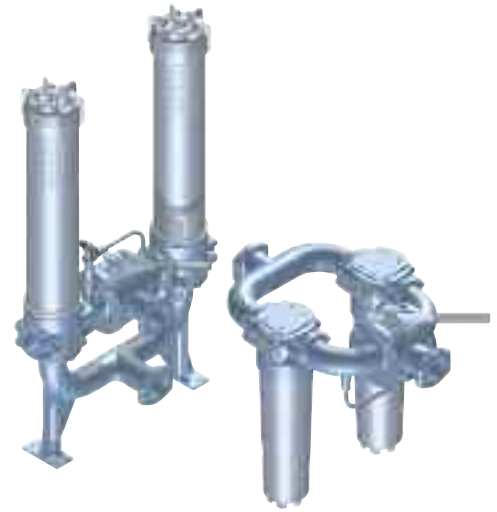


# LMD 400 - 401 - 431

**Maximum pressure 16 bar**  
**Flow rates to 590 l/min**



## Technical data

### Filter housing (Materials)

- Head: Anodized Aluminium
- Housing: Anodized Aluminium
- Manifolds: Steel - Painted black
- Bypass valve: Steel
- 3-way ball valve: Steel housings - Stainless Steel ball
- Valve: Phosphated Steel - Stainless Steel

### Pressure

- Working pressure: 16 bar (1,6 MPa)
- Test pressure: 25 bar (2,5 MPa)

### Temperature

- From -25 °C to +110 °C

### Bypass valve

- Opening pressure 3,5 bar  $\pm$ 10%
- Other opening pressures on request.

### $\Delta p$ Elements type

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

### Seals

- FPM series V

### LMD 400-401-431 FILTERS ARE PROVIDED FOR VERTICAL MOUNTING

### Weights (kg)

Length	4	5	6
• LMD400-401	60	65	72
• LMD431	-	68	78

### Volumes (dm<sup>3</sup>)

Length	4	5	6
• LMD400-401	20	28	33
• LMD431	-	28	33

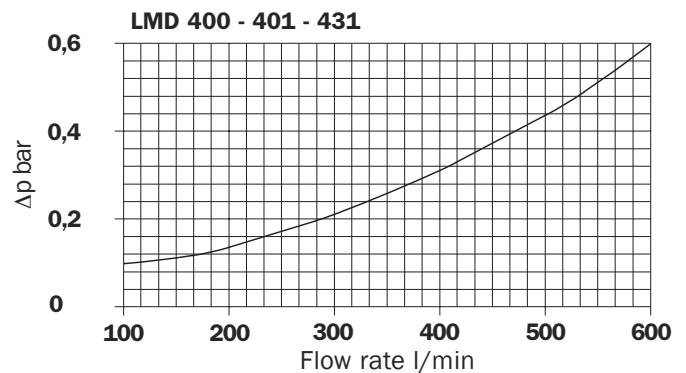
### Connections

- LMD 400-401: In-line Inlet/Outlet
- LMD 401: Same side
- LMD 400-401-431: In-Line

### Filter housings $\Delta p$ pressure drop

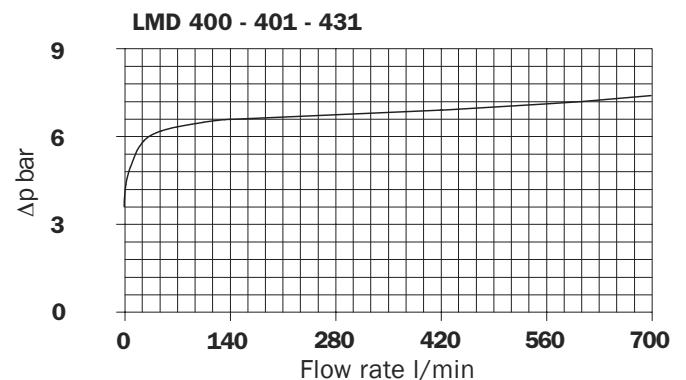
The curves are plotted utilising mineral oil with density of 0,86 kg/dm<sup>3</sup> to ISO 3968.

$\Delta p$  varies proportionally with density.



