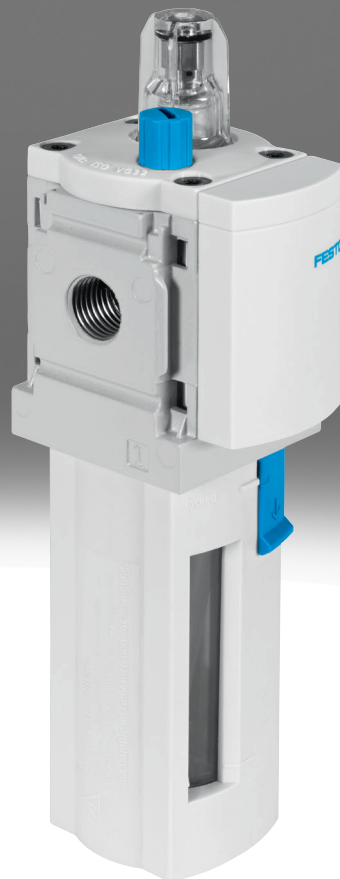


Lubricator MS4-LOE

FESTO



Characteristics

At a glance

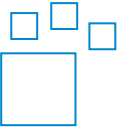
Very compact series for use close to the process directly on the machine

- Grid dimension: 40 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)
- Castrol HySpin ZZ 32
- BP Energol HLP 32
- Mobil Nuto H 32
- Mobil DTE 24
- Shell Tellus S2 MA 32

Ordering data - modular system



Configurable product

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

Diagrams

[Link](#)  [ms4-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 can be selected either as a plastic bowl guard or integrated as a metal bowl guard.

EU certification

Optional device variant EX4 for use in potentially explosive areas of zones 1, 2, 21 and 22

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.

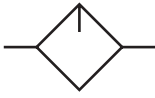
Type code

001	Series
MS	MS series
002	Size
4	Grid dimension 40 mm
003	Function
LOE	Compressed air lubricator
004	Pneumatic connection
1/8	Female thread G1/8
1/4	Female thread G1/4
AGA	Sub-base G1/8
AGB	Sub-base G1/4
AGC	Sub-base G3/8
AQK	Sub-base 1/8 NPT
AQN	Sub-base 1/4 NPT
AQP	Sub-base 3/8 NPT
005	Bowl type
R	Plastic tray with plastic basket
U	Aluminium

006	Type of mounting
	Without mounting bracket
WP	Mounting bracket basic design
WPM	Mounting bracket for hooking in service unit components
WB	Mounting centrally at rear (wall mounting top and bottom), connecting plates not required
WBM	Mounting centrally at rear (wall mounting top), connecting plates not required
007	EU certification
	None
EX4	II 2GD
008	UL certification
	None
UL1	cULus ordinary location for Canada and USA
009	Flow direction
	Flow direction from left to right
Z	Flow direction from right to left

Datasheet

General technical data



Pneumatic connection, port 1	G1/8	G1/4	G3/8
Bowl type	Plastic tray with plastic basket		Aluminium
Pneumatic connection, port 2	G1/8	G1/4	G3/8
Design	Proportional standard mist lubricator		
Type of mounting	Either: In-line installation With accessories		
Mounting position	Vertical +/-5°		
Min. flow rate for lubricator function	40 l/min		
Max. oil capacity	30 cm ³	36 cm ³	30 cm ³

Standard nominal flow rate q_N

Pneumatic connection, port 1	G1/8	G1/4	G3/8
Standard nominal flow rate (standardised to DIN 1343) ¹⁾	1,100 l/min	2,200 l/min	

1) in main flow direction 1->2

Operating and environmental conditions

Operating pressure	0.1 ... 1.2 MPa
Operating pressure ¹⁾	1 ... 12 bar
Operating pressure	14.5 ... 174 psi
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gases
Note on operating and pilot medium	Lubricated operation possible
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
UL certification ²⁾	None, cULus ordinary location for Canada and USA
Corrosion resistance class CRC ³⁾	2 - Moderate corrosion stress

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

2) More information www.festo.com/catalogue/ms4-loe → Support/Downloads.

