

LMD 211 series

Maximum working pressure up to 6 MPa (60 bar) - Flow rate up to 200 l/min



LMD 211 GENERAL INFORMATION

Description

Technical data

Low & Medium Pressure filters

Duplex

Maximum working pressure up to 6 MPa (60 bar)

Flow rate up to 200 l/min

LMD211 is a range of versatile low pressure duplex filter with integrated changeover function to allow the filter element replacement without the system shut-down.

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

Available features:

- Female threaded connections up to 1 1/2" and flanged connections up to 1 1/2", for a maximum flow rate of 200 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid. For further information, see the Contamination Management document and the dedicate leaflet.
- Balancing valve integrated in the changeover lever, 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 work
- Optional sampling ports, to get samples of fluid or to connect additional instrument to the system
- Visual, electrical and electronic differential clogging indicators

Common applications:

- Systems where shut-down causes high costs
- Systems where shut-down causes safety issues

Filter housing materials

- Head: Aluminium
- Bowl: Cataphoretic painted steel
- Bypass valve: AISI 304 - Polyamide

Pressure

- Test pressure: 9 MPa (90 bar)
- Min. Burst pressure: 18 MPa (180 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 6 MPa (60 bar)

Bypass valve

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

Filter element features

Filter LMD211		Filter element CU	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	N	20 bar
WA - Water absorber microfiber	Standard	N	20 bar
M - Wire mesh	Standard	N	20 bar
P - Paper	Standard	N	20 bar

Please see ordering code tables to check element Δp series availability based on filter features.

Flow direction through the filter element:
From OUT to IN

Seals

- Standard NBR series A
- Optional FPM series V

Connections

Inlet/Outlet In-Line

Temperature

From -25° C to +110° C

Note

LMD 211 filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]			Volumes [dm ³]				
	Length	1	2	3	Length	1	2	3
LMD 211		9.5	11.2	12.8		4.1	4.6	5.3

GENERAL INFORMATION LMD 211

Flow rates [l/min]

Filter series	Length	Filter element design - N Series									
		A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
LMD 211	1	90	95	140	147	156	191	192	192	177	181
	2	113	121	158	162	173	192	192	193	181	183
	3	131	146	166	169	177	193	194	194	184	187

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

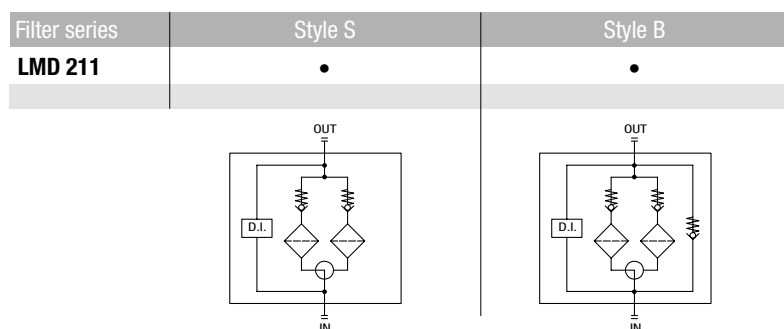
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

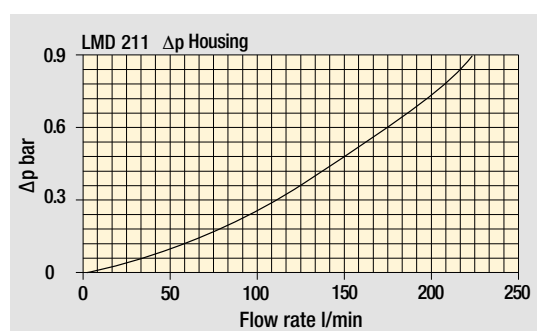
Please, contact our Sales Department for further additional information.

Hydraulic diagram

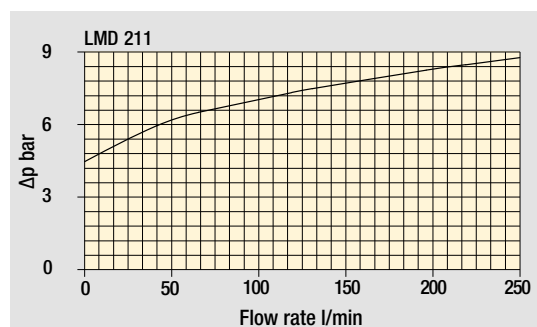


Pressure drop

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.

