

Lubricator MS9-LOE

FESTO



Characteristics

At a glance

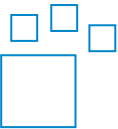
Very compact series for use close to the process directly on the machine

- Grid dimension: 90 mm
- 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)

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)

Ordering data - modular system



Configurable product

This product and all its product options can be ordered online via the configurator.

Diagrams

[Further information → ms9-loe](#)



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

Function

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

Depending on the size, different connection types can be selected:

- Individual fittings that are fastened via a female thread
- Connecting plates with female thread

Bowl type

Bowl guard tanks to integrated metal bowl.

UL certification

Optional device variant UL1, which meets the safety requirements for the Canadian and US markets.

Flow direction

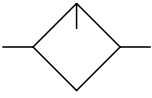
Available with flow in the opposite direction.

Type code

001	Series		005	Bowl type	
MS	MS series		U	Aluminium	
002	Size		006	Type of mounting	
9	Grid dimension 90 mm			Without mounting bracket	
003	Function		WP	Mounting bracket basic design	
LOE	Compressed air lubricator		WPB	Mounting bracket for large wall gap	
004	Pneumatic connection		WPM	Mounting bracket for hooking in service unit components	
3/4	Female thread G3/4		007	UL certification	
1	Female thread G1			None	
AGD	Sub-base G1/2		UL1	cULus ordinary location for Canada and USA	
AGE	Sub-base G3/4		008	Flow direction	
AGF	Sub-base G1			Flow direction from left to right	
AGG	Connecting plate G1 1/4		Z	Flow direction from right to left	
AGH	Connecting plate G1 1/2				
N3/4	Female thread 3/4 NPT				
N1	Female thread 1 NPT				
AQR	Sub-base 1/2 NPT				
AQS	Sub-base 3/4 NPT				
AQT	Sub-base 1 NPT				
AQU	Sub-base 1 1/4 NPT				
AQV	Sub-base 1 1/2 NPT				
G	Module without connecting thread, without sub-base				
F	Flange/sub-base				

Datasheet

General technical data



Design	Proportional standard mist lubricator
Type of mounting	In-line installation With accessories
Mounting position	Vertical +/-5°
Bowl guard	Plastic bowl guard, Integrated as metal bowl
Min. flow rate for lubricator function	100 l/min
Max. oil capacity	490 ml

Standard nominal flow rate q_N

Standard nominal flow rate ¹⁾	8,500 ... 27,000 l/min
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1) in main flow direction 1->2; Measured at p₁ = 6 bar and Δp = 1 bar.

Operating and environmental conditions

Operating pressure	1 ... 16 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gases
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
UL certification ¹⁾	None, cULus ordinary location for Canada and USA
Corrosion resistance class CRC ²⁾	2 - Moderate corrosion stress

1) More information www.festo.com/catalogue/ms9-loe → Support/Downloads.

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

ATEX

ATEX category gas	II 2G
Explosion ignition protection type for gas	Ex h IIC T6 Gb X
ATEX category dust	II 2D
Explosion ignition protection type for dust	Ex h IIIC T60°C Db X
Explosion ambient temperature	-10°C ≤ Ta ≤ +60°C
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
CE marking (see declaration of conformity) ¹⁾	To UK EX instructions

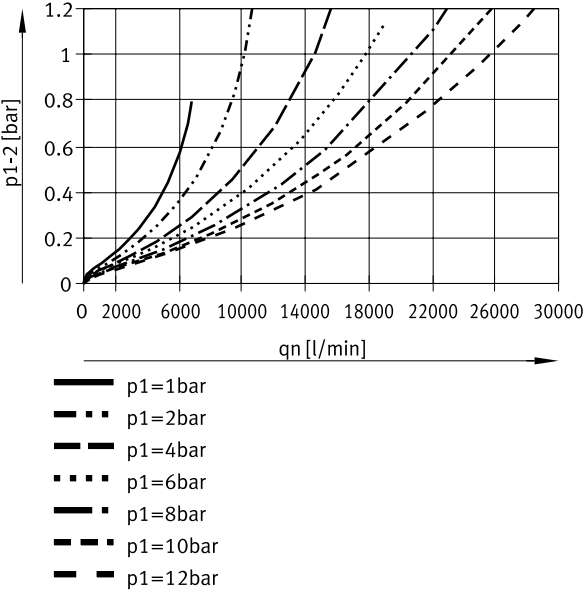
1) More information www.festo.com/catalogue/ms9-loe → Support/Downloads.