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

ATEX

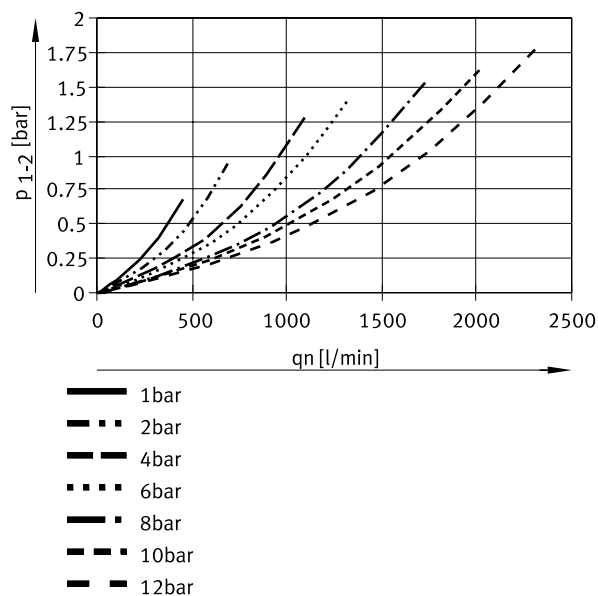
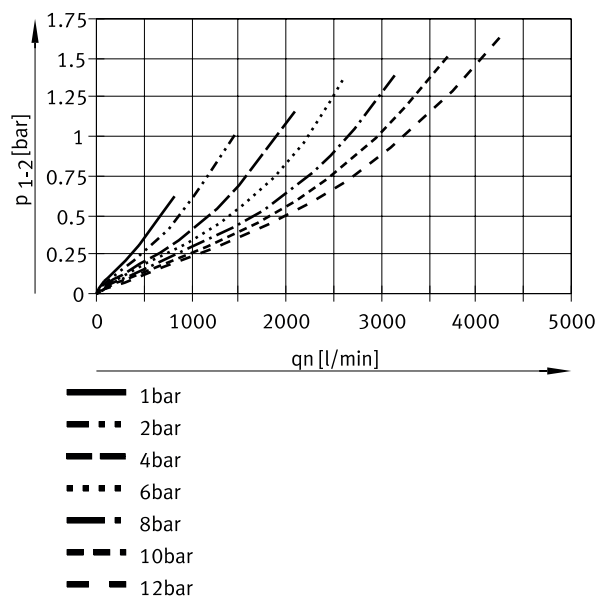
ATEX category gas	II 2G
Explosion ignition protection type for gas	Ex h IIC T6 Gb X
ATEX category dust	II 2D
Explosion ignition protection type for dust	Ex h IIIC T60°C Db X
Explosion ambient temperature	-10°C ≤ Ta ≤ +60°C
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
CE mark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

1) More information www.festo.com/catalogue/ms4-loe → Support/Downloads.

2) More information www.festo.com/catalogue/ms4-loe → Support/Downloads.

Datasheet

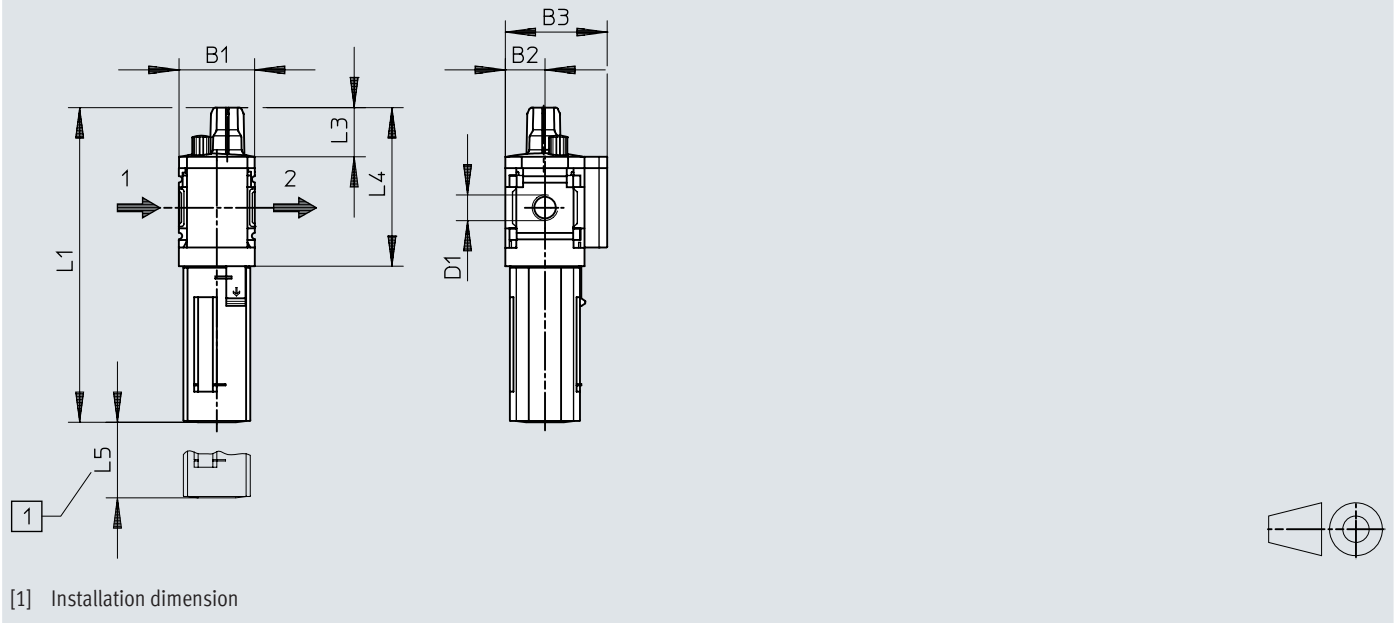
Materials		
Bowl type	Plastic tray with plastic basket	Aluminium
Material housing	Die-cast aluminium	
Material bowl	PC	Die-cast aluminium, Wrought aluminium alloy
Material seals	NBR	-
Note on materials	RoHS-compliant	
LABS (PWS) conformity	VDMA24364-B1/B2-L	

