



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

Technical data

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

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) $\pm 10\%$ (MLDX series)
0.175 MPa (1.75 bar) $\pm 10\%$ (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
Please see ordering code tables to check element Δp series availability based on filter features.			
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 [dm³]

Filter series	Length	Connection nom. dia. [DN]	Weights [kg]	Volumes [dm ³]
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 element design - D Series							
Filter series	Length	A0003	A0006	A0010	A0025	A0040	M0060 M0090 M0250
MLDX 631	10	222	275	487	651	702	1524
	20	327	349	708	1096	1159	1562
MLDC 851	20	1508	1860	1979	2581	2768	3116
	30	1823	2203	2253	2971	3043	3192
	40	1979	2303	2459	3116	3116	3192
MLDX 633	20	1005	1076	2358	4160	4512	7139
MLDX 634	20	1325	1417	2981	4871	5203	7426
MLDX 635	20	1645	1757	3608	5677	6024	8251

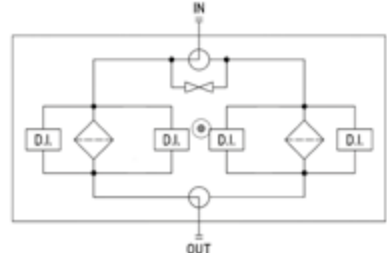
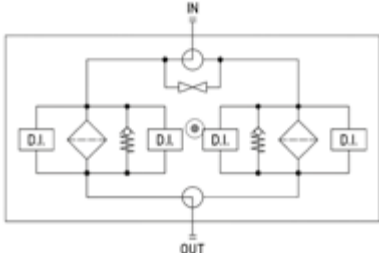
Maximum flow rate for a complete delivery filter with a pressure drop $\Delta p = 0.7$ bar.

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

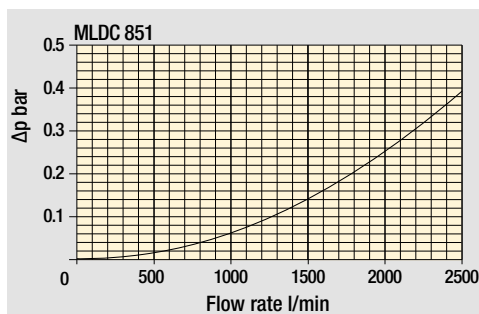
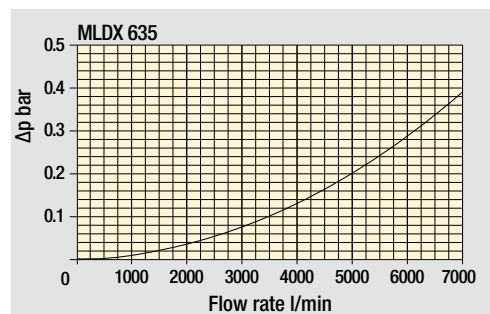
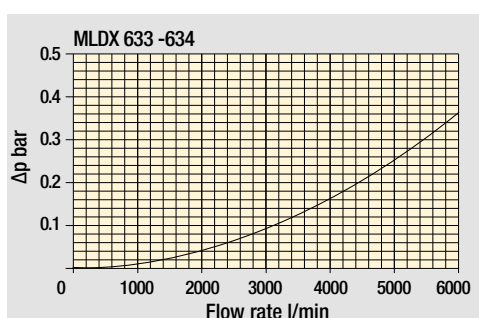
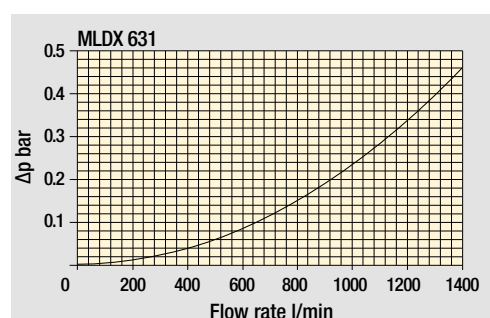
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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
MLDX 631-633-634-635	-	-	•
MLDC 851	•	•	-

Hydraulic diagram



Pressure drop

Filter housings
 Δp 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.

