

# Lubricator MS4-LOE

**FESTO**



## Characteristics

### At a glance

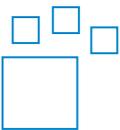
Very compact series for use close to the process directly on the machine

- 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 mm<sup>2</sup>/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 → [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.

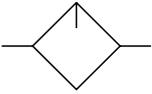
## Type code

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

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

## Datasheet

## General technical data



Pneumatic connection, port 1	G1/8	G1/4
Bowl type	Plastic tray with plastic basket	
		Aluminium
Pneumatic connection, port 2	G1/8	G1/4
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 <sup>3</sup>	36 cm <sup>3</sup>

Standard nominal flow rate q<sub>N</sub>

Pneumatic connection, port 1	G1/8	G1/4
Standard nominal flow rate <sup>1)</sup>	1,100 l/min	2,200 l/min

1) in main flow direction 1->2

## Operating and environmental conditions

Operating pressure <sup>1)</sup>	1 ... 12 bar
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 <sup>2)</sup>	None, cULus ordinary location for Canada and USA
Corrosion resistance class CRC <sup>3)</sup>	2 - Moderate corrosion stress

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

2) More information [www.festo.com/catalogue/ms4-loe](http://www.festo.com/catalogue/ms4-loe) → Support/Downloads.

3) More information [www.festo.com/x/topic/crc](http://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) <sup>1)</sup>	To EU Explosion Protection Directive (ATEX)
CE marking (see declaration of conformity) <sup>2)</sup>	To UK EX instructions

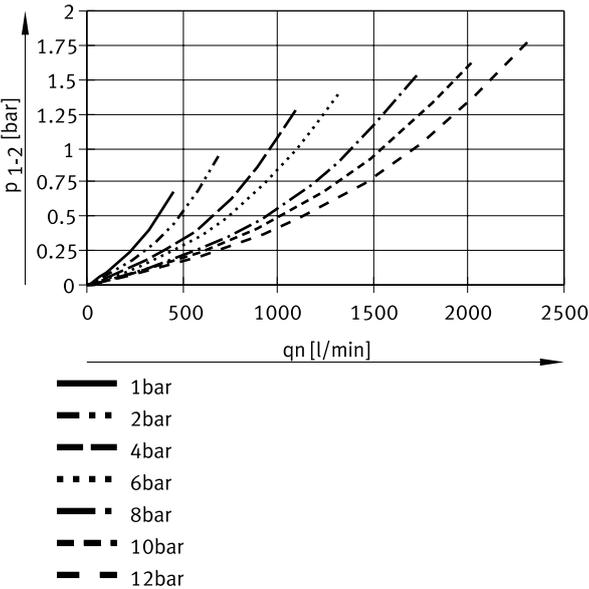
1) More information [www.festo.com/catalogue/ms4-loe](http://www.festo.com/catalogue/ms4-loe) → Support/Downloads.

2) More information [www.festo.com/catalogue/ms4-loe](http://www.festo.com/catalogue/ms4-loe) → Support/Downloads.

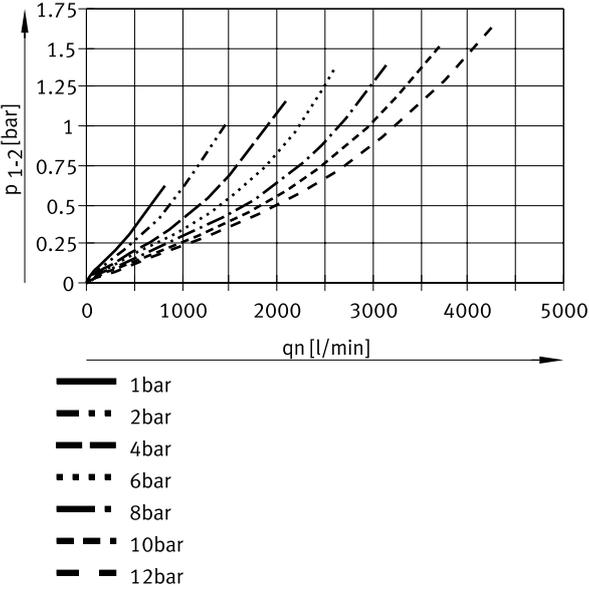
Datasheet

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

Standard flow rate qn as a function of differential pressure p1-2 (MS4-LOE-1/8)



