

LMP 902-903 series

Filter element according to DIN 24550

Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 3000 l/min



TYPICAL FILTER SIZING Selection Software

Step ①

Select "FILTER SIZING SOFTWARE" after login

WELCOME MARIO ROSSI

Then you're selecting the tool wanted:

- FILTER SIZING SOFTWARE** (highlighted)
- POWER TRANSMISSION SOFTWARE
- SOFTWEAR

Logout | Modify profile

OR

Select "FILTER SIZING" after login from a product page

MPFX

Tank mounted return filter, filter element flow control M version. Working pressure up to 6 bar (110 psi), flow rates up to 100 l/min (106 gpm). Threaded connections from 1/2" to 2" BSP/PT1/4in and SAE code 81 flanged connections up to 3".

TECHNICAL BROCHURE | 3D DOWNLOAD | FILTER SIZING *

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

Step ②

SUCTION	LOW & MEDIUM PRESSURE	HIGH PRESSURE
RETURNSUCTION	RETURN	STAINLESS STEEL HIGH PRESSURE

Working Pressure (bar)* Flow rate (l/min)* Fluid max (bar)* Fluid Working Temperature (°C)*

Fluid* Fluid type* Viscosity (cst)* Viscosity (SUS)*

Filtration* Connection Type*

* required field

CALCULATE

SUCTION	LOW & MEDIUM PRESSURE	HIGH PRESSURE
RETURNSUCTION	RETURN	STAINLESS STEEL HIGH PRESSURE

Product: MPFX

Working Pressure (bar)* Flow rate (l/min)* Fluid max (bar)* Fluid Working Temperature (°C)*

Fluid* Fluid type* Viscosity (cst)* Viscosity (SUS)*

Filtration* Connection Type*

CALCULATE

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

Working Pressure 8 (bar) Fluid HLP

Flow rate 90 (l/min) Fluid type ISO VG 46 (SUS 216)

DP max of the project 0.5 (bar) Seal A - NBR

Working Temperature 40 (°C) Working Temperature -25 + 110 (°C)

Filtration 25 µm absolute inorganic microfibre Optional seals V - FPM

Connection Type G 1" Working Temperature with options -20 + 110 (°C)

Viscosity 46 (cst) - 216 (SUS) Viscosity

NEW SEARCH

Filter type Valve Seal

Option1 Single or duplex DIN Standard Indicator

CSV Excel Show 10 entries Search:

Image	Code	Flow rate (l/min)	Qmax (l/min)	DP (bar)	Housing DP (bar)	Element DP (bar)	Connection	Seal	Link
	MPFX-103-3-A-G3-A25-H-BP61	8	116	95.74	25.3	0.47	T	A	
	MPFX-103-3-A-G3-A25-H-BP21	8	116	68.74	26.3	0.47	Z	A	

TYPICAL FILTER SIZING

Step 4

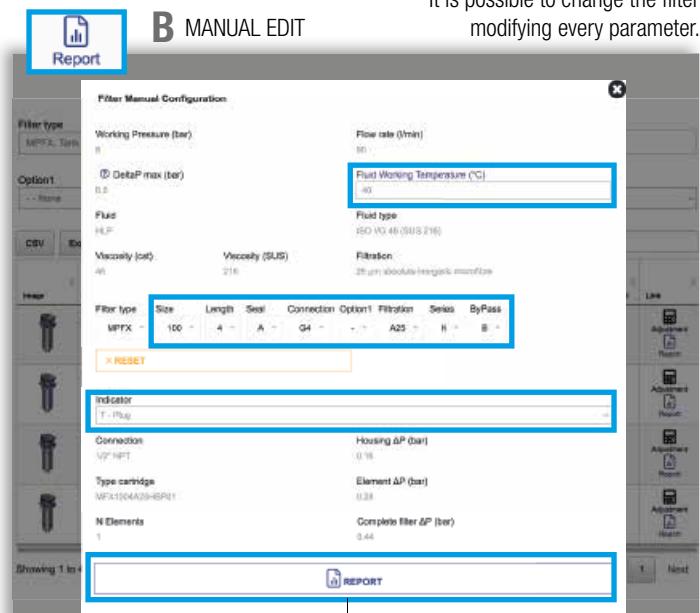
Choose the most suitable filter from the proposed list.

Filter type	Valve	Seal							
MPX: Tank lid mounting - [Pmax = 1 bar]	B: 1.75 bar Bypass	A: NBR	X RESET						
Option1	Single or duplex	DIN Standard	Indicator						
-- None	Single	NOT APPLICABLE	Visual						
CSV	Excel	Show 10 entries	Search:						
Image	Code	Peak bar psi	Qmax dm³/h gpm us gal/min	dP bar inHg psig	Housing AP bar psi	Element AP bar psi	Connection	Seal	Link
	MPX-100-S-A-G3-A25-H-BPSI	B 116 95.74 25.3 0.47 7 0.12 2 E35 5 G 1"	A	 					
	MPX-104-S-A-G3-A25-H-BPSI	B 116 95.74 25.3 0.47 7 0.12 2 E35 5 G 1"	A	 					

