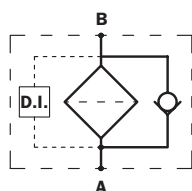
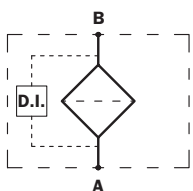


LMP 400 - 401 430 - 431



Style S

Style B



Maximum pressure 60 bar
Flow rates to 740 l/min

Filter housing (Materials)

- Head: Anodised Aluminium
- Housing: Anodised Aluminium
- Bypass valve: Steel

Pressure

LMP 400 length: 2 - 3 - 4

- Working pressure: 60 bar (6 MPa)
- Test pressure: 90 bar (9 MPa)
- Burst pressure: 180 bar (18 MPa)
- Pulsed pressure fatigue test: 1.000.000 cycles with pressure from 0 to 60 bar (6 MPa)

LMP 400 length: 5 - 6

- Working pressure: 50 bar (5 MPa)
- Test pressure: 75 bar (7,5 MPa)
- Burst pressure: 150 bar (15 MPa)
- Pulsed pressure fatigue test: 1.000.000 cycles with pressure from 0 to 50 bar (5 MPa)

Temperature

- From -25°C to +110°C

Bypass valve

- Opening pressure 3.5 bar \pm 10%
- Other opening pressures on request.

Δp Elements type

- Series N and W elements: 20 bar
- Oil flow from exterior to interior.

Seals

- Standard NBR series A
- Optional FPM series V

Weights (kg)

Length

- LMP400 -2 7.2
- LMP400 -3 8.1
- LMP400 -4 8.8
- LMP400 -5 11.9
- LMP400 -6 14.4

Volumes (dm³)

Length

- LMP400 -2 3.5
- LMP400 -3 5
- LMP400 -4 6.5
- LMP400 -5 9.5
- LMP400 -6 13.5

Connections

- In-Line Inlet-Outlet LMP 400 - 430
- 90° Inlet-outlet LMP 401 - 431

Compatibility (to ISO 2943)

- Housings compatible with:
Mineral oils, synthetic fluids,
aqueous emulsions, water and glycol
- The filter elements are compatible with:
Mineral oils, synthetic fluids.
Aqueous emulsions, water and glycol
(series W required).
- NBR seals series A, compatible with:
Mineral oils, synthetic fluids, aqueous emulsions and
water and glycol.
- FPM seals series V, compatible with:
Synthetic fluids type HS-HFDR-HFDS-HFDU

Filter Element Area

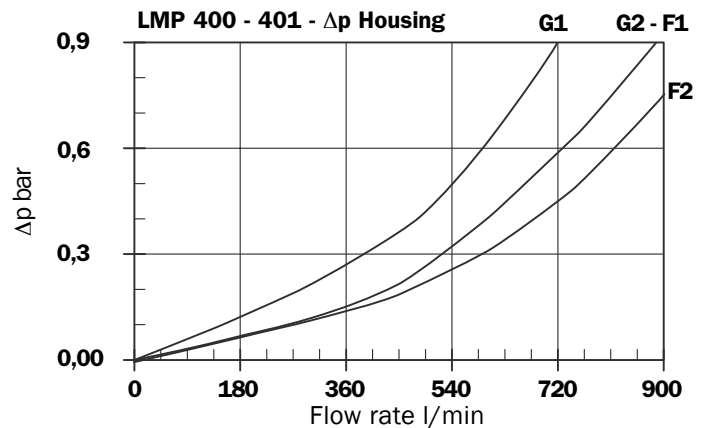
Filter element in stainless steel mesh

Type	Length				
	2	3	4	5	6
CU 400	3300	4950	6550	10200	15300
Values expressed in cm²					

Filter housing Δp pressure drop

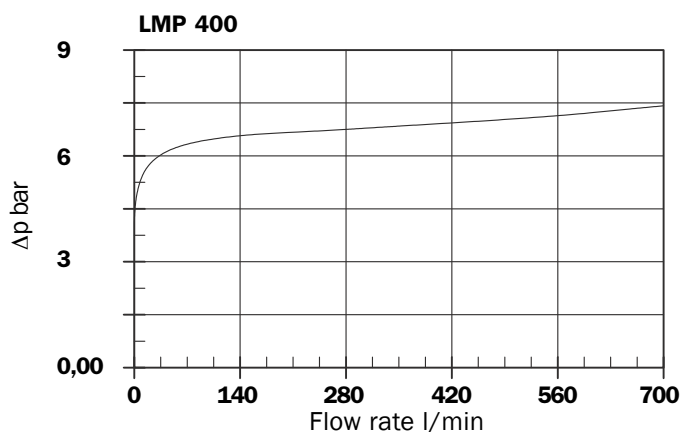
The curves are plotted utilising mineral oil with density of 0.86 kg/dm³ to ISO 3968.