### Valves

#### Bypass valve pressure drop



### Recommended maximum flow rate

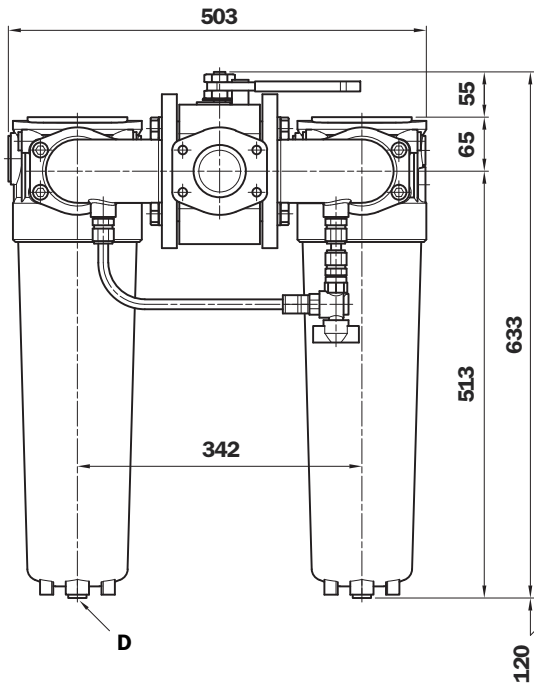
- Pressure drop of filter assembly equal to  $\Delta p$  0,6 bar.
- Oil kinematic viscosity 30 mm<sup>2</sup>/s (cSt).
- Density 0,86 kg/dm<sup>3</sup>.

Leng.	Filtration								
	A03	A06	A10	A16	A25	P10	P25	M25	
<b>LMD400-401</b>	4	265	310	410	430	485	500	520	570
<b>431</b>	5	355	385	465	500	540	530	540	580
	6	390	440	510	520	560	540	555	590

Flow rate l/min

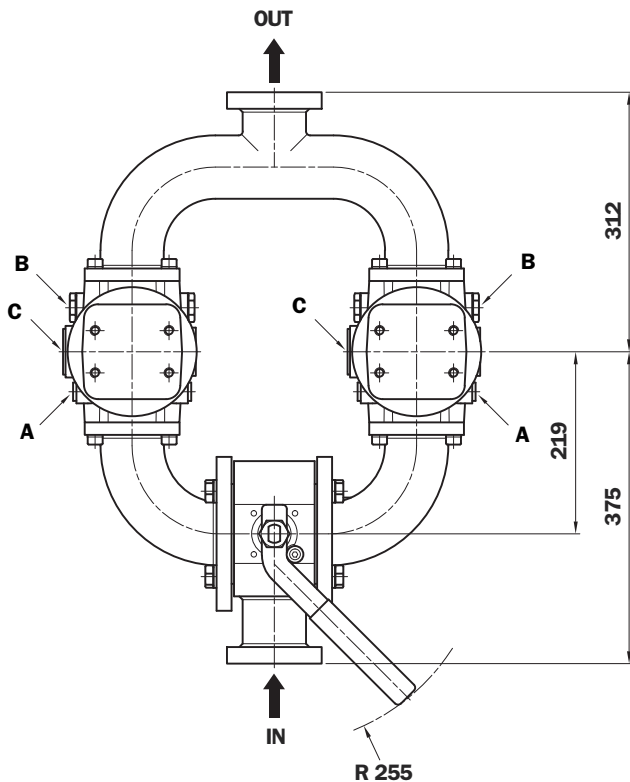
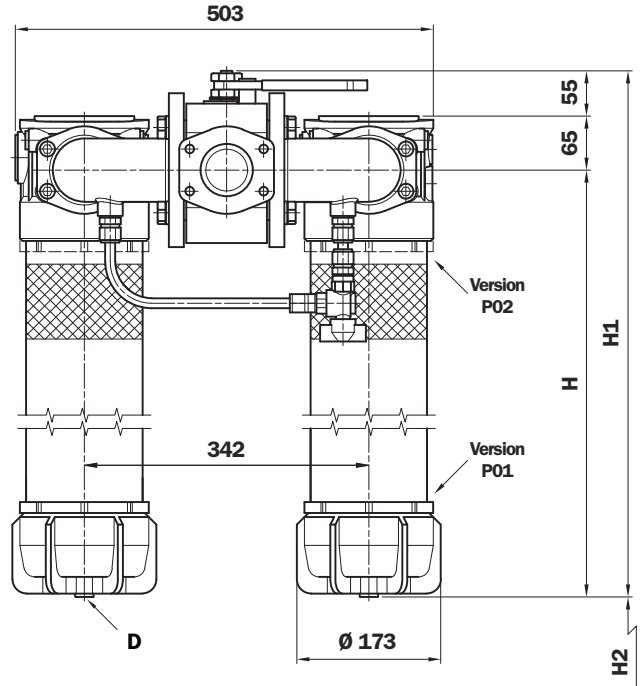
# LMD 400