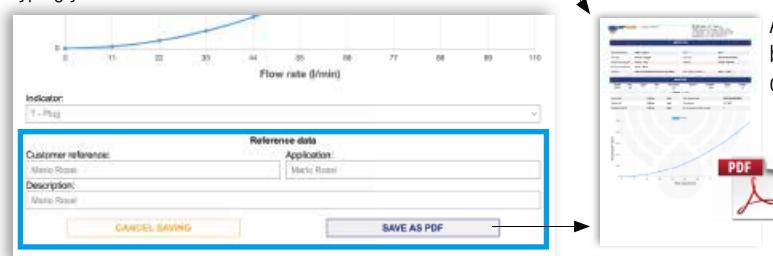
Step 5



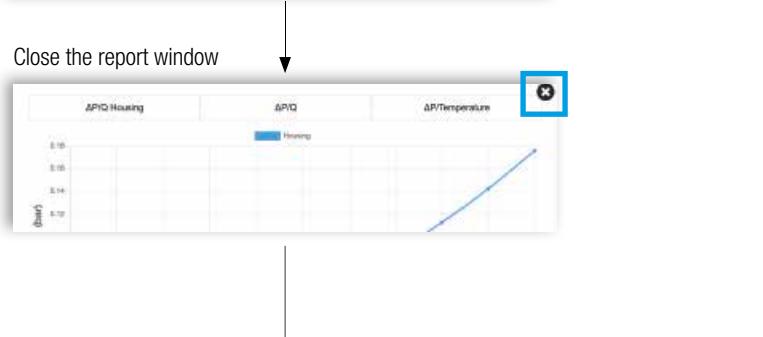
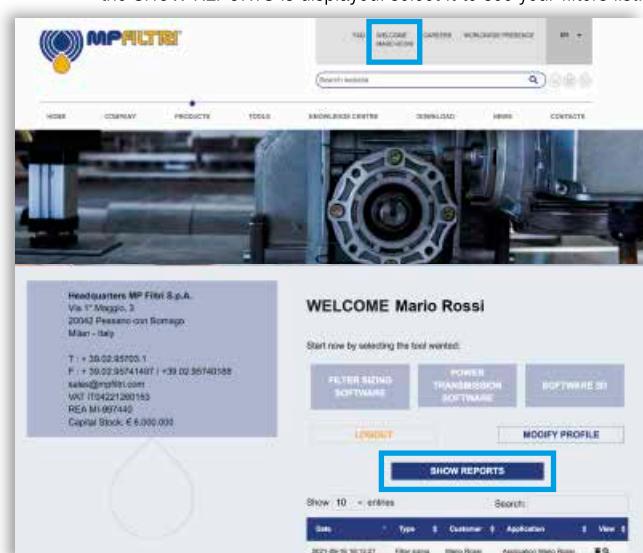
SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF



It is possible to change the filter
modifying every parameter.



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



LMP 902-903 GENERAL INFORMATION

Filter element according to DIN 24550

Description

Low & Medium Pressure filters

Maximum working pressure up to 2 MPa (20 bar)

Flow rate up to 3000 l/min

LMP902 and LMP903 are ranges of low pressure filter with large filtration surface mainly suitable for lubrication, off-line filtration of the reservoirs and filtration equipment.

Multiple LMP900 filters are connected to a manifold to reduce the pressure drop caused by the filter media and to increase the life time of the filter element.

They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- 4" flanged connections, for a maximum flow rate of 3000 l/min
- Filter element designed in accordance with DIN 24550 regulation
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid.
- For further information, see the Contamination Management document and the dedicate leaflet.
- Bypass valve, to relieve excessive pressure drop across the filter media
- Vent ports, to avoid air trapped into the filter going into the system
- Drain ports, to remove the fluid from the housing prior the maintenance work
- Visual, electrical and electronic differential clogging indicators

Common applications:

- Off-line filtration of reservoirs
- Filtration systems

Technical data

Filter housing materials

- Head: Anodized aluminium
- Housing: Anodized aluminium
- Manifolds: Welded - Phosphatized steel
- Bypass valve: Steel
- Size 1000 filter elements complying with DIN 24550 standard

Pressure

- Test pressure: 3.5 MPa (35 bar)

Bypass valve

- Opening pressure 350 kPa (3.5 bar) $\pm 10\%$
- Other opening pressures on request.

Number of filter elements

LMP 902: 4 filter elements CU900

LMP 903: 6 filter elements CU900

Filter elements

Filter element according to DIN 24550

Size: 1000

Δp element type

- Microfibre filter elements - series N: 20 bar
- Fluid flow through the filter element from OUT to IN

Connections

LMP 902-903: In-line Inlet/Outlet

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

LMP 902 - 903 filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]		Volumes [dm ³]	
	Length	2	Length	2
LMP 902		89.6		58
LMP 903		129.2		87

GENERAL INFORMATION LMP 902-903

Filter element according to DIN 24550

FILTER ASSEMBLY SIZING
Flow rates [l/min]

		Filter element design - N Series					
Filter series	Length	A03	A06	A10	A16	A25	M25 M60 M90
LMP 902	2	2217	2576	3241	3282	3506	3987
LMP 903	2	2838	3170	3720	3755	3926	4278

Maximum flow rate for a complete low and medium pressure filter with a pressure drop $\Delta p = 0.7$ bar.

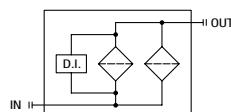
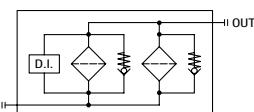
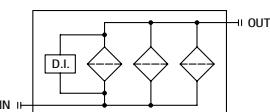
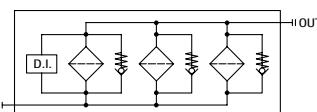
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

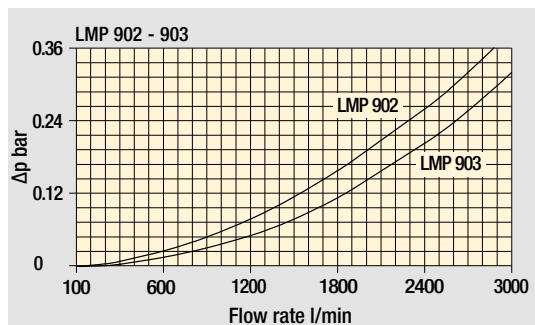
Hydraulic symbols

Filter series	Execution S	Execution B	Execution S	Execution B
LMP 902	•	•	-	-
LMP 903	-	-	•	•