Δp varies proportionally with density.



Valves

Bypass valve pressure drop



Option P02 for LMP 430 - 431



Option P02 "Internal tube for reduced flow rate" is recommended for flow rate values below 100/150 l/min. The use of option P02 makes it easier to fill the housing with the operating fluid.

P02 "Internal tube for reduced flow rates"

Recommended maximum flow rate

Recommended maximum flow rate for filters installed on lubrication lines, return or in-line filters is defined by the maximum oil velocity in the connections. For filters mounted on Off-Line lines the maximum recommended flow rate is defined by the pressure drop of the filter element.

Filter for pressurised lubrication, max. oil velocity 2.5 m/sec.
Return or in-line filter, max oil velocity 5 m/sec.

Oil velocity	Connections		
	1 1/2"	2"	2 1/2"
2,5 m/sec.	120	300	500
5 m/sec.	240	600	1000

Flow rate l/min

Off-Line filter, filter element recommended maximum pressure drop must be equal to Δp 0.2 ÷ 0.3 bar.

Recommended maximum flow rate

- Pressure drop of filter assembly equal to Δp 0.6 bar.
- Oil kinematic viscosity 30 mm²/s (cSt).
- Density 0.86 kg/dm³.
- Connections of filter under test G 2 1/2".

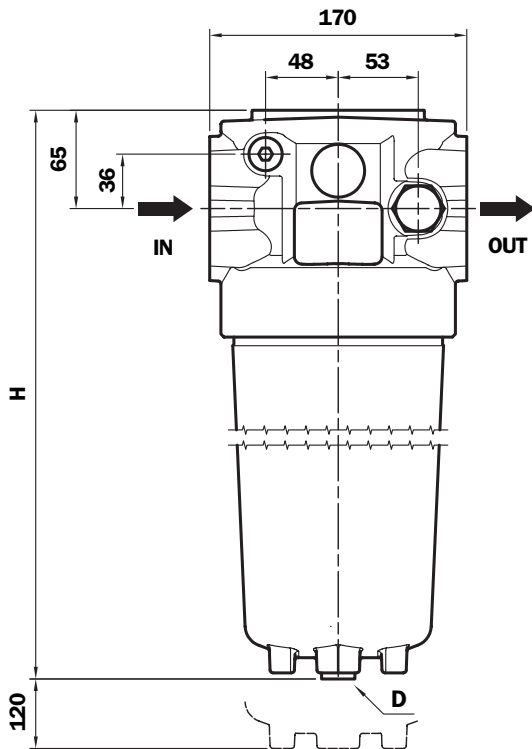
Filtration

	Length	A03	A06	A10	A16	A25	P10	P25	M25
LMP 400 - 401	2	180	215	325	360	460	470	500	660
430 - 431	3	245	295	420	460	540	580	600	700
	4	305	350	480	510	575	600	630	720
	5	405	445	550	600	660	640	670	740
	6	450	520	610	630	670	650	670	740