(length 4)

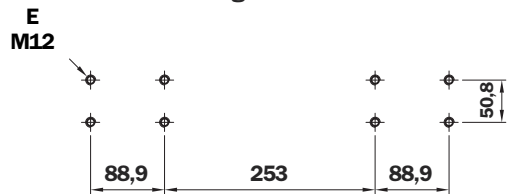


# LMD 400

(length 5 - 6)



Filter fixing holes LMD 400



## LMD 400

Length Filter	H mm	H1 mm	H2 mm P01	P02
5	763	883	120	660
6	1093	1213	120	990

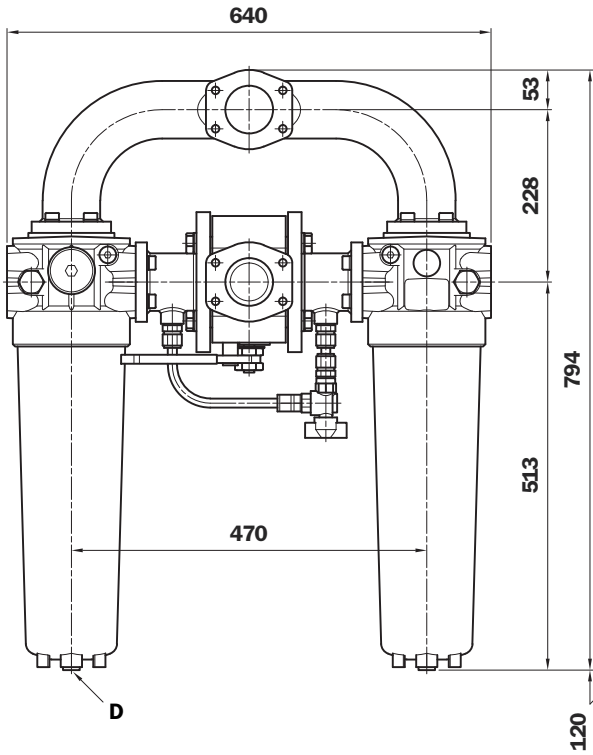
## Flange connections

Type	Size	E Depth 20 mm
F1	2 1/2" SAE 3000 psi/M	M12
F2	2 1/2" SAE 3000 psi/UNC	M12
F3	= F1 In-line connection (only for LMD 401 - 431)	1/2" UNC
F4	= F2 In-line connection (only for LMD 401 - 431)	1/2" UNC

A	Breather plug G 3/8" - A/F 8
B	Indicator port Plug T2 - A/F 30
C	Bypass valve A/F 14
D	Oil drain plug G 3/8" - A/F 8

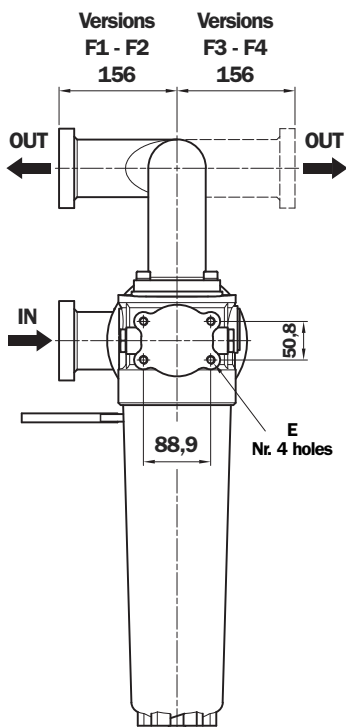
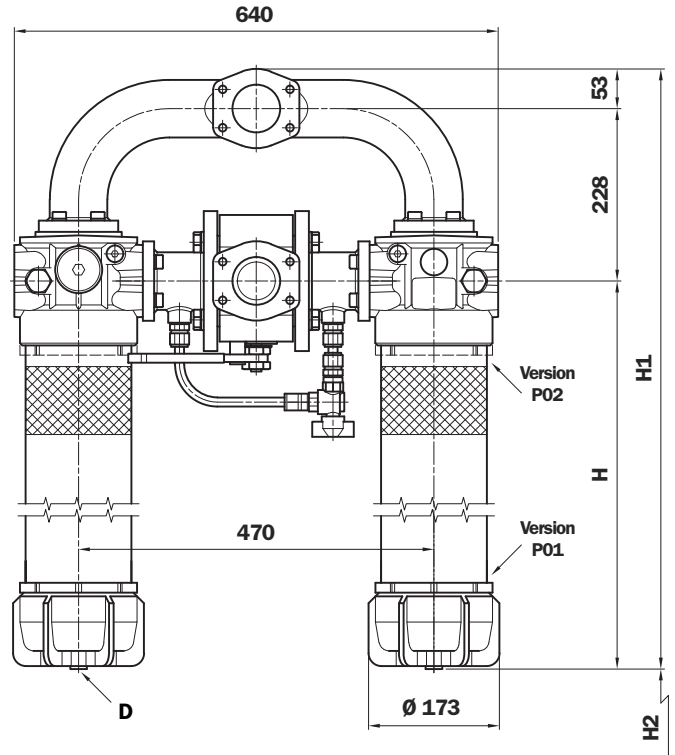
# LMD 401

