

Lubricator LOE

FESTO



Characteristics

At a glance

Proportional lubricator with precision oil dosing

- Reduces wear on drive units subject to high loads
- High flow rate performance
- Quick and easy oil top-up even during operation (under pressure)
- Transparent oiler bowl with metal bowl guard
- Product complies with ISO 1179-1 and ISO 228-1
- Sizes Mini, Midi, Maxi

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 (see accessories)
- Castrol HySpin ZZ 32
- BP Energol HLP 32
- Mobil Nuto H 32
- Mobil DTE 24
- Shell Tellus S2 MA 32

Diagrams

[Link ↗ loe-d](#)



The diagrams shown in this document are also available online. These can be used to display precise values.

Series

The proportional lubricator adds a precisely adjustable amount of oil to the compressed air. The pressure drop that occurs when air flows through a Venturi nozzle is used to feed oil from a reservoir to the drip cap. From there, the oil drips into the air duct directly behind the proportional valve, where it is atomised. The amount of oil mist is proportional to the compressed air flow rate.

Pneumatic connection

Individual fittings can be connected via connecting plates with female threads.

Version

[D]	D series, metal
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Sturdy in full metal design for the specific requirements of the process automation industry

Type code

001	Series	
LOE	Lubricator	

002	Pneumatic connection	
	None	
1/8	Female thread G1/8	
1/4	Female thread G1/4	
3/8	Female thread G3/8	
1/2	Female thread G1/2	
3/4	Female thread G3/4	
1	Female thread G1	

003	Version	
D	D series, metal	

004	Size	
MINI	Grid dimension 40 mm (without connecting plates)	
MIDI	Grid dimension 55 mm (without connecting plates)	
MAXI	Grid dimension 66 mm (without connecting plates)	

Datasheet

General technical data



Size	Maxi			Midi				Mini		
Pneumatic connection, port 1	G1/2	G3/4	G1	G1/4	G3/8	G1/2	G3/4	G1/8	G1/4	G3/8
Pneumatic connection, port 2	G1/2	G3/4	G1	G1/4	G3/8	G1/2	G3/4	G1/8	G1/4	G3/8
Design	Proportional standard mist lubricator									
Type of mounting	With accessories									
Mounting position	Vertical +/-5°									
Air purity class at output	Compressed air to ISO 8573-1:2010 [7:4:-] Inert gases									
Bowl type	Polymer with metal bowl guard									
Min. flow rate for lubricator function	10 l/min			8 l/min				3 l/min		
Max. oil capacity	190 cm ³			110 cm ³				45 cm ³		

Standard nominal flow rate q_N

Size	Maxi			Midi				Mini		
Pneumatic connection, port 1	G1/2	G3/4	G1	G1/4	G3/8	G1/2	G3/4	G1/8	G1/4	G3/8
Standard nominal flow rate (standardised to DIN 1343) ¹⁾	8,300 l/min	8,400 l/min	9,000 l/min	2,800 l/min	5,500 l/min	6,100 l/min	6,300 l/min	1,300 l/min	2,300 l/min	2,700 l/min

1) in main flow direction 1->2

Operating and environmental conditions

Size	Maxi	Midi	Mini
Operating pressure	0 ... 1.6 MPa		
Operating pressure ¹⁾	0 ... 16 bar		
Operating pressure	0 ... 232 psi		
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gases		
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)	Lubricated operation not possible	
Ambient temperature	-10 ... 60°C		
Media temperature	-10 ... 60°C		
Storage temperature	-10 ... 60°C		
Corrosion resistance class CRC ²⁾	2 - Moderate corrosion stress		

1) With certification UL: 1 ... 10 bar

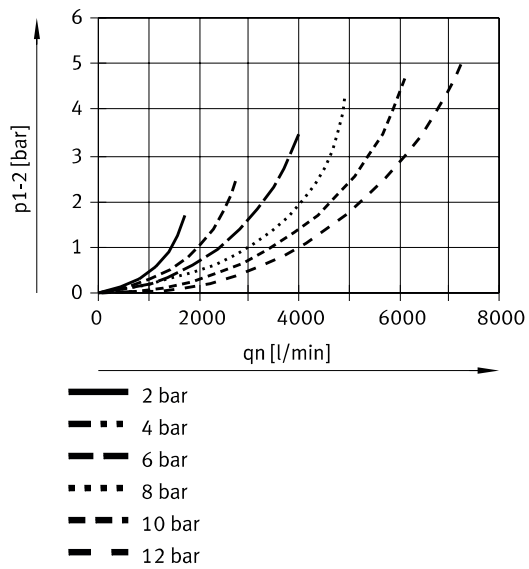
2) More information: www.festo.com/x/topic/crc

