | | | | | |
| A25 Inorganic microfiber 25 µm | P25 Resin impregnated paper 25 µm | | | | | | | | | | |
| Seals | | | | | | | | | | | |
| A NBR | | | | | | | | | | | |
| V FPM | | | | | | | | | | | |
| Execution | | | | | | | | | | | |
| P01 MP Filtri standard | | | | | | | | | | | |
| Pxx Customized | | | | | | | | | | | |

CLOGGING INDICATORS

See page 266

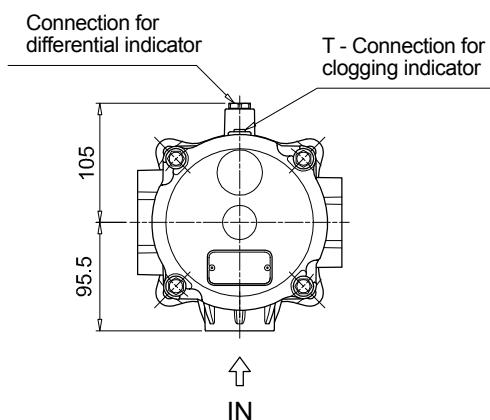
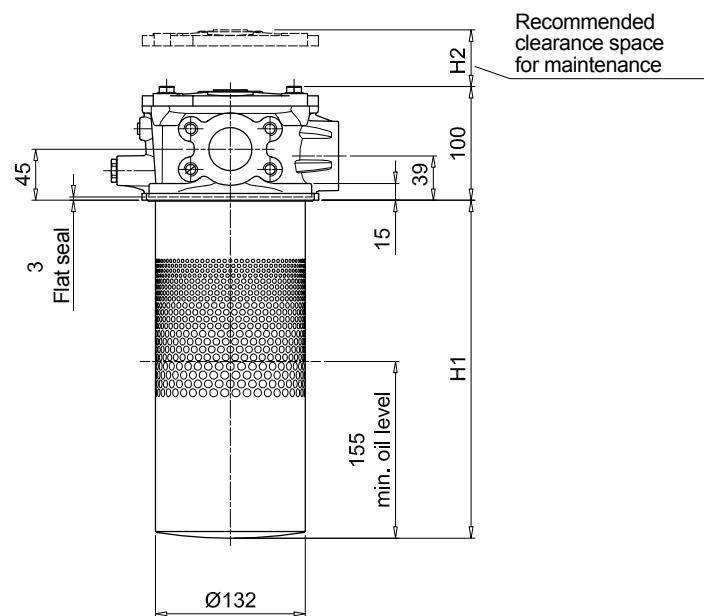
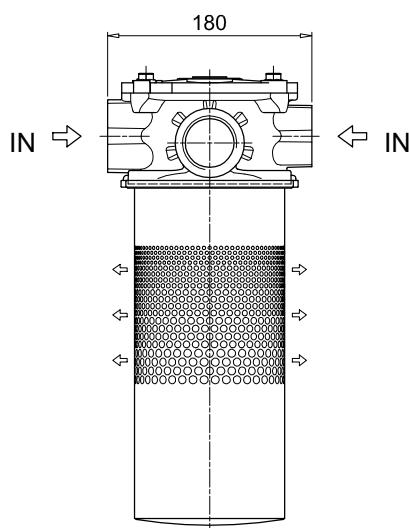
| |
|---|
| BVA Axial pressure gauge |
| BVR Radial pressure gauge |
| BVP Visual pressure indicator with automatic reset |
| BVQ Visual pressure indicator with manual reset |

| |
|---|
| BEA Electrical pressure indicator |
| BEM Electrical pressure indicator |
| BLA Electrical / visual pressure indicator |
| DES Electrical differential indicator |
| DVS Visual differential indicator |

MDH250

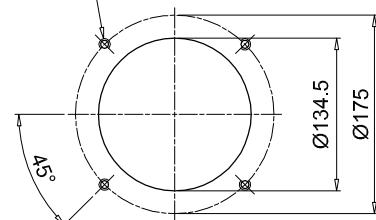
| Filter length | H1 [mm] | H2 [mm] |
|---------------|---------|---------|
| 2 | 300 | 380 |
| 4 | 485 | 565 |

