



Low & Medium Pressure filters

LMP 112 / 123 series MULTIPORT

Maximum working pressure up to 8 MPa (80 bar) - Flow rate up to 175 l/min



LMP 112/123
MULTIPOINT

GENERAL INFORMATION

Description

Technical data

Low & Medium Pressure filters

Maximum working pressure up to 8 MPa (80 bar)
Flow rate up to 175 l/min

LMP MULTIPOINT filters 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 175 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
- Multiport and multifunction schemes, to meet any type of application.
- LMP112: 3/4" additional input port
- LMP116: 3/4" additional output port
- LMP118: 3/4" bypass port, to send the bypass flow to the reservoir instead of the system
- LMP119: 3/4" relief port, to relief the input pressure in the filter, protecting the components downstream the filter against back pressure caused by the pressure drop (cold starts)
- LMP120: connections placed in the same side
- LMP122: connections placed in the same side and 1" additional output port
- LMP123: 2 and 3 bar integrated relief valve

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)
- Burst pressure:
 - LMP 112/119: 29 MPa (290 bar)
 - LMP 120/123: 38 MPa (380 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 MULTIPOINT 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 112-116-118-119		1.60	1.80	2.10	2.60		0.75	0.81	1.11	1.53
LMP 120-122		1.90	2.10	2.40	2.90		0.75	0.81	1.11	1.53
LMP 123		1.70	1.90	2.20	2.70		0.75	0.81	1.11	1.53

GENERAL INFORMATION

LMP 112/123
MULTI-PORT

Flow rates [l/min]

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
LMP 112	1	36	38	55	57	67	105	84	86
	2	44	49	66	66	76	105	93	94
	3	56	58	71	77	87	106	96	97
	4	67	77	85	88	97	106	99	99
LMP 116	1	36	38	54	56	64	96	79	80
	2	43	49	63	64	72	96	86	87
	3	54	57	68	73	82	96	88	89
	4	65	73	79	82	89	96	91	91
LMP 118	1	40	42	65	69	85	163	117	120
	2	49	57	83	83	101	163	136	138
LMP 119	3	66	70	92	102	124	164	142	144
	4	86	102	118	124	144	165	148	149
LMP 120	1	40	43	66	70	87	172	121	125
	2	50	58	85	85	104	172	142	144
	3	67	71	94	105	129	173	149	151
	4	88	106	122	129	151	174	155	157
LMP 122	1	39	42	64	67	81	146	109	111
	2	49	56	80	80	96	146	124	126
	3	65	68	88	96	114	146	129	130
	4	82	97	110	115	131	147	134	135

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.

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
LMP 123	1	35	37	50	52	59	83	70	71
	2	41	46	58	58	65	83	76	76
	3	51	53	62	65	72	83	77	78
	4	59	65	70	72	78	83	79	79

Maximum flow rate for a complete low and medium pressure filter with a pressure drop $\Delta p = 2.7$ 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.

