

LMP 210-211

Maximum working pressure up to 6 MPa (60 bar) - Flow rate up to 365 l/min



LMP 210-211 GENERAL INFORMATION

Description

Technical data

Low & Medium Pressure filters

Maximum working pressure up to 6 MPa (60 bar)
Flow rate up to 365 l/min

LMP210 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 also suitable for the off-line filtration of small reservoirs. They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Flanged connections up to 1 1/2", for a maximum flow rate of 365 l/min (LMP210)
- Female threaded connections up to 1 1/2", for a maximum return flow rate of 365 l/min (LMP211)
- 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.
- 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
- Bowl: Cataphoretic painted steel
- Bypass valve: AISI 304 - Polyamide

Pressure

- Test pressure: 9 MPa (90 bar)
- Burst pressure: 21 MPa (210 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 6 MPa (60 bar)

Bypass valve

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

Δp element type

- Microfibre 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

Connections

Inlet/Outlet In-Line

Note

LMP 210 - 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
LMP 210-211		3.10	4.80	6.40		1.60	2.10	2.80

GENERAL INFORMATION LMP 210-211

Flow rates [l/min]

Filter series	Length	Filter element design - N Series									
		A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
LMP 210	1	106	130	190	200	221	286	287	287	261	265
	2	153	175	220	237	249	288	289	290	265	269
	3	204	214	248	260	265	289	290	291	277	281
LMP 211	1	118	149	227	240	269	358	359	360	324	330
	2	178	207	268	292	307	361	362	363	329	335
	3	247	260	306	323	329	362	363	364	345	351

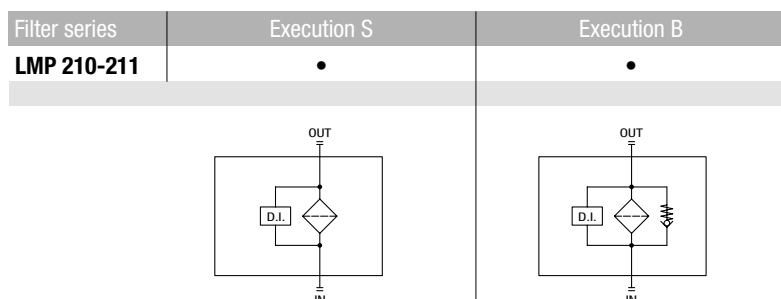
Maximum flow rate for a complete low and medium pressure filter with a pressure drop $\Delta p = 0.7$ bar.

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.

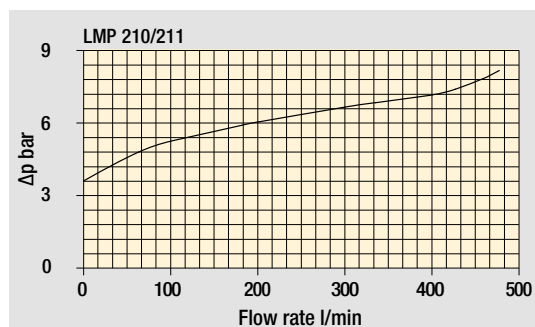
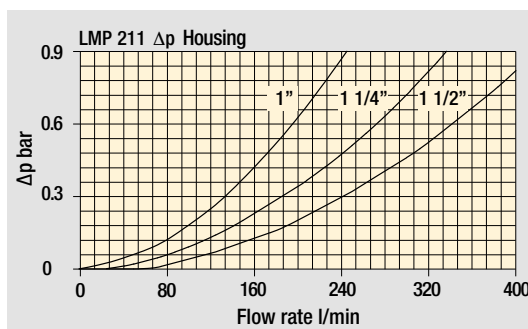
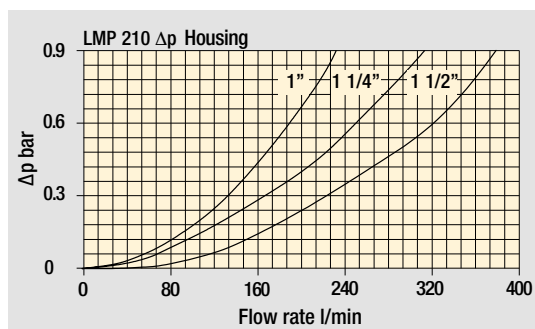
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

Hydraulic symbols



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.

