

LMP 124 series

MULTI PORT

Maximum working pressure up to 8 MPa (80 bar) - Flow rate up to 120 l/min



Description

Technical data

Return / Suction filter

In-line

Maximum working pressure up to 8 MPa (80 bar)
Flow rate up to 120 l/min

LMP124 is a range of return/suction filters for hydraulic systems with two or more circuits (both open and closed loops). They are able to provide pressurized oil cleaned by fine filtration to the feed pump of the hydrostatic systems.

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 120 l/min
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve to the tank, to relieve excessive pressure drop across the filter media when the return flow is enough higher than the suction flow
- Bypass valve to the suction line with additional suction filter element, to relieve excessive pressure drop across the filter media when the return flow is not enough higher than the suction flow
- De-pressurization valve, to reduce the pressure inside the filter during the maintenance operations
- Visual, electrical and electronic differential clogging indicators

Common applications:

Mobile machines with hydrostatic systems on board.
 (i.e. skid steer loaders, telehandlers, dumpers, road sweepers)

Filter housing materials

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

Pressure

- Test pressure: 12MPa (120 bar)
- Burst pressure: 38 MPa (380 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 80 bar (8 MPa)

Bypass valve

- Opening pressure 250 kPa (2.5 bar) ±10%
- Other opening pressures on request.

Δp element type

- Microfibre filter elements - series N - W: 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

LMP124 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 124		1.70	1.90	2.20	2.70		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 124	1	39	41	58	60	69	99	84	85
	2	47	53	68	69	77	99	90	91
	3	59	61	73	77	86	99	92	93
	4	70	78	84	86	93	100	94	95

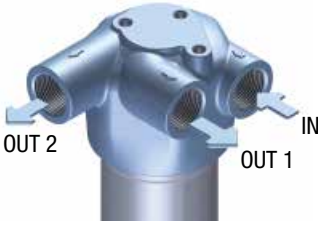
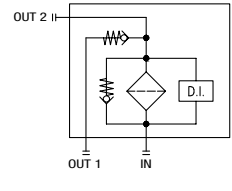
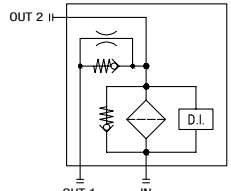
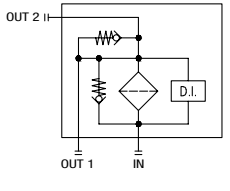
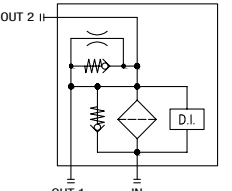
Maximum flow rate for a complete return/suction filter with a pressure drop $\Delta p = 1.2$ bar.


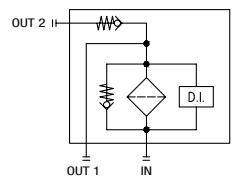
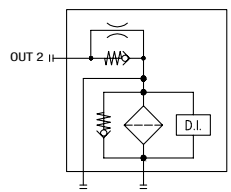
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

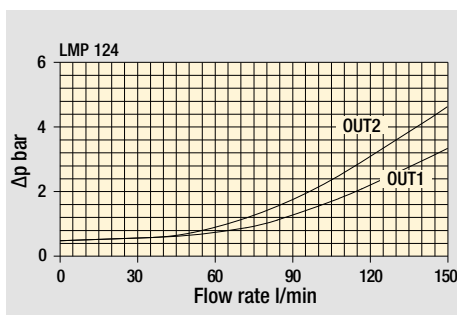
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

Hydraulic symbols - Valves option

Multiport	Valves C option	Valves D option	Valves E option	Valves F option
 <p>IN - Return OUT 1 - Tank OUT 2 - Pump</p>				

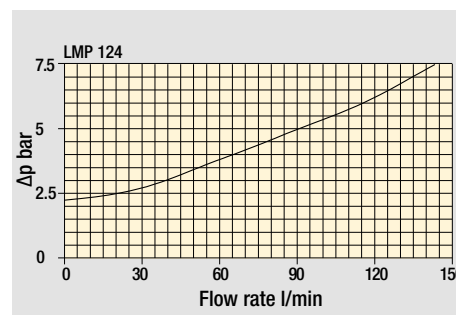
Multiport	Valves G option	Valves H option
 <p>IN - Return OUT 1 - Pump OUT 2 - Tank</p>		