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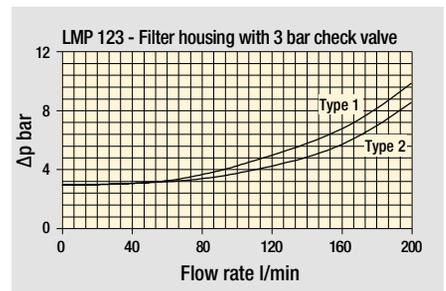
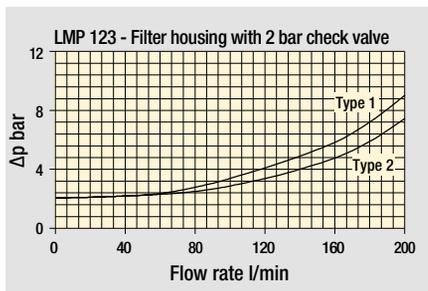
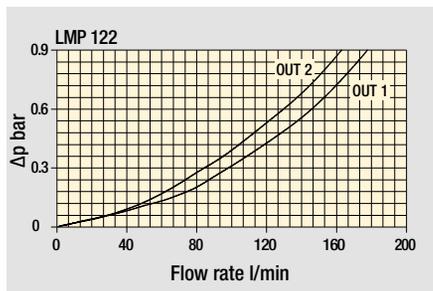
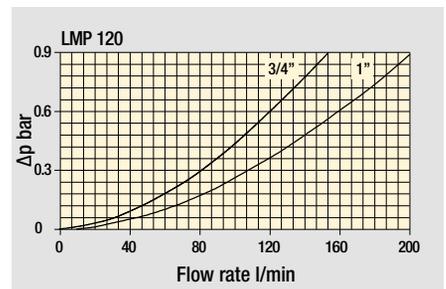
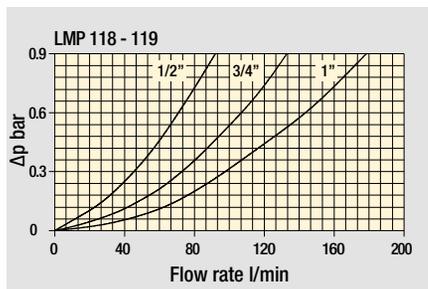
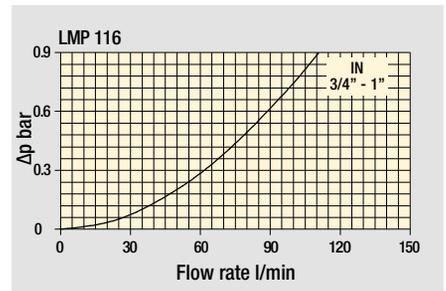
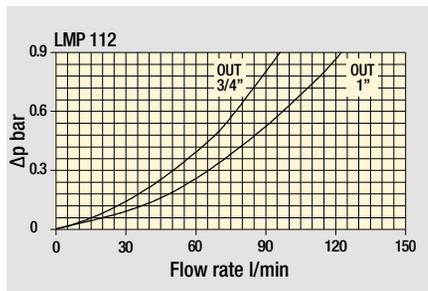
LMP 112/123

MULTIPORT

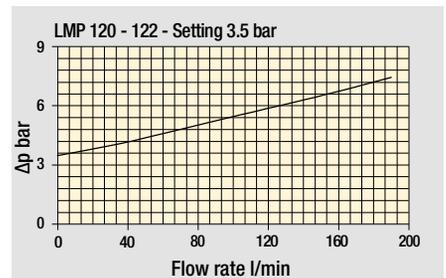
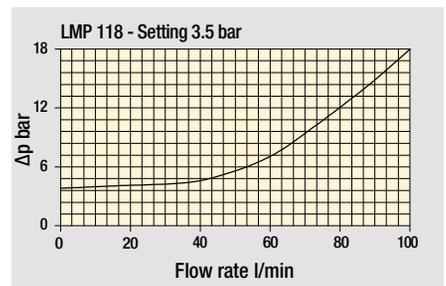
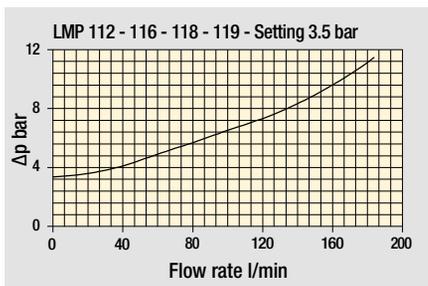
GENERAL INFORMATION

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.