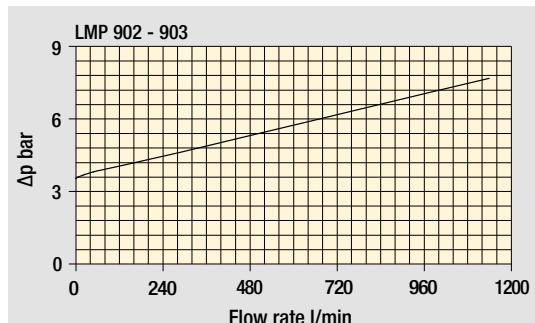





Pressure drop

Filter housings Δp pressure drop



Bypass valve pressure drop

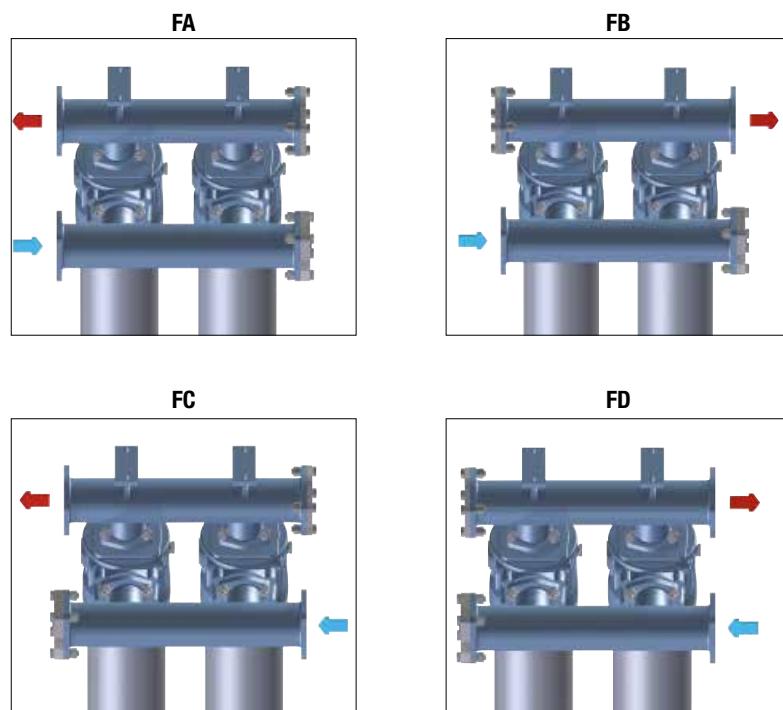


The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

LMP 902-903 GENERAL INFORMATION

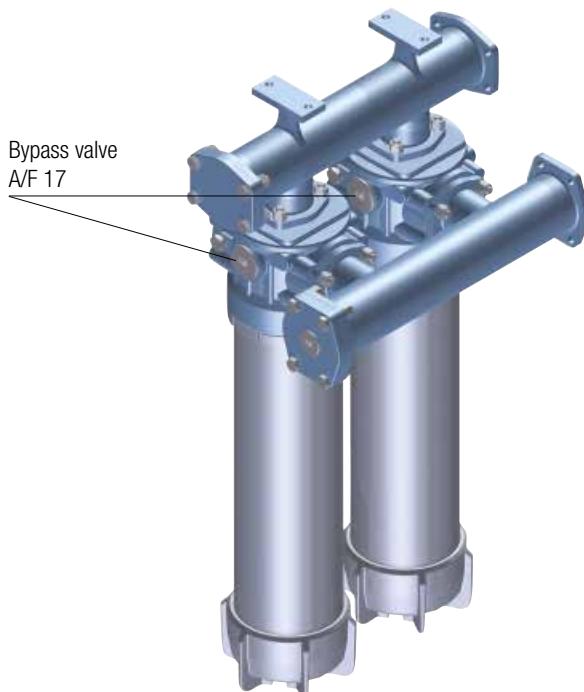
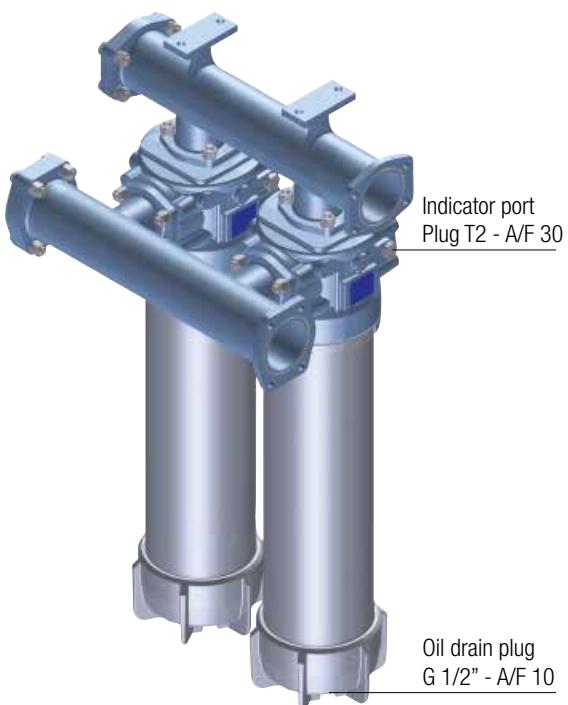
Filter element according to DIN 24550

Manifolds



Position of manifolds
IN - OUT connections

Focus on



LMP 902-903 Filter element according to DIN 24550

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example: LMP902 2 B A FA A10 N P01											
LMP902 LMP903												
Length												
2												
Bypass valve												
S Without bypass												
B With bypass 3.5 bar												
Seals and treatments												
A NBR												
V FPM												
Connections	IN	OUT										
FA 4" SAE 3000 psi	left	left										
FB 4" SAE 3000 psi	left	right										
FC 4" SAE 3000 psi	right	left										
FD 4" SAE 3000 psi	right	right										
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												
A25 Inorganic microfiber 25 µm												
WA025 Water absorber inorganic microfiber 25 µm												
Element Δp												
N 20 bar												
Execution												
P01 MP Filtri standard												
Pxx Customized												

FILTER ELEMENT

Element series and size	Configuration example: CU900 A10 A N P01						
CU900							
Filter series and size							
LMP902 Nr. 4 filter elements							
LMP903 Nr. 6 filter elements							
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							
A25 Inorganic microfiber 25 µm							
WA025 Water absorber inorganic microfiber 25 µm							
Seals							
A NBR							
V FPM							
Element Δp							
N 20 bar							
Execution							
P01 MP Filtri standard							
Pxx Customized							

