LMP 110 series

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

LMP 110 GENERAL INFORMATION

Description

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

Technical data

Filter housing materials
- Head: Aluminium
- Housing: Cataphoresis - Painted steel
- Bypass valve: Brass - Aluminium

Pressure
- Test pressure: 12 MPa (120 bar)
- Burst pressure: 29 MPa (290 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 8 MPa (80 bar)

Bypass valve
- Opening pressure 350 kPa (3.5 bar) ±10%
- Other opening pressures on request.

Δp element type
- Microfibre filter elements - series N - W: 20 bar
- Wire mesh filter elements - series N: 20 bar
- Fluid flow 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]

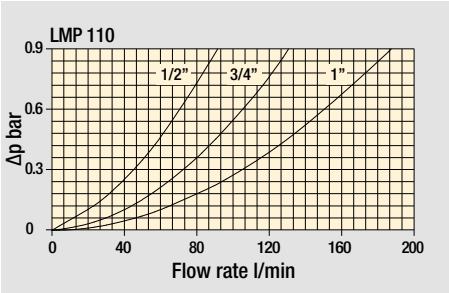
Filter series	Weights [kg]					Volumes [dm³]				
	Length	1	2	3	4	Length	1	2	3	4
LMP 110		1.60	1.80	2.10	2.60		0.75	0.81	1.11	1.53

FILTER ASSEMBLY SIZING
Flow rates [l/min]

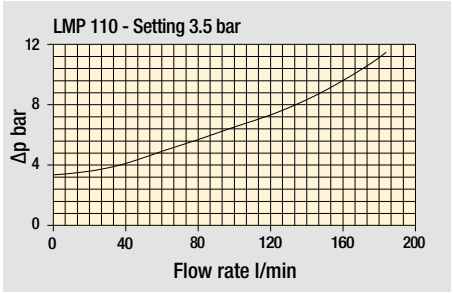
Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
LMP 110	1	40	42	65	69	85	163	117	120
	2	49	57	83	83	101	163	136	138
	3	66	70	92	102	124	164	142	144
	4	86	102	118	124	144	165	148	149

Maximum flow rate for a complete low and medium pressure filter with a pressure drop Δp = 0.7 bar.
The reference fluid has a kinematic viscosity of 30 mm^2/s (cSt) and a density of 0.86 kg/dm^3.
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

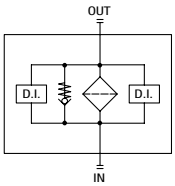


Bypass valve pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm^3 in compliance with ISO 3968. Δp varies proportionally with density.

Hydraulic symbols

Filter series	In-Line filter
LMP 110	



LMP 110

Designation & Ordering code

COMPLETE FILTER

Configuration example: LMP110 | 4 | B | A | D | 1 | A10 | N | P01

Series and size

LMP110

Length

1 | **2** | **3** | **4**

Bypass valve

S	Without bypass	**B**	With bypass 3.5 bar

Seals and treatments

A	NBR
V	FPM

Connections

		Aux (only LMP 112 - 116)
A	G 3/4”	G 3/4”
B	G 1”	G 3/4”
C	3/4” NPT	3/4” NPT
D	1” NPT	3/4” NPT
E	SAE 12 - 1 1/16” - 12 UN	SAE 12 - 1 1/16” - 12 UN
F	SAE 16 - 1 5/16” - 12 UN	SAE 12 - 1 1/16” - 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	**M25**	Wire mesh 25 µm
A06	Inorganic microfiber 6 µm	**M60**	Wire mesh 60 µm
A10	Inorganic microfiber 10 µm	**M90**	Wire mesh 90 µm
A16	Inorganic microfiber 16 µm	**P10**	Resin impregnated paper 10 µm
A25	Inorganic microfiber 25 µm	**P25**	Resin impregnated paper 25 µm

Element Δp

N	20 bar

Execution

P01	MP Filtri standard
Pxx	Customized

FILTER ELEMENT

Configuration example: CU110 | 4 | A10 | A | N | P01

Element series and size

CU110

Element length

1 | **2** | **3** | **4**

Filtration rating (filter media)

A03	Inorganic microfiber 3 µm	**M25**	Wire mesh 25 µm
A06	Inorganic microfiber 6 µm	**M60**	Wire mesh 60 µm
A10	Inorganic microfiber 10 µm	**M90**	Wire mesh 90 µm
A16	Inorganic microfiber 16 µm	**P10**	Resin impregnated paper 10 µm
A25	Inorganic microfiber 25 µm	**P25**	Resin impregnated paper 25 µm