Flow rate l/min

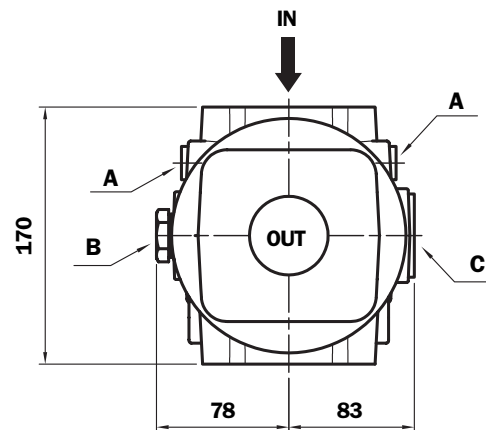
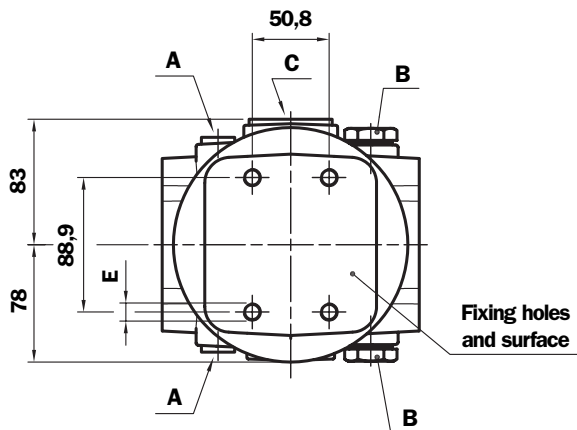
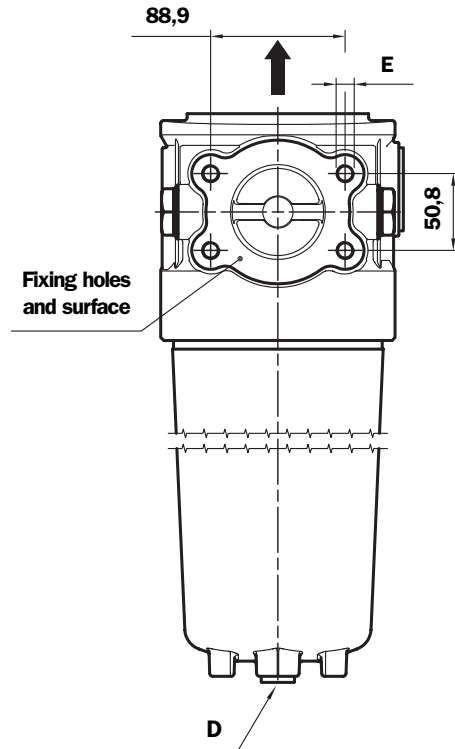
LMP 400

Length 2 - 3 - 4



LMP 401

Length 2 - 3 - 4



A - Breather plug - G 3/8" - A/F 8

B - Indicator port - Plug T2 - A/F 30

C - Bypass valve - A/F 17

D - Oil drain plug - G 3/8" - A/F 8

LMP 400 - 401

Length Filter	H mm
2	378
3	478
4	578

Flanged IN - OUT connections

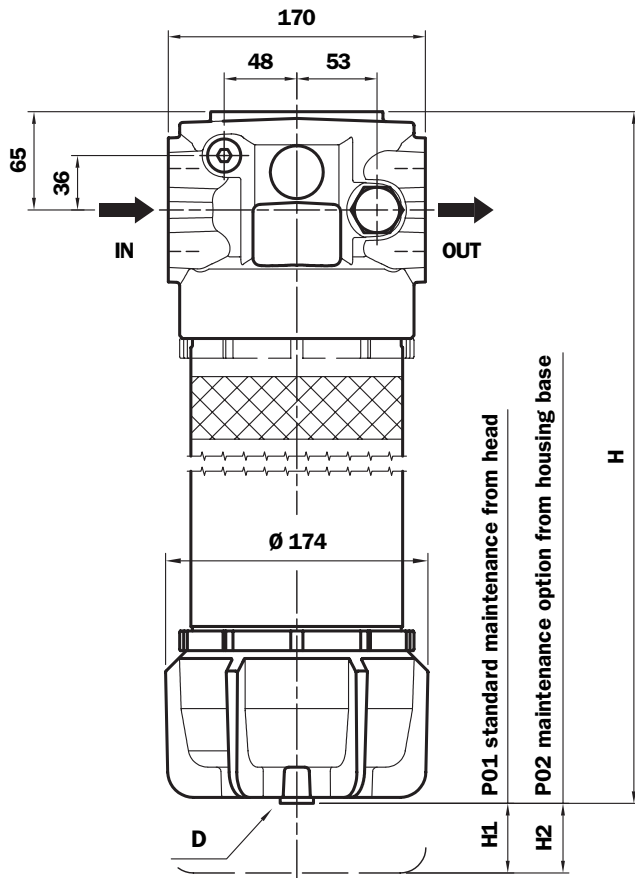
St.	A	E Depth 20 mm
F1	2" SAE - 3000 psi/M	M12
F2	2 1/2" SAE - 3000 psi/M	M12
F3	2" SAE - 3000 psi/UNC	1/2" UNC
F4	2 1/2" SAE - 3000 psi/UNC	1/2" UNC

Thread IN - OUT connections

St.	A	E Depth 20 mm
G1	G 1 1/2"	M12
G2	G 2"	M12
G3	1 1/2" NPT	1/2" UNC
G4	2" NPT	1/2" UNC
G5	SAE 24 - 1 7/8" - 12 UN	1/2" UNC
G6	SAE 35 - 2 1/2" - 12 UN	1/2" UNC