Materials

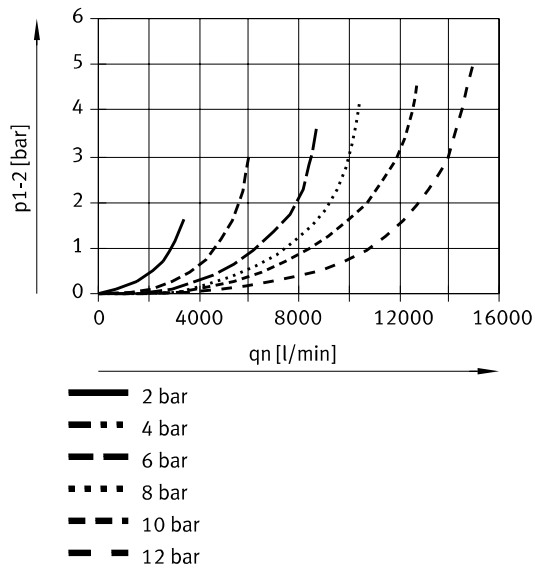
Material bowl	PC
Note on materials	RoHS-compliant
LABS (PWS) conformity	VDMA24364-B1/B2-L

Datasheet

Standard flow rate q_n as a function of differential pressure p_{1-2} (LOE-1/4-D-MINI)

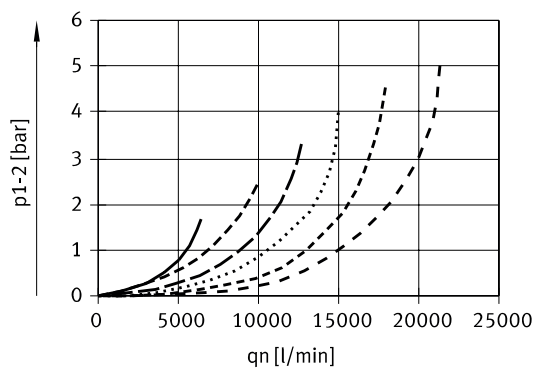


Standard flow rate q_n as a function of differential pressure p_{1-2} (LOE-1/2-D-MIDI)



Datasheet

Standard flow rate q_n as a function of differential pressure p_{1-2} (LOE-1-D-MAXI)

