

# BAROMETRIC INDICATORS

## Dimensions

BEA*50	
<b>Electrical Pressure Indicator</b>	
Settings	Ordering code
1.5 bar ±10%	BE A 15 H A 50 P01
2.0 bar ±10%	BE A 20 H A 50 P01

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR

**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: EN 175301-803
- Resistive load: 5 A / 14 Vdc  
4 A / 30 Vdc  
5 A / 125 Vac  
4 A / 250 Vac

- Available Atex product: II 1GD Ex ia IIC Tx Ex ia IIIC Tx °C X

- CE certification

BEM*41	
<b>Electrical Pressure Indicator</b>	
Settings	Ordering code
1.5 bar ±10%	BE M 15 H A 41 P01
2.0 bar ±10%	BE M 20 H A 41 P01

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR

**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: IP67 according to EN 60529

**Electrical data**

- Electrical connection: Four-core cable
- Resistive load: 5 A / 14 Vdc  
4 A / 30 Vdc  
5 A / 125 Vac  
4 A / 250 Vac

- CE certification  
On request this indicator can be provided with main connectors in use for wirings.

BET*10	
<b>Electrical Pressure Indicator</b>	
Settings	Ordering code
2.0 bar ±10%	BET 20 H F 10 P01
2.5 bar ±10%	BET 25 H F 10 P01

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR

**Technical data**

- Max working pressure: 10 bar
- Proof pressure: 15 bar
- Working temperature: From -25 °C to +100 °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: AMP Superseal series 1.5
- Resistive load: 0.5 A / 48 Vdc
- Thermostat condition: Open up to 30 °C

- CE certification

BET*30	
<b>Electrical Pressure Indicator</b>	
Settings	Ordering code
2.0 bar $\pm 10\%$	BET 20 H F 30 P01
2.5 bar $\pm 10\%$	BET 25 H F 30 P01
<p>A/F 27 Max tightening torque: 25 N·m</p> <p>EN 10226 - R1/8"</p>	
<p><b>Hydraulic symbol</b></p> <p><b>Electrical symbol</b></p> <p>Thermal lockout</p>	
<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>- Body: Brass</li> <li>- Base: Black Nylon</li> <li>- Contacts: Silver</li> <li>- Seal: HNBR</li> </ul> <p><b>Technical data</b></p> <ul style="list-style-type: none"> <li>- Max working pressure: 10 bar</li> <li>- Proof pressure: 15 bar</li> <li>- Working temperature: From -25 °C to +100 °C</li> <li>- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943</li> <li>- Degree of protection: IP65 according to EN 60529</li> </ul> <p><b>Electrical data</b></p> <ul style="list-style-type: none"> <li>- Electrical connection: Deutsch DT-04-2-P</li> <li>- Resistive load: 0.5 A / 48 Vdc</li> <li>- Thermostat condition: Open up to 30 °C</li> <li>- CE certification</li> </ul>	

BET*50	
<b>Electrical Pressure Indicator</b>	
Settings	Ordering code
2.0 bar $\pm 10\%$	BET 20 H F 50 P01
2.5 bar $\pm 10\%$	BET 25 H F 50 P01
<p>A/F 27 Max tightening torque: 25 N·m</p> <p>EN 10226 - R1/8"</p>	
<p><b>Hydraulic symbol</b></p> <p><b>Electrical symbol</b></p> <p>Thermal lockout</p> <p>Not connected</p>	
<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>- Body: Brass</li> <li>- Base: Black Nylon</li> <li>- Contacts: Silver</li> <li>- Seal: HNBR</li> </ul> <p><b>Technical data</b></p> <ul style="list-style-type: none"> <li>- Max working pressure: 10 bar</li> <li>- Proof pressure: 15 bar</li> <li>- Working temperature: From -25 °C to +100 °C</li> <li>- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943</li> <li>- Degree of protection: IP65 according to EN 60529</li> </ul> <p><b>Electrical data</b></p> <ul style="list-style-type: none"> <li>- Electrical connection: EN 175301-803</li> <li>- Resistive load: 0.5 A / 48 Vdc</li> <li>- Thermostat condition: Open up to 30 °C</li> <li>- CE certification</li> </ul>	

BL*51 - BL*52 - BL*53	
<b>Electrical/Visual Pressure Indicator</b>	
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>A/F 27 Max tightening torque: 25 N·m</p> <p>EN 10226 - R1/8"</p>	
<p><b>Hydraulic symbol</b></p> <p><b>Electrical symbol</b></p> <p>GREEN LAMP</p> <p>RED LAMP</p>	
<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>- Body: Brass</li> <li>- Base: Transparent Nylon</li> <li>- Contacts: Silver</li> <li>- Seal: HNBR</li> </ul> <p><b>Technical data</b></p> <ul style="list-style-type: none"> <li>- Max working pressure: 40 bar</li> <li>- Proof pressure: 60 bar</li> <li>- Working temperature: From -25 °C to +80 °C</li> <li>- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943</li> <li>- Degree of protection: IP65 according to EN 60529</li> </ul> <p><b>Electrical data</b></p> <ul style="list-style-type: none"> <li>- Electrical connection: EN 175301-803</li> <li>- Type: 51      52      53</li> <li>- Lamps: 24 Vdc    110 Vdc    230 Vac</li> <li>- Resistive load: 1 A / 24 Vdc    1 A / 110 Vdc    1 A / 230 Vac</li> </ul>	

# BAROMETRIC INDICATORS

## Dimensions

BL*71	
<b>Electrical/Visual Pressure Indicator</b>	
Settings	Ordering code
1.5 bar $\pm 10\%$	BL A 15 HA 71 P01
2.0 bar $\pm 10\%$	BL A 20 HA 71 P01

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR

**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	
<b>Axial Pressure Gauge</b>	
Settings	Ordering code
1.4 bar $\pm 10\%$	BVA 14 P01
2.5 bar $\pm 10\%$	BVA 25 P01

**Hydraulic symbol**

**Dial scale**

BVA 14 P01

BVA 25 P01

**Materials**

- Case: Painted Steel
- Window: Transparent plastic
- Dial: Painted Steel
- Pointer: Painted Aluminium
- Pressure connection: Brass
- Pressure element: Bourdon tube Cu-alloy soft soldered

