

Membrane air dryer LDM1

FESTO



Characteristics

At a glance

- Optimum end position dryer with excellent operational reliability
- Suitable for use as an individual device or for integration into existing compressed air preparation device combinations
- Flow rate-dependent dew point reduction
- Wear-free function requiring no external energy
- The composition of the compressed air remains almost unchanged by the drying process
- 15% purge air flow rate with the LDM1-...-300/600 and 20% with the LDM1-...-1000
- Typical application areas: Drying, cleaning of precision parts, measuring technology, rinsing of glass scales, painting systems, paper and packaging machines
- Product complies with ISO 1179-1 and ISO 228-1

Note: Prefiltration of the compressed air using a micro filter LFMA-D-MAXI, grade of filtration 0.01 µm (residual particles < 0.1 µm, residual oil content < 0.1 mg/m³) is vital for correct functioning of the device!

Type code

001	Series	
LDM1	Membrane air dryer	

002	Pneumatic connection	
	None	
1/2	Female thread G1/2	
3/4	Female thread G3/4	
1	Female thread G1	

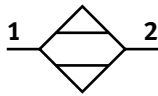
003	Version	
D	D series, metal	

004	Size	
MAXI	Grid dimension 66 mm (without connecting plates)	

005	Flow measuring range	
300	Max. 300 l/min	
600	Max. 600 l/min	
1000	Max. 1000 l/min	

Datasheet

General technical data



Flow measuring range	Max. 300 l/min	Max. 600 l/min	Max. 1000 l/min
Pneumatic connection, port 1	G1/2, G1	G1/2, G3/4, G1	
Pneumatic connection, port 2	G1/2, G1	G1/2, G3/4, G1	
Size	Maxi		
Type of mounting	Either: In-line installation With accessories		
Mounting position	Vertical +/-5°		
Standard nominal flow rate (standardised to DIN 1343)	300 l/min	600 l/min	1,000 l/min

Operating and environmental conditions

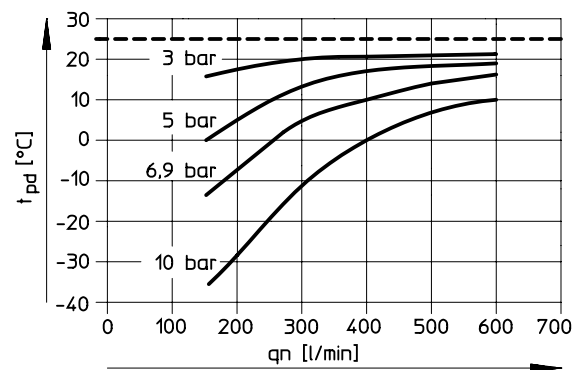
Flow measuring range	Max. 300 l/min	Max. 600 l/min	Max. 1000 l/min
Operating pressure	3 ... 12.5 bar		
Operating medium	Compressed air to ISO 8573-1:2010 [1:3:1]		
Pressure dew point drop	20 K		17 K
Ambient temperature	2 ... 50°C		
Media temperature	2 ... 50°C		
Storage temperature	-20 ... 60°C		
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress		

1) More information www.festo.com/x/topic/crc

Materials

Material housing	Die-cast zinc
Material bowl	Wrought aluminium alloy
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Pressure dew point tpd (output) as a function of the standard flow rate at output qn (LDM1-...-300)

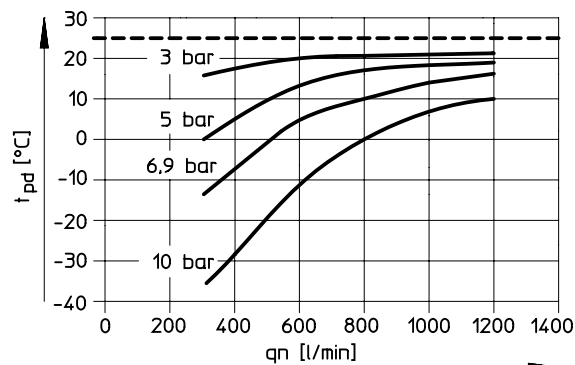


[1] Measured at pressure dew point tpd (input) = 25 °C

----- [1]