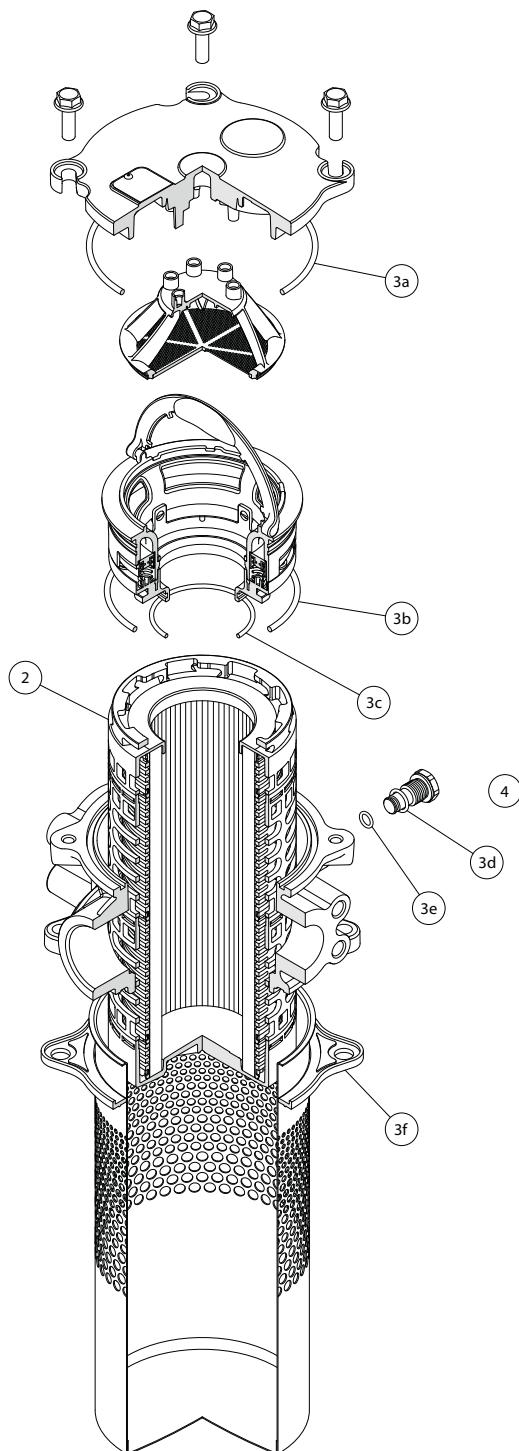
| Connections | T |
|-------------|----------|
| A | G 1/8" |
| B-C | 1/8" NPT |



M10 - 3/8" UNC
Nr. 4 holes

Holes on the tank





| Item: | Q.ty: 1 pc. 2 | Q.ty: 1 pc. 3 (3a ÷ 3e) | Q.ty: 1 pc. 4 |
|----------------|------------------|---------------------------------|--------------------------------------|
| Filter series | Filter element | Seal Kit code number NBR FPM | Indicator connection plug NBR FPM |
| MDH 250 | See order table | 02050850 02050851 | T3H T3V |

Clogging indicators

Introduction

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 increase in pressure drop across the filter element.

The indicator is set to alarm before the element becomes fully clogged.

MP Filtri can supply indicators of the following designs:

- Vacuum switches and gauges
- Pressure switches and gauges
- Differential pressure indicators

These type of devices can be provided with a visual, electrical or both signals.

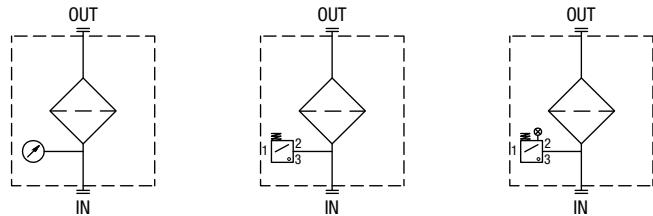
Suitable indicator types

BAROMETRIC INDICATORS

Pressure indicators are used on the Return line to check the efficiency of the filter element.

They measure the pressure upstream of the filter element.

Standard items are produced with R 1/8" EN 10226 connection.

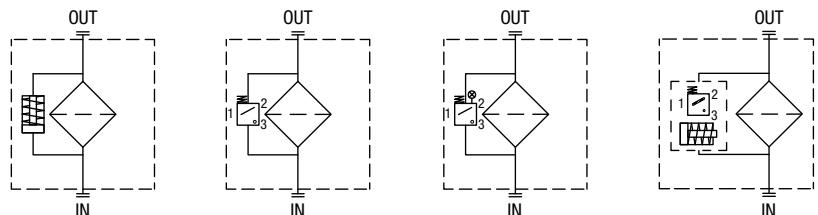


DIFFERENTIAL INDICATORS

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).

Standard items are produced with special connection G 1/2" size. Also available in Stainless Steel models.



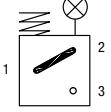
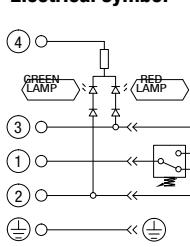
Quick reference guide

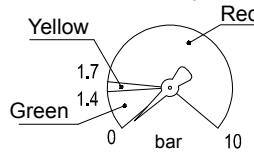
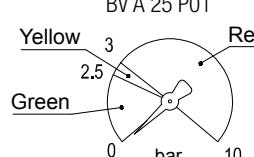
| Filter family | Filter series | Visual indicators | Electrical indicators | Electrical / Visual indicators |
|----------------------|---------------------------------------|---|--|--|
| With bypass 1.75 bar | ELIXIR® RFEX060-080-110-160 | BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01 | BEA15HA50P01 BEM15HA41P01 | BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01 |
| Without bypass | ELIXIR® RFEX060-080-110-160 | BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01 | BEA20HA50P01 BEM20HA41P01 | BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01 |
| With bypass 1.75 bar | MDH 250 | BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01 DVS12HP01 | BEA15HA50P01 BEM15HA41P01 DES12HA10P01 DES12HA30P01 DES12HA80P01 | BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01 |
| With bypass 3 bar | MDH 250 | BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01 DVS25HP01 | BEA20HA50P01 BEM20HA41P01 DES25HA10P01 DES25HA30P01 DES25HA80P01 | BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01 |
| With bypass 1.75 bar | MPFX MPTX MPF MPT MPH | BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01 | BEA15HA50P01 BEM15HA41P01 | BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01 |
| With bypass 3 bar | MPFX MPTX MPF MPT | BVA25P01 BVR25P01 | BEA20HA50P01 | BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 |
| With bypass 2.5 bar | MPH | BVP20HP01 BVQ20HP01 | BEM20HA41P01 | BLA20HA71P01 |
| With bypass 4.5 bar | MPLX | DVA20xP01 | DEA20xA50P01 | DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 |
| With bypass 2.4 bar | FRI | DVM20xP01 | DEM20XX10P01 DEM20XX20P01 DEM20XX30P01 DEM20XX35P01 DTA20xF70P01 | DLE20xA50P01 DLE20xF50P01 |