LMP 210

Designation & Ordering code

COMPLETE FILTER

Configuration example: **LMP210** **3** **B** **A** **F1** **A10** **N** **P01**

Series and size
LMP210

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

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

Seals and treatments
A NBR
V FPM

Connections
F1 1" SAE 3000 psi/M
F2 1 1/4" SAE 3000 psi/M
F3 1 1/2" SAE 3000 psi/M
F4 1" SAE 3000 psi/UNC
F5 1 1/4" SAE 3000 psi/UNC
F6 1 1/2" SAE 3000 psi/UNC

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
N 20 bar

Execution
P01 MP Filtri standard
Pxx Customized

FILTER ELEMENT

Configuration example: **CU210** **3** **A10** **A** **N** **P01**

Element series and size
CU210

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
A NBR
V FPM

Element Δp
N 20 bar

Execution
P01 MP Filtri standard
Pxx Customized

CLOGGING INDICATORS

See page 722

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

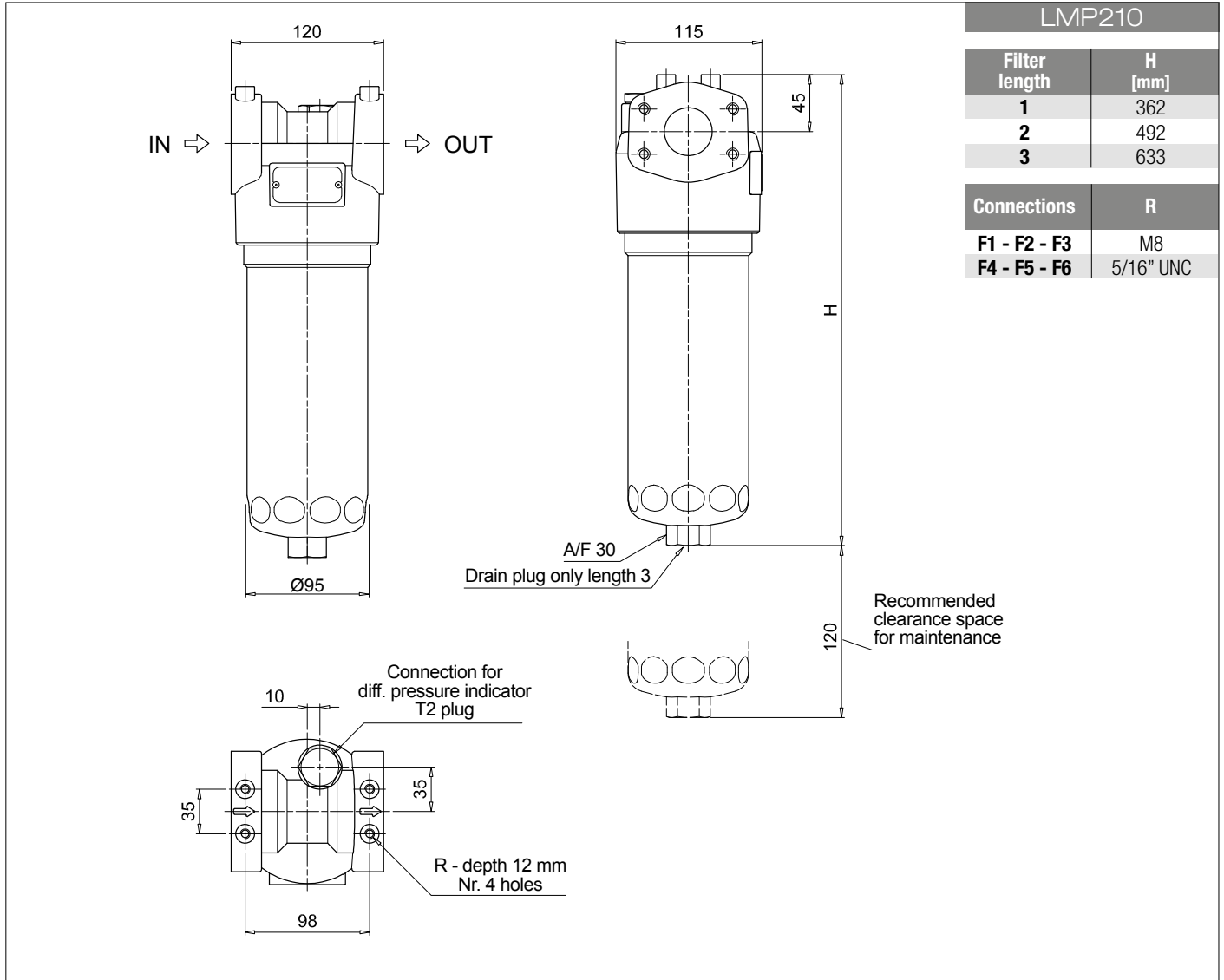
PLUGS

See page 743

T2 Plug

LMP 210

Dimensions



LMP210	
Filter length	H [mm]
1	362
2	492
3	633
Connections	R
F1 - F2 - F3	M8
F4 - F5 - F6	5/16" UNC

