



THE **X** CONCEPT FOR OUR FILTERS

Designed and manufactured in compliance with the PED regulation (Europe only), our components feature practical solutions such as the filter element with handle, designed to simplify replacement. The positioning of the filter element has been engineered to ensure stability in its housing and sealing integrity, even during transport.

MLDX series

with **MYCLEAN** LPX Filter Element



- **Protects the machine from improper use of non-original products.**
- **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.

The products identified as MLDX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1

Protect the performance of your system with MYclean.

Quality and efficiency are fundamental for MP Filtri:

this exclusive new filter element possesses polygon shape geometry and specific seal that ensures only original spare parts can be used - ensuring correct operation and higher system reliability.

# MLDX / MLDC series

Maximum working pressure up to 1.6 MPa (16 bar) - Flow rate up to 8000 l/min



## Description

### High capacity industrial filters - duplex type

**Maximum working pressure up to 1.6 MPa (16 bar)**  
**Flow rate up to 8000 l/min**

MLDX/MLDC is a range of versatile low pressure, high capacity duplex filters with integrated changeover function operated by a single-lever or a hand-wheel to allow the filter element replacement without the system shut-down, mainly suitable for high capacity applications in industrial lubrication systems.

Multiple filter elements can be fitted in parallel into the housing to reduce the pressure drop caused by the filter media and to increase the dust holding capacity of the filter.

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

#### Available features:

- Flanged connections EN 1092-1 up to DN200 (MLDX) - DN100 (MLDC), for a maximum flow rate of 8000 l/min
- Base-mounting design for ease of the replacement of the filter elements
- Multiple filter elements, for increased dust-holding capacity
- In to Out filtration, to reduce the risk of residual contamination going into the system during the maintenance works
- Fine filtration rating, to get a good cleanliness level into the system
- Balancing valve, to equalize the housing pressure before the switch
- 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 works
- Visual, electrical and electronic differential pressure clogging indicators
- MYclean interface connection for the filter element, to protect the product against non-original spare parts (only for MLDX series)

#### Common applications:

- Lubrication systems
- Off-line filtration of reservoirs
- Filtration systems

## Technical data

### Filter housing materials

- Body and cover: blue-painted carbon steel
- Fasteners: galvanized steel
- Indicator block, plugs: phosphatized steel
- Balancing valve: nickel-plated brass
- Nameplate: plastic

### Pressure

- Test pressure: 2.4 MPa (24 bar)
- Min. Burst pressure: 4.8 MPa (48 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 1.6 MPa (16 bar)

100% testing: every MLDX and MLDC filter is individually inspected and tested

### Bypass valve

- Opening pressure:  
0.35 MPa (3.5 bar) ±10% (MLDX series)  
0.175 MPa (1.75 bar) ±10% (MLDC series)

### Filter element features

Filter	Filter element		
MLDX	LPX		
MLDC	MRC		
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	D	10 bar
M - Wire mesh	Standard	D	10 bar
<i>Please see ordering code tables to check element Δp series availability based on filter features.</i>			
Flow direction through the filter element:			
From IN to OUT			

### Seals

- Standard NBR series A

### Temperature

From -10 °C to +100 °C

### Note

MLDX and MLDC filters are equipped with slotted mounting brackets, designed to be bolted to the foundation.

## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Length	Connection nom. dia. [DN]	Weights [kg]	Volumes [dm <sup>3</sup> ]
MLDX 631	10	65	240	54
	20	80	305	88
	20	100	370	91
MLDC 851	20	80	242	100
	20	100	308	106
	30	80	246	130
	30	100	312	136
	40	80	250	156
	40	100	316	162
MLDX 633	20	125	685	320
MLDX 634	20	150	1035	450
MLDX 635	20	200	1285	590

Flow rates [l/min]

Filter series	Length	Filter element design - D Series					
		A0003	A0006	A0010	A0025	A0040	M0060 M0090 M0250
<b>MLDX 631</b>	<b>10</b>	222	275	487	651	702	1524
	<b>20</b>	327	349	708	1096	1159	1562
<b>MLDC 851</b>	<b>20</b>	1508	1860	1979	2581	2768	3116
	<b>30</b>	1823	2203	2253	2971	3043	3192
	<b>40</b>	1979	2303	2459	3116	3116	3192
<b>MLDX 633</b>	<b>20</b>	1005	1076	2358	4160	4512	7139
<b>MLDX 634</b>	<b>20</b>	1325	1417	2981	4871	5203	7426
<b>MLDX 635</b>	<b>20</b>	1645	1757	3608	5677	6024	8251