(length 4)

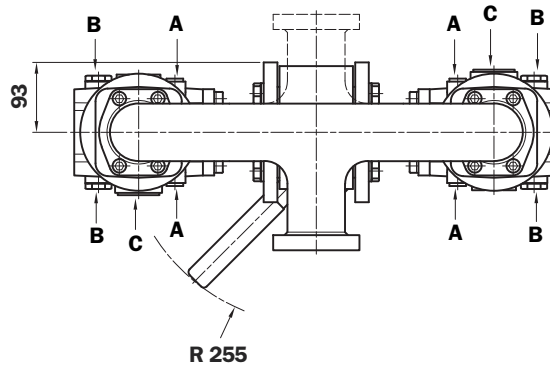


# LMD 401

(length 5 - 6)



### Filter fixing holes LMD 400



### LMD 401

Length Filter	F1-F3	F2-F4	H mm	H1 mm	H2 mm P01	P02
5	M12	1/2" UNC	763	1044	120	660
6	M12	1/2" UNC	1193	1374	120	990

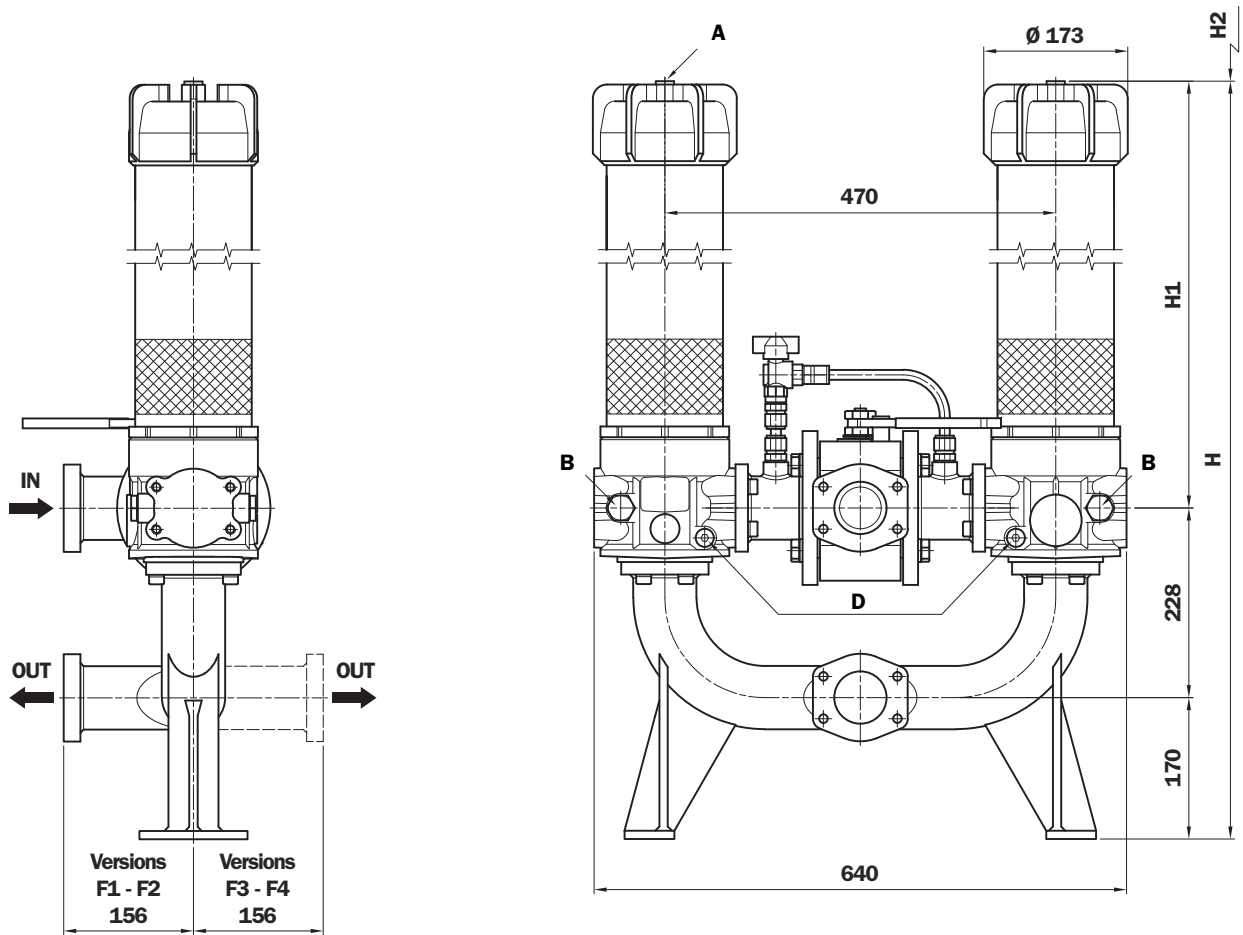
### Flange connections

Type	Size	E Depth 20 mm
F1	2 1/2" SAE 3000 psi/M	M12
F2	2 1/2" SAE 3000 psi/UNC	M12
F3	= F1 In-line connection (only for LMD 401 - 431)	1/2" UNC
F4	= F2 In-line connection (only for LMD 401 - 431)	1/2" UNC

A	Breather plug G 3/8" - A/F 8
