

Lubricators MS12N-LOE – Inch Series

FESTO



The proportional lubricator adds a precision adjustable quantity of oil to the compressed air stream. The pressure drop that occurs when air flows through a Venturi nozzle is used to convey oil from the container to the drip cap. From here, the oil drips into the air duct directly behind the proportional valve, where it is atomized. The oil mist component is proportional to the compressed air flow rate.

- Pneumatic connection: 1 NPT, 1¼ NPT, 1½ NPT, 2 NPT
- Supply pressure: 15 ... 235 psi
- Flow rate: 706.0 ... 776.6 scfm

Product Range Overview						
Type	Flow rate [scfm]	Pneumatic connections		Bowl guard		Reverse flow
		Body thread	Port plate	Plastic bowl guard	Metal bowl	Flow direction from right to left
MS12N			AG...	R	U	Z
LOE	706.0 ... 776.6	–	1 NPT, 1¼ NPT, 1½ NPT, 2 NPT	–	■	■

Features

- Proportional lubricator with precision oil metering
- Reduces wear on drive units subject to high loading
- High flow rate
- Quick and easy oil top-up even during operation (under pressure)

The following oils are recommended for Festo components:
Viscosity range to ISO 3448,
ISO class VG 32
32 mm²/s (= cSt) at 40°C

- Festo special oil OFSW-32
→ 1190
- ARAL Vitam GF 32
- BP Energol HLP 32
- Esso Nuto H 32
- Mobil DTE 24
- Shell Tellus Oil DO 32

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→ www.festo.com/catalog/ms12n-loe	

Lubricators MS12N-LOE – Inch Series

Technical Data

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ISO Symbol



General Technical Data				
Pneumatic connection 1, 2 ¹⁾	1 NPT	1¼ NPT	1½ NPT	2 NPT
Supply pressure [psi]	15 ... 235			

1) Dependent on port plate selected, must be ordered separately as an accessory → 1188

Standard Nominal Flow Rate qnN ²⁾ [scfm]				
Pneumatic connection 1, 2	1 NPT	1¼ NPT	1½ NPT	2 NPT
In main flow direction 1 → 2	706.0	723.7	741.3	776.6

2) Dependent on port plate selected, must be ordered separately as an accessory → 1188
Measured at p₁ = 88 psi and Δp = 7.4 psi

Operating and Environmental Conditions	
Minimum flow for lubricator operation [scfm]	≤14.1
Operating medium	Compressed air, air quality class 5.7.– to DIN ISO 8573-1
Max. oil capacity [in ³]	91.50
Bowl guard	Metal bowl
Ambient temperature [°F]	32 ... 140
Temperature of medium [°F]	32 ... 140
Storage temperature [°F]	14 ... 140
Assembly position	Vertical ±5°
Corrosion resistance CRC ³⁾	2

3) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Weights [lb]	
With metal bowl	13.00

- Wearing parts kits → 1190
- For spare parts go to: www.festo.com/en/spare_parts_service

Lubricators MS12N-LOE – Inch Series

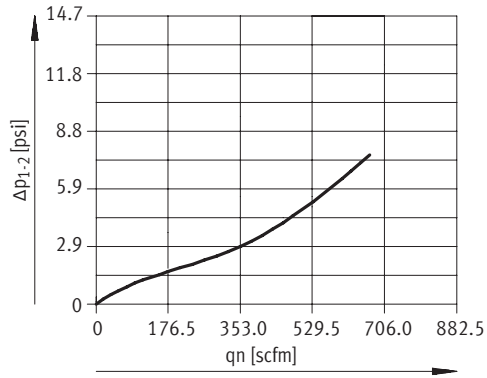
Technical Data

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Standard Flow Rate q_n as a Function of the Differential Pressure Δp_{1-2}