Standard flow rate q_n as a function of differential pressure p_{1-2} (MS4-LOE-1/8)Standard flow rate q_n as a function of differential pressure p_{1-2} (MS4-LOE-1/4)

Dimensions

Dimensions – Basic type


Download CAD data www.festo.com

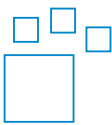


	B1	B2	B3	D1	1)	L1	2)	L2	L3	L4	L5
MS4-LOE-1/8	42	21	54	G1/8	166,6	184,9	53	26	84,5	80	
MS4-LOE-1/4				G1/4							

- 1) Bowl guard, polymer
- 2) Bowl guard, metal

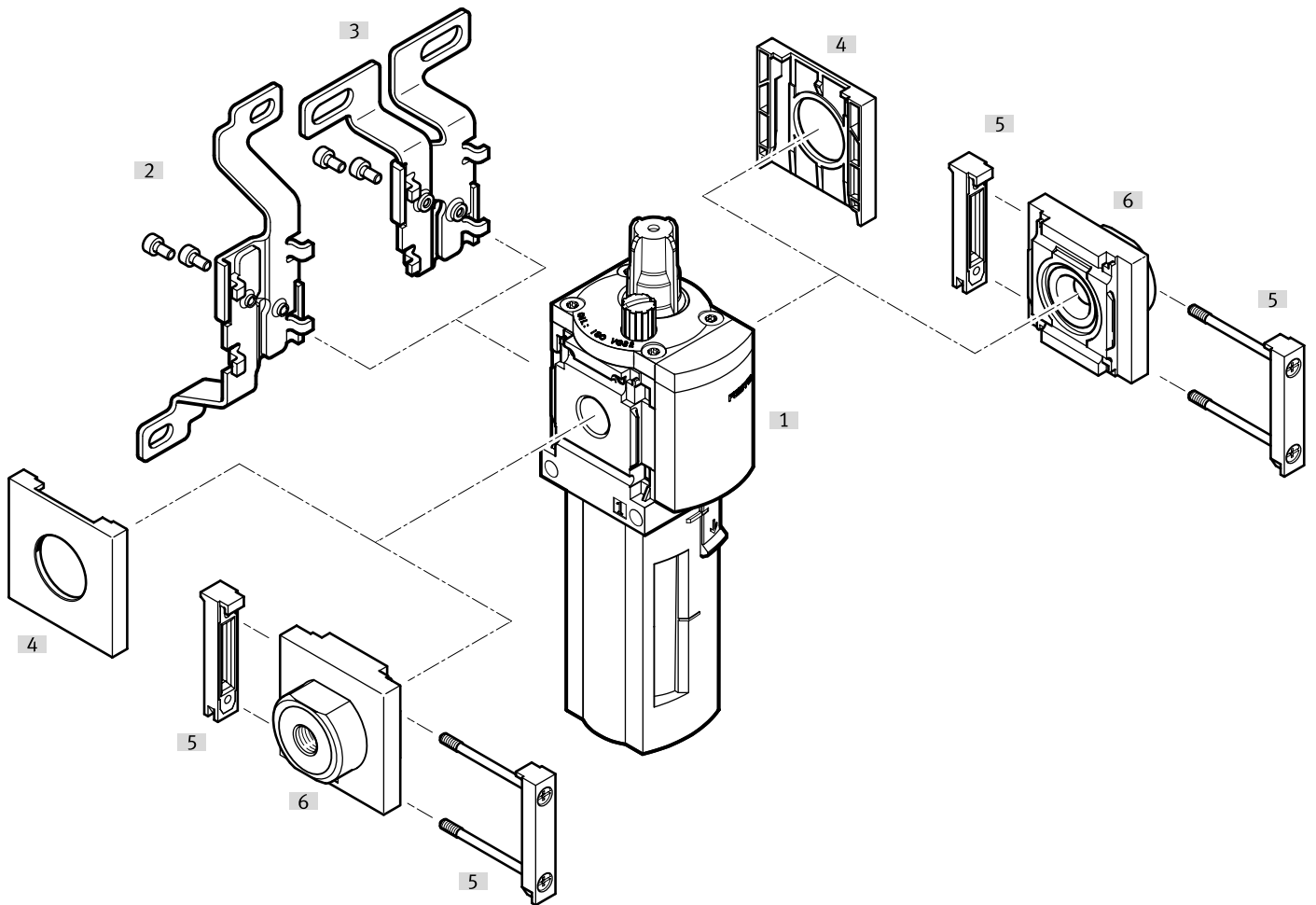
Ordering data

Ordering data						
	Pneumatic connection, port 1	Bowl type	Flow direction	Product weight	Part no.	Type
	G1/8	Plastic tray with plastic basket	Flow direction from left to right	194 g	529413	MS4-LOE-1/8-R
	G1/4				529411	MS4-LOE-1/4-R
		Aluminium		354 g	535790	MS4-LOE-1/4-U
	G3/8	Plastic tray with plastic basket		325 g	8232827	MS4-LOE-AGC-R

Ordering data – Modular product system			
	Short type code	Part no.	Type
	MS4-LOE	527701	MS4-LOE

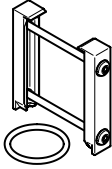
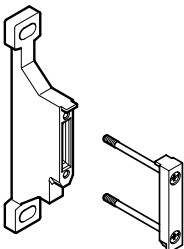
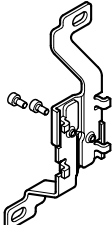
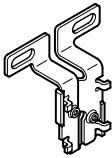
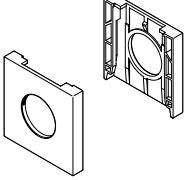
Peripherals

Peripherals overview