B	Indicator port Plug T2 - A/F 30
C	Bypass valve A/F 14
D	Oil drain plug G 3/8" - A/F 8

# LMD 431

(length 5 - 6)



Versions  
F1 - F2  
156

Versions  
F3 - F4  
156

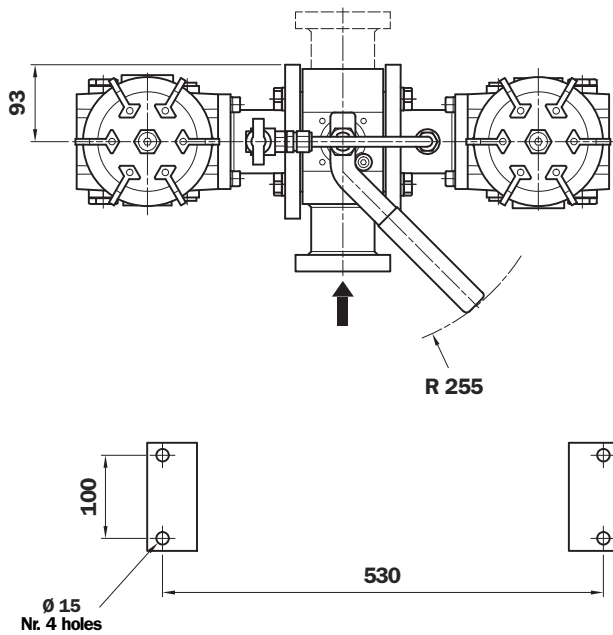
## Option P02 for LMD 431



Option P02 "Internal tube for reduced flow rate" is recommended for flow rate values below 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"

## Filter fixing holes LMD 431



## LMD 431

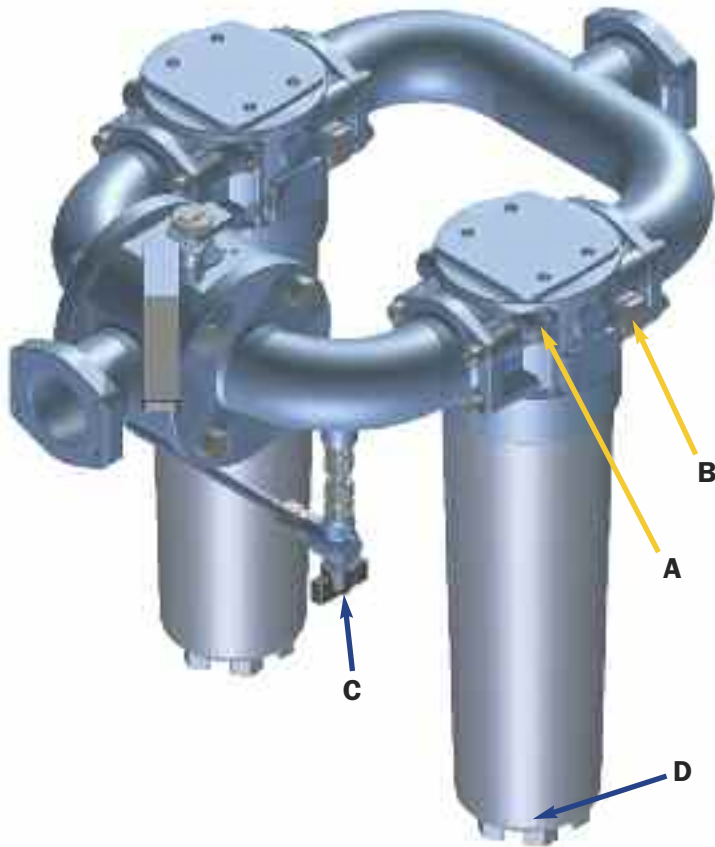
Length Filter	H mm	H1 mm	H2 mm
5	763	1161	660
6	1093	1491	990