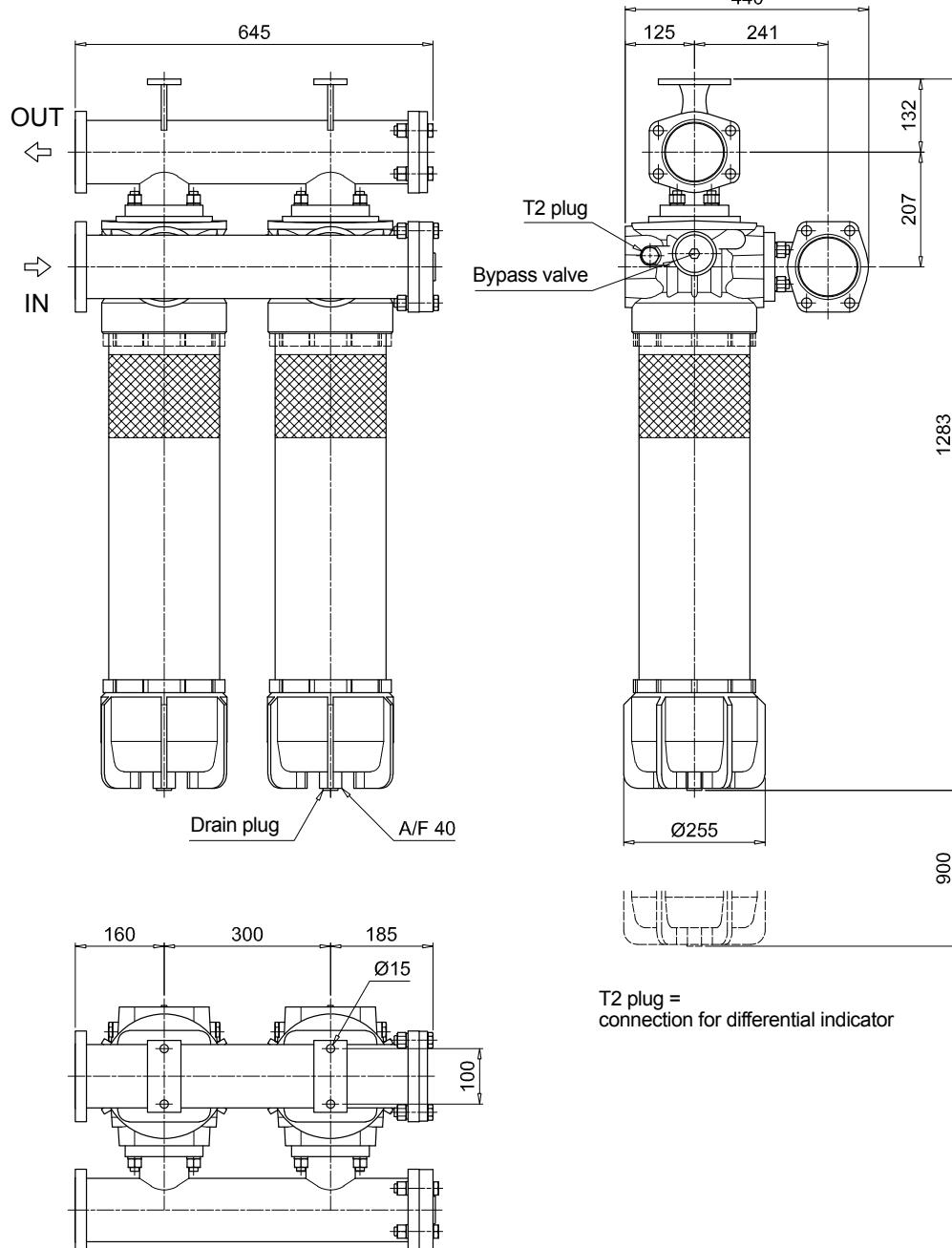
CLOGGING INDICATORS

See page 478

DEA Electrical differential indicator
DEM Electrical differential indicator
DLA Electrical / visual differential indicator
DLE Electrical / visual differential indicator

DTA Electronic differential indicator
DVA Visual differential indicator
DVM Visual differential indicator
T2 Plug