**Maximum flow rate for a complete delivery filter with a pressure drop  $\Delta p = 0.7$  bar.**

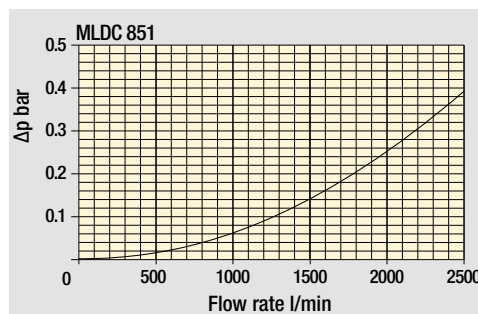
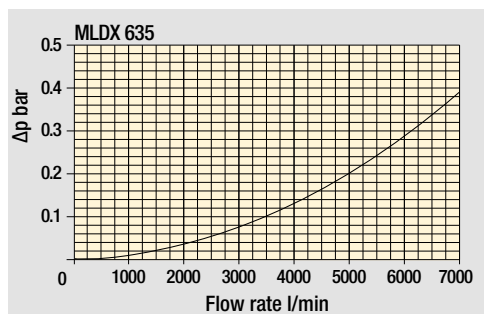
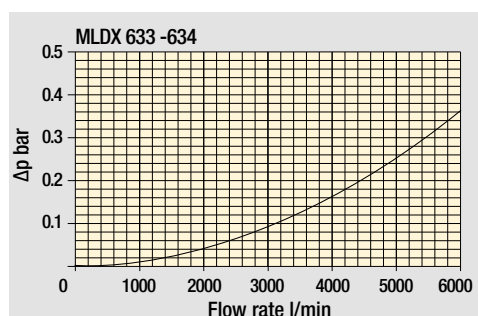
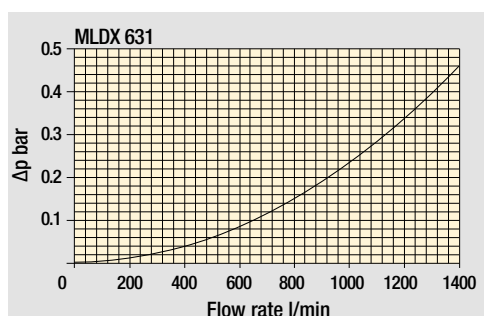
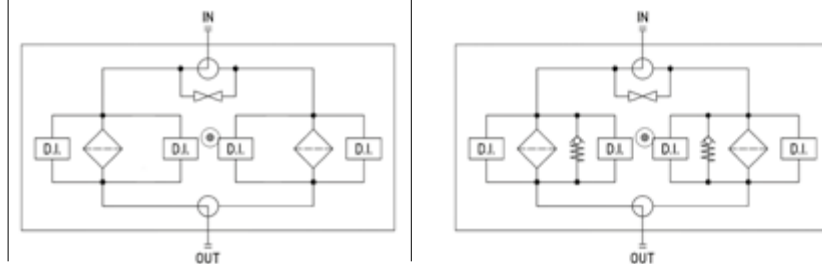
The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://www.mpfiltri.com).

Please, contact our Sales Department for further additional information.

Filter series	00 - without bypass	17 - with bypass 1.75 bar	35 - with bypass 3.5 bar
<b>MLDX 631-633-634-635</b>	-	-	•
<b>MLDC 851</b>	•	•	-

Hydraulic diagram




Pressure drop  
Filter housings  
 $\Delta p$  pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

# MLDX MLDX631 - MLDX633 - MLDX634 - MLDX635

## Designation & Ordering code

### COMPLETE FILTER

<b>Series</b> <b>MLDX</b>	Filter featuring  Filter Element	Example:	<b>MLDX</b>	<b>633</b>	<b>20</b>	<b>A0010</b>	<b>D</b>	<b>A</b>	<b>35</b>	<b>FD125</b>	<b>0</b>	<b>6T</b>	<b>NN</b>	<b>P01</b>	<b>NN</b>
<b>Filter size</b>	Nr. of elements LPX 630														
<b>MLDX 631</b>	1 + 1														
<b>MLDX 633</b>	3 + 3														
<b>MLDX 634</b>	4 + 4														
<b>MLDX 635</b>	5 + 5														
<b>Length</b>	Filter size														
	<b>631</b>	<b>633</b>	<b>634</b>	<b>635</b>											
<b>10</b>	•	-	-	-											
<b>20</b>	•	•	•	•											
<b>Filtration rating (filter media)</b>															
<b>A0003</b>	Inorganic microfiber	3 µm													
<b>A0006</b>	Inorganic microfiber	6 µm													
<b>A0010</b>	Inorganic microfiber	10 µm													
<b>A0025</b>	Inorganic microfiber	25 µm													
<b>A0040</b>	Inorganic microfiber	40 µm													
<b>M0060</b>	Wire mesh	60 µm													
<b>M0090</b>	Wire mesh	90 µm													
<b>M0250</b>	Wire mesh	250 µm													
<b>Element Δp</b>															
<b>D</b> 10 bar															
<b>Seals</b>															
<b>A</b> NBR															
<b>Bypass</b>															
<b>35</b> With bypass 3.5 bar															
<b>Connections</b>															
		<b>631</b>	<b>633</b>	<b>634</b>	<b>635</b>	size									
	<b>10</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	length									
<b>FD065</b>	Flange EN 1092-1 / 01A / <b>DN 65</b> / PN 16	•	-	-	-	-									
<b>FD080</b>	Flange EN 1092-1 / 01A / <b>DN 80</b> / PN 16	-	•	-	-	-									
<b>FD100</b>	Flange EN 1092-1 / 01A / <b>DN 100</b> / PN 16	-	•	-	-	-									
<b>FD125</b>	Flange EN 1092-1 / 01A / <b>DN 125</b> / PN 16	-	-	•	-	-									
<b>FD150</b>	Flange EN 1092-1 / 01A / <b>DN 150</b> / PN 16	-	-	-	•	-									
<b>FD200</b>	Flange EN 1092-1 / 01A / <b>DN 200</b> / PN 16	-	-	-	-	•									
<b>Additional connections</b>															
<b>0</b> Without additional connections															
<b>Connections for clogging indicators</b>															
<b>6T</b> With both side indicator connection, with metal plugs															
<b>Additional features</b>															
<b>NN</b> Without additional features															
<b>Execution</b>															
<b>P01</b> Standard catalogue item															
<b>Certificates</b>															
<b>NN</b> None															