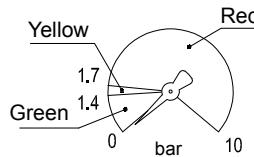
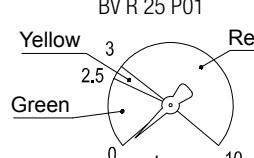
BAROMETRIC INDICATORS

Dimensions

| <p>BEA*50</p> <p>Electrical Pressure Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BE A 15 H A 50 P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BE A 20 H A 50 P01</td></tr> </tbody> </table> <p>A/F 27 Max tightening torque: 3 N·m (on polyamide filter cover) 6.5 N·m (on aluminium filter)</p> <p>EN 10226 - R1/8"</p> | Settings | Ordering code | 1.5 bar $\pm 10\%$ | BE A 15 H A 50 P01 | 2.0 bar $\pm 10\%$ | BE A 20 H A 50 P01 | <p>Hydraulic symbol</p> <p>Electrical symbol</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Resistive load: <ul style="list-style-type: none"> 5 A / 14 Vdc 4 A / 30 Vdc 5 A / 125 Vac 4 A / 250 Vac - Available ATEX product: I M1 Ex ia I Ma II 1GD Ex ia IIC TX Ga Ex ia IIIC TX °C Da - CE certification |
|---|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--|--|
| Settings | Ordering code | | | | | | | |
| 1.5 bar $\pm 10\%$ | BE A 15 H A 50 P01 | | | | | | | |
| 2.0 bar $\pm 10\%$ | BE A 20 H A 50 P01 | | | | | | | |
| <p>BEM*41</p> <p>Electrical Pressure Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BE M 15 H A 41 P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BE M 20 H A 41 P01</td></tr> </tbody> </table> <p>A/F 27 Max tightening torque: 3 N·m (on polyamide filter cover) 6.5 N·m (on aluminium filter)</p> <p>EN 10226 - R1/8"</p> | Settings | Ordering code | 1.5 bar $\pm 10\%$ | BE M 15 H A 41 P01 | 2.0 bar $\pm 10\%$ | BE M 20 H A 41 P01 | <p>Hydraulic symbol</p> <p>Electrical symbol</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Four-core cable - Resistive load: <ul style="list-style-type: none"> 5 A / 14 Vdc 4 A / 30 Vdc 5 A / 125 Vac 4 A / 250 Vac - CE certification <p>On request this indicator can be provided with main connectors in use for wirings.</p> |
| Settings | Ordering code | | | | | | | |
| 1.5 bar $\pm 10\%$ | BE M 15 H A 41 P01 | | | | | | | |
| 2.0 bar $\pm 10\%$ | BE M 20 H A 41 P01 | | | | | | | |
| <p>BL*51 - BL*52 - BL*53</p> <p>Electrical/Visual Pressure Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BL A 15 H A xx P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BL A 20 H A xx P01</td></tr> </tbody> </table> <p>A/F 27 Max tightening torque: 3 N·m (on polyamide filter cover) 6.5 N·m (on aluminium filter)</p> <p>EN 10226 - R1/8"</p> | Settings | Ordering code | 1.5 bar $\pm 10\%$ | BL A 15 H A xx P01 | 2.0 bar $\pm 10\%$ | BL A 20 H A xx P01 | <p>Hydraulic symbol</p> <p>Electrical symbol</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Transparent polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Type 51 52 53 - Lamps 24 Vdc 110 Vdc 230 Vac - Resistive load: 1 A / 24 Vdc 1 A / 110 Vdc 1 A / 230 Vac |
| Settings | Ordering code | | | | | | | |
| 1.5 bar $\pm 10\%$ | BL A 15 H A xx P01 | | | | | | | |
| 2.0 bar $\pm 10\%$ | BL A 20 H A xx P01 | | | | | | | |

| BL*71 | | Hydraulic symbol  | Materials |
|--------------------|-------------------|---|--|
| Settings | Ordering code | | |
| 1.5 bar $\pm 10\%$ | BL A 15 HA 71 P01 | | - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR |
| 2.0 bar $\pm 10\%$ | BL A 20 HA 71 P01 | | |
| | | Electrical symbol  | Technical data - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 |
| | | | Electrical data - Electrical connection: IEC 61076-2-101 D (M12) - Lamps: 24 Vdc - Resistive load: 0.4 A / 24 Vdc |

| BVA | | Hydraulic symbol  | Materials |
|--------------------|---------------|---|---|
| Settings | Ordering code | | |
| 1.4 bar $\pm 10\%$ | BV A 14 P01 | | - Case: Painted Steel - Window: Transparent plastic - Dial: Painted Steel - Pointer: Painted Aluminium - Pressure connection: Brass - Pressure element: Bourdon tube Cu-alloy soft soldered |
| 2.5 bar $\pm 10\%$ | BV A 25 P01 | | |
| | | Dial scale BV A 14 P01  BV A 25 P01  | Technical data - Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar From -40 °C to +60 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Accuracy: Class 2.5 according to EN 13190 - Degree of protection: IP31 according to EN 60529 |

| BVR | | Hydraulic symbol  | Materials |
|--------------------|---------------|---|---|
| Settings | Ordering code | | |
| 1.4 bar $\pm 10\%$ | BV R 14 P01 | | - Case: Painted Steel - Window: Transparent plastic - Dial: Painted Steel - Pointer: Painted Aluminium - Pressure connection: Brass - Pressure element: Bourdon tube Cu-alloy soft soldered |
| 2.5 bar $\pm 10\%$ | BV R 25 P01 | | |
| | | Dial scale BV R 14 P01  BV R 25 P01  | Technical data - Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar From -40 °C to +60 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Accuracy: Class 2.5 according to EN 13190 - Degree of protection: IP31 according to EN 60529 |