GENERAL INFORMATION

LMP 112/123
MULTI-PORT

Hydraulic symbols - Multiport styles

LMP 112 Double IN port

LMP 120 Port IN-OUT on the same side

LMP 116 Double OUT port

LMP 122 Lateral OUT port high flow

LMP 118 Bypass lateral
Always cleaning fluid in OUT port

LMP 123 Bypass valve
Type 1 for heat exchanger high flow

LMP 119 Safety valve 6 bar
for heat exchanger

LMP 123 Type 2

LMP
MULTIPORT

LMP112 - LMP116

Designation & Ordering code

COMPLETE FILTER

Series and size **LMP112 | LMP116** Configuration example: **LMP112** **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

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

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	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 726

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)

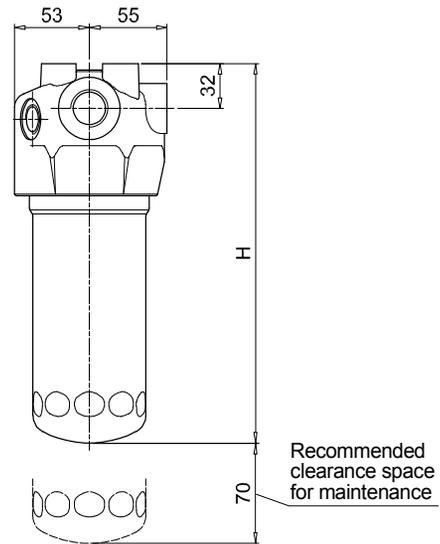
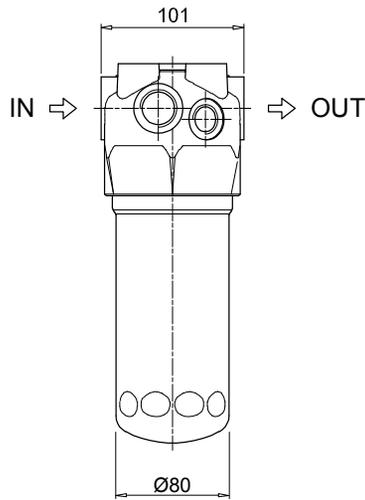
LMP112 - LMP116

LMP
MULTIPOINT

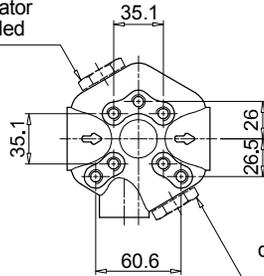
Dimensions

LMP112 - LMP116

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

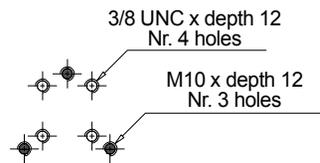


2 - Standard connection for diff. pressure indicator
T2 plug not included

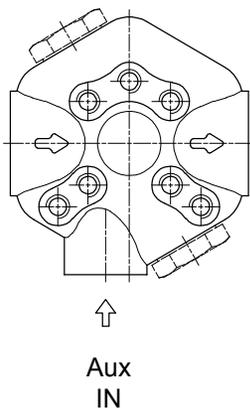


3 - Connection for diff. pressure indicator on the opposite side
T2 plug not included

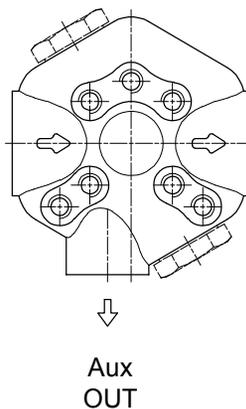
Fixing holes
Option for Metric and UNC screws



LMP 112



LMP 116



LMP
MULTIPOINT

LMP118 - LMP119

Designation & Ordering code

COMPLETE FILTER

Configuration example: **LMP118** | **4** | **B** | **A** | **D** | **1** | **A10** | **N** | **P01**

Series and size
LMP118 | LMP119

Length
1 | 2 | 3 | 4

Bypass valve
B With bypass 3.5 bar

Seals and treatments
A NBR
V FPM

Connections		Aux OUT
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

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

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
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	Element Δp	Execution
A NBR V FPM	N 20 bar	P01 MP Filtri standard Pxx Customized

CLOGGING INDICATORS

See page 726

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)