### CLOGGING INDICATORS

See page 785

<b>DEA</b>	Electrical differential pressure indicator
<b>DEM</b>	Electrical differential pressure indicator
<b>DLA</b>	Electrical / visual differential pressure indicator
<b>DLE</b>	Electrical / visual differential pressure indicator

<b>DTA</b>	Electronic differential pressure indicator
<b>DTI</b>	I-O Link electronic differential pressure indicator
<b>DVA</b>	Visual differential pressure indicator
<b>DVM</b>	Visual differential pressure indicator

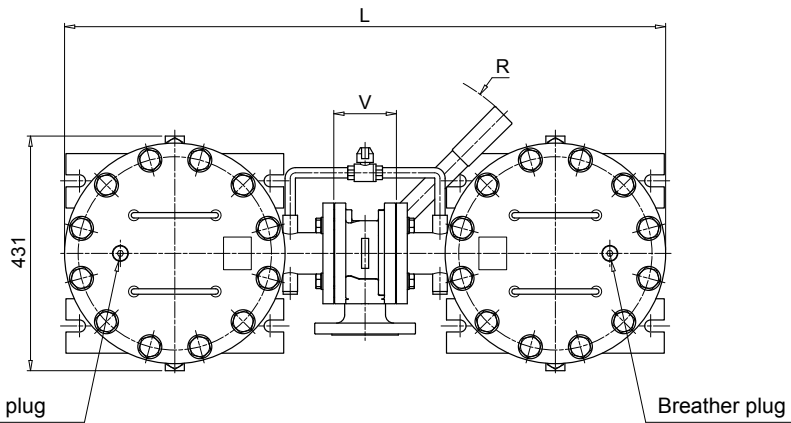
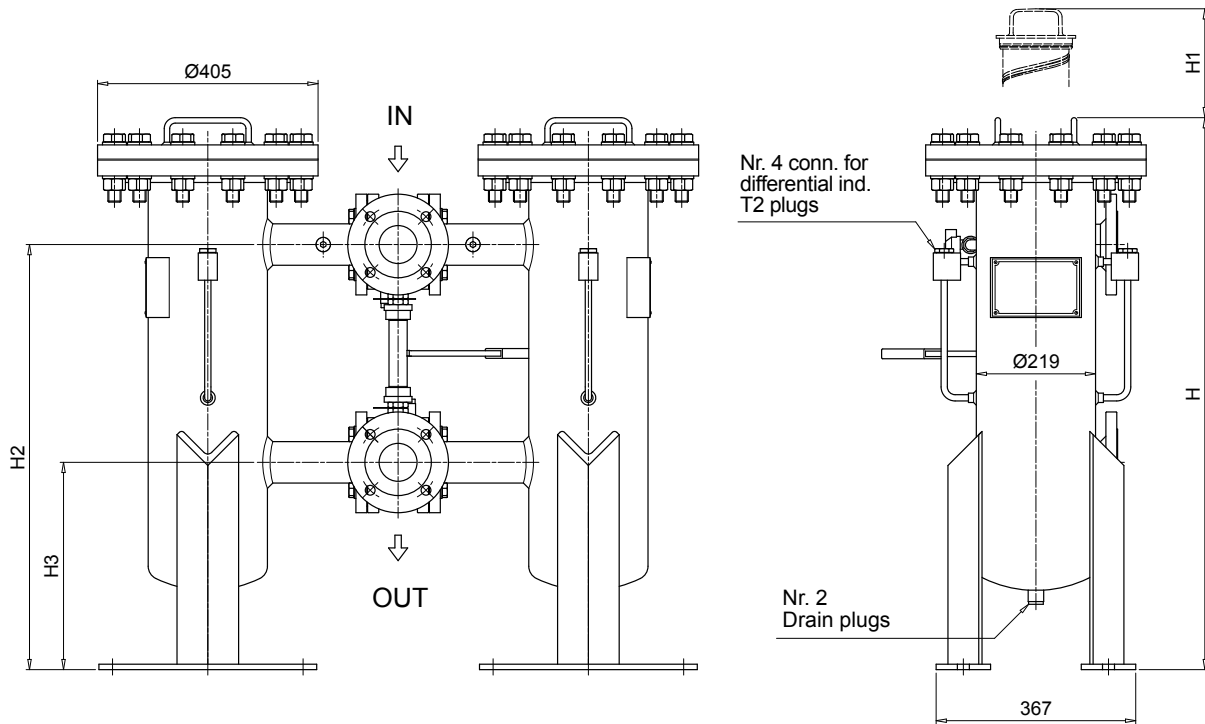
### PLUGS