BAROMETRIC INDICATORS

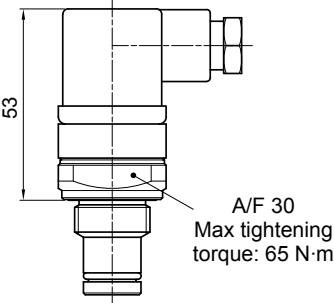
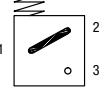
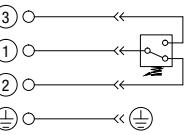
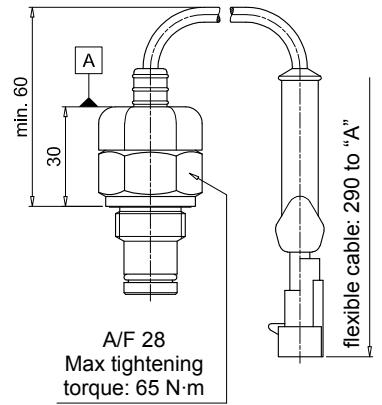
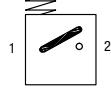
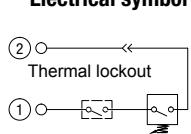
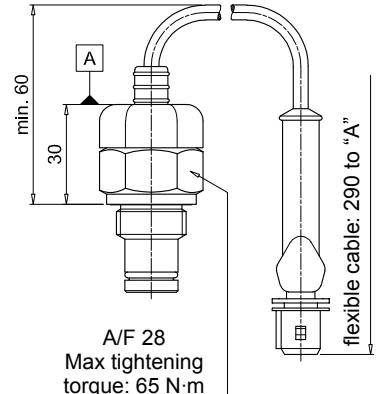
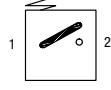
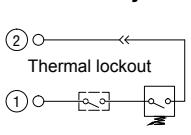
Dimensions

| BVP - BVQ | | Hydraulic symbol | Materials |
|--------------|--------------------------------|------------------|--|
| Setting | Ordering code | | |
| 1.5 bar ±10% | BV P 15 H P01 BV Q 15 H P01 | | - Body: Brass - Cover / internal parts: Polyamide - Caps: VMQ - Seal: HNBR |
| 2.0 bar ±10% | BV P 20 H P01 BV Q 20 H P01 | | |
| | | | |
| | | | Technical data |
| | | | <ul style="list-style-type: none"> - Reset: BVP - Automatic reset BVQ - Manual reset - Max working pressure: 10 bar - Proof pressure: 15 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP45 according to EN 60529 |
| | | | |
| | | | Signals |
| | | | Absence of pressure (no indicator) |
| | | | Presence of pressure (green button rises gradually) |
| | | | Clogged filter element (red button risen) |

DESIGNATION & ORDERING CODE

| | | | | | | | | | | | |
|---|---------|-----|---|--------------------------|----|---|----|---|---|----|-----|
| Series | BE | BL | BV | Configuration example 1: | BE | M | 15 | H | A | 41 | P01 |
| BE Electrical pressure indicator | | | | Configuration example 2: | BL | A | 20 | H | A | 71 | P01 |
| BL Electrical/Visual pressure indicator | | | | Configuration example 3: | BV | R | 14 | | | | P01 |
| BV Visual pressure indicator | | | | Configuration example 4: | BV | P | 20 | H | | | P01 |
| Type | BE | BL | BV | | | | | | | | |
| A Standard type | • | • | A Axial connection pressure gauge | | | | | | | | |
| M With wired electrical connection | • | - | R Radial connection pressure gauge | | | | | | | | |
| | | | P Visual indicator with automatic reset | | | | | | | | |
| | | | Q Visual indicator with manual reset | | | | | | | | |
| Pressure setting | BEA-BEM | BLA | BVA-BVR | BVP-BVQ | | | | | | | |
| 14 1.4 bar | - | - | • | - | | | | | | | |
| 15 1.5 bar | • | • | - | - | | | | | | | |
| 20 2.0 bar | • | • | - | • | | | | | | | |
| 25 2.5 bar | - | - | • | - | | | | | | | |
| Seals | BE | BLA | BVA-BVR | BVP-BVQ | | | | | | | |
| H HNBR | • | • | - | • | | | | | | | |
| Thermostat | BEA-BEM | BLA | BV | | | | | | | | |
| A Without | • | • | - | | | | | | | | |
| Electrical connections | BEA | BEM | BL | BV | | | | | | | |
| 41 Connection via four-core cable | - | • | - | - | | | | | | | |
| 50 Connection EN 175301-803 | • | - | - | - | | | | | | | |
| 51 Connection EN 175301-803, transparent base with lamps 24 Vdc | - | - | • | - | | | | | | | |
| 52 Connection EN 175301-803, transparent base with lamps 110 Vdc | - | - | • | - | | | | | | | |
| 53 Connection EN 175301-803, transparent base with lamps 230 Vdc | - | - | • | - | | | | | | | |
| 71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc | - | - | • | - | | | | | | | |

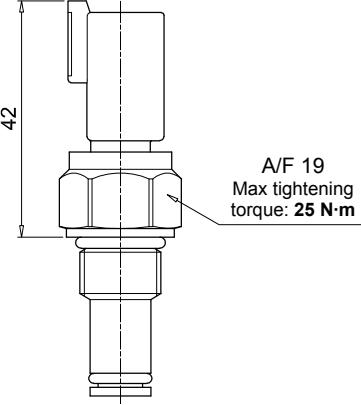
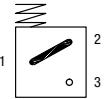
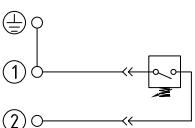
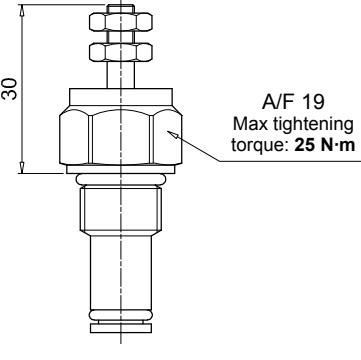
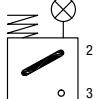
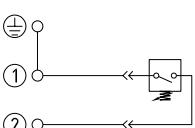
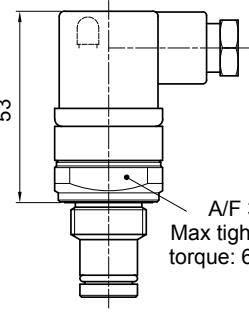
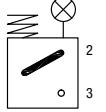
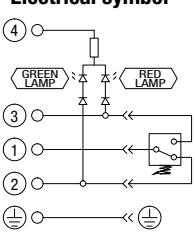
Option
P01 MP Filtri standard
Pxx Customized

| <p>DEA*50</p> <p>Electrical Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE A 20 x A 50 P01</td></tr> </table>  <p>A/F 30 Max tightening torque: 65 N·m</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DE A 20 x A 50 P01 | <p>Hydraulic symbol</p>  <p>Electrical symbol</p>  | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP66 according to EN 60529 - IP69K according to ISO 20653 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Resistive load: 0.2 A / 115 Vdc |
|---|--------------------|---------------|--------------------|--------------------|--|---|
| Settings | Ordering code | | | | | |
| 2.0 bar $\pm 10\%$ | DE A 20 x A 50 P01 | | | | | |
| <p>DEM*10</p> <p>Electrical Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 xx 10 P01</td></tr> </table>  <p>A/F 28 Max tightening torque: 65 N·m</p> <p>flexible cable: 290 to "A"</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DE M 20 xx 10 P01 | <p>Hydraulic symbol</p>  <p>Electrical symbol</p>  | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP66 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: AMP Superseal series 1.5 - Resistive load: 0.2 A / 115 Vdc - Switching type: Normally open contacts (NC on request) - Thermal lockout: Normally open up to 30 °C (option "F") |
| Settings | Ordering code | | | | | |
| 2.0 bar $\pm 10\%$ | DE M 20 xx 10 P01 | | | | | |
| <p>DEM*20</p> <p>Electrical Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 xx 20 P01</td></tr> </table>  <p>A/F 28 Max tightening torque: 65 N·m</p> <p>flexible cable: 290 to "A"</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DE M 20 xx 20 P01 | <p>Hydraulic symbol</p>  <p>Electrical symbol</p>  | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP66 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: AMP Time junior - Resistive load: 0.2 A / 115 Vdc - Switching type: Normally open contacts (NC on request) - Thermal lockout: Normally open up to 30 °C (option "F") |
| Settings | Ordering code | | | | | |
| 2.0 bar $\pm 10\%$ | DE M 20 xx 20 P01 | | | | | |

DIFFERENTIAL INDICATORS

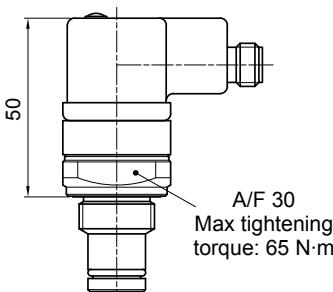
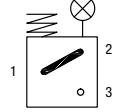
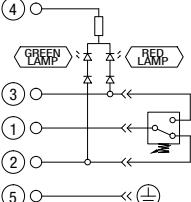
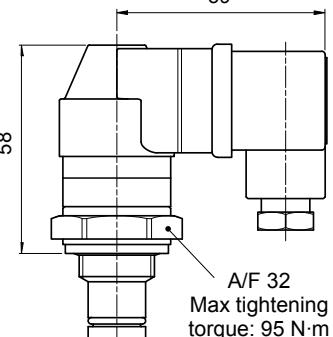
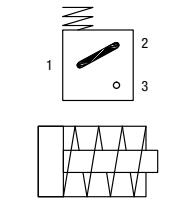
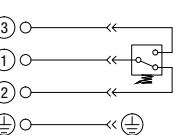
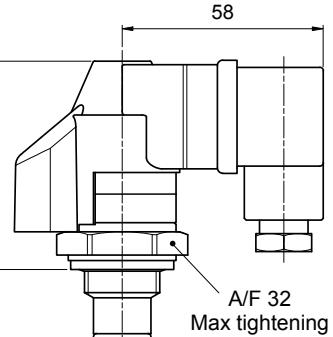
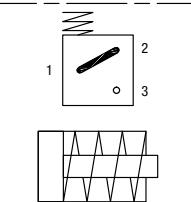
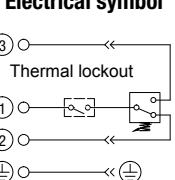
Dimensions