**Technical data**

- Max working pressure: Static: 7 bar  
Fluctuating: 6 bar  
Short time: 10 bar
- Working temperature: 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	
<b>Radial Pressure Gauge</b>	
Settings	Ordering code
1.4 bar $\pm 10\%$	BV R 14 P01
2.5 bar $\pm 10\%$	BV R 25 P01

**Hydraulic symbol**

**Dial scale**

BV R 14 P01

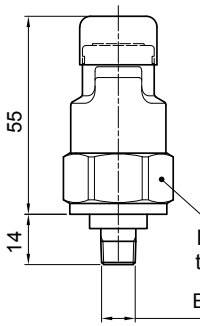
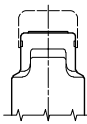
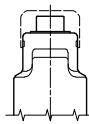
BV R 25 P01

**Materials**

- Case: Painted Steel
- Window: Transparent plastic
- Dial: Painted Steel
- Pointer: Painted Aluminium
- Pressure connection: Brass
- Pressure element: Bourdon tube Cu-alloy soft soldered

**Technical data**

- Max working pressure: Static: 7 bar  
Fluctuating: 6 bar  
Short time: 10 bar
- Working temperature: 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

BVP - BVQ		Hydraulic symbol	Materials
Visual Pressure Indicator			
Setting	Ordering code		
1.5 bar ±10%	BV P 15 H P01 BV Q 15 H P01		<b>Technical data</b> - 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
2.0 bar ±10%	BV P 20 H P01 BV Q 20 H P01		
A/F 27 Max tightening torque: 25 N·m EN 10226 - R1/8"		<b>Signals</b>	
			Absence of pressure (no indicator)
		Presence of pressure (green button rises gradually)	Clogged filter element (red button risen)

## Designation & Ordering code

BAROMETRIC INDICATORS											
<b>Series</b>				Configuration example 1:	BE	M	15	H	A	41	P01
<b>BE</b> Electrical pressure indicator				Configuration example 2:	BL	A	20	H	A	71	P01
<b>BL</b> Electrical/Visual pressure indicator				Configuration example 3:	BV	P	20	H			P01
<b>BV</b> Visual pressure indicator				Configuration example 4:	BV	R	14				P01
<b>Type BE - BL</b>	BE	BL	<b>Type BV</b>								
<b>A</b> Standard type	•	•	<b>A</b> Axial connection pressure gauge								
<b>M</b> With wired electrical connection	•		<b>R</b> Radial connection pressure gauge								
<b>T</b> With thermal switch	•		<b>P</b> Visual indicator with automatic reset								
			<b>Q</b> Visual indicator with manual reset								
<b>Pressure setting</b>	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ						
<b>14</b> 1.4 bar					•						
<b>15</b> 1.5 bar	•		•								
<b>20</b> 2.0 bar	•	•	•		•						
<b>25</b> 2.5 bar		•		•							
<b>Seals</b>	BEA-BEM	BET	BLA	BVP-BVQ							
<b>H</b> HNBR	•	•	•	•							
<b>Thermostat</b>	BEA-BEM	BET	BLA								
<b>A</b> Without	•		•								
<b>F</b> With		•									
<b>Electrical connections</b>	BEA	BEM	BET	BLA							
<b>10</b> Connection AMP Superseal series 1.5			•								
<b>30</b> Connection Deutsch DT-04-2-P			•								
<b>41</b> Connection via four-core cable		•									
<b>50</b> Connection EN 175301-803		•	•								
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc					•						
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc					•						
<b>53</b> Connection EN 175301-803, transparent base with lamps 230 Vdc					•						
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc					•						
	<b>Option</b>										
	<b>P01</b> MP Filtri standard										
	<b>Pxx</b> Customized										

# DIFFERENTIAL INDICATORS

## Dimensions

DEA*50	
<b>Electrical Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DE A 12 x A 50 P01
2.0 bar ±10%	DE A 20 x A 50 P01
5.0 bar ±10%	DE A 50 x A 50 P01
7.0 bar ±10%	DE A 70 x A 50 P01
9.5 bar ±10%	DE A 95 x A 50 P01

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR - FPM

**Technical data**

- 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

**Electrical data**

- Electrical connection: EN 175301-803
- Resistive load: 0.2 A / 115 Vdc

DEH*48	
<b>Hazardous Area Electronic Differential Indicator</b>	
Settings	Ordering code
5.0 bar ±10%	DE H 50 x A 48 P01
7.0 bar ±10%	DE H 70 x A 48 P01

**Connection diagram**

**Certification / Approvals:**  
ATEX, IECEx, TRCU, INMETRO

**Certification included as standard**

**Materials**

- Body: AISI 316 Stainless steel
- Contacts: Rhodium (tungsten optional)
- Seal: MFQ - FPM

**Protection class** Ex ia IIC T4/T6: Intrinsically safe

**Temperature class** T4 (135 °C) and T6 (85 °C)

**Technical data**

- Max working pressure: 420 bar
- Working temperature: From -60 °C to +125 °C
- Connection type: M20 x 1.5 - 3 core polyrad cable supplied with 5 meters
- Contact type: SPCO/SPDT (Hermetically sealed - volt free contacts)
- Compatibility with fluids: Mineral oils, Synthetic fluids  
HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP 66/67/68 according to EN 60529

**Electrical data**

- Current Ratings: 24v DC 830mA - 110v AC 180mA
- Electrical Ratings: Ui 30V - Li 250mA - Pi 1.3W

DEH*49	
<b>Hazardous Area Electronic Differential Indicator</b>	
Settings	Ordering code
5.0 bar ±10%	DE H 50 x A 49 P01
7.0 bar ±10%	DE H 70 x A 49 P01

**Connection diagram**

**Certification / Approvals:**  
ATEX, IECEx, TRCU, INMETRO, UL/CSA Class I Division 1 Groups A-D, UL/CSA Class II Division 1 Groups E-G

**Certification included as standard**

**Materials**

- Body: AISI 316 Stainless steel
- Contacts: Rhodium (tungsten optional)
- Seal: MFQ - FPM