Filter housings Δp pressure drop



OUT 1: Valves option G/H
OUT 2: Valves option C/D/E/F

Bypass valve pressure drop



Pressure drop

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example: LMP124 4 C A F 1 A10 N P01																			
LMP124																				
Filter length	1 2 3 4																			
Hydraulic diagram configuration - see page 289	C D E F G H																			
Seals and treatments	A NBR V FPM																			
Connections	B G 1" F SAE 16 - 1 5/16" - 12 UN																			
Connection for indicator	1 Without 2 With connection G 1/8" for clogging indicator 3 With connection G 1/4" for clogging indicator 4 With connection for differential pressure indicator																			
Filtration rating (filter media)	<table border="0"> <tr> <td>A03 Inorganic microfiber 3 µm</td> <td>M25 Wire mesh 25 µm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 µm</td> <td>M60 Wire mesh 60 µm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 µm</td> <td>M90 Wire mesh 90 µm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 µm</td> <td>P10 Resin impregnated paper 10 µm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 µm</td> <td>P25 Resin impregnated paper 25 µm</td> </tr> </table>										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
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A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm																			
	Element Δp					Execution														
	N 20 bar					P01 MP Filtri standard Pxx Customized														

FILTER ELEMENT

Element series and size	Configuration example: CU110 4 A10 A N P01																
CU110																	
Element length	1 2 3 4																
Filtration rating (filter media)	<table border="0"> <tr> <td>A03 Inorganic microfiber 3 µm</td> <td>M25 Wire mesh 25 µm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 µm</td> <td>M60 Wire mesh 60 µm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 µm</td> <td>M90 Wire mesh 90 µm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 µm</td> <td>P10 Resin impregnated paper 10 µm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 µm</td> <td>P25 Resin impregnated paper 25 µm</td> </tr> </table>							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
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	Seals		Element Δp		Execution												
	A NBR V FPM		N 20 bar		P01 MP Filtri standard Pxx Customized												

CLOGGING INDICATORS

See page 722-723

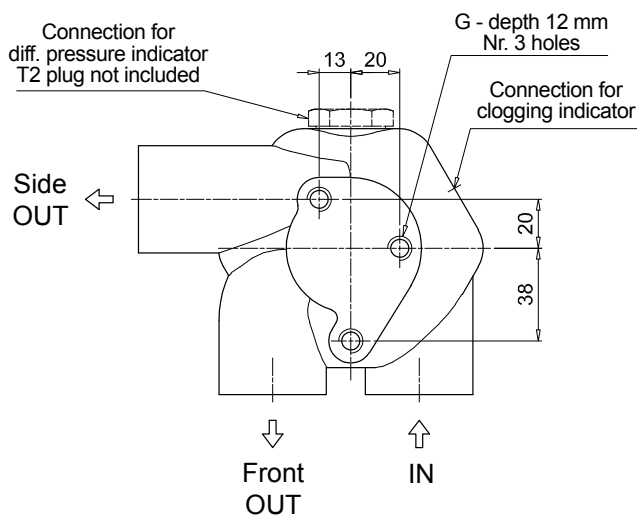
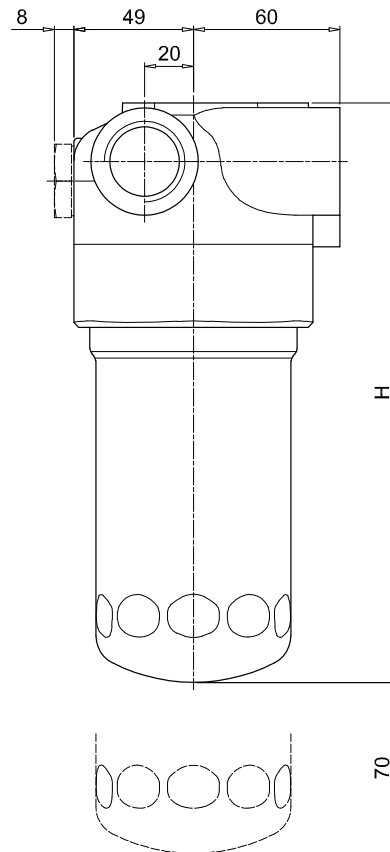
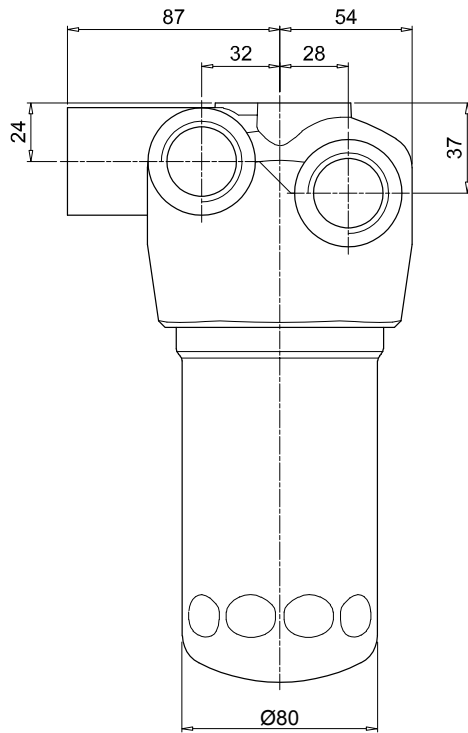
Indicators on Return Line	
BVA Axial pressure gauge	BEA Electrical pressure indicator
BVR Radial pressure gauge	BEM Electrical pressure indicator
BVP Visual pressure indicator with automatic reset	BET Electrical pressure indicator
BVQ Visual pressure indicator with manual reset	BLA Electrical / visual pressure indicator
Differential pressure indicators	
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 747