See page 807

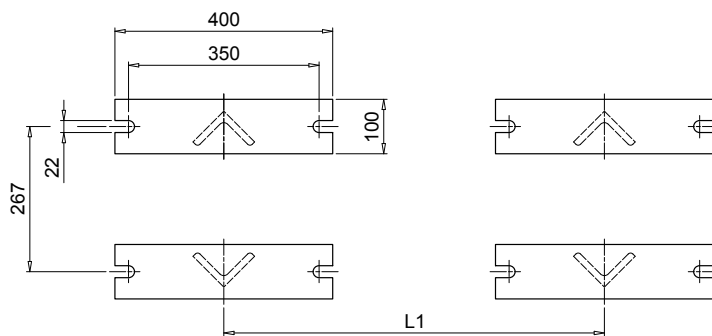
<b>T2</b>	Plug
-----------	------



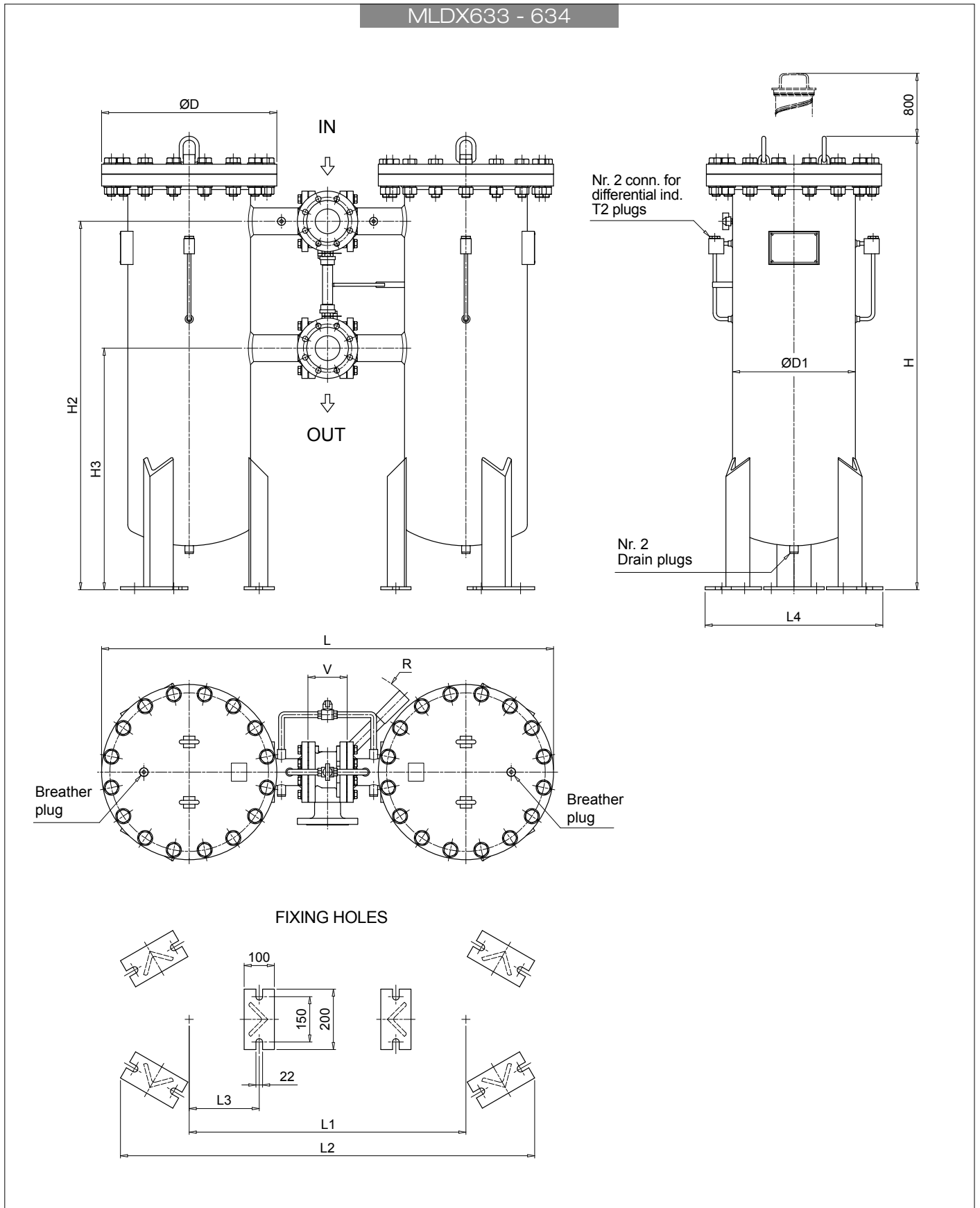
### MLDX631



### FIXING HOLES



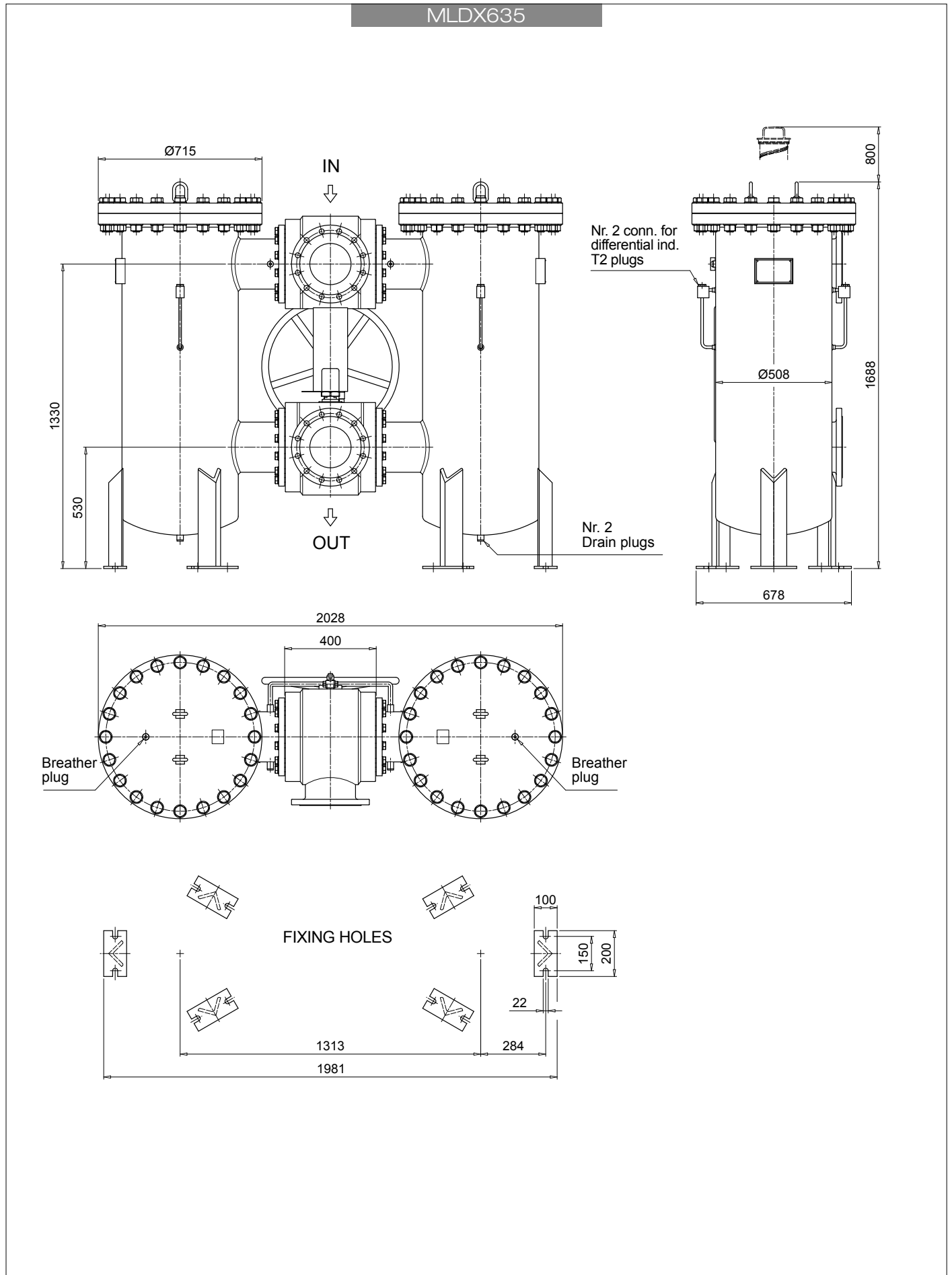
Filter length	Connections	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	R [mm]	V [mm]
10	DN 65	1018	435	780	380	1104	699	380	115
20	DN 80	1430	845	1195	775	1119	714	380	130
20	DN 100	1430	845	1195	695	1155	750	440	150



