

LMP 110 series

Maximum working pressure up to 8 MPa (80 bar) - Flow rate up to 165 l/min



INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS



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LMP 110 GENERAL INFORMATION

Description

Technical data

Low & Medium Pressure filters

Maximum working pressure up to 8 MPa (80 bar)
Flow rate up to 165 l/min

LMP110 is a range of versatile low pressure filter for transmission, protection of sensitive components in low pressure hydraulic systems and filtration of the coolant into the machine tools.

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

Available features:

- Female threaded connections up to 1", for a maximum return flow rate of 165 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual, electrical and electronic differential clogging indicators.

Common applications:

Delivery lines, in any low pressure industrial equipment or mobile machines

Filter housing materials

- Head: Aluminium
- Housing: Cataphoresis - Painted steel
- Bypass valve: Brass - Aluminium

Pressure

- Test pressure: 12 MPa (120 bar)
- Min. Burst pressure: 24 MPa (240 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 8 MPa (80 bar)

Bypass valve

- Opening pressure 0.35 MPa (3.5 bar) $\pm 10\%$
- Other opening pressures on request.

Filter element features

Filter LMP 110		Filter element CU	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	N	20 bar
M - Wire mesh	Standard	N	20 bar
P - Paper	Standard	N	20 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 OUT to IN			

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

LMP filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]				Volumes [dm ³]					
	Length	1	2	3	4	Length	1	2	3	4
LMP 110		1.60	1.80	2.10	2.60		0.75	0.81	1.11	1.53

Flow rates [l/min]

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
LMP 110	1	40	42	65	69	85	163	117	120
	2	49	57	83	83	101	163	136	138
	3	66	70	92	102	124	164	142	144
	4	86	102	118	124	144	165	148	149

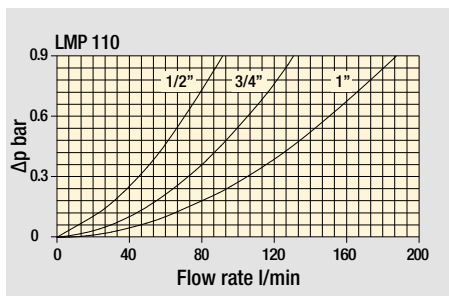
Maximum flow rate for a complete low and medium pressure filter with a pressure drop $\Delta p = 0.7$ bar.

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

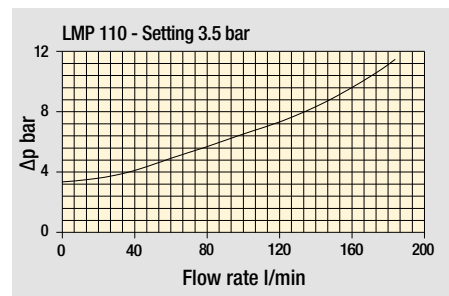
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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.

Pressure drop



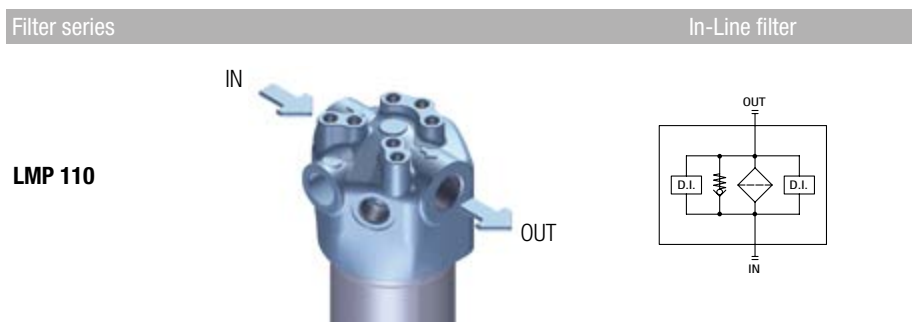
Filter housings Δp pressure drop



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.

Hydraulic diagram



LMP 110

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example: LMP110									
LMP110	4	B	A	D	1	A10	N	P01		
Length										
1 2 3 4										
Bypass valve										
S Without bypass										
B With bypass 3.5 bar										
Seals and treatments										
A NBR										
V FPM										
E EPDM										
C CR										
Connections										
A G 3/4"										
B G 1"										
C 3/4" NPT										
D 1" NPT										
E SAE 12 - 1 1/16" - 12 UN										
F SAE 16 - 1 5/16" - 12 UN										
Connection for differential pressure indicator										
1 Without										
2 With standard connection										
3 With connection on the opposite side										
6 With two connections on both sides										
Filtration rating (filter media)										
A03 Inorganic microfiber	3 µm									
A06 Inorganic microfiber	6 µm									
A10 Inorganic microfiber	10 µm									
A16 Inorganic microfiber	16 µm									
A25 Inorganic microfiber	25 µm									
M25 Wire mesh	25 µm									
M60 Wire mesh	60 µm									
M90 Wire mesh	90 µm									
P10 Resin impregnated paper	10 µm									
P25 Resin impregnated paper	25 µm									
		Element Δp		Execution						
		N 20 bar		P01 MP Filtri standard						
				Pxx Customized						

CLOGGING INDICATORS

See page 784

DEA Electrical differential pressure indicator	DTA Electronic differential pressure indicator
DEM Electrical differential pressure indicator	DTI I-O Link electronic differential pressure indicator
DEU Electrical differential pressure indicator	DVA Visual differential pressure indicator
DLA Electrical / visual differential pressure indicator	DVM Visual differential pressure indicator
DLE Electrical / visual differential pressure indicator	