Materials

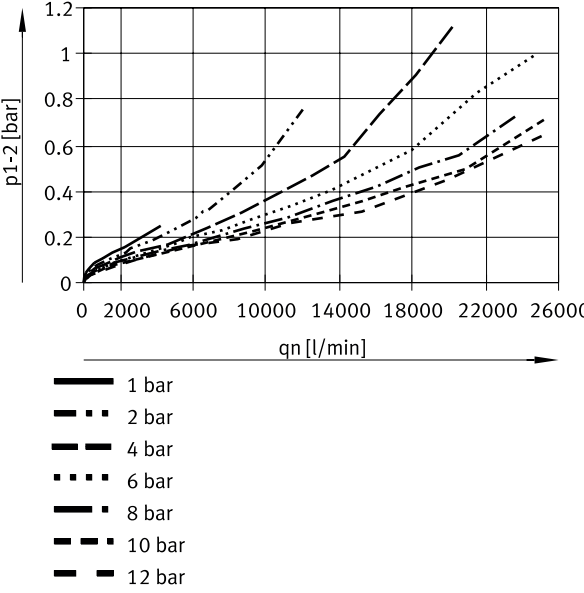
Bowl type	Aluminium
Material housing	Die-cast aluminium
Material bowl	Wrought aluminium alloy
Material seals	NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Datasheet

Standard flow rate q_n as a function of differential pressure p_{1-2} (pneumatic connection G3/4, 3/4 NPT)



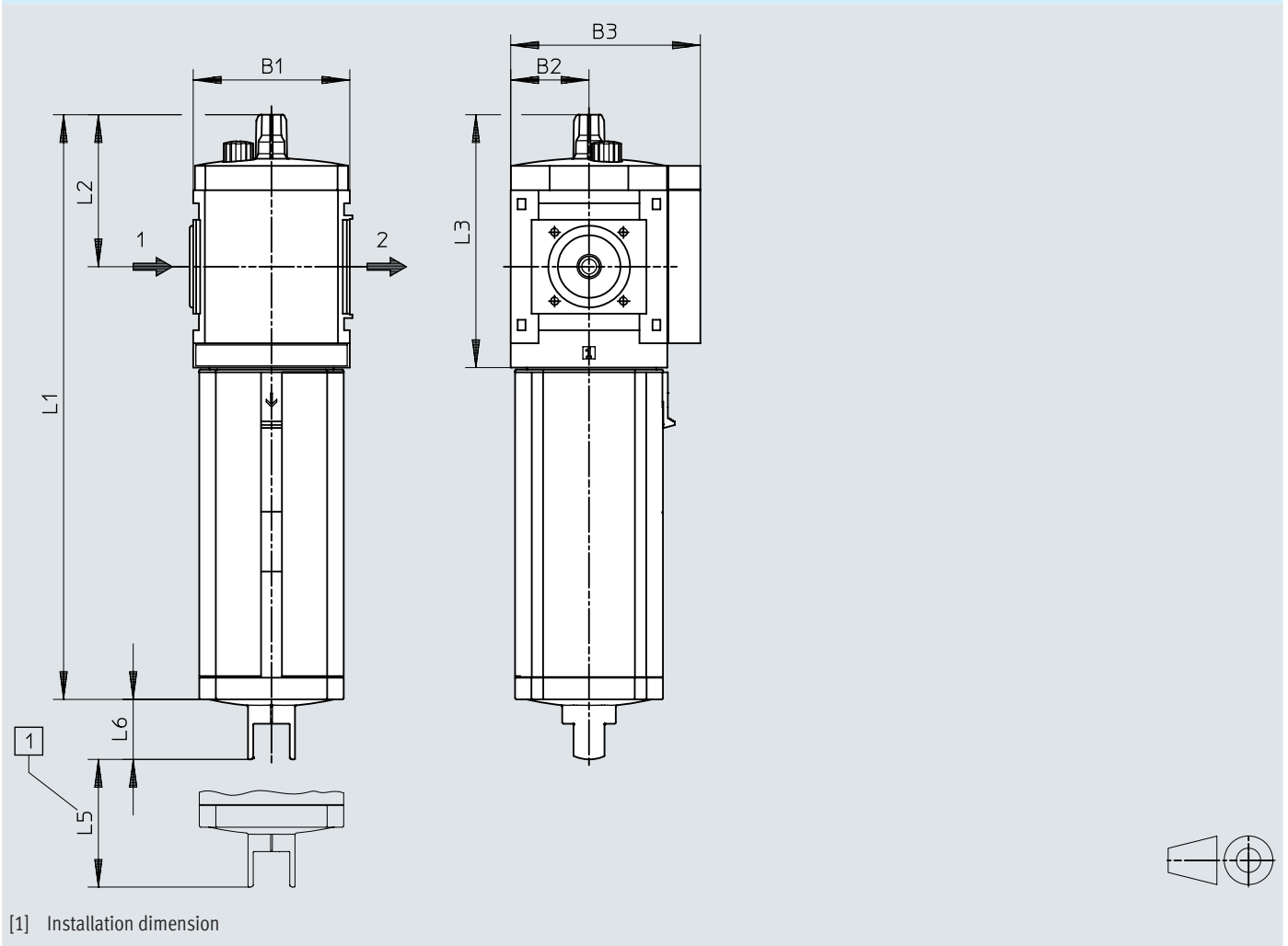
Standard flow rate q_n as a function of differential pressure p_{1-2} (pneumatic connection G1, 1 NPT)