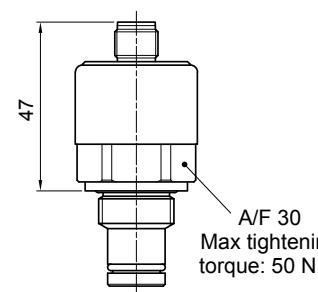
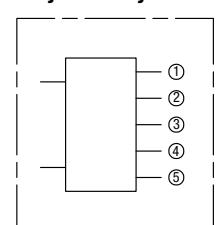
| <p>DEM*30</p> <p>Electrical Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 xx 30 P01</td></tr> </table> <p>A/F 28 Max tightening torque: 65 N·m</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DE M 20 xx 30 P01 | <p>Hydraulic symbol</p> <p>Electrical symbol</p> <p>Thermal lockout</p> <p>② ○ → ← ○</p> <p>① ○ → ← ○</p> <p>flexible cable: 240 to "A"</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP66 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Deutsch DT-04-2-P - Resistive load: 0.2 A / 115 Vdc - Switching type: Normally open contacts (NC on request) - Thermal lockout: Normally open up to 30 °C (option "F") | | |
|--|-------------------|---------------|--------------------|-------------------|---|--|--|---|
| Settings | Ordering code | | | | | | | |
| 2.0 bar $\pm 10\%$ | DE M 20 xx 30 P01 | | | | | | | |
| <p>DEM*35</p> <p>Electrical Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 xx 35 P01</td></tr> </table> <p>A/F 28 Max tightening torque: 65 N·m</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DE M 20 xx 35 P01 | <p>Hydraulic symbol</p> <p>Electrical symbol</p> <p>Thermal lockout</p> <p>③ ○ → ← ○</p> <p>④ ○ → ← ○</p> <p>⑤ ○ → ← ○</p> <p>⑥ ○ → ← ○</p> <p>flexible cable: 240 to 'A'</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP66 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Deutsch DT-04-3-P - Resistive load: 0.2 A / 115 Vdc - Switching type: SPDT contact - Thermal lockout: Normally open up to 30 °C (option "F") | | |
| Settings | Ordering code | | | | | | | |
| 2.0 bar $\pm 10\%$ | DE M 20 xx 35 P01 | | | | | | | |
| <p>DES*10</p> <p>Electrical Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>1.2 bar $\pm 10\%$</td><td>DES 12 H A 10 P01</td></tr> <tr> <td>2.5 bar $\pm 10\%$</td><td>DES 25 H A 10 P01</td></tr> </table> <p>A/F 19 Max tightening torque: 25 N·m</p> | Settings | Ordering code | 1.2 bar $\pm 10\%$ | DES 12 H A 10 P01 | 2.5 bar $\pm 10\%$ | DES 25 H A 10 P01 | <p>Hydraulic symbol</p> <p>Electrical symbol</p> <p>⑦ ○ → ← ○</p> <p>⑧ ○ → ← ○</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: AMP Superseal series 1.5 - Resistive load: 0.2 A / 24 Vdc - Switching type: Normally open contacts (NC on request) |
| Settings | Ordering code | | | | | | | |
| 1.2 bar $\pm 10\%$ | DES 12 H A 10 P01 | | | | | | | |
| 2.5 bar $\pm 10\%$ | DES 25 H A 10 P01 | | | | | | | |

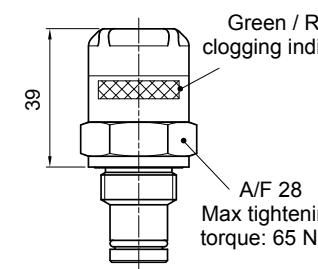
| <p>DES*30</p> <p>Electrical Differential Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.2 bar $\pm 10\%$</td><td>DE S 12 HA 30 P01</td></tr> <tr> <td>2.5 bar $\pm 10\%$</td><td>DE S 25 HA 30 P01</td></tr> </tbody> </table>  | Settings | Ordering code | 1.2 bar $\pm 10\%$ | DE S 12 HA 30 P01 | 2.5 bar $\pm 10\%$ | DE S 25 HA 30 P01 | <p>Hydraulic symbol</p>  <p>Electrical symbol</p>  | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Deutsch DT-04-2-P - Resistive load: 0.2 A / 24 Vdc - Switching type: Normally open contacts (NC on request) |
|--|--------------------|---------------|--------------------|--------------------|--|--|---|--|
| Settings | Ordering code | | | | | | | |
| 1.2 bar $\pm 10\%$ | DE S 12 HA 30 P01 | | | | | | | |
| 2.5 bar $\pm 10\%$ | DE S 25 HA 30 P01 | | | | | | | |
| <p>DES*80</p> <p>Electrical Differential Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.2 bar $\pm 10\%$</td><td>DE S 12 HA 80 P01</td></tr> <tr> <td>2.5 bar $\pm 10\%$</td><td>DE S 25 HA 80 P01</td></tr> </tbody> </table>  | Settings | Ordering code | 1.2 bar $\pm 10\%$ | DE S 12 HA 80 P01 | 2.5 bar $\pm 10\%$ | DE S 25 HA 80 P01 | <p>Hydraulic symbol</p>  <p>Electrical symbol</p>  | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Stud #10-32 UNF - Resistive load: 0.2 A / 24 Vdc - Switching type: Normally open contacts (NC on request) |
| Settings | Ordering code | | | | | | | |
| 1.2 bar $\pm 10\%$ | DE S 12 HA 80 P01 | | | | | | | |
| 2.5 bar $\pm 10\%$ | DE S 25 HA 80 P01 | | | | | | | |
| <p>DLA*51 - DLA*52</p> <p>Electrical/Visual Differential Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>2.0 bar $\pm 10\%$</td><td>DL A 20 x A xx P01</td></tr> </tbody> </table>  | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DL A 20 x A xx P01 | <p>Hydraulic symbol</p>  <p>Electrical symbol</p>  | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Transparent polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP66 according to EN 60529 - Protection class: IP69K according to ISO 20653 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Type 51 52 - Lamps 24 Vdc 110 Vdc - Resistive load: 1 A / 24 Vdc 1 A / 110 Vdc | | |
| Settings | Ordering code | | | | | | | |
| 2.0 bar $\pm 10\%$ | DL A 20 x A xx P01 | | | | | | | |