**Protection class** Ex d IIC T4/T6: Flameproof

**Temperature class** T4 (135 °C) and T6 (85 °C)

**Technical data**

- Max working pressure: 420 bar
- Working temperature: From -60 °C to +120 °C : ATEX, IECEx, TRCU, INMETRO  
From -60 °C to +105 °C : UL/CSA
- Connection type: 1/2" NPT - 3 core polyrad cable supplied with 5 meters
- Contact type: SPCO/SPDT (Hermetically sealed - volt free contacts)
- Compatibility with fluids: Mineral oils, Synthetic fluids  
HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP 66/67/68 according to EN 60529

**Electrical data**

- Current Ratings: 24v DC 830mA - 110v AC 180mA
- Electrical Ratings: Supply Voltage | 24 VDC | 110 VAC |  
Max switching current | 830mA | 180mA |  
Max voltage | 150 V AC/DC |  
Power watts | 20 W VA |

DEH*70		Connection diagram	Materials
<b>Hazardous Area Electronic Differential Indicator</b>			
<b>Settings</b>	<b>Ordering code</b>		
5.0 bar ±10%	DE H 50 x A 70 P01		<ul style="list-style-type: none"> <li>- Protection class: EX ia IIC T6: Intrinsically safe</li> <li>- Temperature class: T6 (85 °C)</li> </ul>
7.0 bar ±10%	DE H 70 x A 70 P01		
			<b>Technical data</b>
		<ul style="list-style-type: none"> <li>- Certification / Approvals: ATEX, IECEx, TRCU, INMETRO</li> <li>- Certification included as standard</li> </ul>	<ul style="list-style-type: none"> <li>- Max working pressure: 420 bar</li> <li>- Working temperature: From -20 °C to +80 °C</li> <li>- Connection type: 4 pole male M12 connector - plastic</li> <li>- Contact type: SPCO/SPDT (Hermetically sealed - volt free contacts)</li> <li>- Compatibility with fluids: Mineral oils, Synthetic fluids</li> <li>- Degree of protection: IP 66/67 according to EN 60529</li> </ul>
			<b>Electrical data</b>
			<ul style="list-style-type: none"> <li>- Current Ratings: 24v DC 830mA - 110v AC 180mA</li> <li>- Electrical Ratings: Ui 30V - Li 250mA - Pi 1.3W</li> </ul>

DEM*10		Hydraulic symbol	Materials
<b>Electrical Differential Indicator</b>			
<b>Settings</b>	<b>Ordering code</b>		
1.2 bar ±10%	DE M 12 x x 10 P01		<b>Technical data</b>
2.0 bar ±10%	DE M 20 x x 10 P01		
5.0 bar ±10%	DE M 50 x x 10 P01		<ul style="list-style-type: none"> <li>- Max working pressure: 420 bar</li> <li>- Proof pressure: 630 bar</li> <li>- Burst pressure: 1260 bar</li> <li>- Working temperature: From -25 °C to +110 °C</li> <li>- Compatibility with fluids: Mineral oils, Synthetic fluids</li> <li>- Degree protection: IP66 according to EN 60529</li> </ul>
7.0 bar ±10%	DE M 70 x x 10 P01		
9.5 bar ±10%	DE M 95 x x 10 P01		<b>Electrical data</b>
			<ul style="list-style-type: none"> <li>- Electrical connection: AMP Superseal series 1.5</li> <li>- Resistive load: 0.2 A / 115 Vdc</li> <li>- Switching type: Normally open contacts (NC on request)</li> <li>- Thermal lockout: Normally open up to 30 °C (option "F")</li> </ul>

DEM*20		Hydraulic symbol	Materials
<b>Electrical Differential Indicator</b>			
<b>Settings</b>	<b>Ordering code</b>		
1.2 bar ±10%	DE M 12 x x 20 P01		<b>Technical data</b>
2.0 bar ±10%	DE M 20 x x 20 P01		
5.0 bar ±10%	DE M 50 x x 20 P01		<ul style="list-style-type: none"> <li>- Max working pressure: 420 bar</li> <li>- Proof pressure: 630 bar</li> <li>- Burst pressure: 1260 bar</li> <li>- Working temperature: From -25 °C to +110 °C</li> <li>- Compatibility with fluids: Mineral oils, Synthetic fluids</li> <li>- Degree protection: IP66 according to EN 60529</li> </ul>
7.0 bar ±10%	DE M 70 x x 20 P01		
9.5 bar ±10%	DE M 95 x x 20 P01		<b>Electrical data</b>
			<ul style="list-style-type: none"> <li>- Electrical connection: AMP Time junior</li> <li>- Resistive load: 0.2 A / 115 Vdc</li> <li>- Switching type: Normally open contacts (NC on request)</li> <li>- Thermal lockout: Normally open up to 30 °C (option "F")</li> </ul>

# DIFFERENTIAL INDICATORS

## Dimensions

DEM*30	
<b>Electrical Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DE M 12 x x 30 P01
2.0 bar ±10%	DE M 20 x x 30 P01
5.0 bar ±10%	DE M 50 x x 30 P01
7.0 bar ±10%	DE M 70 x x 30 P01
9.5 bar ±10%	DE M 95 x x 30 P01

A/F 28  
Max tightening torque: 65 N·m

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR - FPM

**Technical data**

- 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

**Electrical data**

- 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")

DEM*35	
<b>Electrical Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DE M 12 x x 35 P01
2.0 bar ±10%	DE M 20 x x 35 P01
5.0 bar ±10%	DE M 50 x x 35 P01
7.0 bar ±10%	DE M 70 x x 35 P01
9.5 bar ±10%	DE M 95 x x 35 P01

A/F 28  
Max tightening torque: 65 N·m

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR - FPM

**Technical data**

- 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

**Electrical data**

- 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")

DES*10	
<b>Electrical Differential Indicator</b>	
Settings	Ordering code
2.5 bar ±10%	DE S 25 HA 10 P01
4.0 bar ±10%	DE S 40 HA 10 P01