MLDX MLDX631 - MLDX633 - MLDX634 - MLDX635

Designation & Ordering code

COMPLETE FILTER

Series MLDX	Filter featuring MYCLEAN Filter Element	Example :	MLDX	633	20	A0010	D	A	35	FD125	0	6T	NN	P01	NN	
Filter size Nr. of elements LPX 630																
MLDX 631	1 + 1															
MLDX 633	3 + 3															
MLDX 634	4 + 4															
MLDX 635	5 + 5															
Length		631	633	634	635											
10		•	-	-	-											
20		•	•	•	•											
Filtration rating (filter media)																
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														
Element Δp																
D		10 bar														
Seals																
A		NBR														
Bypass																
35		With bypass 3.5 bar														
Connections		631	633	634	635											
		10	20	20	20	20										
							size length									
FD065	Flange EN 1092-1 / 01A / DN 65 / PN 16	•	-	-	-	-										
FD080	Flange EN 1092-1 / 01A / DN 80 / PN 16	-	•	-	-	-										
FD100	Flange EN 1092-1 / 01A / DN 100 / PN 16	-	•	-	-	-										
FD125	Flange EN 1092-1 / 01A / DN 125 / PN 16	-	-	•	-	-										
FD150	Flange EN 1092-1 / 01A / DN 150 / PN 16	-	-	-	•	-										
FD200	Flange EN 1092-1 / 01A / DN 200 / PN 16	-	-	-	-	•										
Additional connections																
0		Without additional connections														
Connections for clogging indicators																
6T		With both side indicator connection, with metal plugs														
Additional features																
NN		Without additional features														
Execution																
P01		Standard catalogue item														
Certificates																
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