LMD 211

Designation & Ordering code

COMPLETE FILTER

Series and size **LMD211** Configuration example: **LMD211** **3** **B** **A** **C** **6** **A10** **N** **P01**

Length
1 | **2** | **3** |

Bypass valve
S Without bypass | **B** With bypass 3.5 bar

Seals and treatments
A NBR
V FPM

Connections
C G 1 1/2"
F 1 1/2" NPT
I SAE 24 - 1 7/8" - 12 UN
L 1 1/2" SAE 3000 psi/M + G 1 1/4"
M 1 1/2" SAE 3000 psi/UNC + 1 1/4" NPT
N 1 1/2" SAE 3000 psi/UNC + SAE 20 - 1 5/8" UN

Connection for differential pressure indicator
6 With plugged 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

WA025 Water absorber inorganic microfiber 25 µm

Element Δp	Execution
N 20 bar	P01 MP Filtri standard
	Pxx Customized

FILTER ELEMENT

Element series and size **CU210** Configuration example: **CU210** **3** **A10** **A** **N** **P01**

Element length
1 | **2** | **3** |

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

WA025 Water absorber inorganic microfiber 25 µm

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

CLOGGING INDICATORS

See page 784

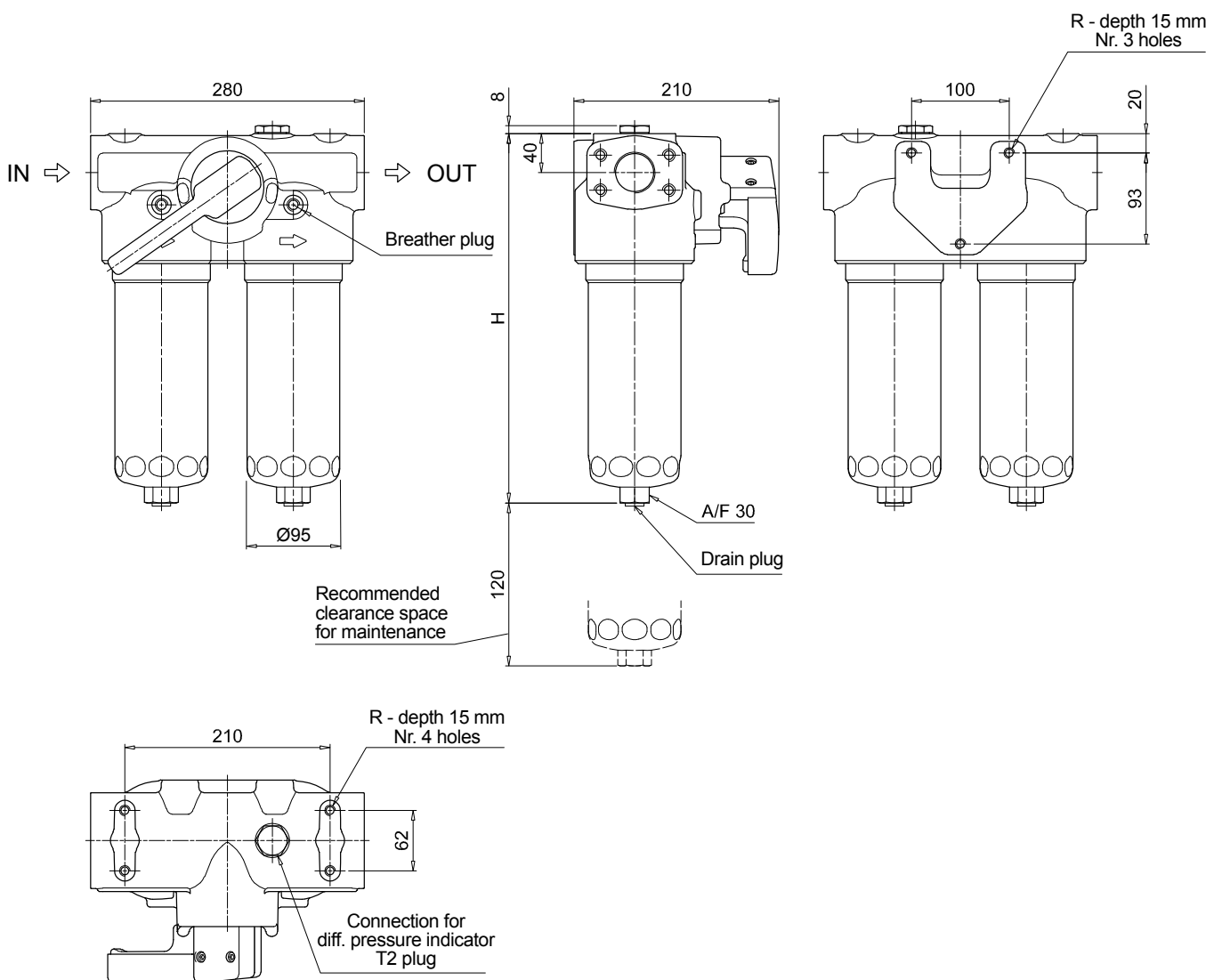
DEA Electrical differential pressure indicator	DTA Electronic differential pressure indicator
DEM Electrical differential pressure indicator	DTI I-O Link electronic differential pressure indicator
DEU Electrical differential pressure indicator	DVA Visual differential pressure indicator
DLA Electrical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