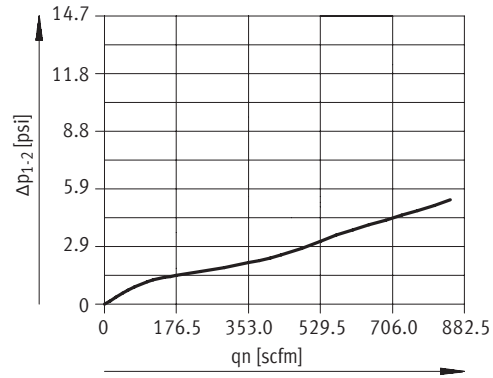
With port plate MS12-AGF

Pneumatic connection 1NPT



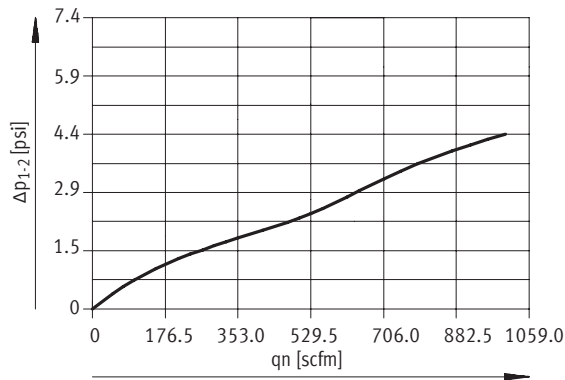
With port plate MS12-AGG

Pneumatic connection 1¼NPT



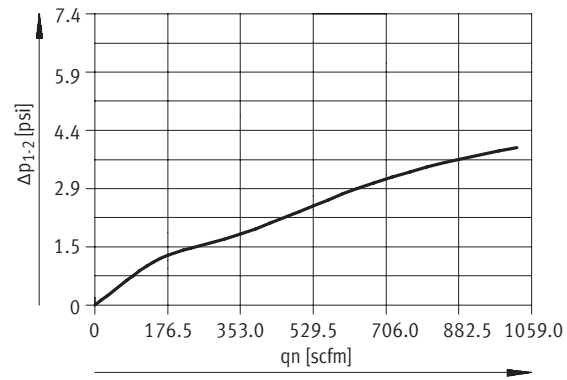
With port plate MS12-AGH

Pneumatic connection 1½NPT



With port plate MS12-AGI

Pneumatic connection 2NPT



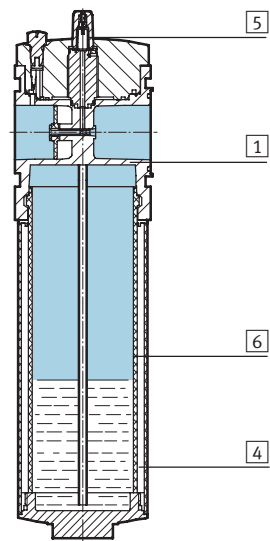
Lubricators MS12N-LOE – Inch Series

Technical Data



Materials