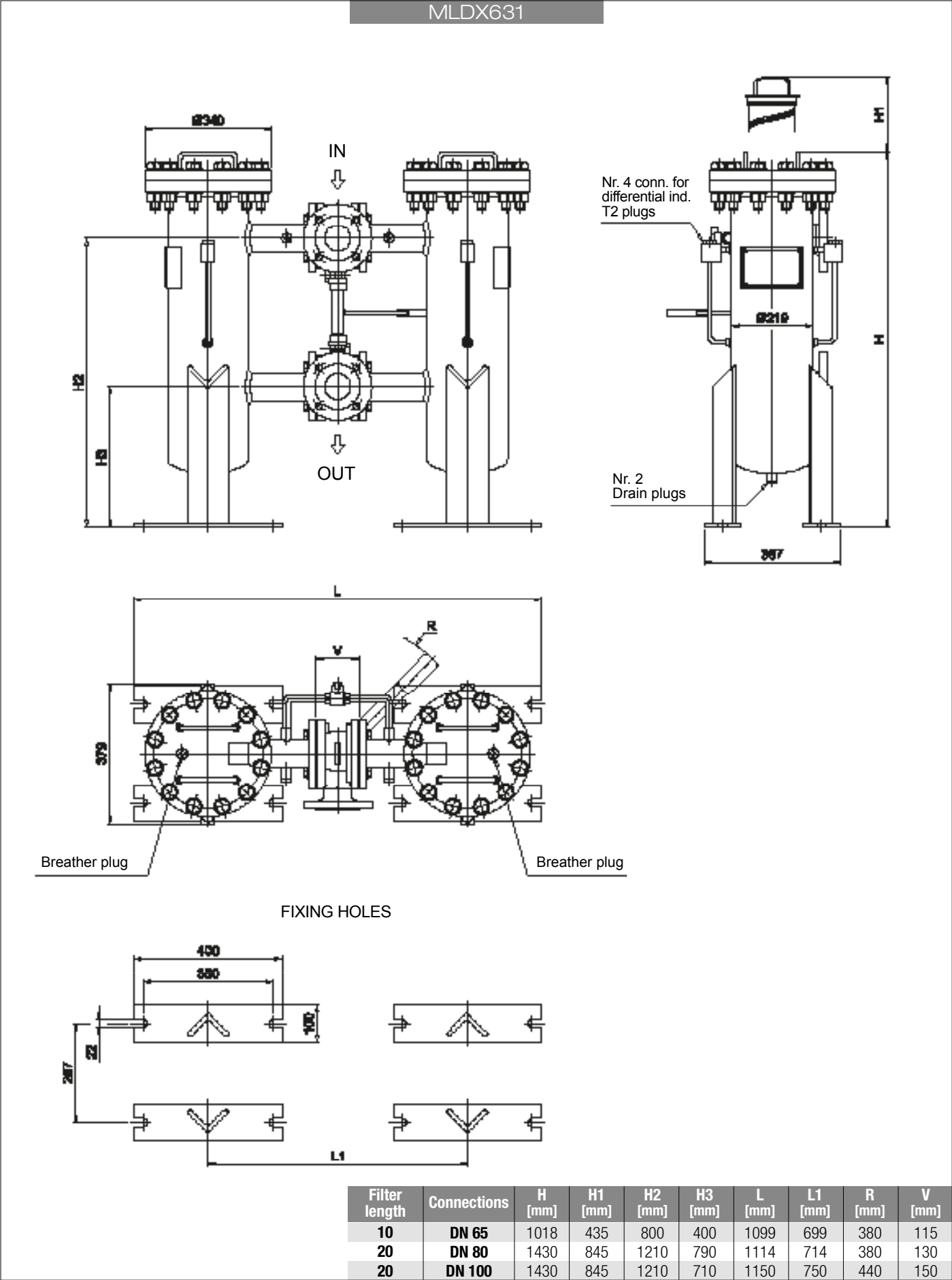
DTA	Electronic differential pressure indicator
DTI	I-O Link electronic differential pressure indicator
DVA	Visual differential pressure indicator
DVM	Visual differential pressure indicator