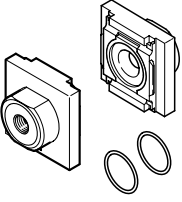


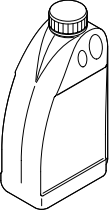
Accessories			→ Link
Type/order code	Description		
[1] Lubricator MS4-LOE			ms4-loe
[2] Mounting bracket MS4-WB	For individual device		9
[3] Mounting bracket MS4-WBM	For individual device		9
[4] Cover cap MS4-END	For devices without connecting plate		9
[5] Module connector MS4-MV1	For device combinations and individual devices with connecting plate		9
[6] Connecting plate SET MS4-AG...	For device combinations		10

Accessories

Module connector MS4-MV1			
	Size	Part no.	Type
	4	8119201	MS4-MV1
Mounting bracket MS4-WP...			
	Size	Part no.	Type
	4	526063	MS4-WPB
		526060	MS4-WPM-D
		541552	MS4-WPB-EX
		541554	MS4-WP-EX
		526061	MS4-WPM-2D
		532184	MS4-WP
Mounting bracket MS4-WB			
	Size	Part no.	Type
	4	532185	MS4-WB
Mounting bracket MS4-WBM			
	Size	Part no.	Type
	4	526062	MS4-WBM
Cover cap MS4-END			
	Size	Part no.	Type
	4	538779	MS4-END

Accessories

Connecting plate-SET MS4-AG...				
	Size	Pneumatic connection, port 1	Part no.	Type
	4	G1/8	526068	MS4-AGA
			541549	MS4-AGA-EX
		G1/4	526069	MS4-AGB
			541550	MS4-AGB-EX
		G3/8	526070	MS4-AGC
			541551	MS4-AGC-EX

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