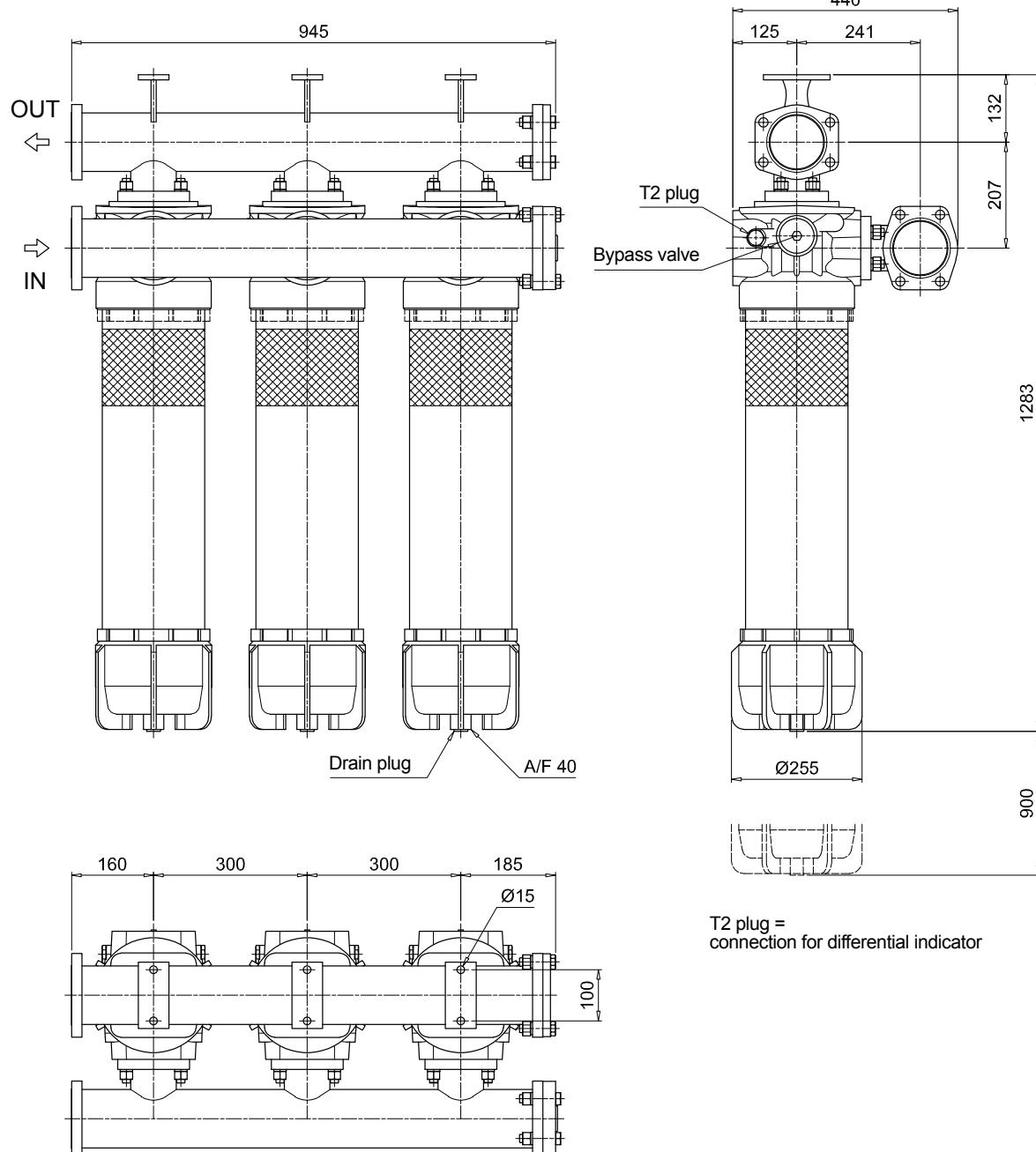
LMP902



LMP 902-903 Filter element according to DIN 24550

Dimensions

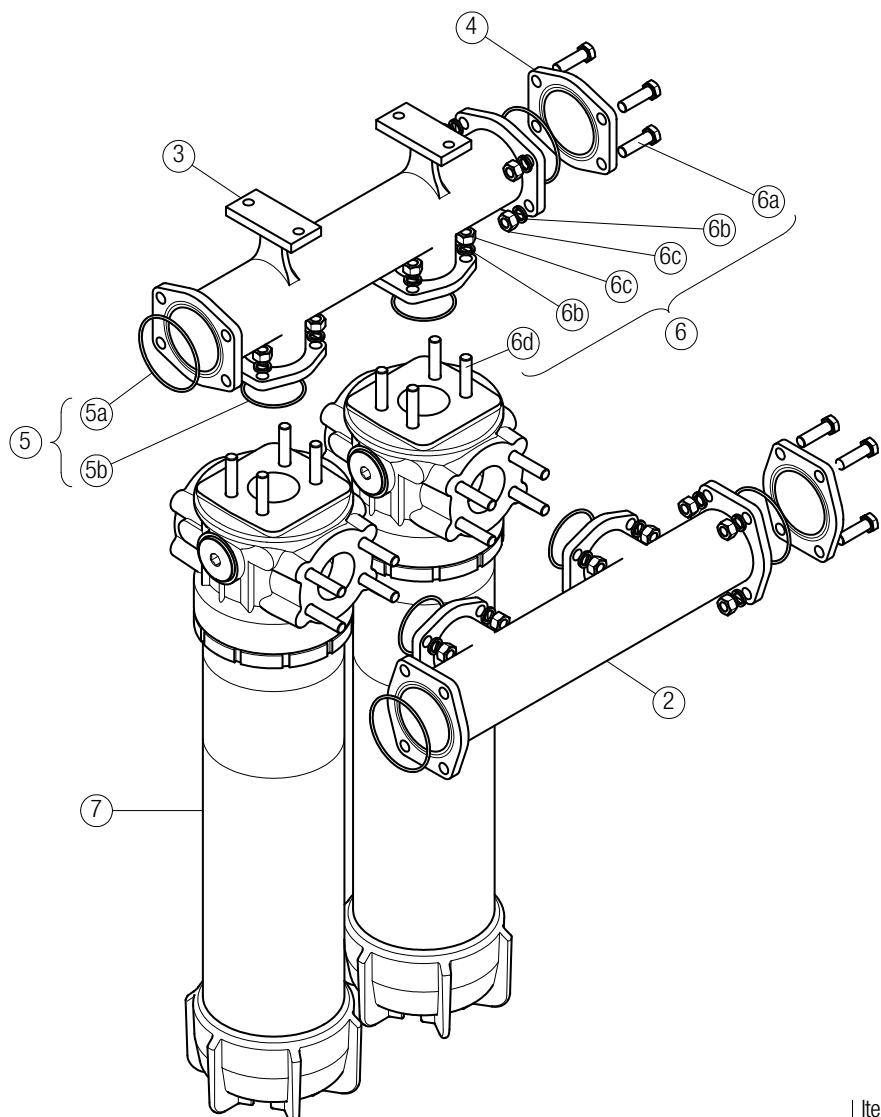
LMP903



SPARE PARTS LMP 902-903

Order number for spare parts

LMP 902 - 903



Item 7:
for complete filter code and
spare parts, see
LMP 900 - 901 series chapter

Quantity:
- filter spare parts:
LMP 902 - 2 pcs.
LMP 903 - 3 pcs.

- filter seal kit:
LMP 902 - 2 pcs.
LMP 903 - 3 pcs.

Item:	(2)	(3)	(4)	(5) (5a-5b)			(6) (6a ÷ 6d)		(7)
Filter series	Q.ty	Manifold IN OUT	4" SAE 3000 psi plugged flange Q.ty	Manifolds seal kit NBR FPM			Threaded fasteners kit Q.ty	Filter Q.ty	
LMP 902	1 pc.	01039270	01039271	2 pcs.		01042012	1 pc. 02050404 02050405	1 pc. 02049051	2 pcs. LMP9012xxF1xxxNP02
LMP 903	1 pc.	01039337	01039338	2 pcs.			1 pc. 02050404 02050405	1 pc. 02049052	3 pcs.

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:

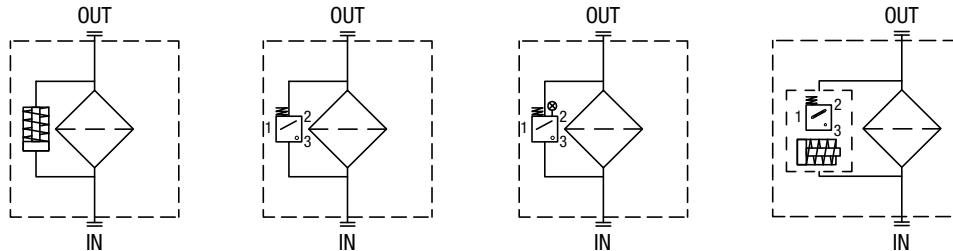
- Vacuum switches and gauges
- Pressure switches and gauges
- Differential pressure indicators

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

Suitable indicator types

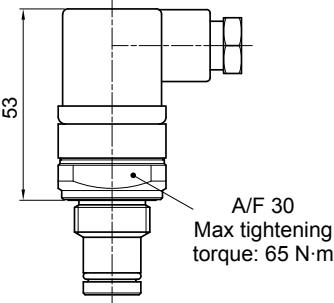
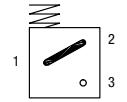
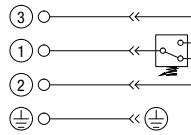
DIFFERENTIAL INDICATORS

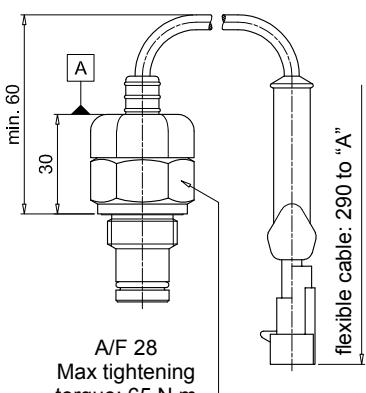
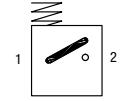
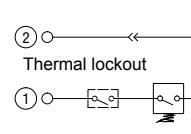
Differential indicators are used on the Pressure line to check the efficiency of the filter element. They measure the pressure upstream and downstream of the filter element (differential pressure). Standard items are produced with special connection G 1/2" size. Also available in Stainless Steel models.