PLUGS

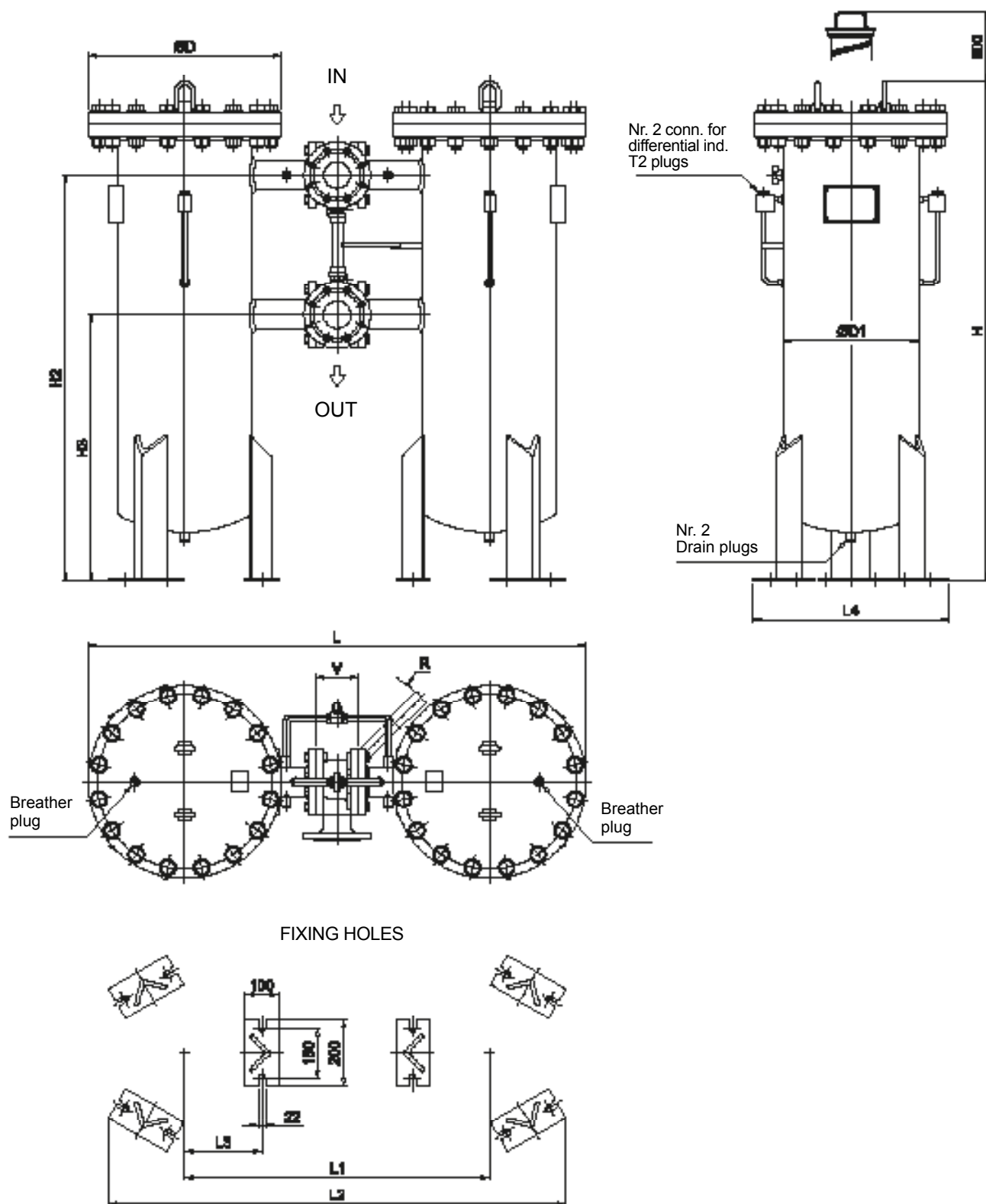
See page 807

T2	Plug
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FILTER ELEMENT	
Series	Config. example: LPX 630 20 A0010 D A 35 NN P01 NN
LPX Filter element with MYCLEAN feature	
Element size	630
Element length	10 20
Filtration rating (filter media)	
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
Element Δp	D 10 bar
Seals	A NBR
Bypass	35 With bypass 3.5 bar
Addictional features	NN Without addictional features
Execution	P01 Standard catalogue item
Certificates	NN None

