

Part number:

High Pressure filters

Clogging indicators

Differential 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.

The electronic model (only available for differential type indicators) with warning signals (75% of clogging) and alarm (clogging).

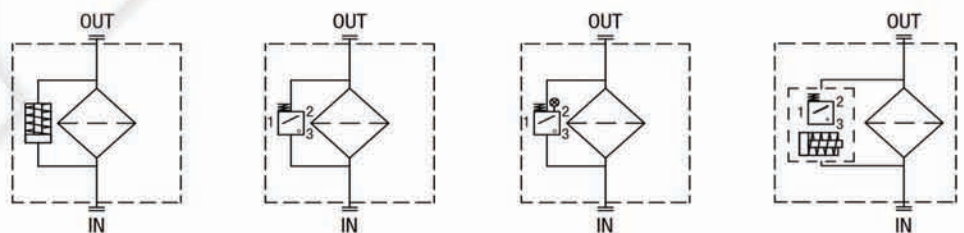
Suitable indicator types

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 series	Visual indicator	Electrical indicator	Electrical / Visual indicator	Electronic indicator
With bypass valve	FMP 039 - 065 - 135 - 320	DVA50xP01	DEA50xA50P01	DLA50xA51P01	DTA50xF70P01
	FHP 010 - 011 - 065 - 135 - 320 - 500	DVM50xP01	DEM50xAxxP01	DLA50xA52P01	
	FMM 050 - FHA 051			DLA50xA71P01	
	FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500			DLE50xA50P01	
	FHB 050 - 135 - 320			DLE50xF50P01	
	FHF 325				
	FHD 021 - 051 - 326 - 333				
Without bypass valve	FMP 039 - 065 - 135 - 320	DVA70xP01	DEA70xA50P01	DLA70xA51P01	DTA70xF70P01
	FHP 010 - 011 - 065 - 135 - 320 - 500	DVM70xP01	DEM70xAxxP01	DLA70xA52P01	
	FMM 050 - FHA 051			DLA70xA71P01	
	FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500			DLE70xA50P01	
	FHB 050 - 135 - 320			DLE70xF50P01	
	FHF 325				
	FHD 021 - 051 - 326 - 333				

DEA*50

Electrical Differential Indicator

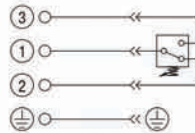
Settings	Ordering code
5 bar ±10%	DE A 50 x A 50 P01
7 bar ±10%	DE A 70 x A 50 P01
9.5 bar ±10%	DE A 95 x A 50 P01

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 oil, 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

DEM*10

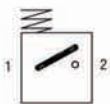
Electrical Differential Indicator

Settings	Ordering code
5 bar ±10%	DE M 50 x x 10 P01
7 bar ±10%	DE M 70 x x 10 P01
9.5 bar ±10%	DE M 95 x x 10 P01

A/F 28
Max tightening torque: 65 N·m

flexible cable: 290 to "A"

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 oil, Synthetic fluids
HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529

Electrical data

- 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")

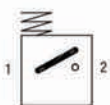
DEM*20

Electrical Differential Indicator

Settings	Ordering code
5 bar ±10%	DE M 50 x x 20 P01
7 bar ±10%	DE M 70 x x 20 P01
9.5 bar ±10%	DE M 95 x x 20 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 oil, Synthetic fluids
HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529

Electrical data

- 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")

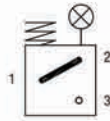
DLA*71

Electrical/Visual Differential Indicator

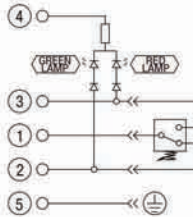
Settings	Ordering code
5 bar ±10%	DL A 50 x A 71 P01
7 bar ±10%	DL A 70 x A 71 P01
9.5 bar ±10%	DL A 95 x A 71 P01

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 oil, 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

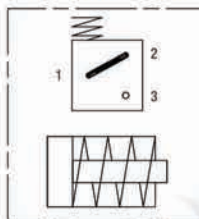
DLE*A50

Electrical/Visual Differential Indicator

Settings	Ordering code
5 bar ±10%	DL E 50 x A 50 P01
7 bar ±10%	DL E 70 x A 50 P01
9.5 bar ±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 oil, 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

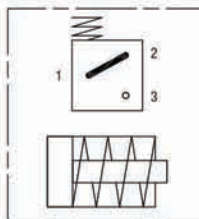
DLE*F50

Electrical/Visual Differential Indicator

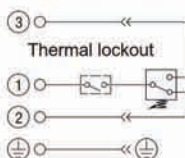
Settings	Ordering code
5 bar ±10%	DL E 50 x F 50 P01
7 bar ±10%	DL E 70 x F 50 P01
9.5 bar ±10%	DL E 95 x F 50 P01

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 oil, Synthetic fluids
HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

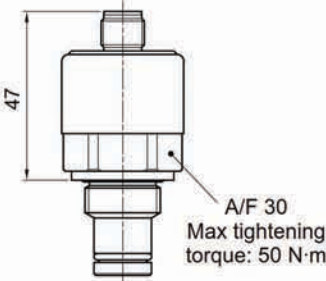
Electrical data

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

DIFFERENTIAL INDICATORS

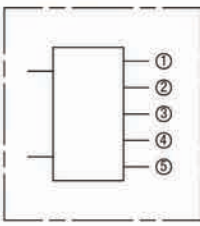
Dimensions

DTA*70	
Electronic Differential Indicator	
Settings	Ordering code
5 bar ±10%	DT A 50 x x 70 P01
7 bar ±10%	DT A 70 x x 70 P01
9.5 bar ±10%	DT A 95 x x 70 P01



A/F 30
Max tightening torque: 50 N·m

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

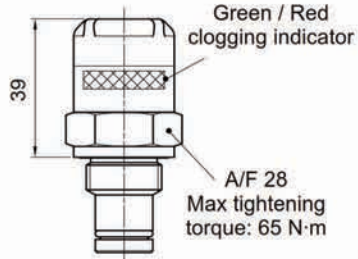
Technical data

- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Compatibility with fluids: Mineral oil, 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	
Visual Differential Indicator	
Settings	Ordering code
5 bar ±10%	DV A 50 x P01
7 bar ±10%	DV A 70 x P01
9.5 bar ±10%	DV A 95 x P01



Green / Red
clogging indicator

A/F 28
Max tightening torque: 65 N·m

Hydraulic symbol



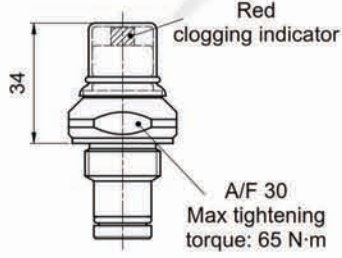
Materials

- 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 oil, Synthetic fluids
HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529


DVM	
Visual Differential Indicator	
Settings	Ordering code
5 bar ±10%	DV M 50 x P01
7 bar ±10%	DV M 70 x P01
9.5 bar ±10%	DV M 95 x P01



Red
clogging indicator

A/F 30
Max tightening torque: 65 N·m

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 oil, Synthetic fluids
HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529