PLUGS

See page 807

T2 Plug

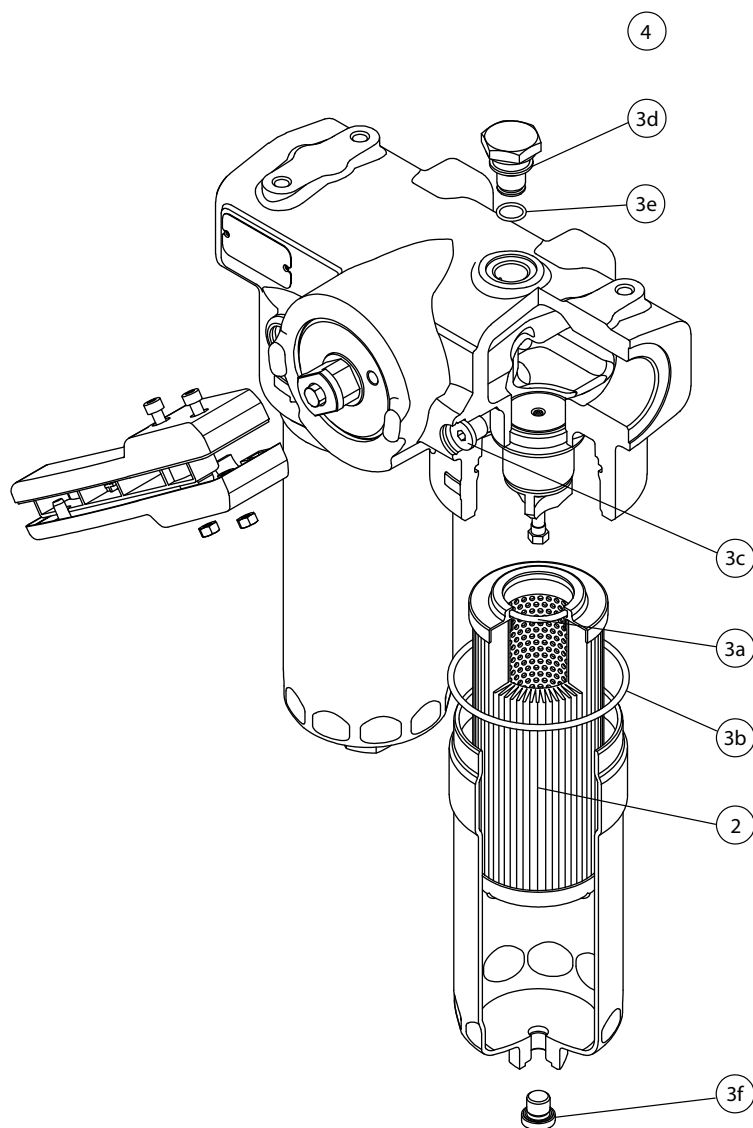
LMD211	
Filter length	H [mm]
1	383
2	513
3	651
Connections	R
C	M10
F - I	3/8" UNC
L	M10
M - N	3/8" UNC



LMD 211 SPARE PARTS

Order number for spare parts

LMD 211



Item:	Q.ty: 1 pc.		Q.ty: 1 pc.		Q.ty: 2 pcs.	
Filter series	Filter element	Seal Kit code number NBR	Seal Kit code number FPM	Indicator connection plug NBR	Indicator connection plug FPM	
LDD	See order table	02050671	02050672	T2H	T2V	