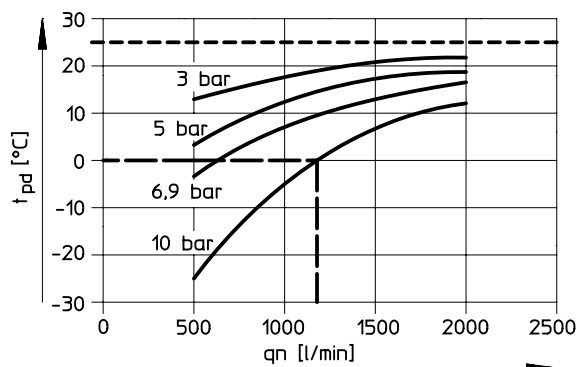
Datasheet

Pressure dew point t_{pd} (output) as a function of the standard flow rate at output q_n (LDM1-...-600)



[1] Measured at pressure dew point t_{pd} (input) = 25 °C

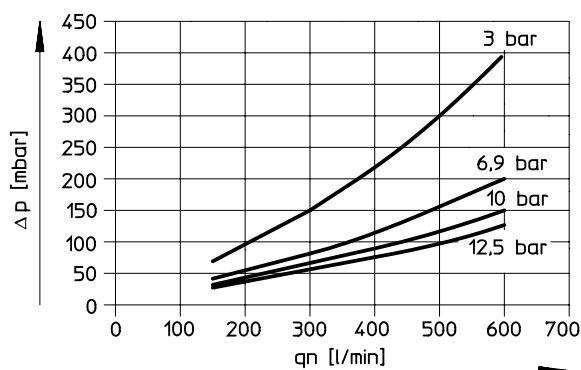
Pressure dew point t_{pd} (output) as a function of the standard flow rate at output q_n (LDM1-...-1000)



[1] Measured at pressure dew point t_{pd} (input) = 25 °C

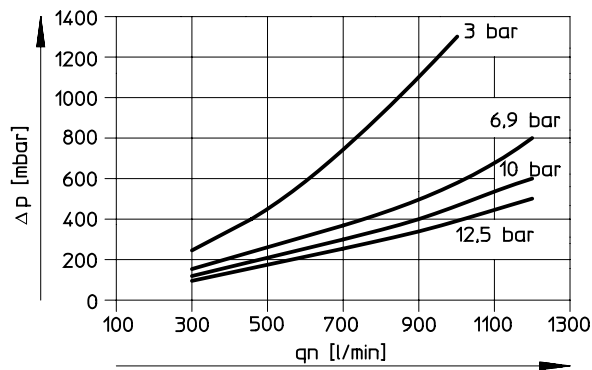
[2] At a standard flow rate of $q_n = 1200$ l/min, the pressure dew point reduction is 25 K.

Differential pressure Δp as a function of the standard flow rate at output q_n (LDM1-...-300)

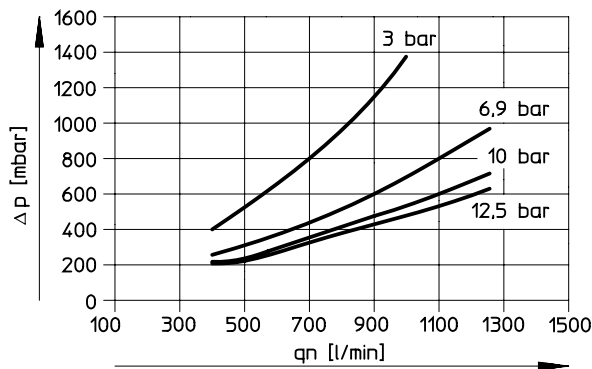


Datasheet

Differential pressure Δp as a function of the standard flow rate at output q_n (LDM1-...-600)