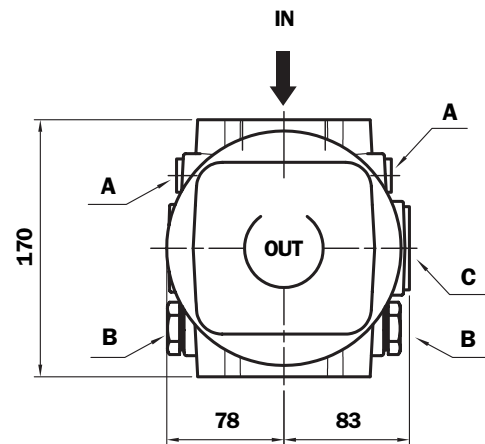
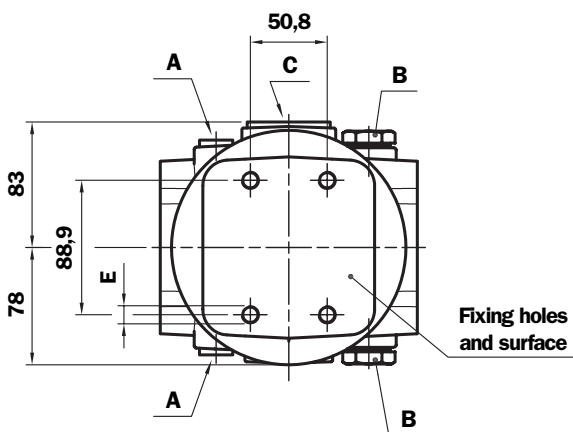
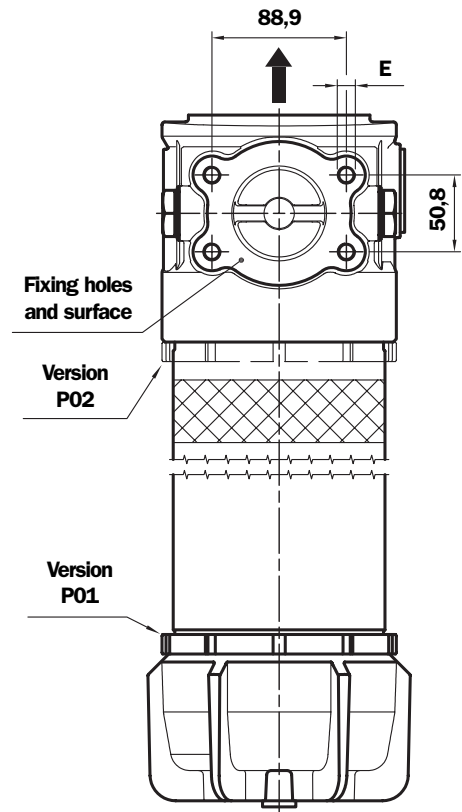
LMP 400

Length 5 - 6



LMP 401

Length 5 - 6



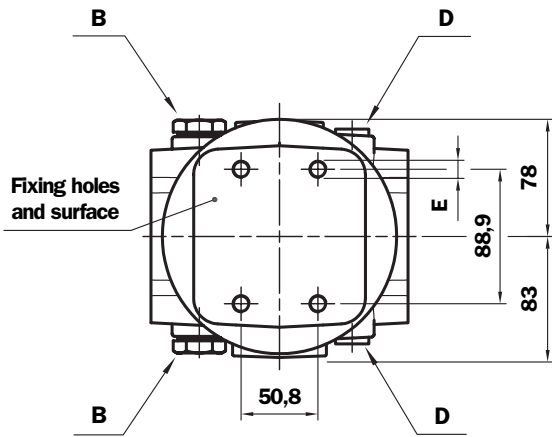
LMP 400 - 401

Length Filter	H mm	H1 mm	H2 mm
5	828	120	660
6	1158	120	990

- A** - Breather plug - G 3/8" - A/F 8
- B** - Indicator connection - Plug T2 - A/F 30
- C** - Bypass valve - A/F 17
- D** - Oil drain plug - G 3/8" - A/F 8