A/F 19  
Max tightening torque: 20 N·m

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR

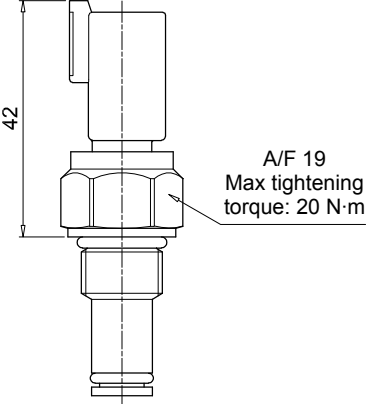
**Technical data**

- 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

**Electrical data**

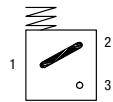
- Electrical connection: AMP Superseal series 1.5
- Resistive load: 0.2 A / 24 Vdc
- Switching type: Normally open contacts (NC on request)

DES*30	
<b>Electrical Differential Indicator</b>	
Settings	Ordering code
2.5 bar ±10%	DE S 25 H A 30 P01
4.0 bar ±10%	DE S 40 H A 30 P01




A/F 19  
Max tightening torque: 20 N·m

**Hydraulic symbol**



**Electrical symbol**



**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR

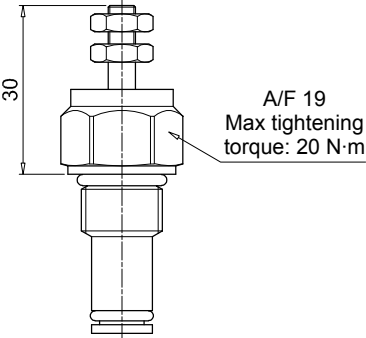
**Technical data**

- 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

**Electrical data**

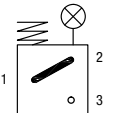
- Electrical connection: Deutsch DT-04-2-P
- Resistive load: 0.2 A / 24 Vdc
- Switching type: Normally open contacts (NC on request)

DES*80	
<b>Electrical Differential Indicator</b>	
Settings	Ordering code
2.5 bar ±10%	DE S 25 H A 80 P01
4.0 bar ±10%	DE S 40 H A 80 P01




A/F 19  
Max tightening torque: 20 N·m

**Hydraulic symbol**



**Electrical symbol**



**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR

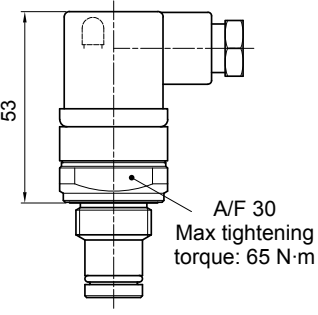
**Technical data**

- 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

**Electrical data**

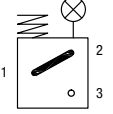
- Electrical connection: Stud #10-32 UNF
- Resistive load: 0.2 A / 24 Vdc
- Switching type: Normally open contacts (NC on request)

DLA*51 - DLA*52	
<b>Electrical/Visual Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DL A 12 x A xx P01
2.0 bar ±10%	DL A 20 x A xx P01
5.0 bar ±10%	DL A 50 x A xx P01
7.0 bar ±10%	DL A 70 x A xx P01
9.5 bar ±10%	DL A 95 x A xx P01

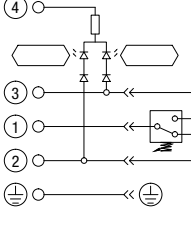


A/F 30  
Max tightening torque: 65 N·m

**Hydraulic symbol**



**Electrical symbol**



**Materials**

- Body: Brass
- Base: Transparent Nylon
- Contacts: Silver
- Seal: HNBR - FPM

**Technical data**

- 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

**Electrical data**

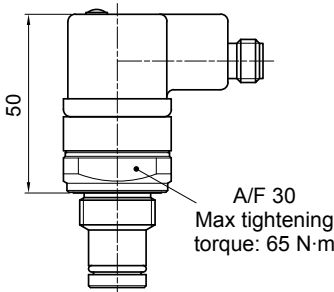
- Electrical connection: EN 175301-803
- Type: 51 52
- Lamps: 24 Vdc 110 Vdc
- Resistive load: 1 A / 24 Vdc 1 A / 110 Vdc



# DIFFERENTIAL INDICATORS

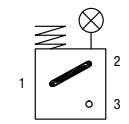
## Dimensions

DLA*71	
<b>Electrical/Visual Differential Indicator</b>	
Settings	Ordering code
1.2 bar $\pm 10\%$	DL A 12 x A 71 P01
2.0 bar $\pm 10\%$	DL A 20 x A 71 P01
5.0 bar $\pm 10\%$	DL A 50 x A 71 P01
7.0 bar $\pm 10\%$	DL A 70 x A 71 P01
9.5 bar $\pm 10\%$	DL A 95 x A 71 P01

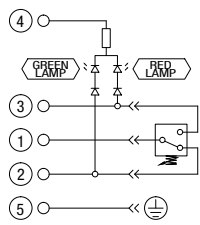


A/F 30  
Max tightening torque: 65 N·m

**Hydraulic symbol**



**Electrical symbol**



**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR - FPM

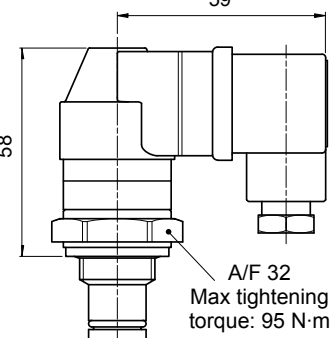
**Technical data**

- 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  
IP69K according to ISO 20653

**Electrical data**

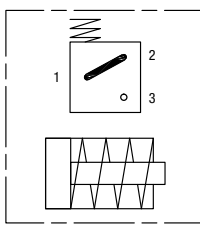
- Electrical connection: IEC 61076-2-101 D (M12)
- Lamps: 24 Vdc
- Resistive load: 0.4 A / 24 Vdc

DLE*A50	
<b>Electrical/Visual Differential Indicator</b>	
Settings	Ordering code
1.2 bar $\pm 10\%$	DL E 12 x A 50 P01
2.0 bar $\pm 10\%$	DL E 20 x A 50 P01
5.0 bar $\pm 10\%$	DL E 50 x A 50 P01
7.0 bar $\pm 10\%$	DL E 70 x A 50 P01
9.5 bar $\pm 10\%$	DL E 95 x A 50 P01