LMP 211

Designation & Ordering code

COMPLETE FILTER

Series and size **LMP211** Configuration example: **LMP211** **3** **B** **A** **D** **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
A G 1"
B G 1 1/4"
C G 1 1/2"
D 1" NPT
E 1 1/4" NPT
F 1 1/2" NPT
G SAE 16 - 1 5/16" - 12 UN
H SAE 20 - 1 5/8" - 12 UN
I SAE 24 - 1 7/8" - 12 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
N 20 bar

Execution
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
A NBR
V FPM

Element Δp
N 20 bar

Execution
P01 MP Filtri standard
Pxx Customized

CLOGGING INDICATORS

See page 722

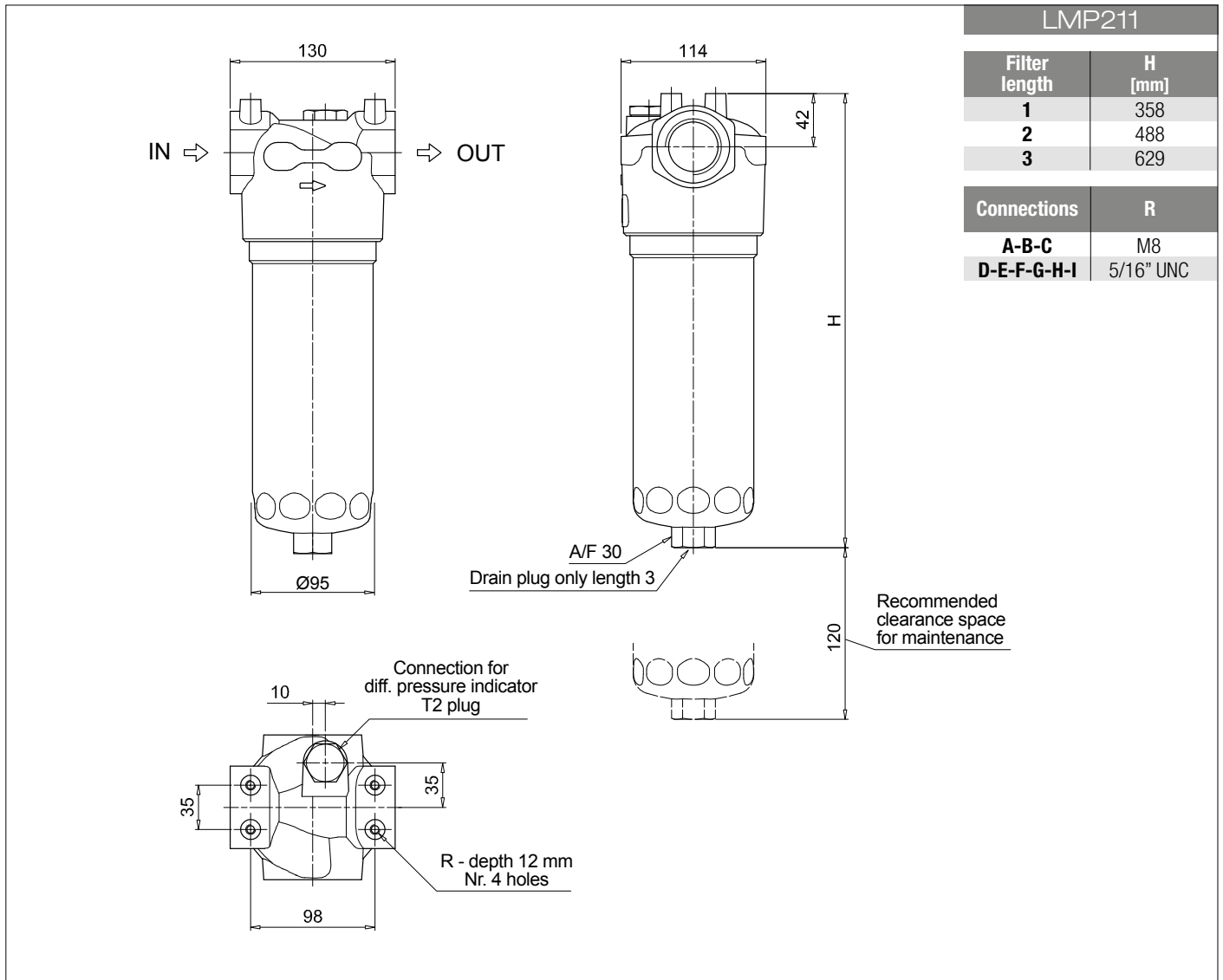
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DLA Electrical / visual differential pressure indicator