Seals and treatments

A	NBR
V	FPM

Element Δp

N	20 bar

Execution

P01	MP Filtri standard
Pxx	Customized

CLOGGING INDICATORS

See page 716

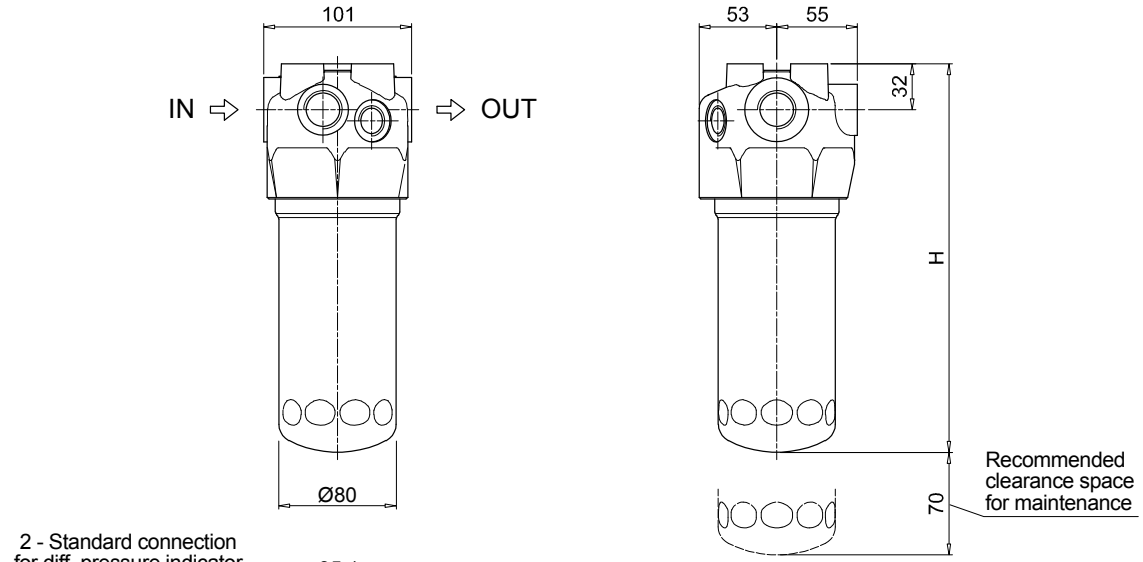
DEA	Electrical differential pressure indicator	**DLE**	Electrical / visual differential pressure indicator
DEM	Electrical differential pressure indicator	**DTA**	Electronic differential pressure indicator
DEU	Electrical differential pressure indicator	**DVA**	Visual differential pressure indicator
DLA	Electrical / visual differential pressure indicator	**DVM**	Visual differential pressure indicator

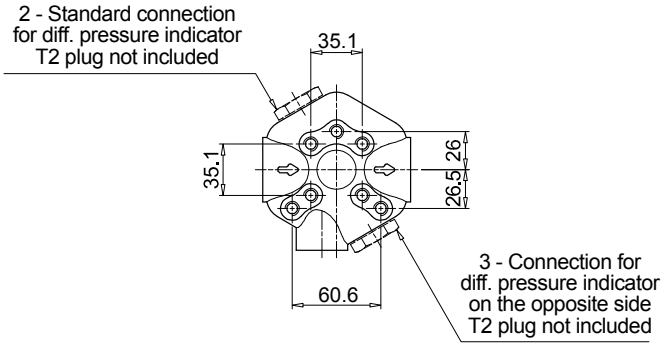
PLUGS

See page 737

T2	Plug (not included)

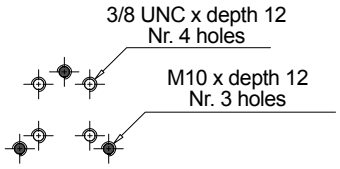
LMP110	
Filter length	**H [mm]**
1	182
2	215
3	265
4	365



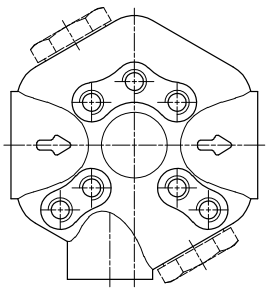


Fixing holes

Option for Metric and UNC screws

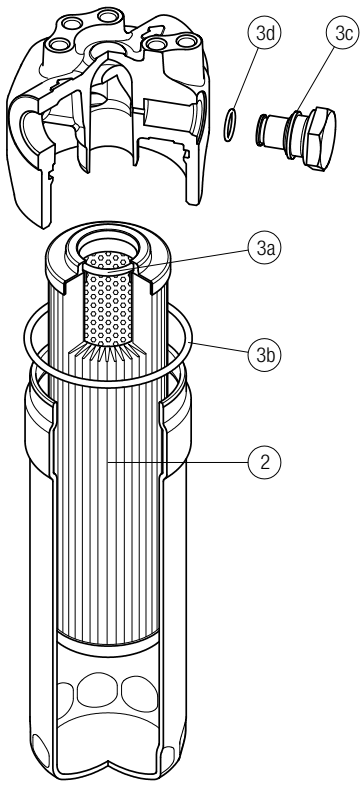


LMP 110



Order number for spare parts

LMP 110



Item:	Q.ty: 1 pc. (2)	Q.ty: 1 pc. (3) (3a ÷ 3d)		Q.ty: 1 pc. (4)	
Filter series	Filter element	Seal Kit code number NBR	Seal Kit code number FPM	Indicator connection plug NBR	Indicator connection plug FPM
LMP 110	See order table	02050478	02050479	T2H	T2V