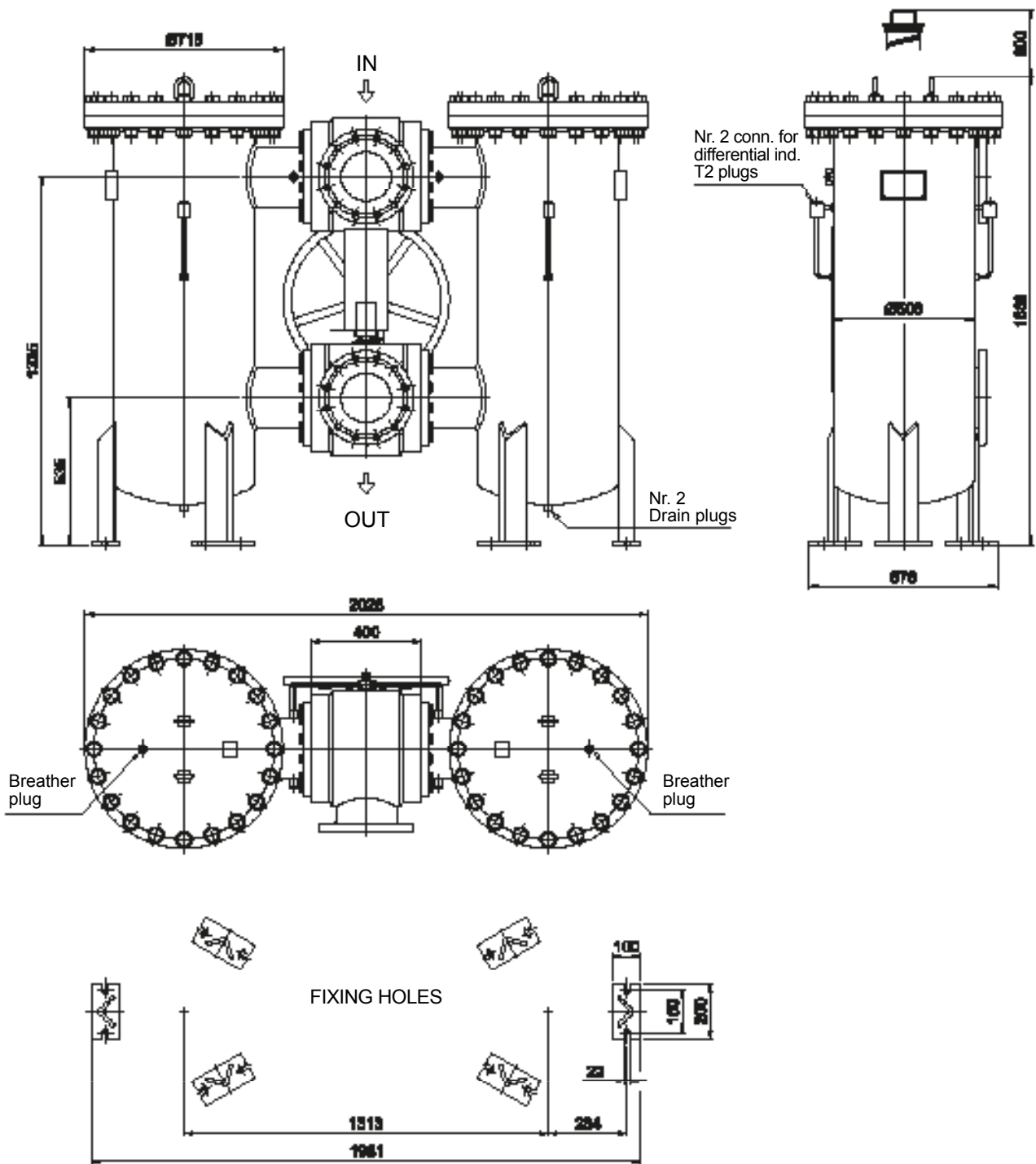


MLDX633 - 634



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]
633	DN 125	580	406	1563	1270	670	1551	971	1426	232	588	440	185
634	DN 150	640	457	1702	1340	640	1780	1140	1621	258	633	715	300

MLDX635



Designation & Ordering code

COMPLETE FILTER																
Series MLDC	Example :	MLDC	851	20	A0010	D	A	17	FD080	0	6T	NN	P01	NN		
Filter size 851	Nr. of elements MRC 850		1 + 1													
Length 20 30 40																
Filtration rating (filter media)					Element Δp											
A0003	Inorganic microfiber	3 μm						D					10 bar			
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														
Bypass																
00	Without bypass															
17	With bypass 1.75 bar															
Connections																
FD080	Flange EN 1092-1 / 01A / DN 80 / PN 16															
FD100	Flange EN 1092-1 / 01A / DN 100 / PN 16															
Additional connections																
0	Without additional connections															
Connections for clogging indicators																
6T	With both side indicator connection, with metal plugs															
Additional features																
NN	Without additional features															
Execution																
P01	Standard catalogue item															
Certificates																
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