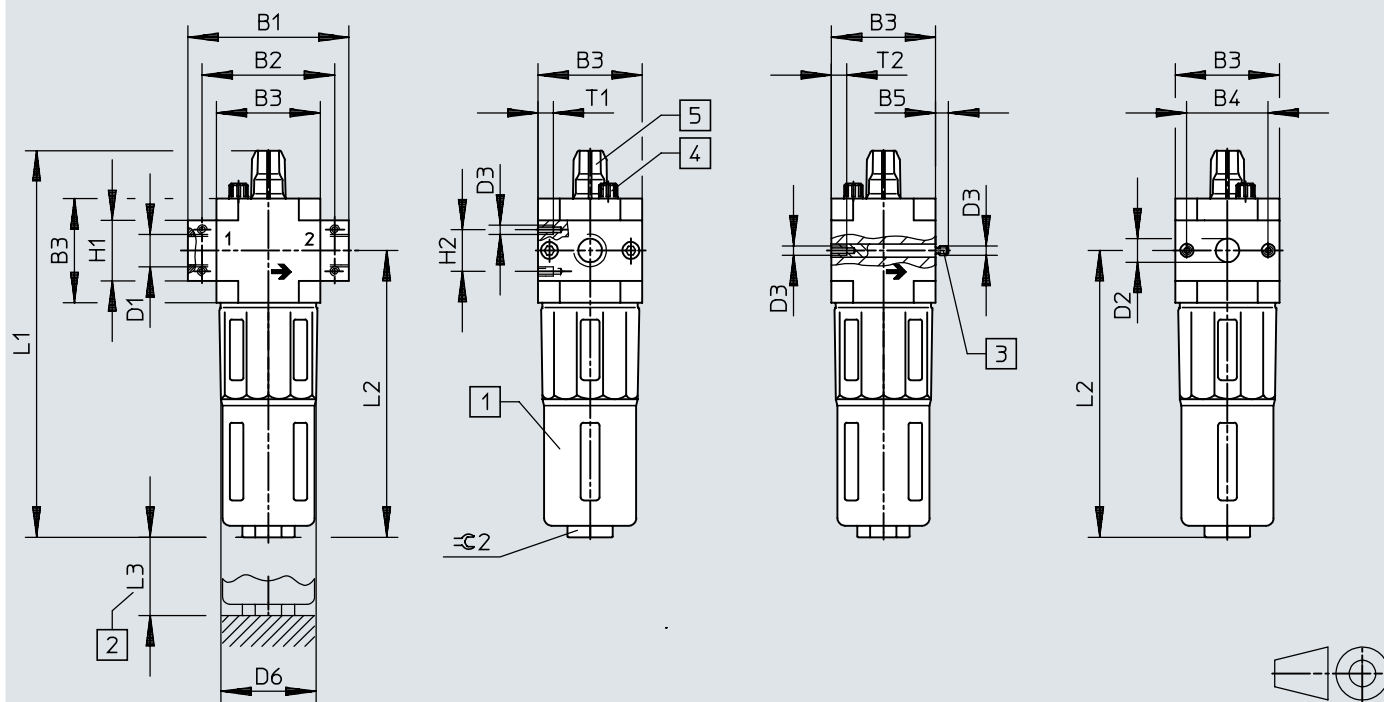


- 2 bar
- - - 4 bar
- - - 6 bar
- ... 8 bar
- . - 10 bar
- - - 12 bar

Dimensions

Dimensions – Connecting plates with threaded connection and without connecting plates

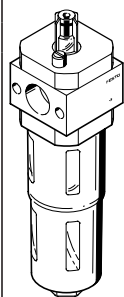
Download CAD data → www.festo.com

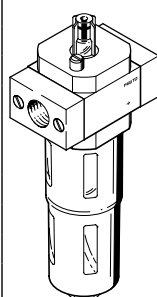


- [1] Metal bowl guard
- [2] Installation dimension
- [3] Threaded bolt (exchangeable)
- [4] Vent screw for oil reservoir
- [5] Oil adjusting screw

	B1	B2	B3	B4	B5	D1	D2 Ø	D3	D6 Ø	H1	H2	L1	L2	L3	T1	T2	≈ 2
LOE-1/8-D-MINI	64	52	40	30	—	G1/8	—	M4	38	20	11	169	124	100	7	—	22
LOE-1/4-D-MINI						G1/4											
LOE-3/8-D-MINI						G3/8											
LOE-D-MINI	—	—			5,8	—	11			—	—				—	10	
LOE-1/4-D-MIDI	85	70	55	43	—	G1/4	—	M5	52	32	22	204	151	120	8	—	24
LOE-3/8-D-MIDI						G3/8											
LOE-1/2-D-MIDI						G1/2											
LOE-3/4-D-MIDI						G3/4											
LOE-D-MIDI	—	—			6,8	—	24			—	—				—	11	
LOE-1/2-D-MAXI	96	80	66	46	—	G1/2	—	M5	65	32	22	228	170	150	8	—	24
LOE-3/4-D-MAXI						G3/4											
LOE-1-D-MAXI	116	91															
LOE-D-MAXI	—	—			6,8	—	30			—	—				—	11	