T2 Plug (not included)

LMP 124	
MULTIPORT	
Filter length	H [mm]
1	182
2	215
3	265
4	365
Connections	R
B	M10
F	3/8" UNC

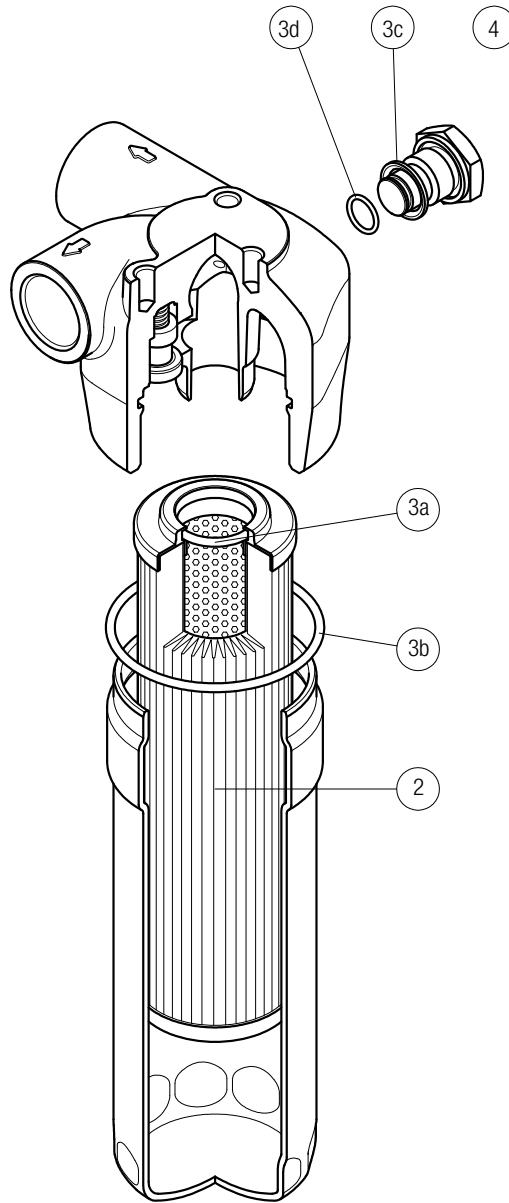


LMP 124 MULTIPORT

MULTIPORT

Order number for spare parts

LMP 124 MULTIPORT



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 124 MULTIPORT	See order table	NBR	FPM	NBR	FPM
	2	3 (3a ÷ 3d)		4	
		02050478	02050479	T2H	T2V

Designation & Ordering code

VACUUM INDICATORS

Series	Configuration example 1:							
VE Electrical vacuum indicator	VE	A	21	V	A	50	P01	EX
VL Electrical/Visual vacuum indicator	Configuration example 2:							
	VL	B	21	A	A	71	P01	
VV Vacuum gauge	Configuration example 3:							
	VV	R	20				P01	