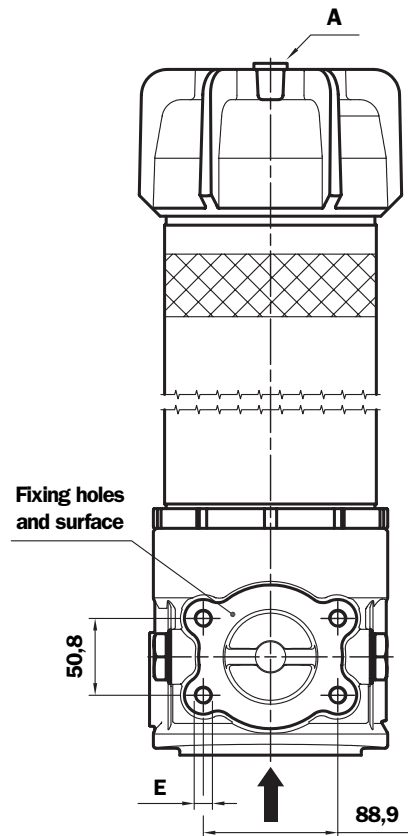
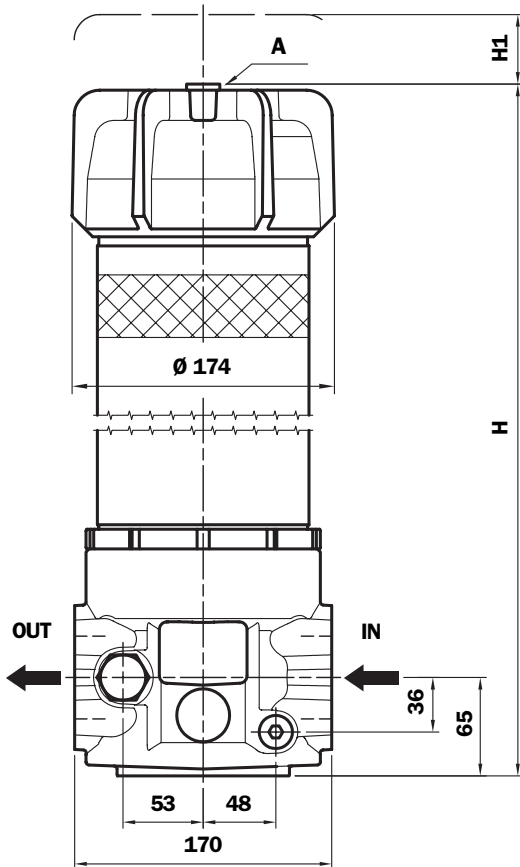
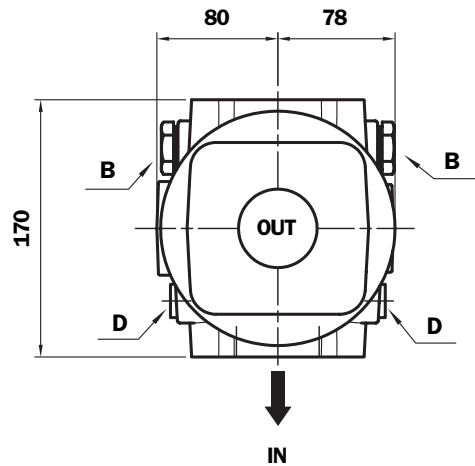
LMP 430