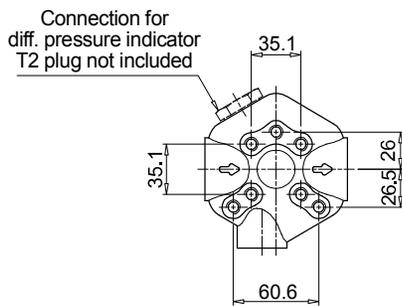
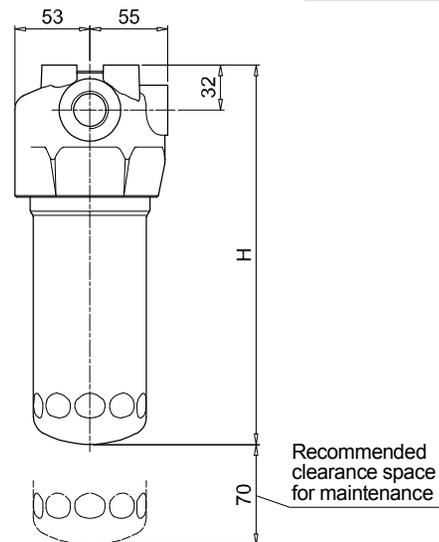
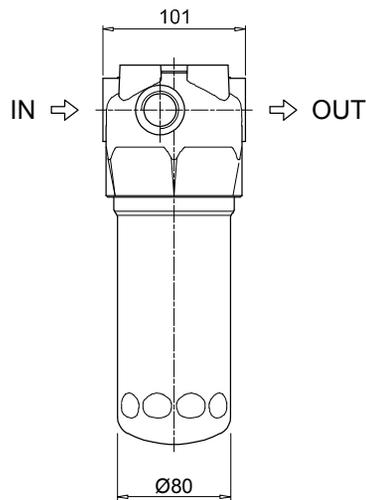
LMP118 - LMP119

LMP
MULTIPORT

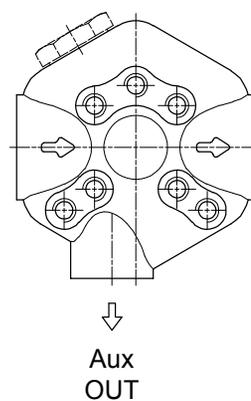
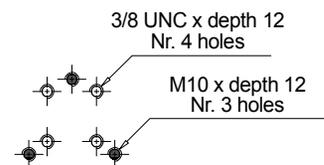
Dimensions

LMP118 - LMP119

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



Fixing holes
Option for Metric and UNC screws



LMP
MULTIPOINT

LMP120 - LMP122

Designation & Ordering code

COMPLETE FILTER

Series and size **LMP120 | LMP122** Configuration example: **LMP120** **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

Connections	LMP120	LMP122
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

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

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	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 726