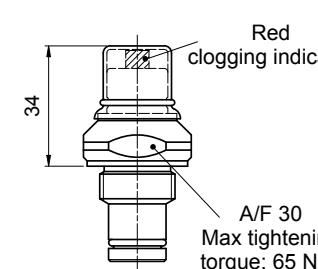
DIFFERENTIAL INDICATORS

Dimensions

| <p>DLA*71</p> <p>Electrical/Visual Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DL A 20 x A 71 P01</td></tr> </table>  <p>50</p> <p>A/F 30 Max tightening torque: 65 N·m</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DL A 20 x A 71 P01 | <p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>④ ○ → ② ○ → ③ ○ → ① ○ → ⑤ ○ → GND</p> <p>GREEN LAMP RED LAMP</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: IEC 61076-2-101 D (M12) - Lamps 24 Vdc - Resistive load: 0.4 A / 24 Vdc |
|--|--------------------|---------------|--------------------|--------------------|---|--|
| Settings | Ordering code | | | | | |
| 2.0 bar $\pm 10\%$ | DL A 20 x A 71 P01 | | | | | |
| <p>DLE*A50</p> <p>Electrical/Visual Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DL E 20 x A 50 P01</td></tr> </table>  <p>59</p> <p>58</p> <p>A/F 32 Max tightening torque: 95 N·m</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DL E 20 x A 50 P01 | <p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>③ ○ → ① ○ → ② ○ → GND</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connections: EN 175301-803 - Resistive load: 5 A / 250 Vac - Available the connector with lamps |
| Settings | Ordering code | | | | | |
| 2.0 bar $\pm 10\%$ | DL E 20 x A 50 P01 | | | | | |
| <p>DLE*F50</p> <p>Electrical/Visual Differential Indicator</p> <table border="1"> <tr> <th>Settings</th><th>Ordering code</th></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>DL E 20 x F 50 P01</td></tr> </table>  <p>58</p> <p>58</p> <p>58</p> <p>A/F 32 Max tightening torque: 95 N·m</p> | Settings | Ordering code | 2.0 bar $\pm 10\%$ | DL E 20 x F 50 P01 | <p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>③ ○ → Thermal lockout → ① ○ → ② ○ → GND</p> | <p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connections: EN 175301-803 - Resistive load: 5 A / 250 Vac - Thermal lockout setting: +30 °C |
| Settings | Ordering code | | | | | |
| 2.0 bar $\pm 10\%$ | DL E 20 x F 50 P01 | | | | | |

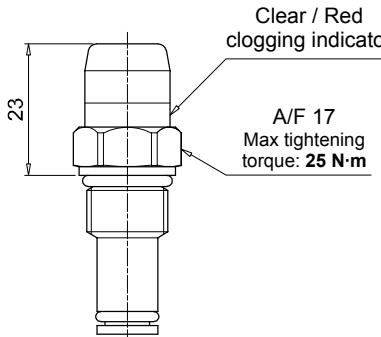
| | | | | |
|--|--|---|--|---|
| DTA*70 | | Hydraulic symbol | Materials |  |
| Electrical Differential Indicator | | | | |
| Settings 2.0 bar $\pm 10\%$ | Ordering code DT A 20 x x 70 P01 | | | |
|  <p>47 A/F 30 Max tightening torque: 50 N·m</p> | | Electrical symbol | Technical data | |
| | |  <p>(1) $+24 \text{ Vdc}$ (2) $4 \div 20 \text{ mA}$ (3) $75\% - \text{N.O.}$ Digital output (4) $100\% - \text{N.O.}$ Digital output (5) 0 Vdc</p> | <ul style="list-style-type: none"> - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 | |
| | | | Electrical data | |
| | | | <ul style="list-style-type: none"> - Electrical connection: IEC 61076-2-101 D (M12) - Power supply: 24 Vdc - Analogue output: From 4 to 20 mA - Thermal lockout: 30 °C (all output signals stalled up to 30 °C) | |