Length 5 - 6



LMP 431

Length 5 - 6



A - Breather plug - G 3/8" - A/F 8

B - Indicator port - Plug T2 - A/F 30

D - Oil drain plug - G 3/8" - A/F 8

LMP 430 - 431

Length Filter	H mm	H1 mm
5	828	660
6	1158	990

Flanged IN - OUT connections

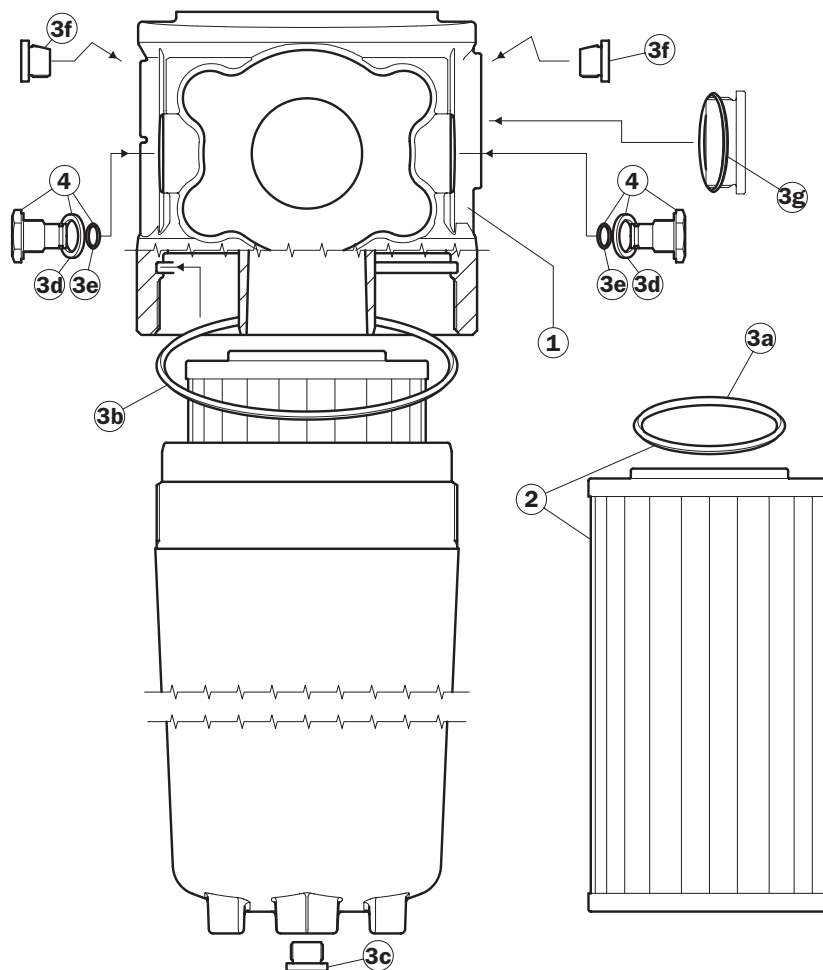
St.	A	E Depth 20 mm
F1	2" SAE - 3000 psi/M	M12
F2	2 1/2" SAE - 3000 psi/M	M12
F3	2" SAE - 3000 psi/UNC	1/2" UNC
F4	2 1/2" SAE - 3000 psi/UNC	1/2" UNC

Thread IN - OUT connections

St.	A	E Depth 20 mm
G1	G 1 1/2"	M12
G2	G 2"	M12
G3	1 1/2" NPT	1/2" UNC
G4	2" NPT	1/2" UNC
G5	SAE 24 - 1 7/8" - 12 UN	1/2" UNC
G6	SAE 35 - 2 1/2" - 12 UN	1/2" UNC