Dimensions

Dimensions – Basic type, module without connecting thread, without sub-base

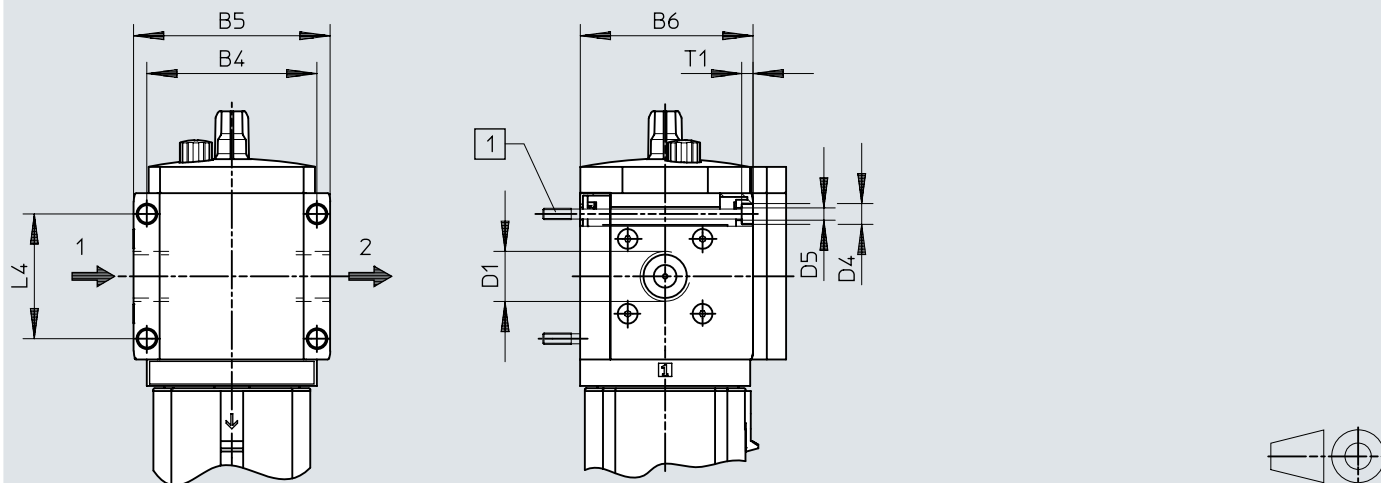
Download CAD data → www.festo.com



	B1	B2	B3	L1	L2	L3	L5 min.	L6
MS9-LOE-G	90	45	109	336,3	87	145	225	34,5

Dimensions

Dimensions – MS9, Female thread

Download CAD data → www.festo.com

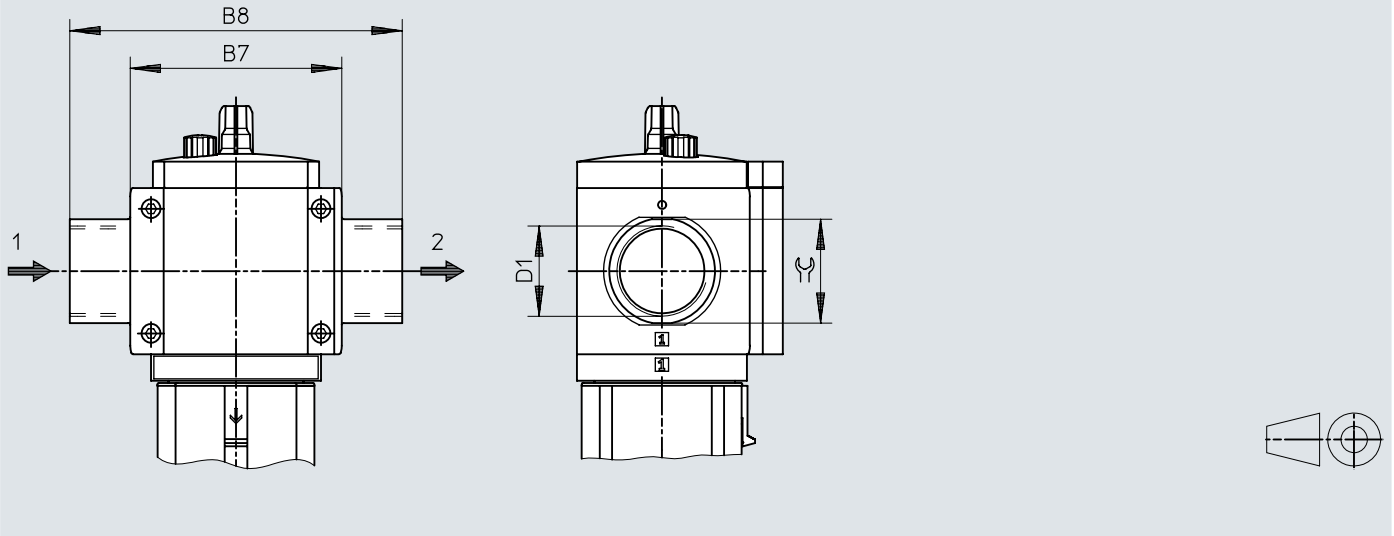
[1] Retaining screw M6xmin.90 according to DIN 912 (not included in the scope of delivery) for wall mounting without mounting bracket

	B4	B5	B6	D1	D4 ø	D5 ø	L4	T1
MS9-LOE-3/4	90	104	91,5	G3/4	11	6,5	66	6
MS9-LOE-1				G1				
MS9-LOE-N3/4	90	104	91,5	3/4 NPT	11	6,5	66	6
MS9-LOE-N1				1 NPT				

Dimensions


Dimensions – MS9, connecting plate

Download CAD data → www.festo.com



	B7	B8	D1	☉
MS9-LOE-AGD	112	132	G1/2	30
MS9-LOE-AGE		132	G3/4	36
MS9-LOE-AGF		142	G1	41
MS9-LOE-AGG		162	G1 1/4	50
MS9-LOE-AGH		176	G1 1/2	55
MS9-LOE-AQR	112	132	1/2 NPT	30
MS9-LOE-AQS		132	3/4 NPT	36
MS9-LOE-AQT		142	1 NPT	41
MS9-LOE-AQU		162	1 1/4 NPT	50
MS9-LOE-AQV		176	1 1/2 NPT	55