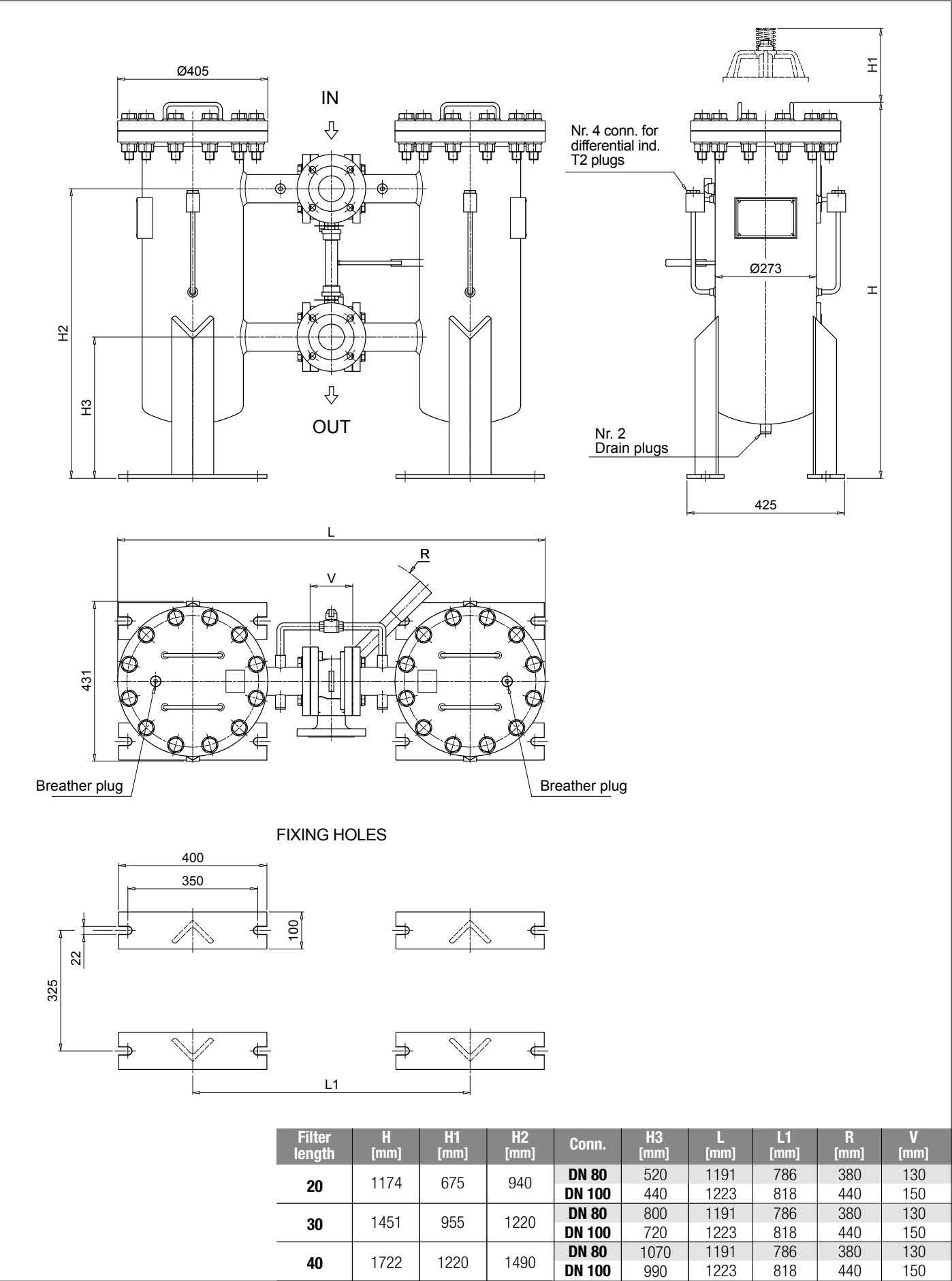
DTA	Electronic differential pressure indicator
DTI	I-O Link electronic differential pressure indicator
DVA	Visual differential pressure indicator
DVM	Visual differential pressure indicator