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

PLUGS

See page 743

T2 Plug

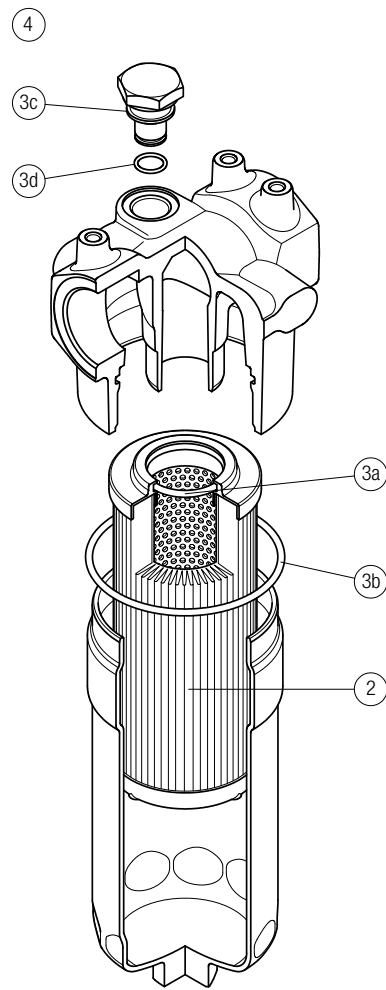
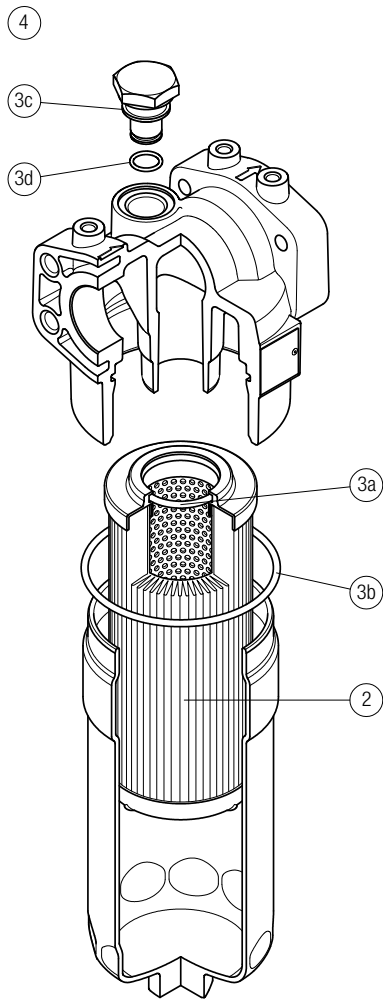


LMP 210-211 SPARE PARTS

Order number for spare parts

LMP 210

LMP 211



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 210-211	See order table	NBR	FPM	NBR	FPM
	2	02050435	02050436	T2H	T2V

CLOGGING INDICATORS LOW & MEDIUM PRESS. FILTERS

Designation & Ordering code

DIFFERENTIAL PRESSURE INDICATORS

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

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	•	-	-	S With automatic reset
E For high power supply	-	•	-	
S Compact version	•	-	-	

Pressure setting	DEA	DEM	DEU	DES	DLA	DLE	DTA	DVA	DVM	DVS
12 1.2 bar	•	•	-	•	•	•	•	•	•	•
20 2.0 bar	•	•	•	-	•	•	•	•	•	-
25 2.5 bar	-	-	-	-	-	-	-	-	-	•
40 4.0 bar	-	-	-	•	-	-	-	-	-	•
50 5.0 bar	•	•	•	-	•	•	•	•	•	-

Seals	DEA	DEM	DEU	DES	DL	DT	DVA	DVM	DVS
H HNBR	•	•	-	•	•	•	•	•	•
V FPM	•	•	•	-	•	•	•	•	-

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

Electrical connections	DEA	DEM	DEU	DES	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	-	-	-	-	•	-	-
80 Connection Stud #10-32 UNF	-	-	-	•	-	-	-

Option
P01 MP Filtri standard
Pxx Customized

Certifications	DEU	OTHERS
Without	-	•
UL UL certification	•	-

PLUGS

Series	Configuration example	T2	H
T2 Plug			
T4 Plug			

Seals	T2	T4
A NBR	-	•
H HNBR	•	-
V FPM	•	-