Spare parts

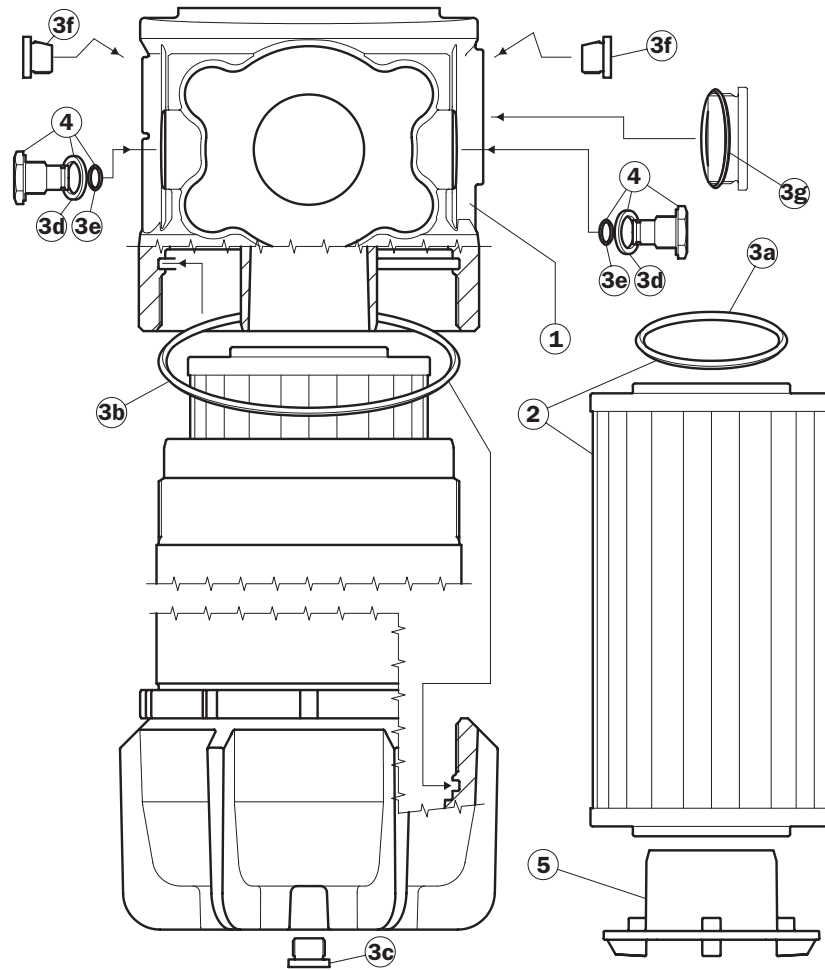
Length 2 - 3 - 4



Item	Description	Q.ty	FILTER Series LMP 400 - 401	
1	Filter assembly	1	See order table	
2	Filter Element	1	See order table	
3	Seals kit	1	NBR 02050391	FPM 02050392
3a	Filter element O-Ring	1	O-R 3237 Ø 59,99 x 2,62	
3b	O-Ring for housing	1	O-R 4525 Ø 132,95 x 3,53	
3c	Oil drain plug	1	G 3/8" with seal	
3d	Bonded seal for indicator	2	01030058	01030046
3e	O-Ring for indicator	2	O-R 2050 Ø 12,42 x 1,78	
3f	Breather plug	2	01029436	
3g	By-pass plug O-Ring	1	O-R 3193 Ø 48,90 x 2,62	
4	Indicator connection plug	2	T2H	T2V
-	Indicators	1	See order table	

Spare parts

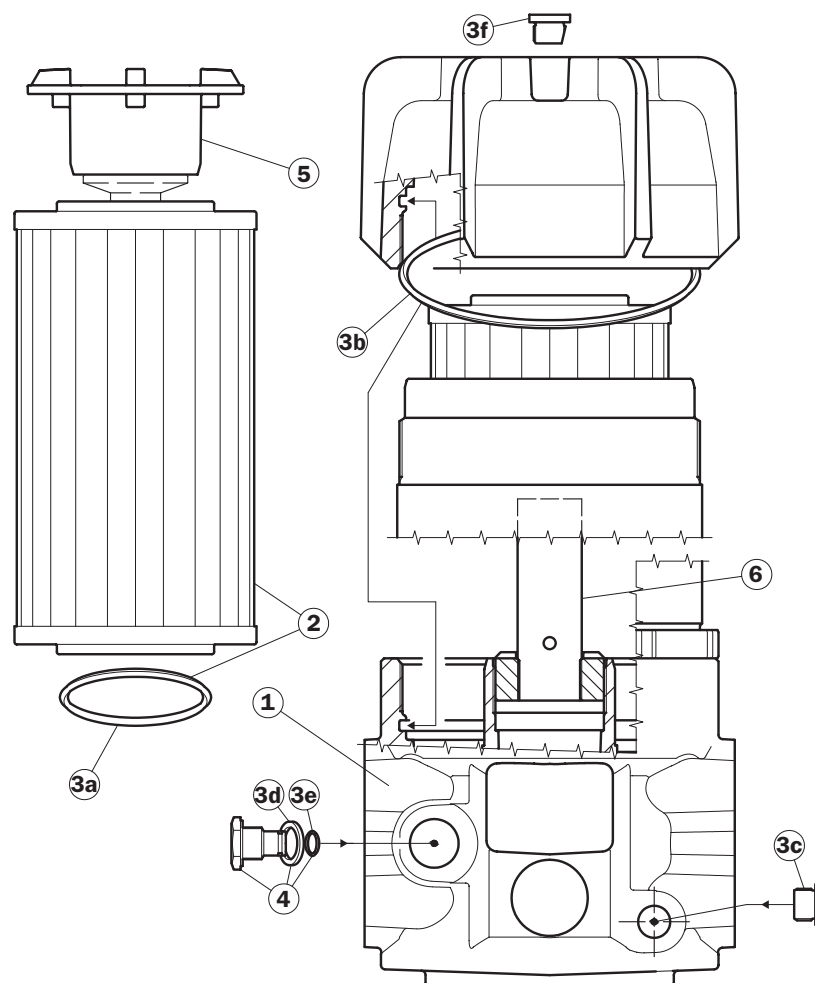
Length 5 - 6



Item	Description	Q.ty	FILTER Series LMP 400 - 401	
1	Filter assembly	1	See order table	
2	Filter Element	1	See order table	
3	Seals kit	1	NBR 02050393	FPM 02050394
3a	Filter element O-Ring	2	O-R 3237 Ø 59,99 x 2,62	
3b	O-Ring for housing	2	O-R 4525 Ø 132,95 x 3,53	
3c	Oil drain plug	1	G 3/8" with seal	
3d	Bonded seal for indicator	2	01030058	01030046
3e	O-Ring for indicator	2	O-R 2050 Ø 12,42 x 1,78	
3f	Breather plug for indicator	2	01029436	
3g	By-pass plug O-Ring	1	O-R 3193 Ø 48,90 x 2,62	
4	Indicator connection plug	2	T2H	T2V
5	Housing spigot	1	01044108	
-	Indicators	1	See order table	