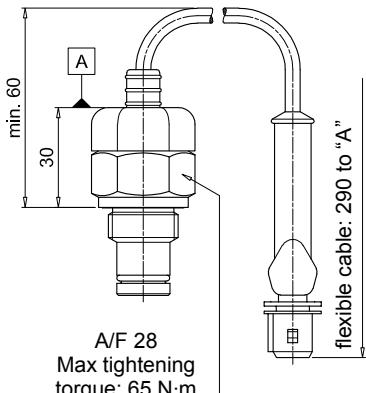
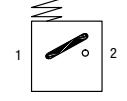
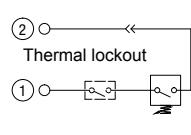


Quick reference guide

Filter family	Filter series	Visual indicators	Electrical indicators	Electrical / Visual indicators
	ELIXIR® LFEX060-080-110-160	DVS25HP01	DES25HA10P01 DES25HA30P01 DES25HA80P01	
With bypass valve 3.5 bar	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	DVA20xP01 DVM20xP01	DEA20xA50P01 DEM20XX10P01 DEM20XX20P01 DEM20XX30P01 DEM20XX35P01 DTA20xF70P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01
	ELIXIR® LFEX060-080-110-160	DVS40HP01	DES40HA10P01 DES40HA30P01 DES40HA80P01	
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	DVA50xP01 DVM50xP01	DEA50xA50P01 DEM50XX10P01 DEM50XX20P01 DEM50XX30P01 DEM50XX35P01 DTA50xF70P01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01

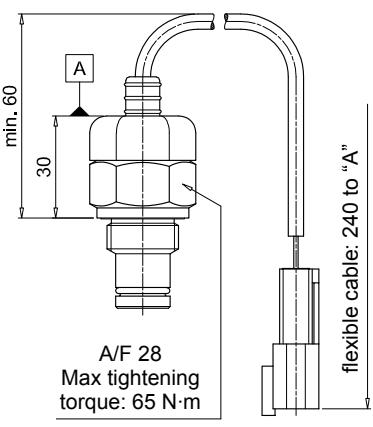
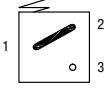
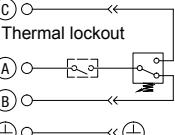
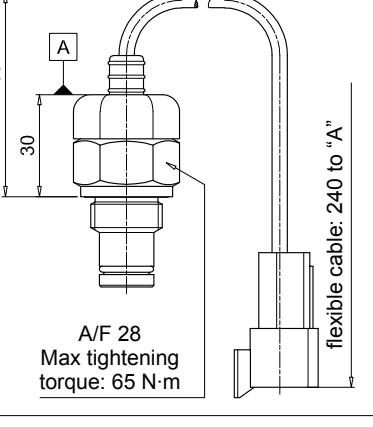
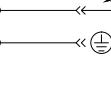
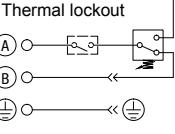
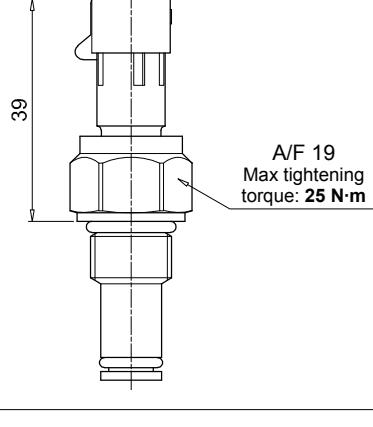
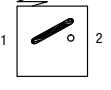
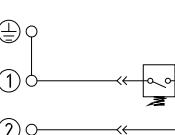
DEA*50 Electrical Differential Indicator <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Settings</th><th style="text-align: left;">Ordering code</th></tr> </thead> <tbody> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE A 20 x A 50 P01</td></tr> <tr> <td>5.0 bar $\pm 10\%$</td><td>DE A 50 x A 50 P01</td></tr> </tbody> </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	5.0 bar $\pm 10\%$	DE A 50 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						
5.0 bar $\pm 10\%$	DE A 50 x A 50 P01						

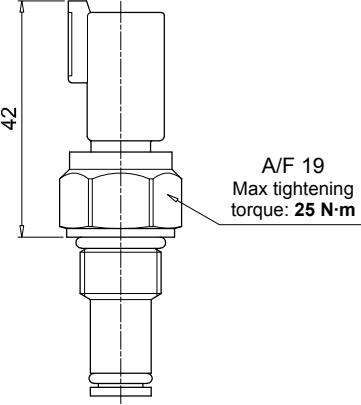
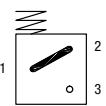
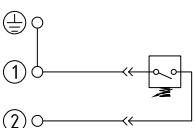
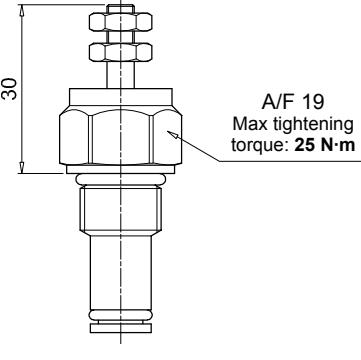
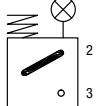
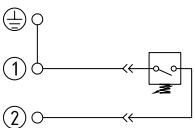
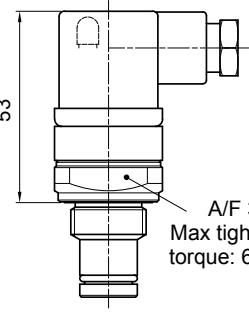
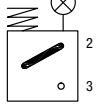
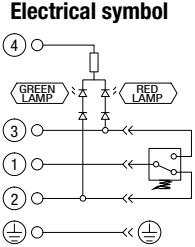
DEM*10 Electrical Differential Indicator <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Settings</th><th style="text-align: left;">Ordering code</th></tr> </thead> <tbody> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 x 10 P01</td></tr> <tr> <td>5.0 bar $\pm 10\%$</td><td>DE M 50 x 10 P01</td></tr> </tbody> </table>  <p>A/F 28 Max tightening torque: 65 N·m</p> <p>min. 60</p> <p>30</p> <p>flexible cable: 290 to "A"</p>	Settings	Ordering code	2.0 bar $\pm 10\%$	DE M 20 x 10 P01	5.0 bar $\pm 10\%$	DE M 50 x 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 x 10 P01						
5.0 bar $\pm 10\%$	DE M 50 x 10 P01						