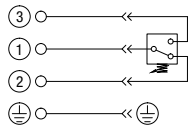


A/F 32  
Max tightening torque: 95 N·m

**Hydraulic symbol**



**Electrical symbol**



**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR - FPM

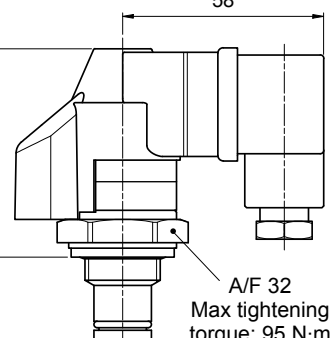
**Technical data**

- 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

**Electrical data**

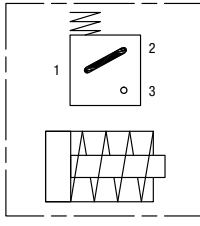
- Electrical connections: EN 175301-803
- Resistive load: 5 A / 250 Vac
- Available the connector with lamps

DLE*F50	
<b>Electrical/Visual Differential Indicator</b>	
Settings	Ordering code
1.2 bar $\pm 10\%$	DL E 12 x F 50 P01
2.0 bar $\pm 10\%$	DL E 20 x F 50 P01
5.0 bar $\pm 10\%$	DL E 50 x F 50 P01
7.0 bar $\pm 10\%$	DL E 70 x F 50 P01
9.5 bar $\pm 10\%$	DL E 95 x F 50 P01

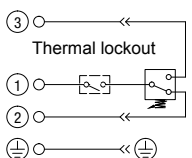


A/F 32  
Max tightening torque: 95 N·m

**Hydraulic symbol**



**Electrical symbol**



**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR - FPM

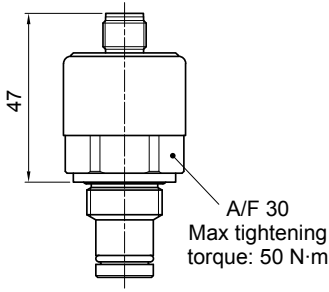
**Technical data**

- 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

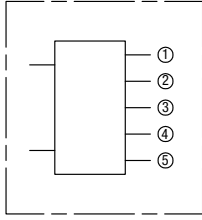
**Electrical data**

- Electrical connections: EN 175301-803
- Resistive load: 5 A / 250 Vac
- Thermal lockout setting: +30 °C

DTA*70	
<b>Electronic Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DT A 12 x x 70 P01
2.0 bar ±10%	DT A 20 x x 70 P01
5.0 bar ±10%	DT A 50 x x 70 P01
7.0 bar ±10%	DT A 70 x x 70 P01
9.5 bar ±10%	DT A 95 x x 70 P01



**Hydraulic symbol**



**Electrical symbol**

- ① ○ ——— ○ +24 Vdc
- ② ○ ——— ○ 4 ÷ 20 mA
- ③ ○ ——— ○ 75% - N.O. Digital output
- ④ ○ ——— ○ 100% - N.O. Digital output
- ⑤ ○ ——— ○ 0 Vdc

**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR - FPM

**Technical data**

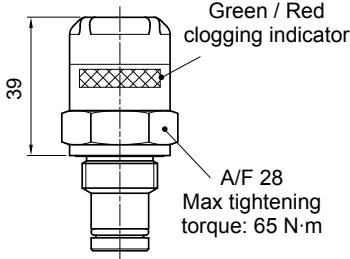
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP67 according to EN 60529

**Electrical data**

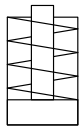
- Electrical connection: IEC 61076-2-101 D (M12)
- Power supply: 24 Vdc
- Analogue output: From 4 to 20 mA
- Thermal lockout: 30 °C (all output signals stalled up to 30 °C)



DVA	
<b>Visual Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DV A 12 x P01
2.0 bar ±10%	DV A 20 x P01
5.0 bar ±10%	DV A 50 x P01
7.0 bar ±10%	DV A 70 x P01
9.5 bar ±10%	DV A 95 x P01



**Hydraulic symbol**



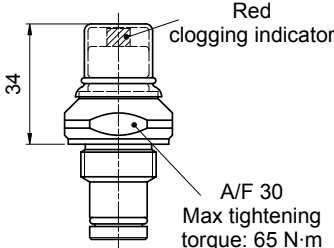
**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR - FPM

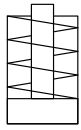
**Technical data**

- 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	
<b>Visual Differential Indicator</b>	
Settings	Ordering code
1.2 bar ±10%	DV M 12 x P01
2.0 bar ±10%	DV M 20 x P01
5.0 bar ±10%	DV M 50 x P01
7.0 bar ±10%	DV M 70 x P01
9.5 bar ±10%	DV M 95 x P01



**Hydraulic symbol**



**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR - FPM

**Technical data**

- 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	
<b>Visual Differential Indicator</b>	
Settings	Ordering code
2.5 bar $\pm 10\%$	DV S 25 H P01
4.0 bar $\pm 10\%$	DV S 40 H P01

**Hydraulic symbol**

**Materials**

- Body: Brass
- Internal parts: Brass - Nylon
- Contacts: Silver
- Seal: HNBR

**Technical data**

- 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	
<b>Indicator plug</b>	
Seal	Ordering code
HNBR	T2 H
FPM	T2 V

**Materials**

- Body: Phosphatized steel
- Seal: HNBR / FPM

### DIFFERENTIAL INDICATORS

Series	Configuration example 1:	DE	H	50	F	A	70	P01
<b>DE</b> Electrical or Electronic differential indicator	Configuration example 2:	DE	M	50	H	F	50	P01
<b>DL</b> Electrical / Visual differential indicator	Configuration example 3:	DE	S	25	H	A	10	P01
<b>DT</b> Electronic differential indicator	Configuration example 4:	DL	E	70	V	A	71	P01
<b>DV</b> Visual differential indicator	Configuration example 5:	DT	A	50	H	F	70	P01
	Configuration example 6:	DV	M	95	V			P01
	Configuration example 7:	DV	S	40	H			P01

Type DE - DL - DT	DE	DL	DT	Type DV
<b>A</b> Standard type	•	•	•	<b>A</b> With automatic reset
<b>E</b> For high power supply		•		<b>M</b> With manual reset
<b>H</b> Hazardous area	•			<b>S</b> Compact version
<b>M</b> With wired electrical connection	•			
<b>S</b> Compact version	•			