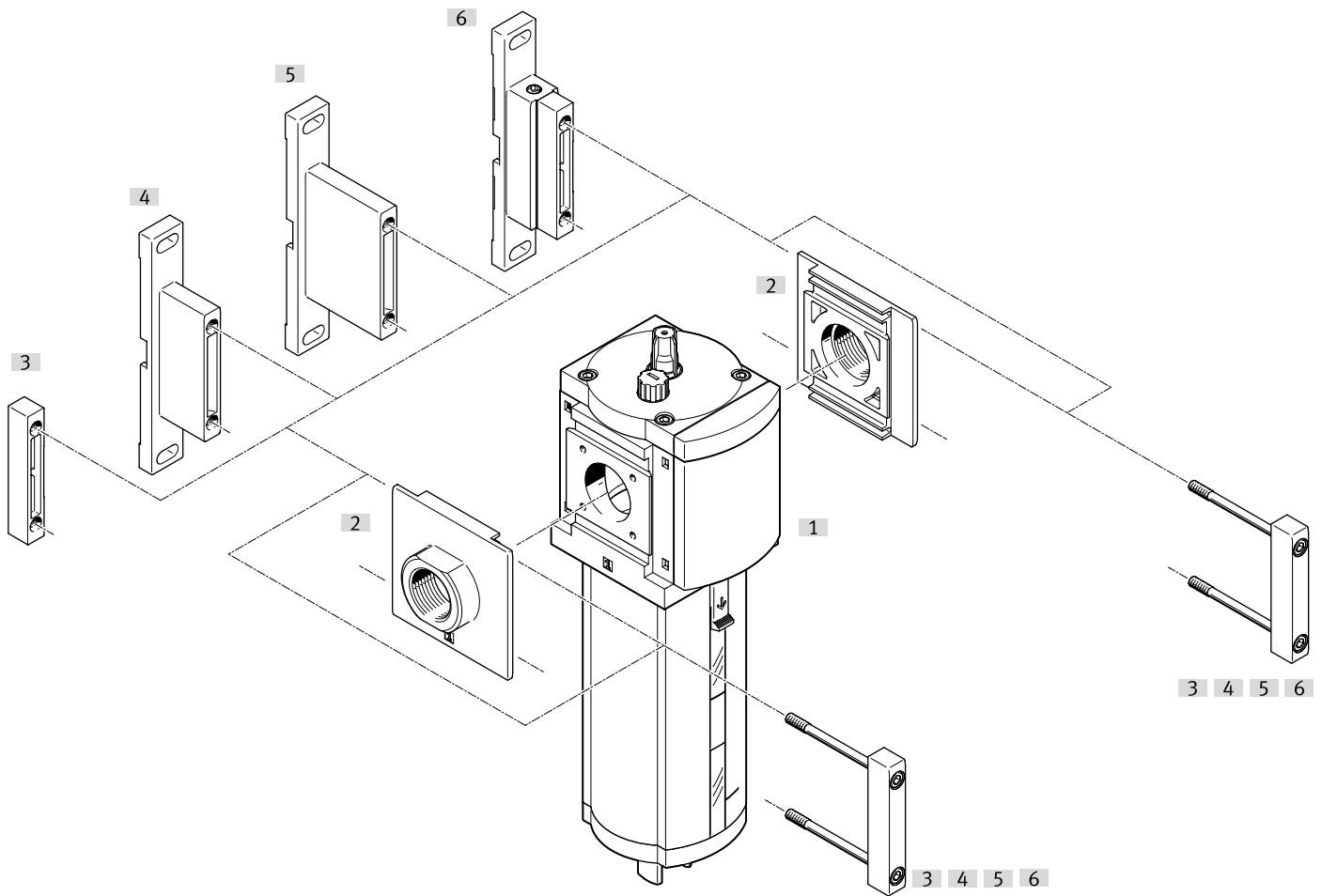
Ordering data

Ordering data					
	Bowl type	Flow direction	Product weight	Part no.	Type
	Aluminium	Flow direction from left to right	2,000 g	564144	MS9-LOE-G-U

Ordering data – Modular product system			
	Short type code	Part no.	Type
	MS9-LOE	562533	MS9-LOE

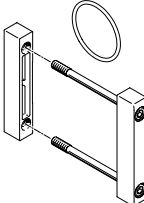
Peripherals

Peripherals overview

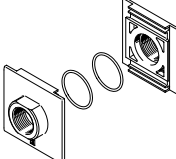


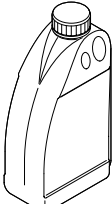
Accessories		→ Page/Internet
Type/order code	Description	
[1] Lubricator MS9-LOE		ms9-loe
[2] Connecting plate SET MS9-A...	For device combinations	11
[3] Module connector MS9-MV	For device combinations and individual devices with connecting plate	11
[4] Mounting bracket MS9-WP	For individual device	11
[5] Mounting bracket MS9-WPB	For individual device	11
[6] Mounting bracket MS9-WPM	For individual device	11

Accessories

Module connector MS6-MV1				
	Size	Product weight	Part no.	Type
	9	110 g	552950	MS9-MV

Mounting bracket MS6-WP...				
	Size		Part no.	Type
	9		552947	MS9-WP
			552949	MS9-WPB
			552948	MS9-WPM

Connecting plate-SET MS6-AG...						
	Size	Pneumatic connection, port 1	Product weight	Part no.	Type	
	9	G1/2	300 g	552954	MS9-AGD	
		G3/4		552955	MS9-AGE	
		G1		552956	MS9-AGF	
			G1 1/4	400 g	552957	MS9-AGG
			G1 1/2		552958	MS9-AGH
			1/2 NPT		300 g	552959
	3/4 NPT	552960	MS9-AQS			
	1 NPT	552961	MS9-AQT			
	1 1/4 NPT	400 g	552962	MS9-AQU		
	1 1/2 NPT		552963	MS9-AQV		

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