Filter size	Connection	ØD [mm]	ØD1 [mm]	H [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	R [mm]	V [mm]
<b>633</b>	<b>DN 125</b>	580	406	1563	1280	580	1551	971	1426	232	588	440	185
<b>634</b>	<b>DN 150</b>	640	457	1702	1340	640	1780	1140	1621	258	633	715	300

# MLDX MLDX635

## Dimensions





## Designation & Ordering code

### COMPLETE FILTER

<b>Series</b> MLDC	Example :	MLDC	851	20	A0010	D	A	17	FD080	0	6T	NN	P01	NN
<b>Filter size</b> 851	Nr. of elements MRC 850	1 + 1												
<b>Length</b> 20 30 40														
<b>Filtration rating (filter media)</b>														
A0003	Inorganic microfiber	3 µm												
A0006	Inorganic microfiber	6 µm												
A0010	Inorganic microfiber	10 µm												
A0025	Inorganic microfiber	25 µm												
A0040	Inorganic microfiber	40 µm												
M0060	Wire mesh	60 µm												
M0090	Wire mesh	90 µm												
M0250	Wire mesh	250 µm												
			<b>Element Δp</b>											
			D	10 bar										
			<b>Seals</b>											
			A	NBR										
<b>Bypass</b>														
00	Without bypass													
17	With bypass 1.75 bar													
<b>Connections</b>														
FD080	Flange EN 1092-1 / 01A / DN 80 / PN 16													
FD100	Flange EN 1092-1 / 01A / DN 100 / PN 16													
<b>Additional connections</b>														
0	Without additional connections													
<b>Connections for clogging indicators</b>														
6T	With both side indicator connection, with metal plugs													
<b>Additional features</b>														
NN	Without additional features													
<b>Execution</b>														
P01	Standard catalogue item													
<b>Certificates</b>														
NN	None													

### CLOGGING INDICATORS

See page 785

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

**DTA** Electronic differential pressure indicator  
**DTI** I-O Link electronic differential pressure indicator  
**DVA** Visual differential pressure indicator  
**DVM** Visual differential pressure indicator