## Flange connections

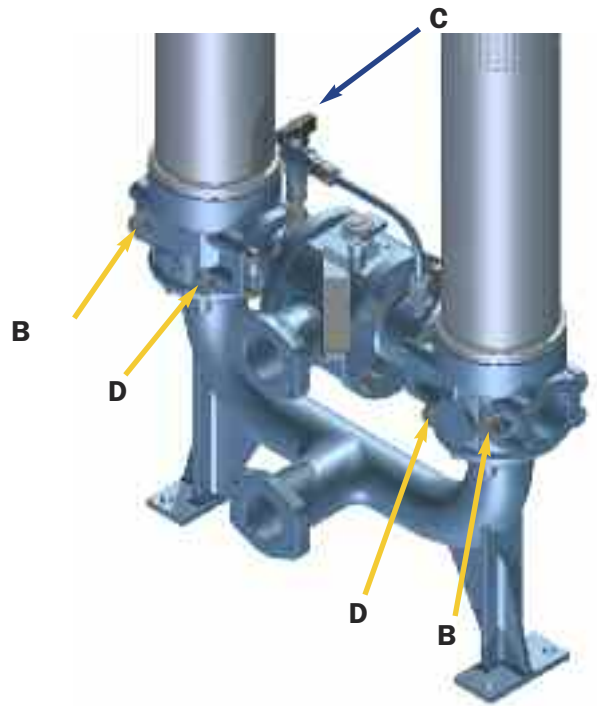
Type	Size
F1	2 1/2" SAE 3000 psi/M
F2	2 1/2" SAE 3000 psi/UNC
F3	= F1 In-line connection (only for LMD 401 - 431)
F4	= F2 In-line connection (only for LMD 401 - 431)