DEM*20 Electrical Differential Indicator <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Settings</th><th style="text-align: left;">Ordering code</th></tr> </thead> <tbody> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 x 20 P01</td></tr> <tr> <td>5.0 bar $\pm 10\%$</td><td>DE M 50 x 20 P01</td></tr> </tbody> </table>  <p>A/F 28 Max tightening torque: 65 N·m</p> <p>min. 60</p> <p>30</p> <p>flexible cable: 290 to "A"</p>	Settings	Ordering code	2.0 bar $\pm 10\%$	DE M 20 x 20 P01	5.0 bar $\pm 10\%$	DE M 50 x 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 x 20 P01						
5.0 bar $\pm 10\%$	DE M 50 x 20 P01						

DIFFERENTIAL INDICATORS

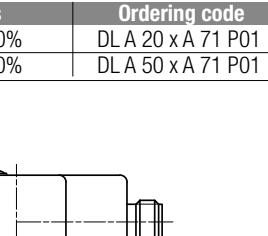
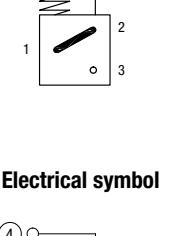
Dimensions

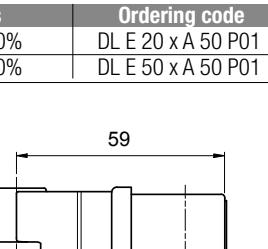
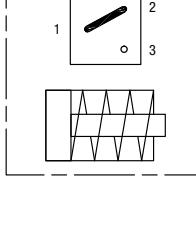
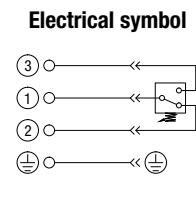
<p>DEM*30</p> <p>Electrical Differential Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>2.0 bar $\pm 10\%$</td><td>DE M 20 x x 30 P01</td></tr> <tr> <td>5.0 bar $\pm 10\%$</td><td>DE M 50 x x 30 P01</td></tr> </tbody> </table>  <p>A/F 28 Max tightening torque: 65 N·m</p>	Settings	Ordering code	2.0 bar $\pm 10\%$	DE M 20 x x 30 P01	5.0 bar $\pm 10\%$	DE M 50 x x 30 P01	<p>Hydraulic symbol</p>  <p>Electrical symbol</p>  <p>③ ○ → Thermal lockout ② ○ → [] ① ○ → [] ○ → []</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 x x 30 P01							
5.0 bar $\pm 10\%$	DE M 50 x x 30 P01							
<p>DEM*35</p> <p>Electrical 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>DE M 20 x x 35 P01</td></tr> <tr> <td>5.0 bar $\pm 10\%$</td><td>DE M 50 x x 35 P01</td></tr> </tbody> </table>  <p>A/F 28 Max tightening torque: 65 N·m</p>	Settings	Ordering code	2.0 bar $\pm 10\%$	DE M 20 x x 35 P01	5.0 bar $\pm 10\%$	DE M 50 x x 35 P01	<p>Hydraulic symbol</p>  <p>Electrical symbol</p>  <p>④ ○ → Thermal lockout ③ ○ → [] ② ○ → [] ① ○ → [] ○ → []</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 x x 35 P01							
5.0 bar $\pm 10\%$	DE M 50 x x 35 P01							
<p>DES*10</p> <p>Electrical Differential Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>2.5 bar $\pm 10\%$</td><td>DE S 25 H A 10 P01</td></tr> <tr> <td>4.0 bar $\pm 10\%$</td><td>DE S 40 H A 10 P01</td></tr> </tbody> </table>  <p>A/F 19 Max tightening torque: 25 N·m</p>	Settings	Ordering code	2.5 bar $\pm 10\%$	DE S 25 H A 10 P01	4.0 bar $\pm 10\%$	DE S 40 H A 10 P01	<p>Hydraulic symbol</p>  <p>Electrical symbol</p>  <p>② ○ → [] ① ○ → [] ○ → []</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							
2.5 bar $\pm 10\%$	DE S 25 H A 10 P01							
4.0 bar $\pm 10\%$	DE S 40 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>2.5 bar $\pm 10\%$</td><td>DE S 25 HA 30 P01</td></tr> <tr> <td>4.0 bar $\pm 10\%$</td><td>DE S 40 HA 30 P01</td></tr> </tbody> </table>  <p>A/F 19 Max tightening torque: 25 N·m</p> <p>42</p>	Settings	Ordering code	2.5 bar $\pm 10\%$	DE S 25 HA 30 P01	4.0 bar $\pm 10\%$	DE S 40 HA 30 P01	<p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>① ②</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							
2.5 bar $\pm 10\%$	DE S 25 HA 30 P01							
4.0 bar $\pm 10\%$	DE S 40 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>2.5 bar $\pm 10\%$</td><td>DE S 25 HA 80 P01</td></tr> <tr> <td>4.0 bar $\pm 10\%$</td><td>DE S 40 HA 80 P01</td></tr> </tbody> </table>  <p>A/F 19 Max tightening torque: 25 N·m</p> <p>30</p>	Settings	Ordering code	2.5 bar $\pm 10\%$	DE S 25 HA 80 P01	4.0 bar $\pm 10\%$	DE S 40 HA 80 P01	<p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>① ②</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							
2.5 bar $\pm 10\%$	DE S 25 HA 80 P01							
4.0 bar $\pm 10\%$	DE S 40 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 x x P01</td></tr> <tr> <td>5.0 bar $\pm 10\%$</td><td>DL A 50 x A x x P01</td></tr> </tbody> </table>  <p>A/F 30 Max tightening torque: 65 N·m</p> <p>53</p>	Settings	Ordering code	2.0 bar $\pm 10\%$	DL A 20 x A x x P01	5.0 bar $\pm 10\%$	DL A 50 x A x x P01	<p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>④ ③ ① ② ⑤</p> <p>(GREEN LAMP) (RED LAMP)</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 - Degree protection: 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 x x P01							
5.0 bar $\pm 10\%$	DL A 50 x A x x P01							