### PLUGS

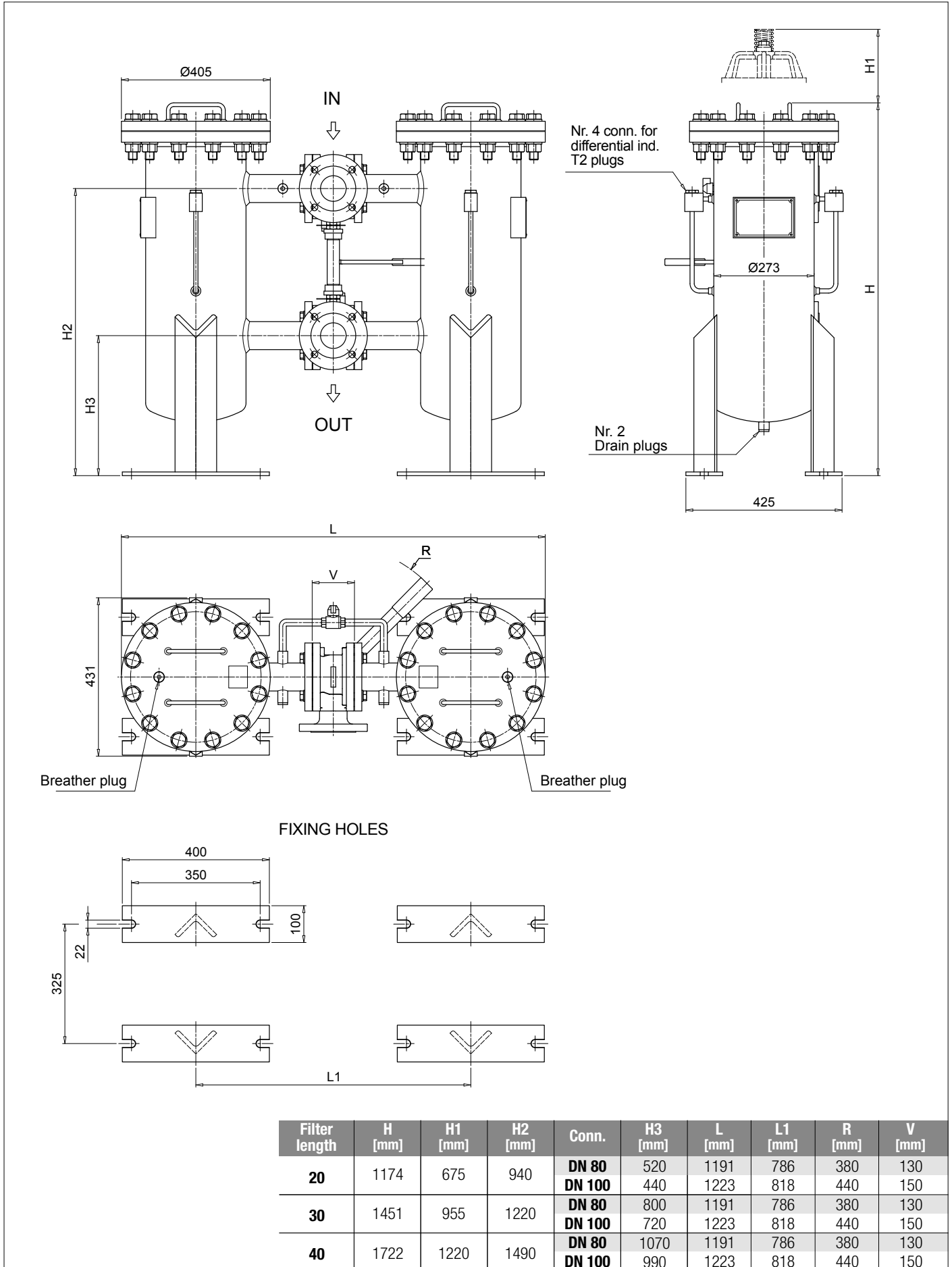
See page 807

**T2** Plug

FILTER ELEMENT	
Element series and size <b>MRC</b>	Config. example: <b>MRC</b> <b>850</b> <b>20</b> <b>A0010</b> <b>D</b> <b>A</b> <b>00</b> <b>NN</b> <b>P01</b> <b>NN</b>
Element size <b>850</b>	
Element length <b>20</b> <b>30</b> <b>40</b>	
Filtration rating (filter media)	
<b>A0003</b> Inorganic microfiber 3 µm	
<b>A0006</b> Inorganic microfiber 6 µm	
<b>A0010</b> Inorganic microfiber 10 µm	
<b>A0025</b> Inorganic microfiber 25 µm	
<b>A0040</b> Inorganic microfiber 40 µm	
<b>M0060</b> Wire mesh 60 µm	
<b>M0090</b> Wire mesh 90 µm	
<b>M0250</b> Wire mesh 250 µm	
Element Δp <b>D</b> 10 bar	
Seals <b>A</b> NBR	
Bypass <b>00</b> Without bypass	
Additional features <b>NN</b> Without additional features	
Execution <b>P01</b> Standard catalogue item	
Certificates <b>NN</b> None	