Type VE - VL	Type VV
A Connection EN 10226 - R1/4"	A Axial connection EN 10226 - R1/4"
B Connection EN 10226 - R1/8"	B Axial connection EN 10226 - R1/8"
	R Radial connection EN 10226 - R1/4"
	S Radial connection EN 10226 - R1/8"

Vacuum setting	VE	VL	VV
20 -0.16 bar	-	-	•
21 -0.21 bar	•	•	-

Seals	VEA - VLA	VEB - VLB
A NBR	•	•
V FPM	•	-

Thermostat	VE	VL
A Without thermostat	•	•

Electrical connections	VE	VL
50 Connection EN 175301-803	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vac	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	•

Option
P01 MP Filtri standard
Pxx Customized

Certifications	VEA21A	VEA21V	VEB	VL	VV
Without	•	•	•	•	•
EX ATEX certification	•	•	•	-	-
UL UL certification	•	-	-	-	-

BAROMETRIC (PRESSURE) INDICATORS

Series	Configuration example 1:							
BE Electrical pressure indicator	BE	M	15	H	A	41	P01	EX
BL Electrical/Visual pressure indicator	Configuration example 2:							
	BL	A	20	H	A	71	P01	
BV Visual pressure indicator	Configuration example 3:							
	BV	R	14				P01	
	Configuration example 4:							
	BV	P	20	H			P01	

Type	BE	BL	BV
A Standard type	•	•	A Axial connection pressure gauge
M With wired electrical connection	•	-	R Radial connection pressure gauge
T With thermal switch	•	-	P Visual indicator with automatic reset
			Q Visual indicator with manual reset

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
14 1.4 bar	-	-	-	•	-
15 1.5 bar	•	-	•	-	-
20 2.0 bar	•	•	•	-	•
25 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVP-BVQ
H HNBR	•	•	•

Thermostat	BEA-BEM	BET	BLA
A Without thermostat	•	-	•
F With thermostat	-	•	-

Electrical connections	BEA	BEM	BET	BL
10 Connection AMP Superseal series 1.5	-	-	•	-
30 Connection Deutsch DT-04-2-P	-	-	•	-
41 Connection via four-core cable	-	•	-	-
50 Connection EN 175301-803	•	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vac	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option
P01 MP Filtri standard
Pxx Customized

Certifications	BEA	BEM-BET	BL	BV
Without	•	•	•	•
EX ATEX certification	•	-	-	-
UL UL certification	•	-	-	-

DIFFERENTIAL PRESSURE INDICATORS

Series	Configuration example 1:								Configuration example 2:		Configuration example 3:		Configuration example 4:		Configuration example 5:																							
DE Electrical differential pressure indicator	DE	M	12	H	F	50	P01	DE	U	50	V	A	50	P01	UL	DL	E	20	V	A	71	P01	DT	A	50	H	F	70	P01	DV	M	70	V			P01		
DL Electrical/Visual differential pressure indicator																																						
DT Electronic differential pressure indicator																																						
DV Visual differential pressure indicator																																						

Type	DE	DL	DT	DV				
A Standard type	•	•	•	A With automatic reset				
M With wired electrical connection	•	-	-	M With manual reset				
U Standard type 210 bar, UL certified	•	-	-					
E For high power supply	-	•	-					

Pressure setting	DEA	DEM	DEU	DLA	DLE	DTA	DVA	DVM
20 2.0 bar	•	•	•	•	•	•	•	•

Seals	DEA	DEM	DEU	DLA	DLE	DTA	DVA	DVM
H HNBR	•	•	-	•	•	•	•	•
V FPM	•	•	•	•	•	•	•	•

Thermostat	DEA	DEM	DEU	DLA	DLE	DT
A Without thermostat	•	•	•	•	•	-
F With thermostat	-	•	-	-	•	•

Electrical connections	DEA	DEM	DEU	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	-	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	-	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-	-
50 Connection EN 175301-803	•	-	•	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•	-	-

Option	DEU	OTHERS
P01 MP Filtri standard	-	•
Pxx Customized	•	-

Certifications	DEU	OTHERS
Without	-	•
UL UL certification	•	-

PLUGS

Series	Configuration example	
T2 Plug	T2	H

Seals
H HNBR
V FPM