Pressure setting	DEA	DEH	DEM	DES	DLA	DLE	DTA	DVA	DVM	DVS
<b>12</b> 1.2 bar	•		•		•	•	•	•	•	
<b>20</b> 2.0 bar	•		•		•	•	•	•	•	
<b>25</b> 2.5 bar				•						•
<b>40</b> 4.0 bar				•						•
<b>50</b> 5.0 bar	•	•	•		•	•	•	•	•	
<b>70</b> 7.0 bar	•	•	•		•	•	•	•	•	
<b>95</b> 9.5 bar	•		•		•	•	•	•	•	

Seals	DEA	DEH	DEM	DES	DLA	DLE	DTA	DVA	DVM	DVS
<b>F</b> MFQ		•								
<b>H</b> HNBR	•		•	•	•	•	•	•	•	•
<b>V</b> FPM	•	•	•		•	•	•	•	•	

Thermostat	DEA	DEH	DEM	DES	DLA	DLE	DTA
<b>A</b> Without		•	•	•	•	•	•
<b>F</b> With thermostat				•		•	•


Electrical connections	DEA	DEH	DEM	DES	DLA	DLE	DTA
<b>10</b> Connection AMP Superseal series 1.5					•	•	
<b>20</b> Connection AMP Timer Junior					•		
<b>30</b> Connection Deutsch DT-04-2-P					•	•	
<b>35</b> Connection Deutsch DT-04-3-P					•		
<b>48</b> Connection M20			•				
<b>49</b> Connection 1/2" NPT			•				
<b>50</b> Connection EN 175301-803				•			•
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc							•
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc							•
<b>70</b> Connection IEC 61076-2-101 D (M12)			•				•
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc						•	
<b>80</b> Connection Stud #10-32 UNF					•		

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized


### DESIGNATION & ORDERING CODE - DIFFERENTIAL INDICATOR PLUG

Series	Configuration example	T2	H
<b>T2</b> Indicator plug			
Seals			
<b>H</b> HNBR			
<b>V</b> FPM			

Filter family	Filter series	Electrical indicator	Electrical / Visual indicator	Electronic indicator	Visual indicator
SUCTION FILTERS	ELIXIR® SFEX060-080-110-160	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01		VVB16P01 VVS16P01
	SF2 250 - 350 SF2 500 - 501 - 503 - 504 - 505 SF2 510 - 535 - 540	VEA21AA50P01	VLA21AA51P01 VLA21AA52P01 VLA21AA53P01 VLA21AA71P01		VVA16P01 VVR16P01
RETURN FILTERS	With bypass valve ELIXIR® RFEX060-080-110-160	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01		BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01
	Without bypass valve ELIXIR® RFEX060-080-110-160	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01		BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01
	With bypass valve MPFX-MPTX-MPF-MPT - bypass 1.75 bar MPH - bypass 1.75 bar	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01		BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01
	With bypass valve MPFX-MPTX-MPF-MPT - bypass 3 bar MPH - bypass 2.5 bar FRI 255	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01		BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01
	MPLX FRI 025 - 040 - 100 - 250 - 630 - 850	DEA20xA50P01 DEM20xA10P01 DEM20xA20P01 DEM20xA30P01 DEM20xA35P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01	DTA20xF70P01	DVA20xP01 DVM20xP01
RETURN / SUCTION FILTERS	Suction line MRSX 116 - 165 - 166	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01		VVB16P01 VVS16P01
	Return line MRSX 116 - 165 - 166 LMP 124 MULTIPORT	BEA25HA50P01 BEM25HA41P01 BET25HF10P01 BET25HF30P01 BET25HF50P01	BLA25HA51P01 BLA25HA52P01 BLA25HA53P01 BLA25HA71P01		BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01
SPIN-ON FILTERS	Suction line MPS 050 - 070 - 100 - 150 MPS 200 - 250 - 300 - 350	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01		VVB16P01 VVS16P01
	Return line MPS 050 - 070 - 100 - 150 MPS 200 - 250 - 300 - 350	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01		BVA14P01 BVR14P01 BVP20HP01 BVQ20HP01
	In-line MPS 051 - 071 - 101 - 151 MPS 301 - 351 MSH 050 - 070 - 100 - 150	DEA12xA50P01 DEM12xAxxP01	DLA12xA51P01 DLA12xA52P01 DLA12xA71P01 DLE12xA50P01 DLE12xF50P01 DLE20xF50P01 DLE20xF50P01	DTA12xA70P01 DTA12xF70P01 DTA20xA70P01 DTA20xF70P01	DVA12xP01 DVM12xP01

Filter family	Filter series	Electrical indicator	Electrical / Visual indicator	Electronic indicator	Visual indicator	Hazardous area electronic indicator 		
LOW & MEDIUM PRESSURE FILTERS	With bypass valve	ELIXIR® LFEX060-080-110-160	DES25HA10P01 DES25HA30P01 DES25HA80P01			DVS25HP01		
	Without bypass valve	ELIXIR® LFEX060-080-110-160	DES40HA10P01 DES40HA30P01 DES40HA80P01			DVS40HP01		
		LMP 110 - 112 - 116 - 118 - 119 MULTIPORT LMP 120 - 122 - 123 MULTIPORT LMP 210 - 211 - LDP					DVS25HP01 DVS40HP01	
	With bypass valve	LMP 400 - 401 & 430 - 431 LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954 LMD 211 - 400 - 401 - 431 - 951 - LDD	DEA20xA50P01 DEM20xAxxP01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01	DTA20xF70P01	DVA20xP01 DVM20xP01		
	Without bypass valve	LMP 110 - 112 - 116 - 118 - 119 MULTIPORT LMP 120 - 122 - 123 MULTIPORT LMP 210 - 211 - LDP LMP 400 - 401 & 430 - 431 LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954 LMD 211 - 400 - 401 - 431 - 951 - LDD	DEA50xA50P01 DEM50xAxxP01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01	DTA50xF70P01	DVA50xP01 DVM50xP01		
	With bypass valve	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 500 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DEA50xA50P01 DEM50xAxxP01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01	DTA50xF70P01	DVA50xP01 DVM50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	
	Without bypass valve	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 500 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DEA70xA50P01 DEM70xAxxP01 DEA95xA50P01 DEM95xAxxP01	DLA70xA51P01 DLA70xA52P01 DLA70xA71P01 DLE70xA50P01 DLE70xF50P01 DLA95xA51P01 DLA95xA52P01 DLE95xA50P01 DLE95xF50P01	DTA70xF70P01 DTA95xF70P01	DVA70xP01 DVM70xP01 DVA95xP01 DVM95xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	
	With bypass valve	FZH 010 - 011 - 039 FZP 039 - 136 FZX 011 FZB 039 FZM 039 FZD 051	DEX50xA50P01	DLX50xA51P01 DLX50xA52P01		DVX50xP01 DVY50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	
	Without bypass valve	FZH 010 - 011 - 039 FZP 039 - 136 FZB 039 FZM 039 FZD 010 - 021 - 051	DEX70xA50P01 DEX95xA50P01	DLX70xA51P01 DLX70xA52P01 DLX95xA51P01		DVX70xP01 DVY70xP01 DVX95xP01 DVY95xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	