# MLDC MLDC851

## Dimensions

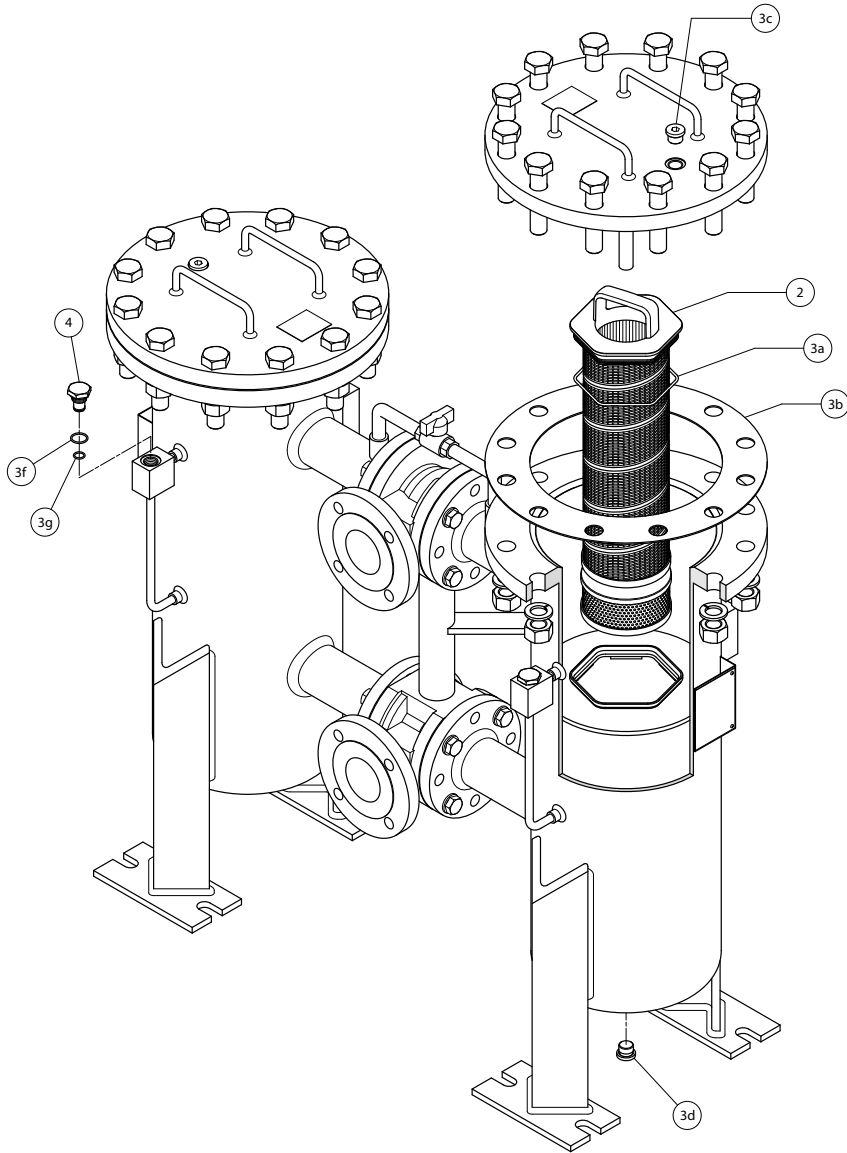




# MLDX SPARE PARTS

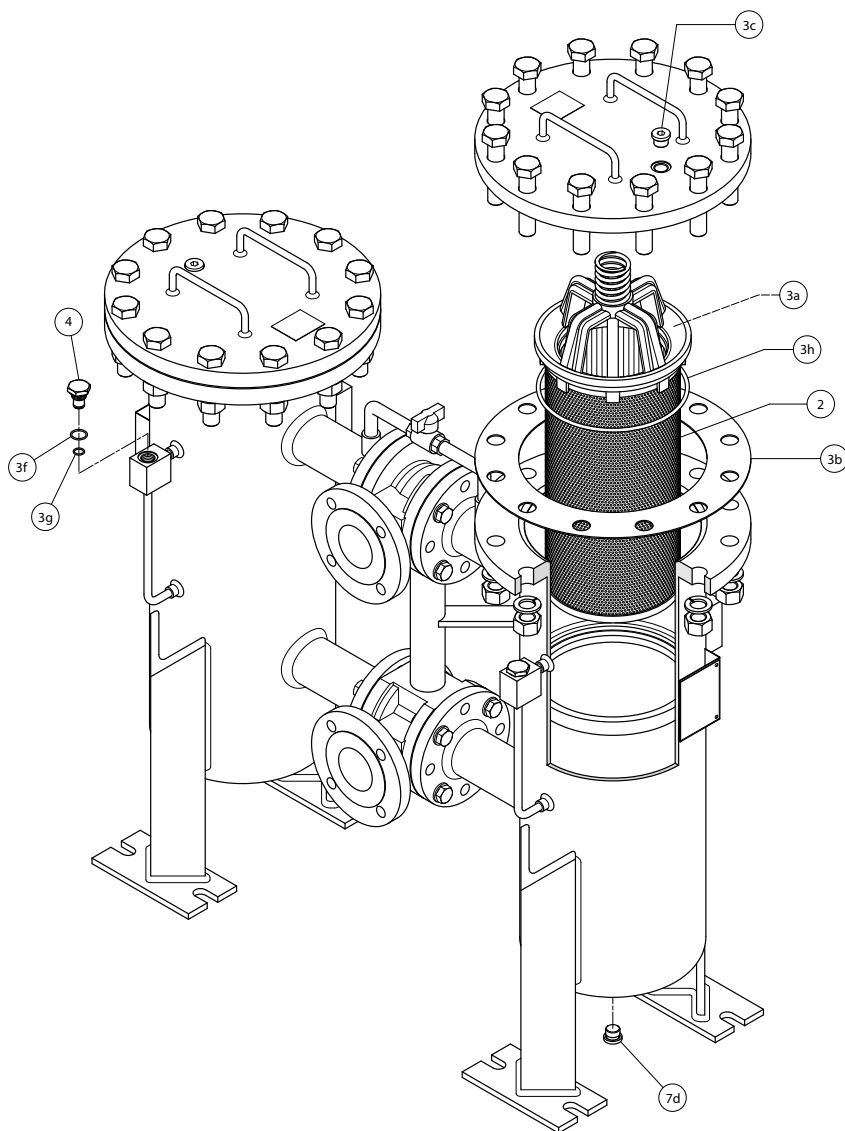
Order number for spare parts

MLDX 631 - 633 - 634 - 635



Item:	2	Q.ty: 2 pcs. 3 (3a ÷ 3g)	Q.ty: 4 pcs. 4
Filter series	Filter element	Seal Kit code number NBR	Indicator connection plug NBR
<b>MLDX631</b>	See order table	AK021000684	T2H
<b>MLDX633</b>		AK021000685	T2H
<b>MLDX634</b>		AK021000686	T2H
<b>MLDX635</b>		AK021000687	T2H

## MLDC 851



Item:	Q.ty: 1 + 1 pcs. ②	Q.ty: 2 pcs. ③ (3a ÷ 3g)	Q.ty: 4 pcs. ④
Filter series	Filter element	Seal Kit code number NBR	Indicator connection plug NBR
<b>MLDC851</b>	See order table	AK021000786	T2H