PLUGS

See page 807

T2	Plug
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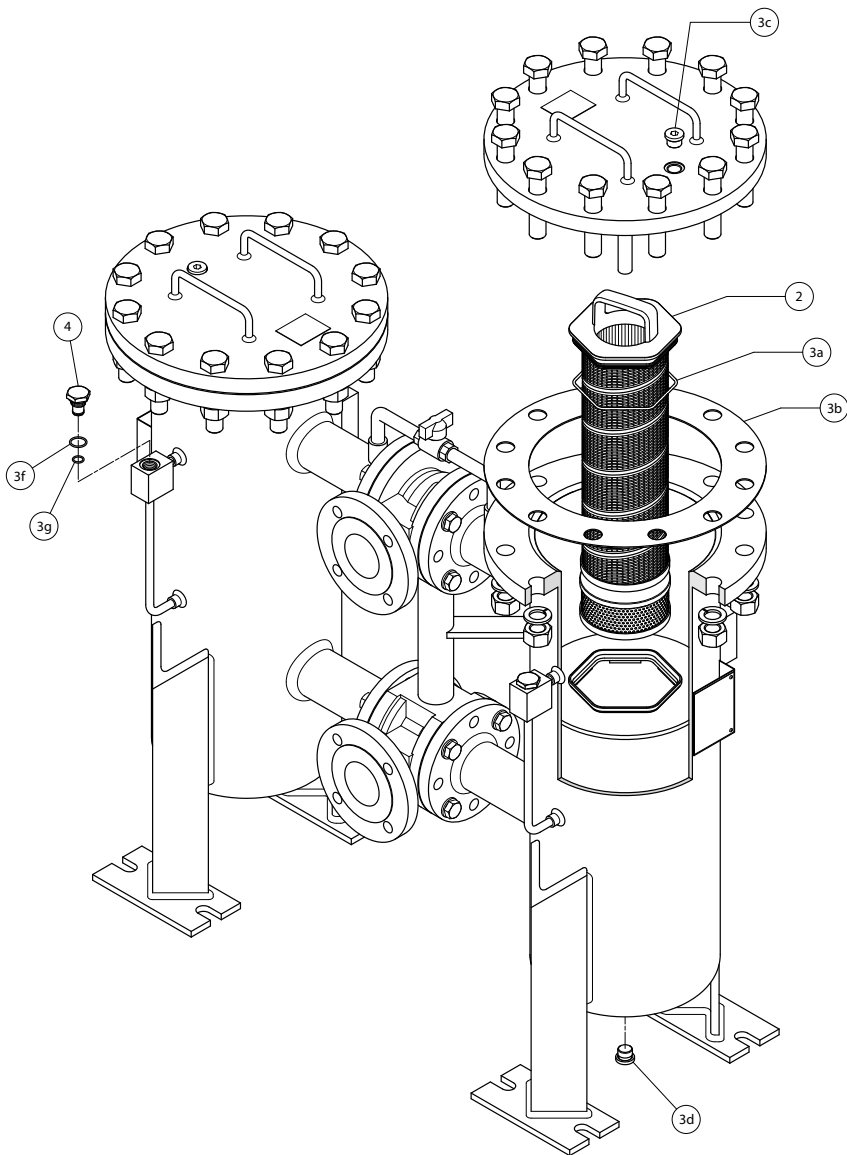
FILTER ELEMENT	
Element series and size MRC	Config. example: MRC 850 20 A0010 D A 00 NN P01 NN
Element size 850	
Element length 20 30 40	
Filtration rating (filter media)	
A0003 Inorganic microfiber 3 µm	
A0006 Inorganic microfiber 6 µm	
A0010 Inorganic microfiber 10 µm	
A0025 Inorganic microfiber 25 µm	
A0040 Inorganic microfiber 40 µm	
M0060 Wire mesh 60 µm	
M0090 Wire mesh 90 µm	
M0250 Wire mesh 250 µm	
Element Δp D 10 bar	
Seals A NBR	
Bypass 00 Without bypass	
Additional features NN Without additional features	
Execution P01 Standard catalogue item	
Certificates NN None	