DEA Electrical differential pressure indicator

DEM Electrical differential pressure indicator

DEU Electrical differential pressure indicator

DLA Electrical / visual differential pressure indicator

DLE Electrical / visual differential pressure indicator

DTA Electronic differential pressure indicator

DVA Visual differential pressure indicator

DVM Visual differential pressure indicator

PLUGS

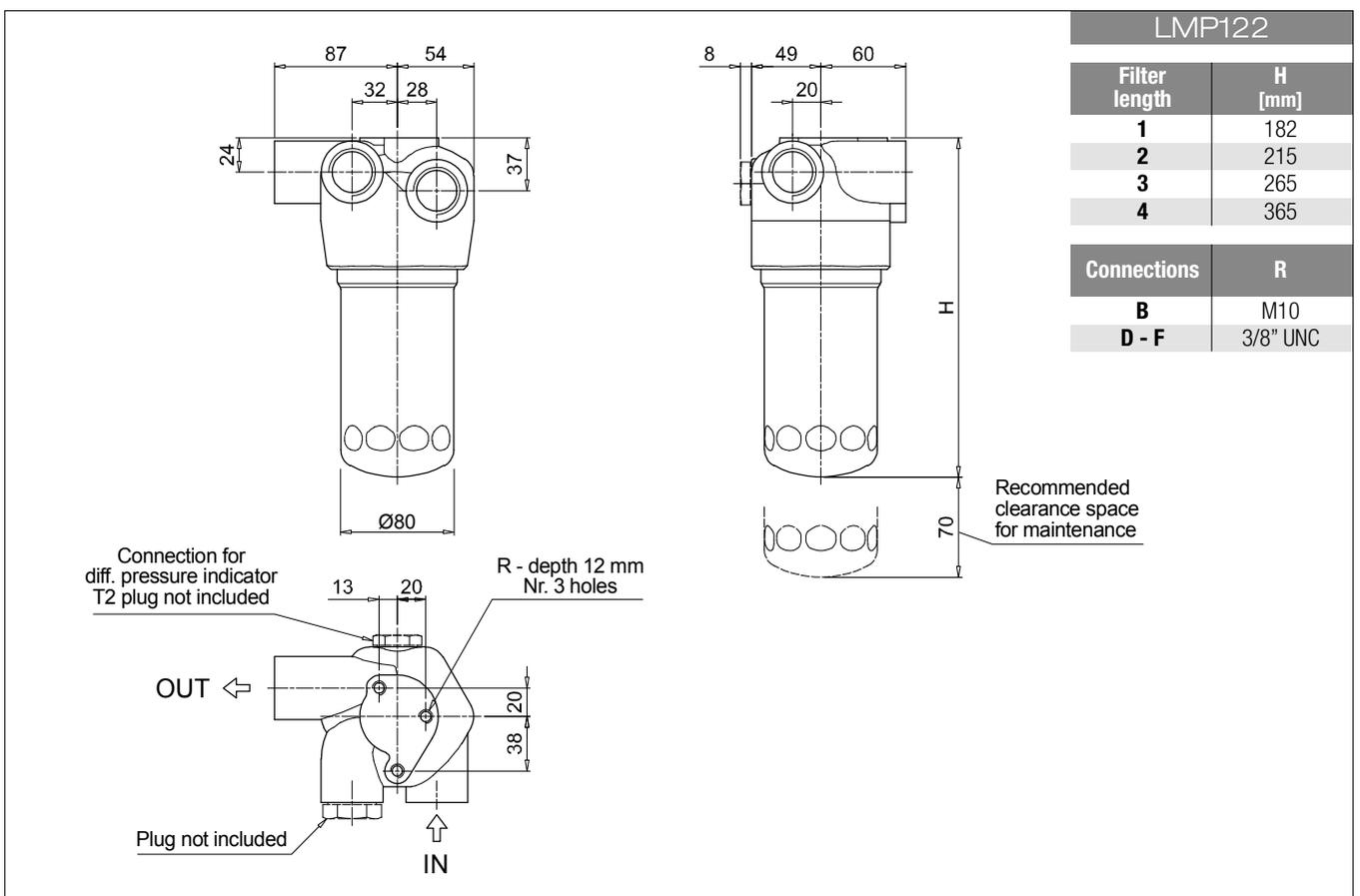
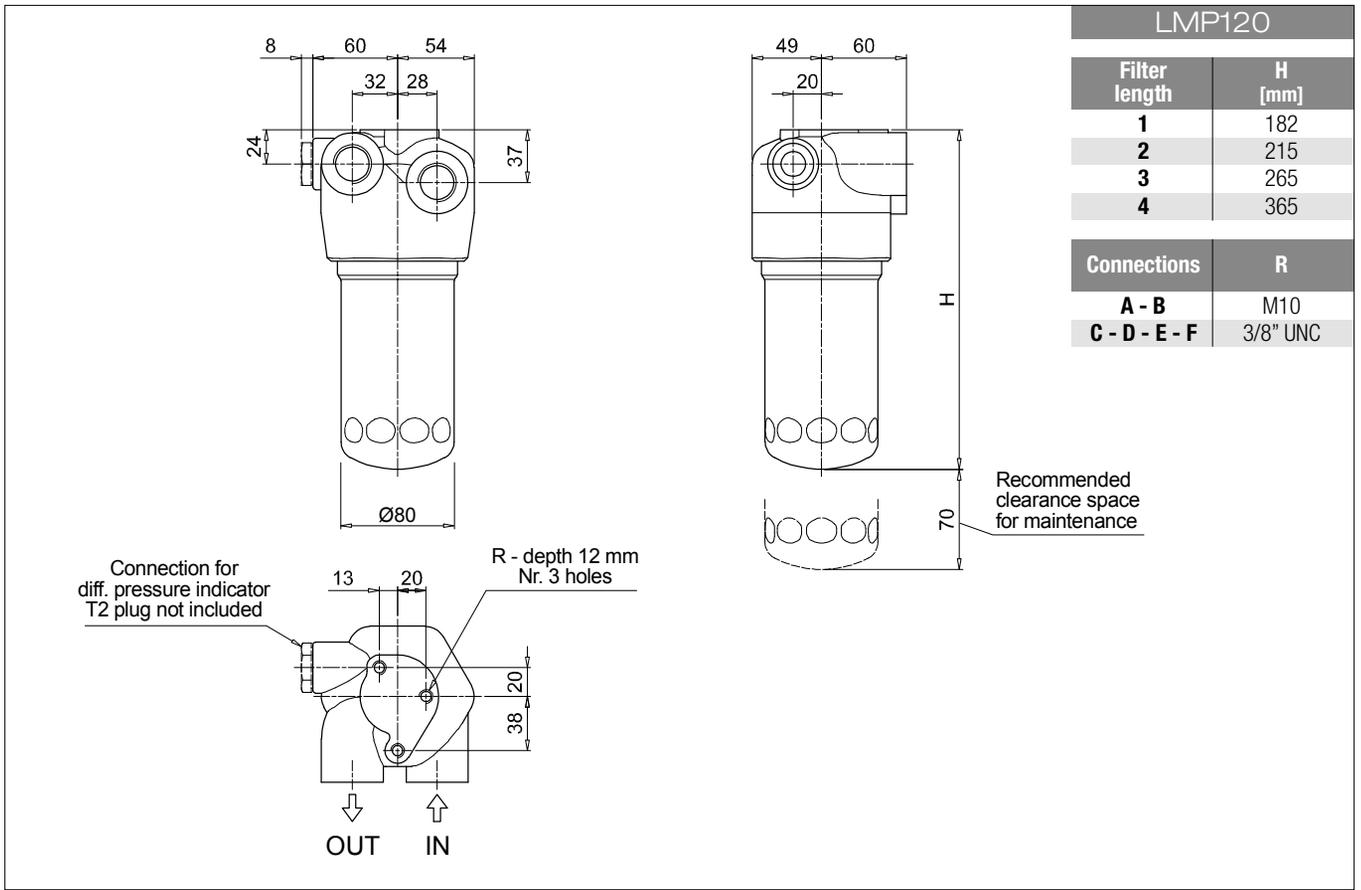
See page 747