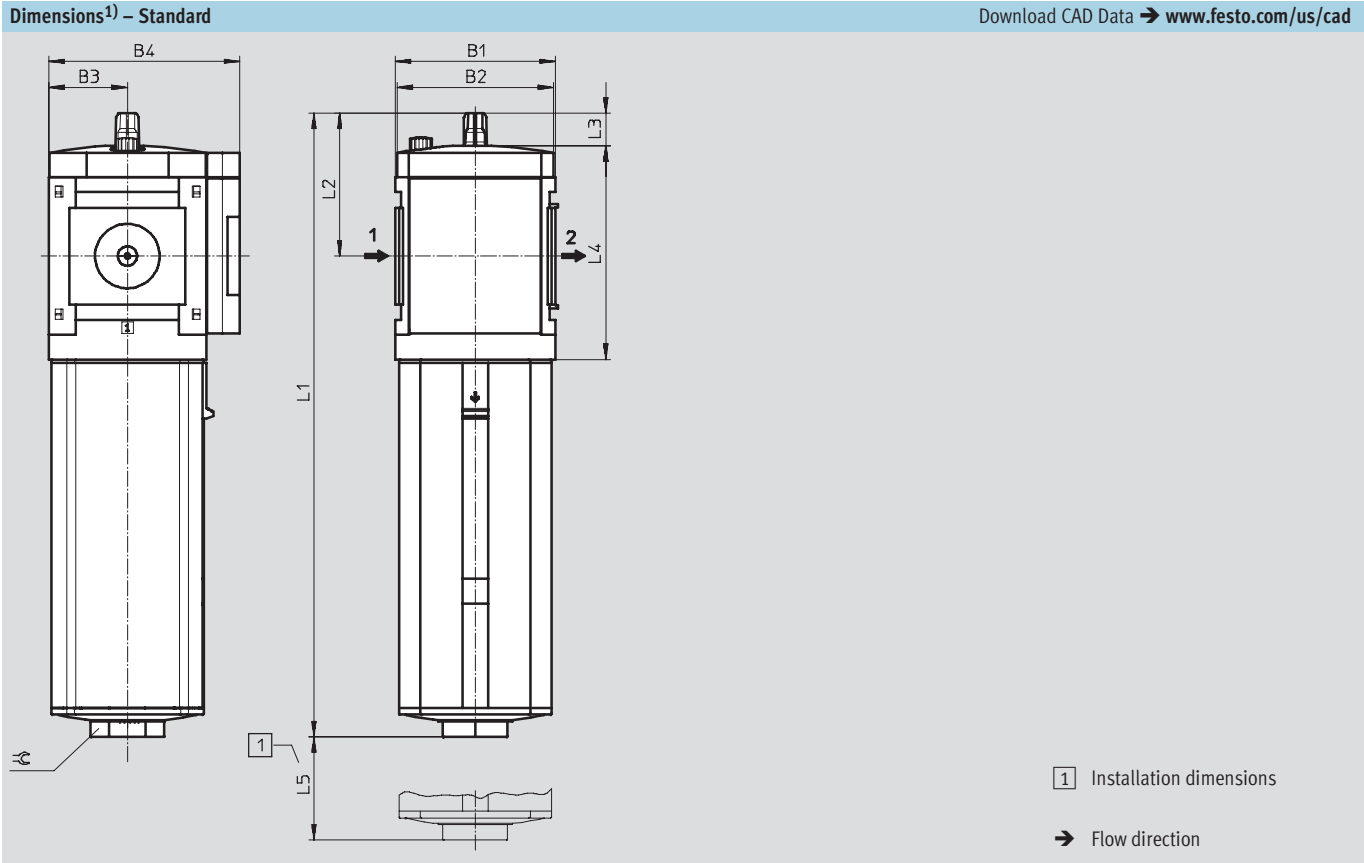
Sectional view



Lubricator		
1	Body	Die-cast aluminum
4	Metal bowl	Aluminum/polyamide
5	Lubricator dome	Polycarbonate
6	Metal bowl sight glass	Polyamide
-	Seals	Nitrile rubber

Lubricators MS12N-LOE – Inch Series

Dimensional Drawings, Ordering Data – Pre-configured Products



B1	B2	B3	B4	L1	L2	L3	L4	L5	⌀
4.88	4.80	2.40	5.83	19.02	4.37	0.98	6.54	11.81	1.97

1) Dimensions are in inches, unless otherwise noted.