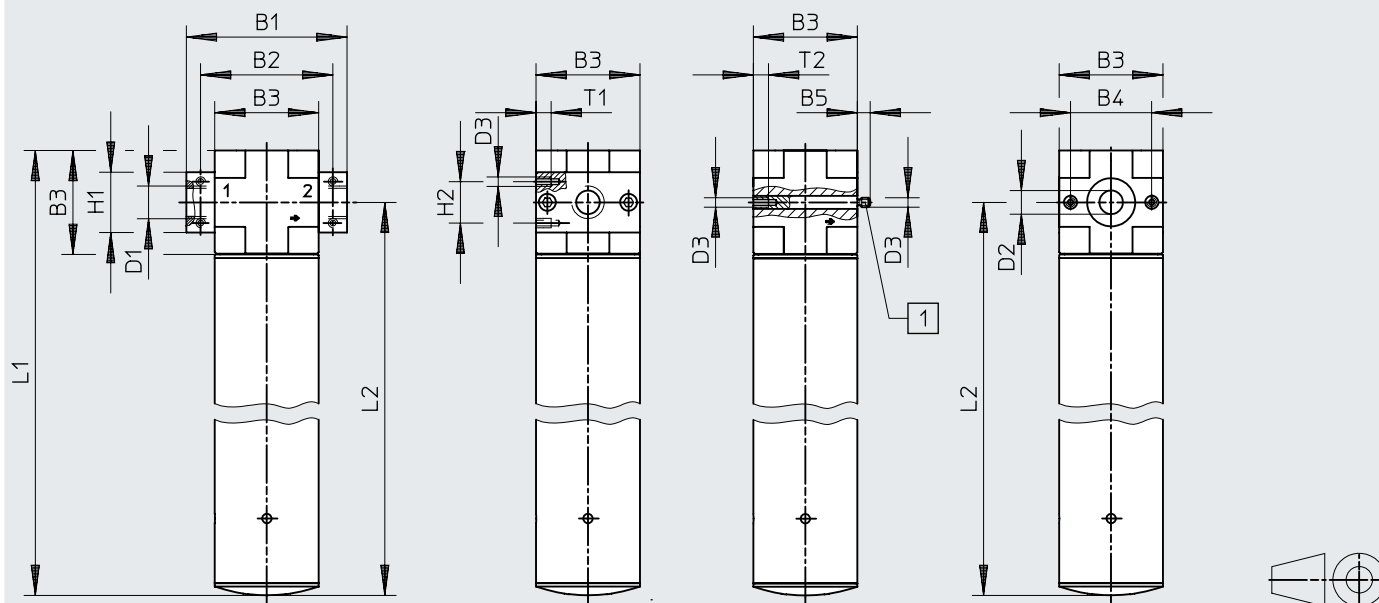


Differential pressure Δp as a function of the standard flow rate at output q_n (LDM1-...-1000)



Dimensions

Dimensions – Membrane air dryer LDM1

 Download CAD data www.festo.com


[1] Threaded bolt (exchangeable)

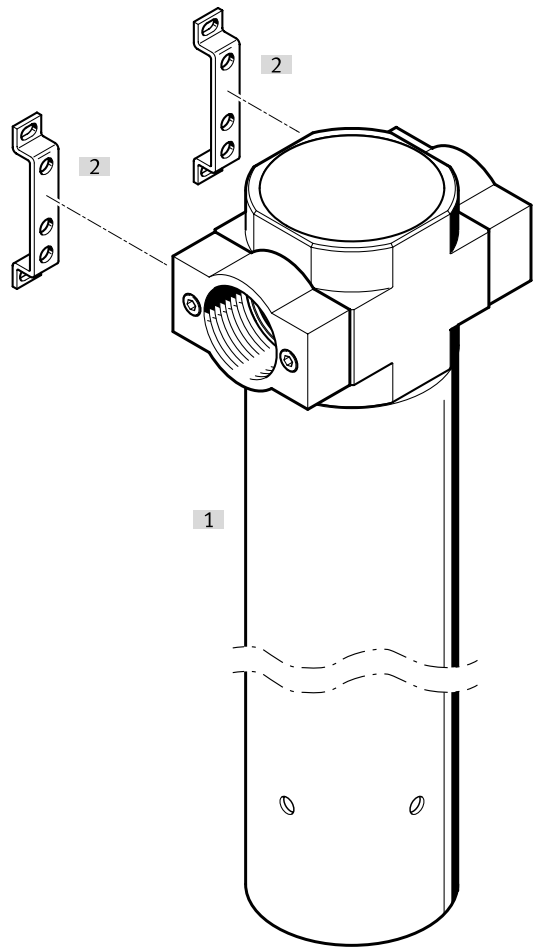
	B1	B2	B3	B4	B5	D1	D2 ø	D3	H1	H2	L1	L2	T1	T2
LDM1-1/2-D-MAXI-300	96	80	66	46	–	G1/2	–	M5	32	22	329	296	8	–
LDM1-1/2-D-MAXI-600											519	486		
LDM1-1/2-D-MAXI-1000											519	486		
LDM1-3/4-D-MAXI-300	96	80	66	46	–	G3/4	–	M5	36	22	329	296	8	–
LDM1-3/4-D-MAXI-600											519	486		
LDM1-3/4-D-MAXI-1000											519	486		
LDM1-1-D-MAXI-300	116	91	66	46	–	G1	–	M5	41	22	329	296	8	–
LDM1-1-D-MAXI-600											519	486		
LDM1-1-D-MAXI-1000											519	486		
LDM1-D-MAXI-300	–	–	66	46	7	–	30	M5	–	–	329	296	–	11
LDM1-D-MAXI-600											519	486		
LDM1-D-MAXI-1000											519	486		