T2 Plug

LMP120 - LMP122

LMP
MULTI-PORT

Dimensions



LMP
MULTIPOINT

LMP123

Designation & Ordering code

COMPLETE FILTER

Series and size **LMP123** Configuration example: **LMP123** | **4** | **R** | **A** | **F** | **1** | **A10** | **N** | **P01**

Length: **1** | **2** | **3** | **4**

Valves	Bypass	OUT to cooler	Check valve
C	without	front	2 bar
D			3 bar
G		side	2 bar
H			3 bar
M	With bypass 3.5 bar	front	2 bar
N			3 bar
Q		side	2 bar
R			3 bar

Seals and treatments
A NBR
V FPM

Connections
B G 1"
F SAE 16 - 1 5/16" - 12 UN

Connection for differential pressure indicator
1 Without
2 With standard connection

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

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	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 726

DEA Electrical differential pressure indicator
DEM Electrical differential pressure indicator
DEU Electrical differential pressure indicator
DLA Electrical / visual differential pressure indicator

DLE Electrical / visual differential pressure indicator
DTA Electronic differential pressure indicator
DVA Visual differential pressure indicator
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PLUGS

See page 747

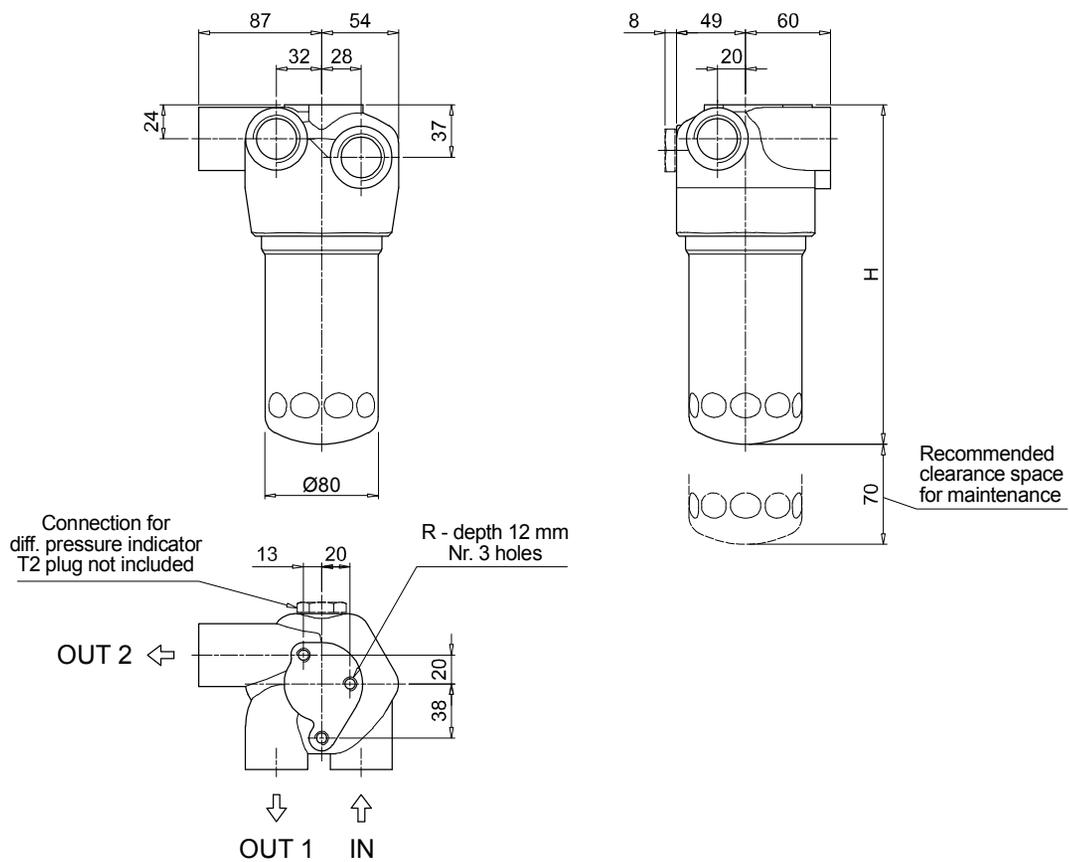
T2 Plug

LMP123

LMP
MULTIPORT

Dimensions

LMP123	
Filter length	H [mm]
1	182
2	215
3	265
4	365
Connections	R
B	M10
F	3/8" UNC



LMP 112/123
MULTIPOINT

SPARE PARTS

Order number for spare parts

LMP 112 - 116 - 118 - 119		LMP 120		LMP 122 - 123	
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		Indicator connection plug	
LMP 112-116 -118-119		NBR	FPM	NBR	FPM
LMP 120	See order table	02050478	02050479	T2H	T2V
LMP 122-123					