Ordering Data				
Metal bowl				
Connection	Part No.	Type		LT
1NPT ... 2NPT ²⁾	537156	MS12-LOE-G-U		1D

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

2) Port plate must be ordered separately as an accessory → 1188

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Ordering Data – Configurable Products

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M Mandatory Data							O Options	
Part No.	Series	Size	Thread	Function	Connection size	Bowl	Type of mounting	Reverse flow direction
535044	MS	12	N	LOE	AQT AQU AQV AQW G	U	WP	Z
Order example								
535044	MS	12	N	LOE	AQW	U	WP	Z

Ordering Table					
Grid dimension [mm]		124	Conditions	Code	Enter code
M	Part No.	535044			
	Series	Standard		MS	MS
	Size	12		12	12
	Thread	NPT thread		N	N
	Function	Lubricator		-LOE	-LOE
	Connection size	Port plate 1 NPT (dimensions → 1188)		-AQT	
		Port plate 1¼ NPT (dimensions → 1188)		-AQU	
		Port plate 1½ NPT (dimensions → 1188)		-AQV	
		Port plate 2 NPT (dimensions → 1188)		-AQW	
		Module without connecting thread, without port plate		-G	
	Bowl	Metal bowl		-U	-U
O	Type of mounting	Mounting bracket (dimensions → 1189)	1	-WP	
	Reverse flow direction	Flow direction from right to left		-Z	

1 WP Only with port plate AQT, AQU, AQV or AQW

Transfer order code

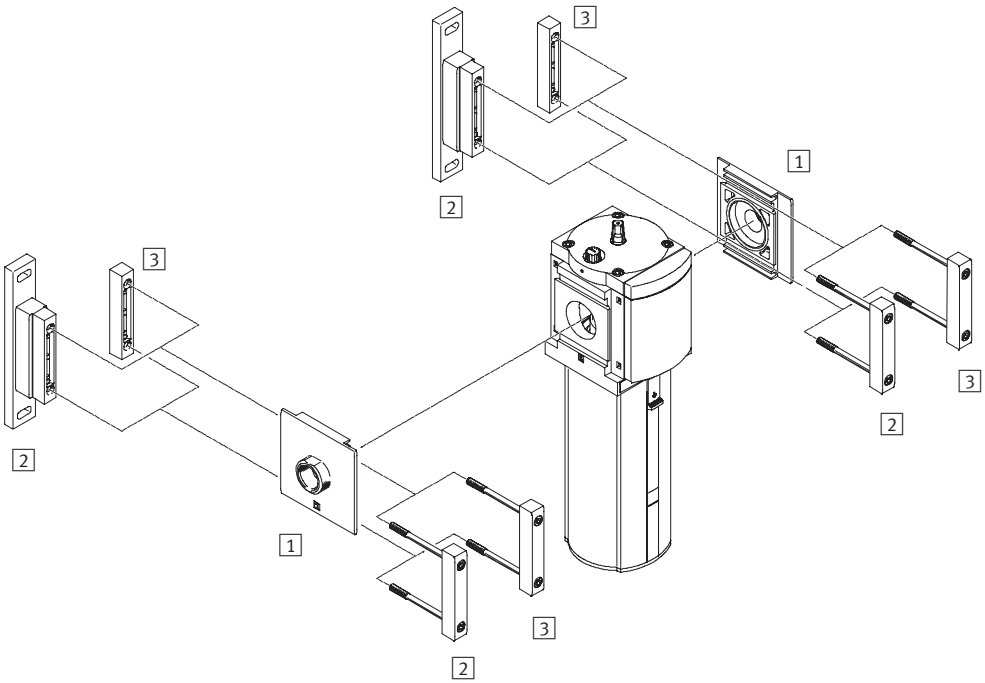
535044	MS	12	N	-	LOE	-		-	U	-		-	
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Lubricators MS12N-LOE – Inch Series

Accessories Overview



Mounting Attachments and Accessories



Mounting Attachments and Accessories		→ Page
1	Port plate MS12-AQ...	1188
2	Mounting bracket MS12-WP	1189
3	Body connector MS12-MV	1188