Spare parts

Length 5 - 6



Item	Description	Q.ty	FILTER Series LMP 430 - 431	
1	Filter assembly	1	See order table	
2	Filter Element	1	See order table	
3	Seals kit	1	NBR 02050393	FPM 02050394
3a	Filter element O-Ring	2	O-R 3237 Ø 59,99 x 2,62	
3b	O-Ring for housing	2	O-R 4525 Ø 132,95 x 3,53	
3c	Oil drain plug	2	G 3/8" with seal	
3d	Seal for indicator	2	01030058	01030046
3e	O-Ring for indicator	2	O-R 2050 Ø 12,42 x 1,78	
3f	Breather plug	1	01029436	
4	Indicator connection plug	2	T2H	T2V
5	Housing spigot	2	Spigot no by-pass 01044108 Spigot with by-pass 02001414	
6	Tube assembly	1	Length 5 - 02025041 Length 6 - 02025042	
-	Indicators	1	See order table	

Ordering information LMP 400 - 431

Filter assembly

LMP

Example: LMP

1	2	3	4	5	6	7	8a
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
400	4	B	A	G3	A10	N	P01

Filter element

CU400

Example: CU400

2	6	4	7	8b
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	A10	A	N	P01

1 - Style

Filter	Filter element
<input type="checkbox"/> 400	<input type="checkbox"/> 400
<input type="checkbox"/> 401	<input type="checkbox"/> 400
<input type="checkbox"/> 430	<input type="checkbox"/> 400
<input type="checkbox"/> 431	<input type="checkbox"/> 400

2 - Filter length

<input type="checkbox"/> 2] LMP 430 - 431 excluded
<input type="checkbox"/> 3	
<input type="checkbox"/> 4	
<input type="checkbox"/> 5	
<input type="checkbox"/> 6	

3 - Valve

<input type="checkbox"/> S	Without by-pass
<input type="checkbox"/> B	With bypass
<input type="checkbox"/>	With by-pass Opening pressure: on request

4 - Filter seals

<input type="checkbox"/> A	NBR
<input type="checkbox"/> V	FPM
<input type="checkbox"/> W	NBR (Compatible with fluid HFA, HFB, HFC)
<input type="checkbox"/>	On request

5 - Connections

Threaded

Type	LMP 400 - 431
G1	G 1 1/2"
G2	G 2"
G3	1 1/2" NPT
G4	2" NPT
G5	SAE 24 - 1 7/8" - 12 UN
G6	SAE 32 - 2 1/2" - 12 UN

Flanged

Type	LMP 400 - 431
F1	2" SAE 3000 psi/M
F2	2 1/2" SAE 3000 psi/M
F3	2" SAE 3000 psi/UNC
F4	2 1/2" SAE 3000 psi/UNC

6 - Filter element

<input type="checkbox"/> A01	Inorganic microfibre* 1 µ] Absolute filtration βx (c) ≥ 1000
<input type="checkbox"/> A03	Inorganic microfibre 3 µ	
<input type="checkbox"/> A06	Inorganic microfibre 6 µ	
<input type="checkbox"/> A10	Inorganic microfibre 10 µ	
<input type="checkbox"/> A16	Inorganic microfibre 16 µ	
<input type="checkbox"/> A25	Inorganic microfibre 25 µ	

* On request

<input type="checkbox"/> M25	Wire mesh] Nominal Filtration
<input type="checkbox"/> M60	Wire mesh	
<input type="checkbox"/> M90	Wire mesh	

<input type="checkbox"/> P10	Resin impregnated paper] Nominal Filtration
<input type="checkbox"/> P25	Resin impregnated paper	

7 - Max filter element differential pressure

<input type="checkbox"/> N	Δp 20 bar
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8 - Option

a - Filter

<input type="checkbox"/> P01	MP Filtri standard
<input type="checkbox"/> P02	LMP 400 - 401 Maintenance from base housing (only length 5 and 6)
<input type="checkbox"/> P02	LMP 430 - 431 With internal tube for reduced flow rate
<input type="checkbox"/> Pxx	Customer request

b - Filter element

<input type="checkbox"/> P01	MP Filtri standard
<input type="checkbox"/> Pxx	Customer request

DIFFERENTIAL INDICATORS (see page 120)

MP Filtri - The filter functions as described in this bulletin are valid exclusively for original MP Filtri filter elements and replacement parts. All rights reserved

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