Filter family	Filter series	Electrical indicator	Electrical / Visual indicator	Electronic indicator	Visual indicator
SUCTION FILTERS	ELIXIR® SFEX060-080-110-160	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01		VVB16P01 VVS16P01
	SF2 250 - 350 SF2 500 - 501 - 503 - 504 - 505 SF2 510 - 535 - 540	VEA21AA50P01	VLA21AA51P01 VLA21AA52P01 VLA21AA53P01 VLA21AA71P01		VVA16P01 VVR16P01
RETURN FILTERS	With bypass valve ELIXIR® RFEX060-080-110-160	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01		BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01
	Without bypass valve ELIXIR® RFEX060-080-110-160	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01		BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01
	With bypass valve MPFX-MPTX-MPF-MPT - bypass 1.75 bar MPH - bypass 1.75 bar	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01		BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01
	With bypass valve MPFX-MPTX-MPF-MPT - bypass 3 bar MPH - bypass 2.5 bar FRI 255	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01		BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01
	MPLX FRI 025 - 040 - 100 - 250 - 630 - 850	DEA20xA50P01 DEM20xA10P01 DEM20xA20P01 DEM20xA30P01 DEM20xA35P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01	DTA20xF70P01	DVA20xP01 DVM20xP01
RETURN / SUCTION FILTERS	Suction line MRSX 116 - 165 - 166	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01		VVB16P01 VVS16P01
	Return line MRSX 116 - 165 - 166 LMP 124 MULTIPORT	BEA25HA50P01 BEM25HA41P01 BET25HF10P01 BET25HF30P01 BET25HF50P01	BLA25HA51P01 BLA25HA52P01 BLA25HA53P01 BLA25HA71P01		BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01
SPIN-ON FILTERS	Suction line MPS 050 - 070 - 100 - 150 MPS 200 - 250 - 300 - 350	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01		VVB16P01 VVS16P01
	Return line MPS 050 - 070 - 100 - 150 MPS 200 - 250 - 300 - 350	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01		BVA14P01 BVR14P01 BVP20HP01 BVQ20HP01
	In-line MPS 051 - 071 - 101 - 151 MPS 301 - 351 MSH 050 - 070 - 100 - 150	DEA12xA50P01 DEM12xAxxP01	DLA12xA51P01 DLA12xA52P01 DLA12xA71P01 DLE12xA50P01 DLE12xF50P01 DLE20xF50P01 DLE20xF50P01	DTA12xA70P01 DTA12xF70P01 DTA20xA70P01 DTA20xF70P01	DVA12xP01 DVM12xP01

Filter family	Filter series	Electrical indicator	Electrical / Visual indicator	Electronic indicator	Visual indicator	Hazardous area electronic indicator 		
LOW & MEDIUM PRESSURE FILTERS	With bypass valve	ELIXIR® LFEX060-080-110-160	DES25HA10P01 DES25HA30P01 DES25HA80P01			DVS25HP01		
	Without bypass valve	ELIXIR® LFEX060-080-110-160	DES40HA10P01 DES40HA30P01 DES40HA80P01			DVS40HP01		
		LMP 110 - 112 - 116 - 118 - 119 MULTIPORT LMP 120 - 122 - 123 MULTIPORT LMP 210 - 211 - LDP					DVS25HP01 DVS40HP01	
	With bypass valve	LMP 400 - 401 & 430 - 431 LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954 LMD 211 - 400 - 401 - 431 - 951 - LDD	DEA20xA50P01 DEM20xAxxP01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01	DTA20xF70P01	DVA20xP01 DVM20xP01		
	Without bypass valve	LMP 110 - 112 - 116 - 118 - 119 MULTIPORT LMP 120 - 122 - 123 MULTIPORT LMP 210 - 211 - LDP LMP 400 - 401 & 430 - 431 LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954 LMD 211 - 400 - 401 - 431 - 951 - LDD	DEA50xA50P01 DEM50xAxxP01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01	DTA50xF70P01	DVA50xP01 DVM50xP01		
	With bypass valve	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 500 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DEA50xA50P01 DEM50xAxxP01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01	DTA50xF70P01	DVA50xP01 DVM50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	
	Without bypass valve	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 500 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DEA70xA50P01 DEM70xAxxP01 DEA95xA50P01 DEM95xAxxP01	DLA70xA51P01 DLA70xA52P01 DLA70xA71P01 DLE70xA50P01 DLE70xF50P01 DLA95xA51P01 DLA95xA52P01 DLE95xA50P01 DLE95xF50P01	DTA70xF70P01 DTA95xF70P01	DVA70xP01 DVM70xP01 DVA95xP01 DVM95xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	
	With bypass valve	FZH 010 - 011 - 039 FZP 039 - 136 FZX 011 FZB 039 FZM 039 FZD 051	DEX50xA50P01	DLX50xA51P01 DLX50xA52P01		DVX50xP01 DVY50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	
	Without bypass valve	FZH 010 - 011 - 039 FZP 039 - 136 FZB 039 FZM 039 FZD 010 - 021 - 051	DEX70xA50P01 DEX95xA50P01	DLX70xA51P01 DLX70xA52P01 DLX95xA51P01		DVX70xP01 DVY70xP01 DVX95xP01 DVY95xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEH70xA48P01 DEH70xA49P01 DEH70xA70P01	