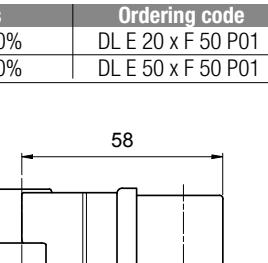
DIFFERENTIAL INDICATORS

Dimensions

DLA*71		Hydraulic symbol	Materials	
Electrical/Visual Differential Indicator				
Settings	Ordering code			
2.0 bar $\pm 10\%$	DLA 20 x A 71 P01			
5.0 bar $\pm 10\%$	DLA 50 x A 71 P01			
 A/F 30 Max tightening torque: 65 N·m		Electrical symbol	Technical data	
 1 2 3 4 5				
<ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM 		<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 IP69K according to ISO 20653 		
Electrical data <ul style="list-style-type: none"> - Electrical connection: IEC 61076-2-101 D (M12) - Lamps 24 Vdc - Resistive load: 0.4 A / 24 Vdc 				

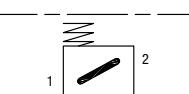
DLE*A50		Hydraulic symbol	Materials	
Electrical/Visual Differential Indicator				
Settings	Ordering code			
2.0 bar $\pm 10\%$	DL E 20 x A 50 P01			
5.0 bar $\pm 10\%$	DL E 50 x A 50 P01			
		Electrical symbol	Technical data	
		Electrical data	Technical data	
		Electrical data	Technical data	
<ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR - FPM 		Technical data	Technical data	
<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 		Technical data	Technical data	

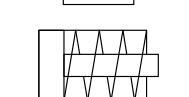
DLE*F50	
Electrical/Visual Differential Indicator	
Settings	Ordering code
2.0 bar $\pm 10\%$	DL E 20 x F 50 P01
5.0 bar $\pm 10\%$	DL E 50 x F 50 P01



A/F 32
Max tightening torque: 95 N·m

Hydraulic symbol	Materials
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Materials

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

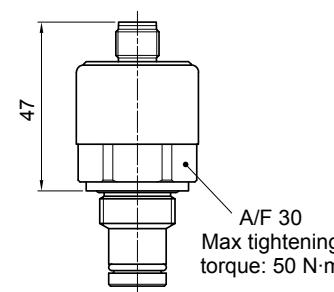
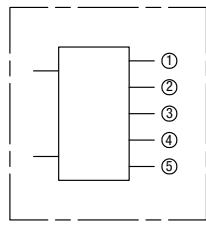
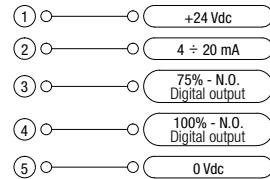
Technical data	Electrical data
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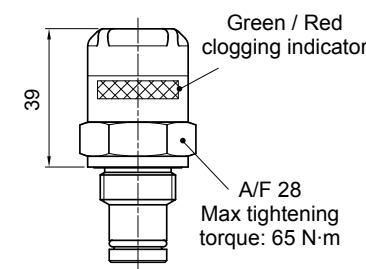
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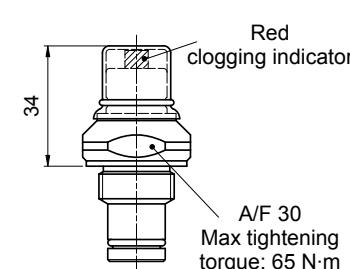
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

Electrical data

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

DTA*70		Hydraulic symbol	Materials	
Electronic Differential Indicator				
Settings	Ordering code			
2.0 bar $\pm 10\%$	DT A 20 x 70 P01			
5.0 bar $\pm 10\%$	DT A 50 x 70 P01			
 <p>47 A/F 30 Max tightening torque: 50 N·m</p>				
Hydraulic symbol 			Technical data <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 symbol 			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	Ordering code			
2.0 bar $\pm 10\%$	DV A 20 x P01			
5.0 bar $\pm 10\%$	DV A 50 x P01			
 <p>39 Green / Red clogging indicator A/F 28 Max tightening torque: 65 N·m</p>			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 	

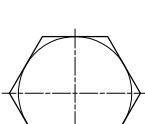
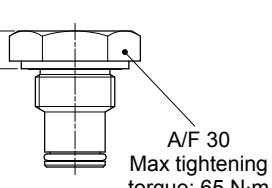
DVM		Hydraulic symbol	Materials	
Visual Differential Indicator				
Settings	Ordering code			
2.0 bar $\pm 10\%$	DV M 20 x P01			
5.0 bar $\pm 10\%$	DV M 50 x P01			
 <p>34 Red clogging indicator A/F 30 Max tightening torque: 65 N·m</p>			Technical data <ul style="list-style-type: none"> - Reset: Manual 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
Settings	Ordering code		
2.5 bar $\pm 10\%$	DV S 25 H P01		<ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR
4.0 bar $\pm 10\%$	DV S 40 H P01		
		Technical data	<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	
Indicator plug	
Seal	Ordering code
HNBR	T2 H
FPM	T2 V



Materials

- Body: Phosphatized steel
- Seal: HNBR / FPM

DIFFERENTIAL INDICATORS

Dimensions

DESIGNATION & ORDERING CODE - DIFFERENTIAL INDICATORS

Series	Configuration example 1: DE M 20 H F 50 P01					
DE Electrical differential indicator	Configuration example 2: DL E 50 V A 71 P01					
DL Electrical/Visual differential indicator	Configuration example 3: DT A 20 H F 70 P01					
DT Electronic differential indicator	Configuration example 4: DV M 50 V P01					
DV Visual differential indicator						
Type	DE	DL	DT	DV		
A Standard type	•	•	•	A With automatic reset		
M With wired electrical connection	•	-	-	M With manual reset		
E For high power supply	-	•	-	S With automatic reset		
S Compact version	•	-	-			
Pressure setting						
20 2.0 bar						
25 2.5 bar						
40 4.0 bar						
50 5.0 bar						
Seals						
H HNBR						
V FPM						
Thermostat	DEA	DEM	DLA	DLE	DT	DV
A Without	•	•	•	•	-	-
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	Configuration example T2 H	
T2 Indicator plug		
Seals		
H HNBR		
V FPM		