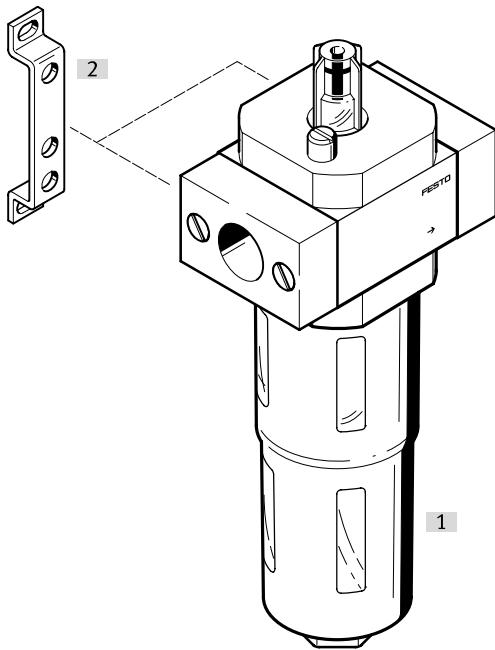
Ordering data

Without connecting plates				
	Size	Product weight	Part no.	Type
	Maxi	1,100 g	192577	LOE-D-MAXI
	Midi	630 g	192576	LOE-D-MIDI
	Mini	270 g	192575	LOE-D-MINI

With sub-bases with threaded connection					
	Size	Pneumatic connection, port 1	Product weight	Part no.	Type
	Maxi	G1/2	1,100 g	186480	LOE-1/2-D-MAXI
		G3/4		159622	LOE-3/4-D-MAXI
		G1	1,200 g	159623	LOE-1-D-MAXI
	Midi	G1/4	630 g	186479	LOE-1/4-D-MIDI
		G3/8		159586	LOE-3/8-D-MIDI
		G1/2		159587	LOE-1/2-D-MIDI
		G3/4		162681	LOE-3/4-D-MIDI
	Mini	G1/8	270 g	159620	LOE-1/8-D-MINI
		G1/4		159621	LOE-1/4-D-MINI
		G3/8		162680	LOE-3/8-D-MINI

Peripherals

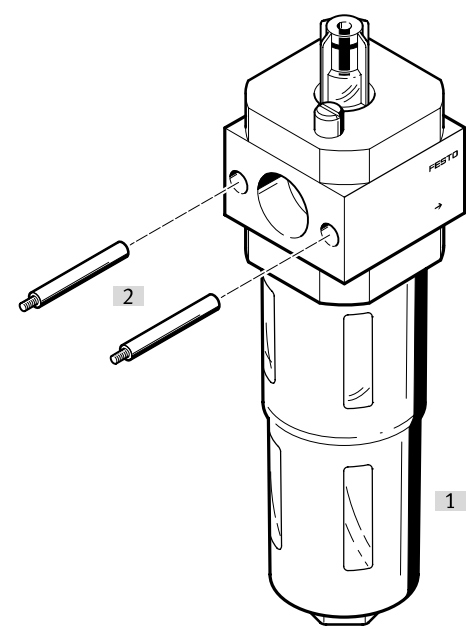
Peripherals overview – single unit with connecting plates



Accessories		→ Link
Type/order code	Description	
[1] Lubricator LOE-D		loe-d
[2] Mounting bracket HFOE-D		11

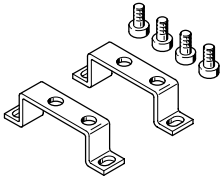
Peripherals

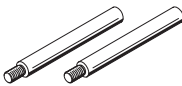
Peripherals overview – individual unit without connecting plates, for service unit component combination



Accessories		→ Link
Type/order code	Description	
[1] Lubricator LOE-D		loe-d
[2] Threaded bolt FRB-D	Included in the scope of delivery	11

Accessories

Mounting bracket MS4-WP...				
	Short type code	Corrosion resistance class CRC	Part no.	Type
	HFOE	2 - Moderate corrosion stress	159638	HFOE-D-MINI
			159593	HFOE-D-MIDI/MAXI

Mounting bracket MS4-WB				
	Short type code	Corrosion resistance class CRC	Part no.	Type
	FRB	2 - Moderate corrosion stress	159595	FRB-D-MIDI
			159643	FRB-D-MAXI
			159642	FRB-D-MINI

Special oil OFSW (1 litre)			
	Short type code	Part no.	Type
	OFSW	152811	OFSW-32