Ordering data

Ordering data						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
			300 l/min	1,650 g	543664	LDM1-D-MAXI-300
			600 l/min	2,100 g	543665	LDM1-D-MAXI-600
			1,000 l/min		543666	LDM1-D-MAXI-1000
	G1/2	G1/2	300 l/min	1,800 g	543667	LDM1-1/2-D-MAXI-300
			600 l/min	2,250 g	543668	LDM1-1/2-D-MAXI-600
			1,000 l/min		543669	LDM1-1/2-D-MAXI-1000
	G3/4	G3/4	600 l/min	2,350 g	543671	LDM1-3/4-D-MAXI-600
			1,000 l/min		543672	LDM1-3/4-D-MAXI-1000
	G1	G1	300 l/min	2,000 g	543673	LDM1-1-D-MAXI-300
			600 l/min	2,450 g	543674	LDM1-1-D-MAXI-600
			1,000 l/min		543675	LDM1-1-D-MAXI-1000

Peripherals

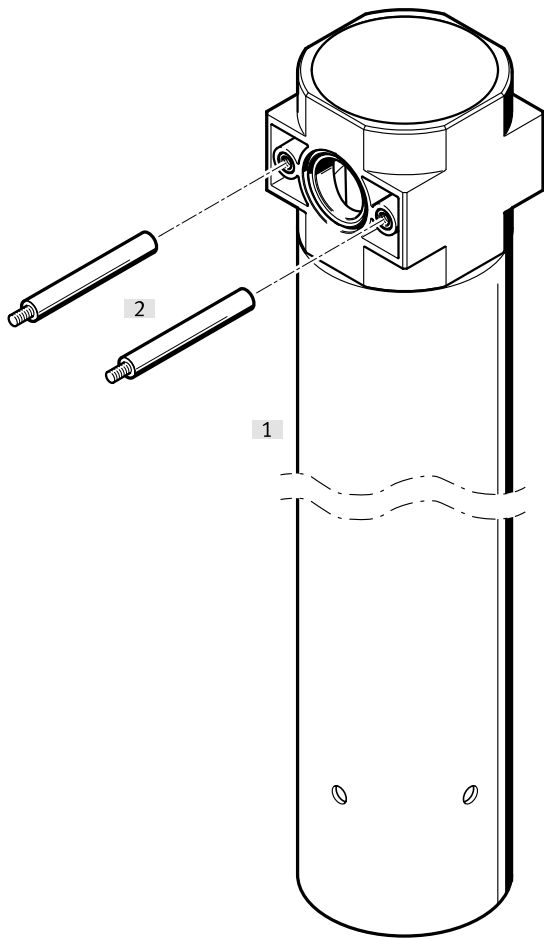
Peripherals overview – single unit with connecting plates



Accessories		→ Link
Type/order code	Description	
[1] Membrane dryer LDM1		ldm1
[2] Mounting bracket HFOE-D		11

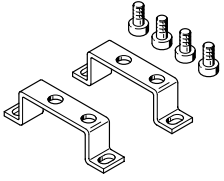
Peripherals

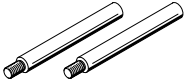
Peripherals overview – individual unit without connecting plates, for service unit component combination



Accessories		→ Link
Type/order code	Description	
[1] Membrane dryer LDM1		ldm1
[2] Threaded bolt FRB-D	Included in the scope of delivery	11

Accessories

Mounting bracket HFOE-D				
	Short type code	Corrosion resistance class CRC	Part no.	Type
	HFOE	2 - Moderate corrosion stress	159593	HFOE-D-MIDI/MAXI

Threaded bolt FRB-D				
	Short type code	Corrosion resistance class CRC	Part no.	Type
	FRB	2 - Moderate corrosion stress	159643	FRB-D-MAXI