Lubricators MS12N-LOE – Inch Series

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Accessories

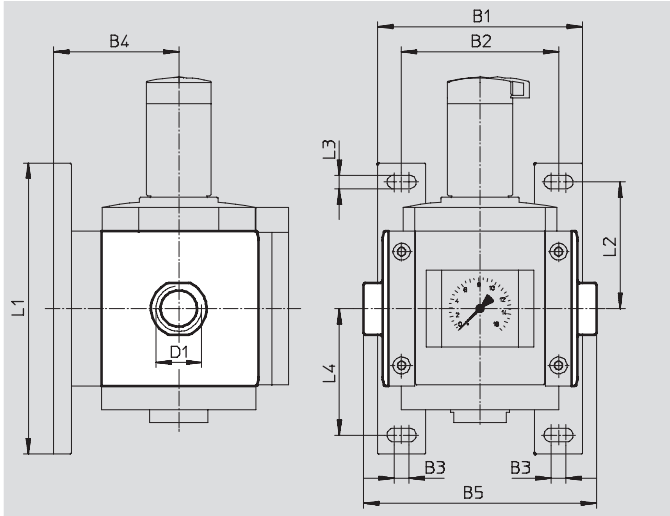
1 Port plate MS12-AQ...

- Adapter for pneumatic connection

Material:

Die-cast aluminum

Free of copper and PTFE



Dimensions and Ordering Data												
B1	B2	B3	B4	B5	D1	L1	L2	L3	L4	Weight [[b]	Part No.	Type
6.38	4.88	0.47	3.90	7.24	1 NPT	9.06	3.94	0.43	3.94	2.60	537139	MS12-AQT
				7.24	1¼ NPT						537140	MS12-AQU
				7.24	1½ NPT						537141	MS12-AQV
				7.72	2 NPT						537142	MS12-AQW

3 Body connector MS12-MV

- For connecting modules

Material:

Die-cast aluminum,

Free of copper and PTFE



Ordering Data			
Size	Weight [[b]	Part No.	Type
MS12	1.00	537134	MS12-MV

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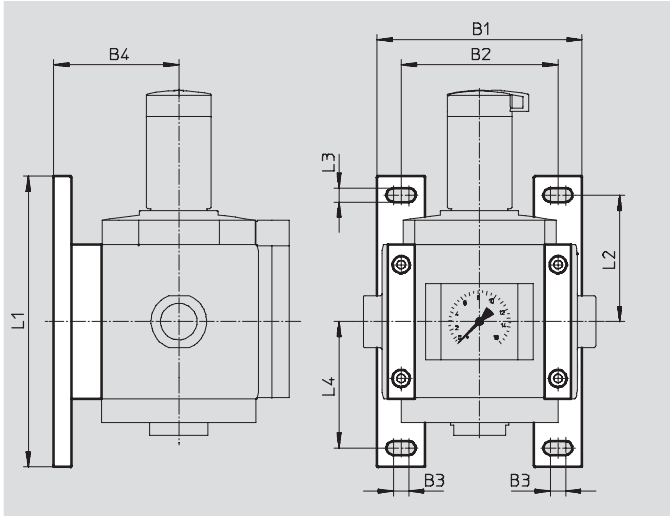


Accessories

2 Mounting bracket MS12-WP

- To connect the modules for wall mounting
- In combination with a port plate for mounting an individual unit on a wall

Material:
Die-cast aluminum
Free of copper and PTFE



Dimensions and Ordering Data											
Size	B1	B2	B3	B4	L1	L2	L3	L4	Weight [[b]	Part No.	Type
MS12	6.38	4.88	0.47	3.90	9.06	3.94	0.43	3.94	1.40	537133	MS12-WP

Lubricators MS12N-LOE – Inch Series

Accessories

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Ordering Data – Special Oil OFSW				
	Description	Scope of delivery	Part No.	Type
	for lubricators	1 liter	152811	OFSW-32

Ordering Data – Wearing Parts Kits				
Size	Description		Part No.	Type
MS12	O-rings, seal		673746	MS12-LOE

- For spare parts go to: www.festo.com/en/spare_parts_service

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Subject to change