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

## LMD 400



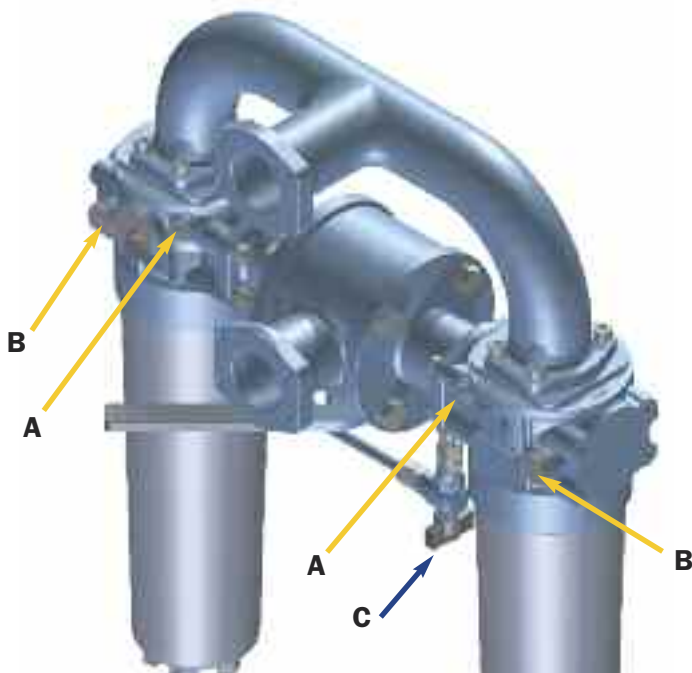
## LMD 431



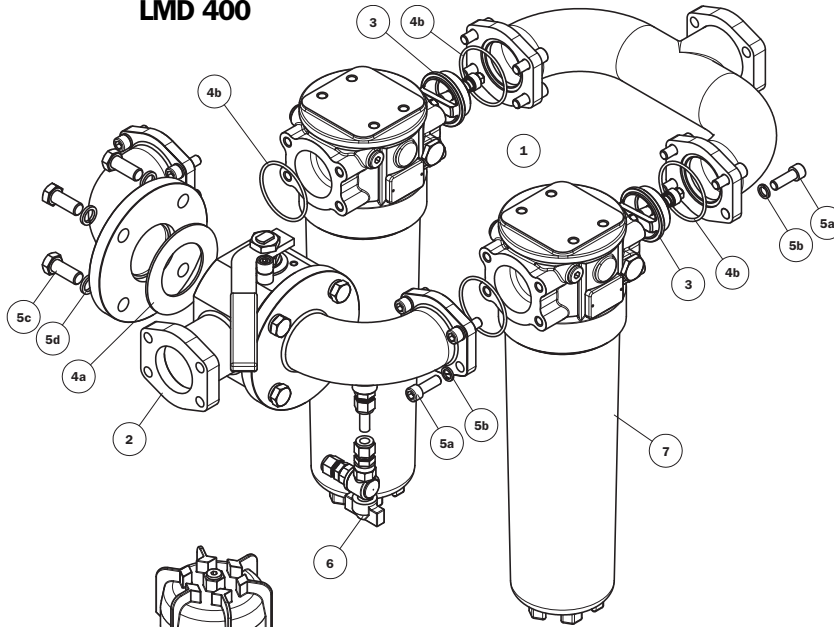
- |   |                                    |
|---|------------------------------------|
| A | Breather plug<br>G 3/8" - A/F 8    |
| B | Indicator port<br>Plug T2 - A/F 30 |
| C | Compensation<br>valve              |
| D | Oil drain plug<br>G 3/8" - A/F 8   |