# VACUUM INDICATORS

## Dimensions

VE*50	
<b>Electrical Vacuum Indicator</b>	
R	Ordering code
EN 10226 - R1/4"	VE A 21 A A 50 P01
EN 10226 - R1/8"	VE B 21 A A 50 P01

A/F 27  
Max tightening torque: 25 N·m

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: NBR

**Technical data**

- Vacuum setting: -0.21 bar ±10%
- 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: IP65 according to EN 60529

**Electrical data**

- Electrical connection: EN 175301-803
- Resistive load: 5 A / 14 Vdc  
4 A / 30 Vdc  
5 A / 125 Vac  
4 A / 250 Vac
- Available Atex product: II 1GD Ex ia IIC Tx Ex ia IIIC Tx °C X
- CE certification

VL*51 - VL*52 - VL*53	
<b>Electrical/Visual Vacuum Indicator</b>	
R	Ordering code
EN 10226 - R1/4"	VL A 21 A A xx P01
EN 10226 - R1/8"	VL B 21 A A xx P01

A/F 27  
Max tightening torque: 25 N·m

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Transparent Nylon
- Contacts: Brass - Nylon
- Seal: NBR

**Technical data**

- Vacuum setting: -0.21 bar ±10%
- 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: IP65 according to EN 60529

**Electrical data**

- 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

VL*71	
<b>Electrical/Visual Vacuum Indicator</b>	
Connections	Indicator code
EN 10226 - R1/4"	VL A 21 A A 71 P01
EN 10226 - R1/8"	VL B 21 A A 71 P01

A/F 27  
Max tightening torque: 25 N·m

**Hydraulic symbol**

**Electrical symbol**

**Materials**

- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: NBR

**Technical data**

- Vacuum setting: -0.21 bar ±10%
- 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: 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

VVA - VVB	
Axial Vacuum Gauge	
R	Ordering code
EN 10226 - R1/4"	VVA 16 P01
EN 10226 - R1/8"	VVB 16 P01

**Hydraulic symbol**

**Dial scale**

[cmHg]	[bar]
-12	-0.16
-18	-0.24
-76	-1.01

**Materials**

- Case: Painted Steel
- Window: Transparent plastic
- Dial: Painted Steel
- Pointer: Painted Aluminium
- Pressure connection: Brass
- Pressure element: Bourdon tube Cu-alloy soft soldered

**Technical data**

- Max working pressure: Static: 7 bar  
Fluctuating: 6 bar  
Short time: 10 bar
- Working temperature: 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

VVR - VVS		
Radial Vacuum Gauge		
R	A/F	Ordering code
EN 10226 - R1/4"	14	VVR 16 P01
EN 10226 - R1/8"	11	VVS 16 P01

**Hydraulic symbol**

**Dial scale**

[cmHg]	[bar]
-12	-0.16
-18	-0.24
-76	-1.01

**Materials**

- Case: Painted Steel
- Window: Transparent plastic
- Dial: Painted Steel
- Pointer: Painted Aluminium
- Pressure connection: Brass
- Pressure element: Bourdon tube Cu-alloy soft soldered

**Technical data**

- Max working pressure: Static: 7 bar  
Fluctuating: 6 bar  
Short time: 10 bar
- Working temperature: 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

### Designation & Ordering code

VACUUM INDICATORS							
<b>Series</b>	Configuration example 1: <span style="border: 1px solid black; padding: 2px;">VE</span> <span style="border: 1px solid black; padding: 2px;">A</span> <span style="border: 1px solid black; padding: 2px;">21</span> <span style="border: 1px solid black; padding: 2px;">A</span> <span style="border: 1px solid black; padding: 2px;">A</span> <span style="border: 1px solid black; padding: 2px;">50</span> <span style="border: 1px solid black; padding: 2px;">P01</span>						
<b>VE</b> Electrical vacuum indicator	Configuration example 2: <span style="border: 1px solid black; padding: 2px;">VL</span> <span style="border: 1px solid black; padding: 2px;">B</span> <span style="border: 1px solid black; padding: 2px;">21</span> <span style="border: 1px solid black; padding: 2px;">A</span> <span style="border: 1px solid black; padding: 2px;">A</span> <span style="border: 1px solid black; padding: 2px;">71</span> <span style="border: 1px solid black; padding: 2px;">P01</span>						
<b>VL</b> Electrical/Visual vacuum indicator	Configuration example 3: <span style="border: 1px solid black; padding: 2px;">VV</span> <span style="border: 1px solid black; padding: 2px;">R</span> <span style="border: 1px solid black; padding: 2px;">16</span> <span style="border: 1px solid black; padding: 2px;"></span> <span style="border: 1px solid black; padding: 2px;"></span> <span style="border: 1px solid black; padding: 2px;"></span> <span style="border: 1px solid black; padding: 2px;">P01</span>						
<b>VV</b> Vacuum gauge							
<b>Type VE - VL</b>	<b>Type VV</b>						
<b>A</b> Connection EN 10226 - R1/4"	<b>A</b> Axial connection EN 10226 - R1/4"						
<b>B</b> Connection EN 10226 - R1/8"	<b>B</b> Axial connection EN 10226 - R1/8"						
	<b>R</b> Radial connection EN 10226 - R1/4"						
	<b>S</b> Radial connection EN 10226 - R1/8"						
<b>Vacuum setting</b>	<b>VE</b>	<b>VL</b>	<b>VV</b>				
<b>16</b> -0.16 bar			•				
<b>21</b> -0.21 bar	•	•					
<b>Seals</b>	<b>VE</b>	<b>VL</b>					
<b>A</b> NBR	•	•					
<b>Thermostat</b>	<b>VE</b>	<b>VL</b>					
<b>A</b> Without	•	•					
<b>Electrical connections</b>	<b>VE</b>	<b>VL</b>					
<b>50</b> Connection EN 175301-803	•						
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc		•					
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc		•					
<b>53</b> Connection EN 175301-803, transparent base with lamps 230 Vdc		•					
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc		•					
	<b>Option</b>						
	<b>P01</b> MP Filtri standard						
	<b>Pxx</b> Customized						