MLDX SPARE PARTS

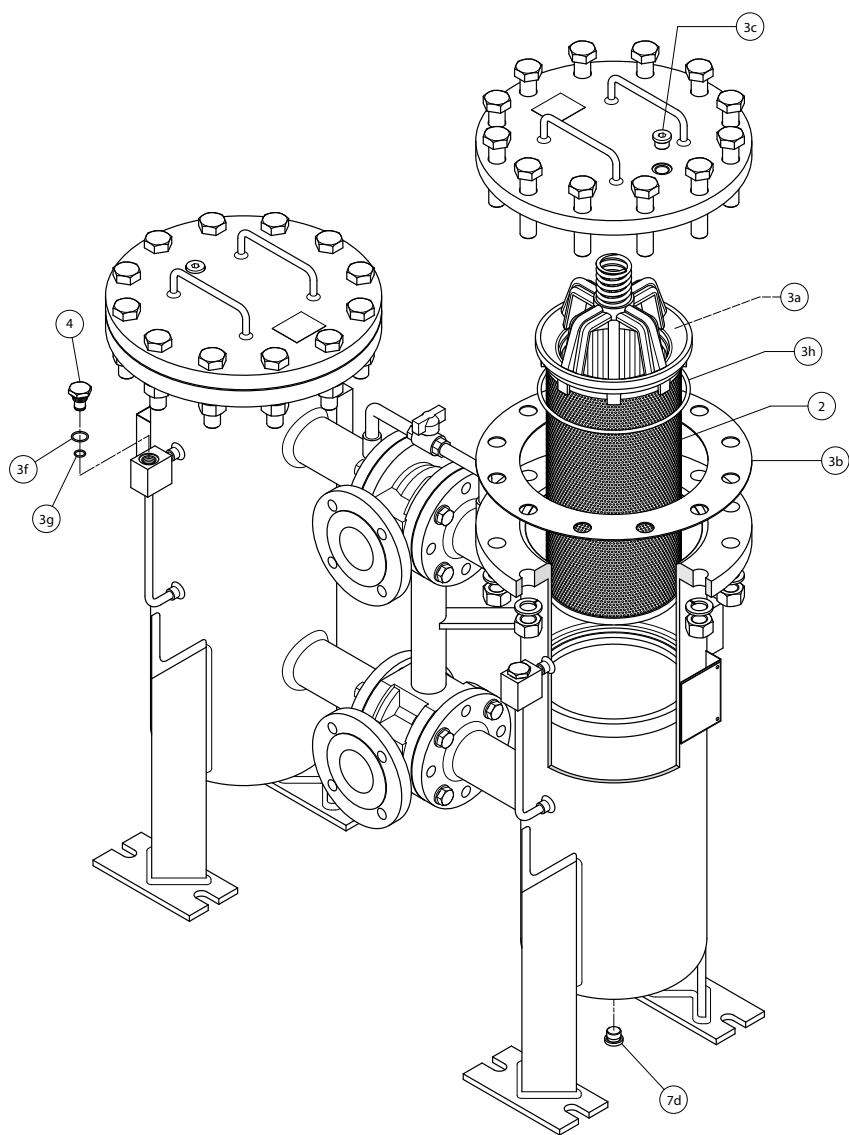
Order number for spare parts

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
MLDX631	See order table	AK021000684	T2H
MLDX633		AK021000685	T2H
MLDX634		AK021000686	T2H
MLDX635		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
MLDC851	See order table	AK021000786	T2H