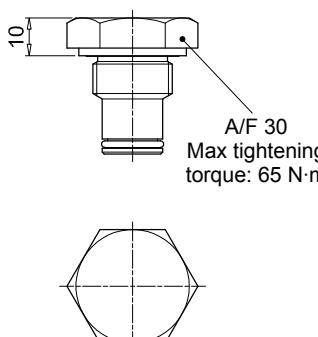
| | | | | |
|---|---------------------------------------|-------------------------|---|--|
| DVA | | Hydraulic symbol | Materials | |
| Visual Differential Indicator | | | | |
| Settings 2.0 bar $\pm 10\%$ | Ordering code DV A 20 x P01 | | | |
|  <p>39 Green / Red clogging indicator A/F 28 Max tightening torque: 65 N·m</p> | | Hydraulic symbol | Technical data | |
| | | | <ul style="list-style-type: none"> - Reset: Automatic reset - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP65 according to EN 60529 | |

| | | | | |
|---|---------------------------------------|-------------------------|--|--|
| DVM | | Hydraulic symbol | Materials | |
| Visual Differential Indicator | | | | |
| Settings 2.0 bar $\pm 10\%$ | Ordering code DV M 20 x P01 | | | |
|  <p>34 Red clogging indicator A/F 30 Max tightening torque: 65 N·m</p> | | Hydraulic symbol | Technical data | |
| | | | <ul style="list-style-type: none"> - Reset: Manual reset - Max working pressure: 420 bar - Proof pressure: 630 bar - Burst pressure: 1260 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP65 according to EN 60529 | |

DIFFERENTIAL INDICATORS

Dimensions

| DVS | | Hydraulic symbol | Materials | |
|--|---------------|---|-----------|--|
| Visual Differential Indicator | | | | |
| Settings | Ordering code | Technical data | | |
| 1.2 bar $\pm 10\%$ | DV S 12 H P01 | <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR | | |
| 2.5 bar $\pm 10\%$ | DV S 25 H P01 | <ul style="list-style-type: none"> - Reset: Automatic reset - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 | | |
|  | | | | |

| T2 | | Materials |
|---|---------------|--|
| Indicator plug | | |
| Seal | Ordering code | |
| HNBR | T2 H | <ul style="list-style-type: none"> - Body: Phosphatized steel |
| FPM | T2 V | <ul style="list-style-type: none"> - Seal: HNBR / FPM |
|  | | |

DIFFERENTIAL INDICATORS

Dimensions

DESIGNATION & ORDERING CODE - DIFFERENTIAL INDICATORS

| Series | | | | | | | | | | | | |
|--|--|--------------------------|-----|-----|----|----|---|----|-----|--|--|--|
| DE | Electrical differential indicator | Configuration example 1: | DE | M | 20 | H | F | 50 | P01 | | | |
| DL | Electrical/Visual differential indicator | Configuration example 2: | DL | E | 20 | V | A | 71 | P01 | | | |
| DT | Electrical differential indicator | Configuration example 3: | DT | A | 20 | H | F | 70 | P01 | | | |
| DV | Visual differential indicator | Configuration example 4: | DV | M | 20 | V | | | P01 | | | |
| Type | DE | DL | DT | | | | | | | | | |
| A Standard type | • | • | • | | | | | | | | | |
| M With wired electrical connection | • | - | - | | | | | | | | | |
| E For high power supply | - | • | - | | | | | | | | | |
| S Compact version | • | - | - | | | | | | | | | |
| Pressure setting | DE | DL | DT | DV | | | | | | | | |
| 12 1.2 bar | • | - | - | • | | | | | | | | |
| 20 2.0 bar | • | • | • | • | | | | | | | | |
| 25 2.5 bar | • | - | - | - | | | | | | | | |
| Seals | | | | | | | | | | | | |
| H HNBR | | | | | | | | | | | | |
| V FPM | | | | | | | | | | | | |
| Thermostat | DEA | DEM | DLA | DLE | DT | DV | | | | | | |
| A Without thermostat | • | • | • | • | - | - | | | | | | |
| F With thermostat | - | • | - | • | • | - | | | | | | |
| Electrical connections | DEA | DEM | DLA | DLE | DT | DV | | | | | | |
| 10 Connection AMP Superseal series 1.5 | - | • | - | - | - | - | | | | | | |
| 20 Connection AMP Timer Junior | - | • | - | - | - | - | | | | | | |
| 30 Connection Deutsch DT-04-2-P | - | • | - | - | - | - | | | | | | |
| 35 Connection Deutsch DT-04-3-P | - | • | - | - | - | - | | | | | | |
| 50 Connection EN 175301-803 | • | - | - | • | - | - | | | | | | |
| 51 Connection EN 175301-803, transparent base with lamps 24 Vdc | - | - | • | - | - | - | | | | | | |
| 52 Connection EN 175301-803, transparent base with lamps 110 Vdc | - | - | • | - | - | - | | | | | | |
| 70 Connection IEC 61076-2-101 D (M12) | - | - | - | - | - | • | | | | | | |
| 71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc | - | - | • | - | - | - | | | | | | |

Option
P01 MP Filtri standard
Pxx Customized

DESIGNATION & ORDERING CODE - DIFFERENTIAL INDICATOR PLUG

| Series | | | | | | | | | | | | |
|---------------|----------------|-----------------------|----|---|--|--|--|--|--|--|--|--|
| T2 | Indicator plug | Configuration example | T2 | H | | | | | | | | |
| Seals | | | | | | | | | | | | |
| H HNBR | | | | | | | | | | | | |
| V FPM | | | | | | | | | | | | |