PLUGS

See page 807

T2 Plug (not included)

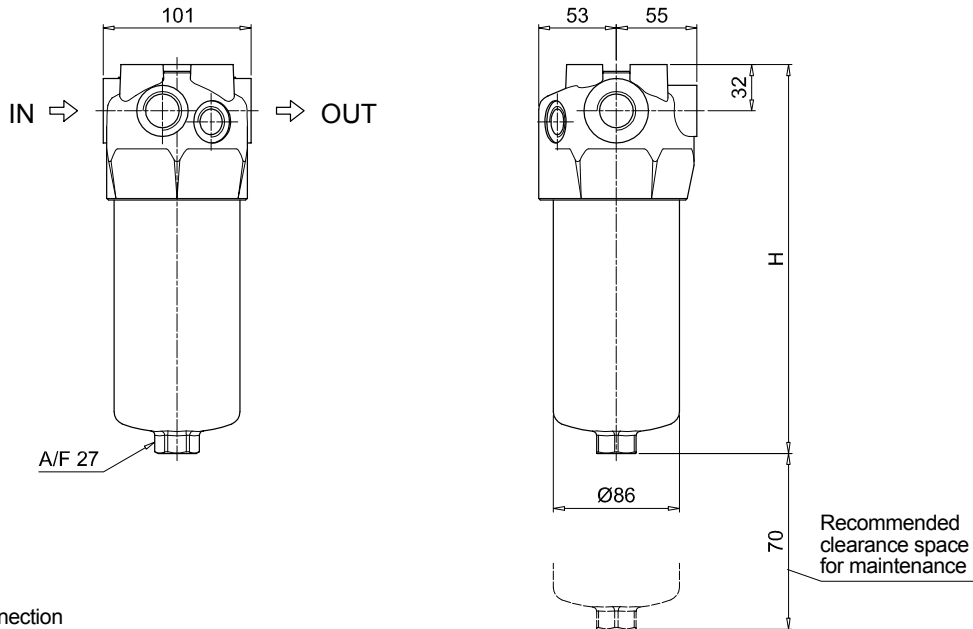
FILTER ELEMENT	
Element series and size CU110	Configuration example: CU110 4 A10 A N P01
Element length 1 2 3 4	
Filtration rating (filter media)	
A03 Inorganic microfiber 3 µm	
A06 Inorganic microfiber 6 µm	
A10 Inorganic microfiber 10 µm	
A16 Inorganic microfiber 16 µm	
A25 Inorganic microfiber 25 µm	
M25 Wire mesh 25 µm	
M60 Wire mesh 60 µm	
M90 Wire mesh 90 µm	
P10 Resin impregnated paper 10 µm	
P25 Resin impregnated paper 25 µm	
Seals and treatments	
A NBR	
V FPM	
E EPDM	
C CR	
	Element Δp N 20 bar
	Execution P01 MP Filtri standard Pxx Customized

LMP 110

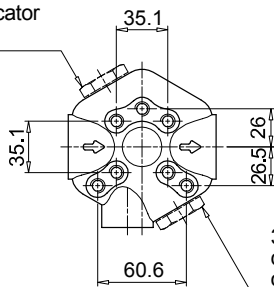
Dimensions

LMP110

Filter length	H [mm]
1	197
2	230
3	280
4	380

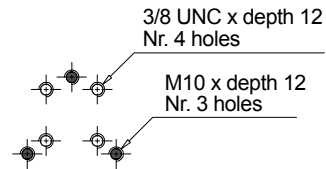


2 - Standard connection for diff. pressure indicator
T2 plug not included

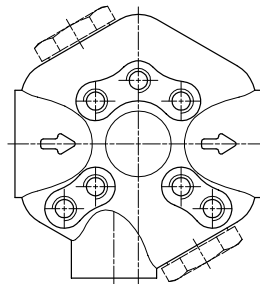


3 - Connection for diff. pressure indicator on the opposite side
T2 plug not included

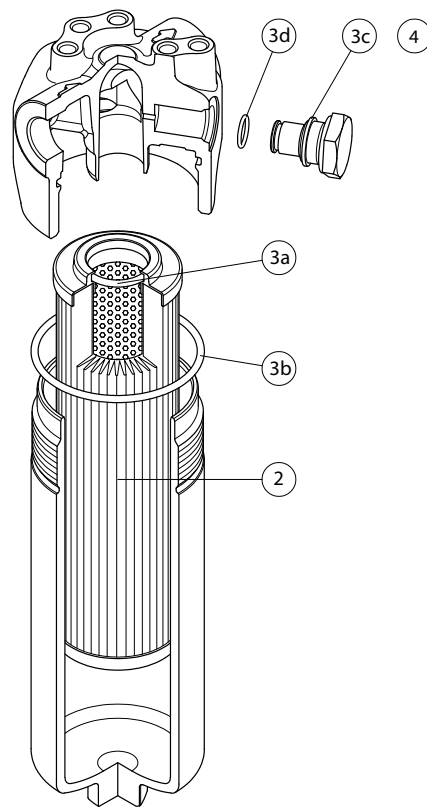
Fixing holes
Option for Metric and UNC screws



LMP 110



LMP 110



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.		Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		Indicator connection plug	
LMP 110	See order table	NBR	FPM	NBR	FPM
		02050478	02050479	T2H	T2V