**LMD 400 - 401 - 431**  
Fit one differential indicator for individual filter assembly.

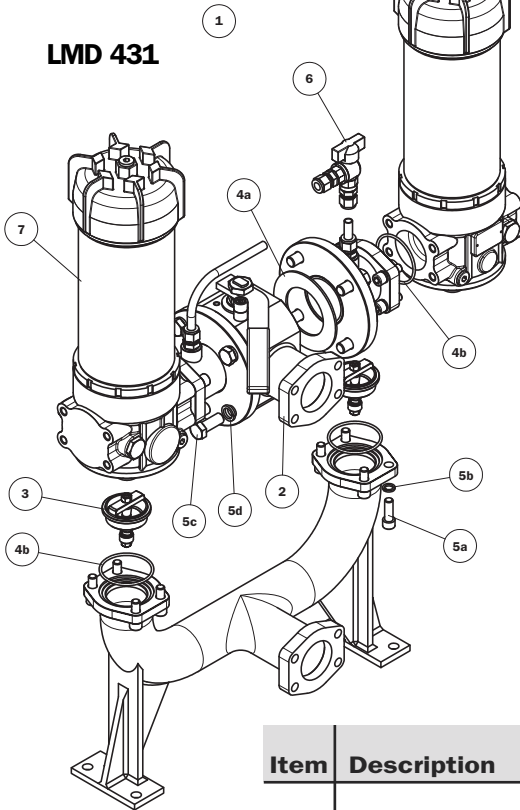
## LMD 401



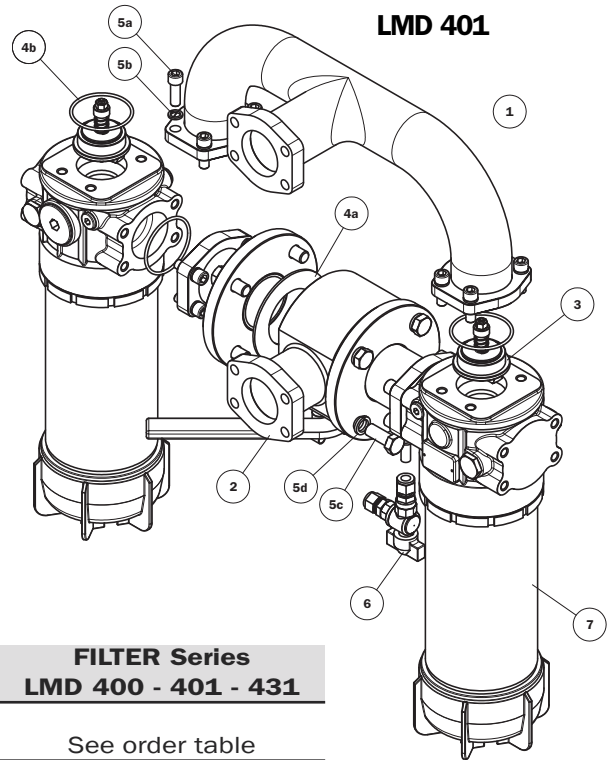
## LMD 400



## LMD 431



## LMD 401



Item	Description	Q.ty	FILTER Series LMD 400 - 401 - 431
1	Filter assembly	1	See order table
2	3-way ball valve PN 16	1	2 1/2" SAE 3000 psi/M 02001440 2 1/2" SAE 3000 psi/UNC 02001441
3	One-way valve	2	02001429
4	Seal kit	1	02050399
4a	Flat seal	2	In according to DN65
4b	IN-OUT O-Ring	4	O-R 4287 Ø 72,62 x 3,53
5	Threaded fasteners kit	1	02049062
5a	Hexagon socket screws	16	UNI 5931 - M12 x 35 - 10.9
5b	Spring washers	16	UNI 1751-B 12
5c	Exagon bolt screws	8	UNI EN 24017 - M16 x 40 - 10.9
5d	Spring washers	8	UNI 1751-B 16
6	Kit ball valve with hose fitting	1	02025043
7	Filter	2	See order table LMP400xF2.....page 221 LMP401xF2.....page 221 LMP431xF2.....page 221



# Ordering information LMD 400 - 401 - 431

## Filter assembly

### LMD

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8a</b>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Example: LMD</b>	<b>400</b>	<b>5</b>	<b>B</b>	<b>V</b>	<b>F1</b>	<b>A10</b>	<b>N</b>	<b>P01</b>

## Filter element

### CU

	<b>1</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>7</b>	<b>8b</b>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Example: CU</b>	<b>400</b>	<b>5</b>	<b>A10</b>	<b>V</b>	<b>N</b>	<b>P01</b>

### 1 - Style

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

### 2 - Filter length

<input type="checkbox"/> <b>400</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>	<input type="checkbox"/> <b>6</b>
<input type="checkbox"/> <b>401</b>	<input type="checkbox"/> <b>4</b>	<input type="checkbox"/> <b>5</b>	<input type="checkbox"/> <b>6</b>
<input type="checkbox"/> <b>431</b>		<input type="checkbox"/> <b>5</b>	<input type="checkbox"/> <b>6</b>

### 3 - Valves

<input type="checkbox"/> <b>S</b>	Without bypass
<input type="checkbox"/> <b>B</b>	With bypass

### 4 - Filter seals

<input type="checkbox"/> <b>V</b>	FPM
<input type="checkbox"/> <b>Z</b>	FPM (Compatible with fluid HFA, HFB, HFC)

### 5 - Connections

#### Flange

#### LMD 400 - 401 - 431

Type	Size
<b>F1</b>	2 1/2" SAE 3000 psi/M
<b>F2</b>	2 1/2" SAE 3000 psi/UNC
<b>F3</b>	= F1 In-line connection (only for LMD 401 - 431)
<b>F4</b>	= F2 In-line connection (only for LMD 401 - 431)

### 6 - Filter element

<input type="checkbox"/> <b>A03</b>	Inorganic microfibre 3 µm	Absolute filtration Inorganic Microfibre βx (c) ≥ 1000
<input type="checkbox"/> <b>A06</b>	Inorganic microfibre 6 µm	
<input type="checkbox"/> <b>A10</b>	Inorganic microfibre 10 µm	
<input type="checkbox"/> <b>A16</b>	Inorganic microfibre 16 µm	
<input type="checkbox"/> <b>A25</b>	Inorganic microfibre 25 µm	
<input type="checkbox"/> <b>M25</b>	Wire mesh 25 µm	Nominal Filtration
<input type="checkbox"/> <b>M60</b>	Wire mesh 60 µm	
<input type="checkbox"/> <b>M90</b>	Wire mesh 90 µm	
<input type="checkbox"/> <b>P10</b>	Resin - Impregnated paper	Nominal Filtration
<input type="checkbox"/> <b>P25</b>	Resin - Impregnated paper	

### 7 - Max filter element differential pressure

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

#### a - Filter

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

#### b - Filter element

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

**For Clogging Indicator:**  
See page 318

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