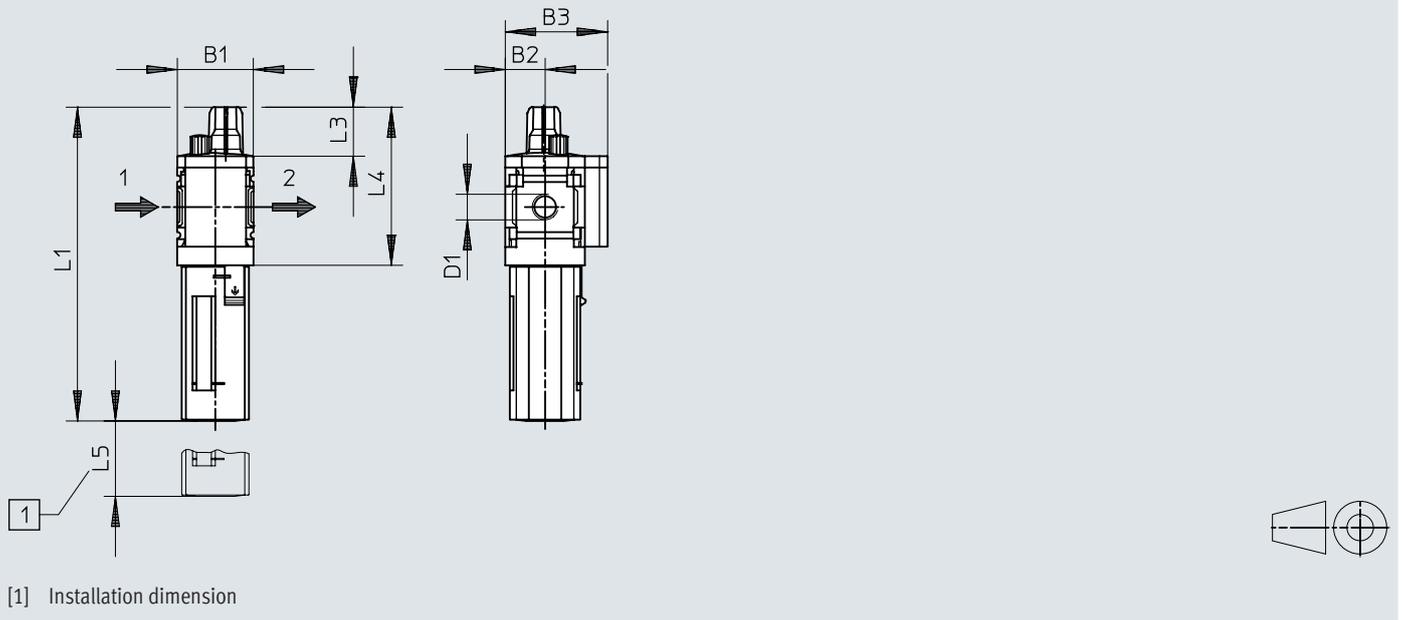
Standard flow rate qn as a function of differential pressure p1-2 (MS4-LOE-1/4)



## Dimensions

### Dimensions – Basic type

Download CAD data → [www.festo.com](http://www.festo.com)

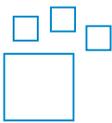


	B1	B2	B3	D1	1)	L1	2)	L2	L3	L4	L5
MS4-LOE-1/8	42	21	54	G1/8	166,6	184,9	53	26	84,5	80	
MS4-LOE-1/4				G1/4							

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

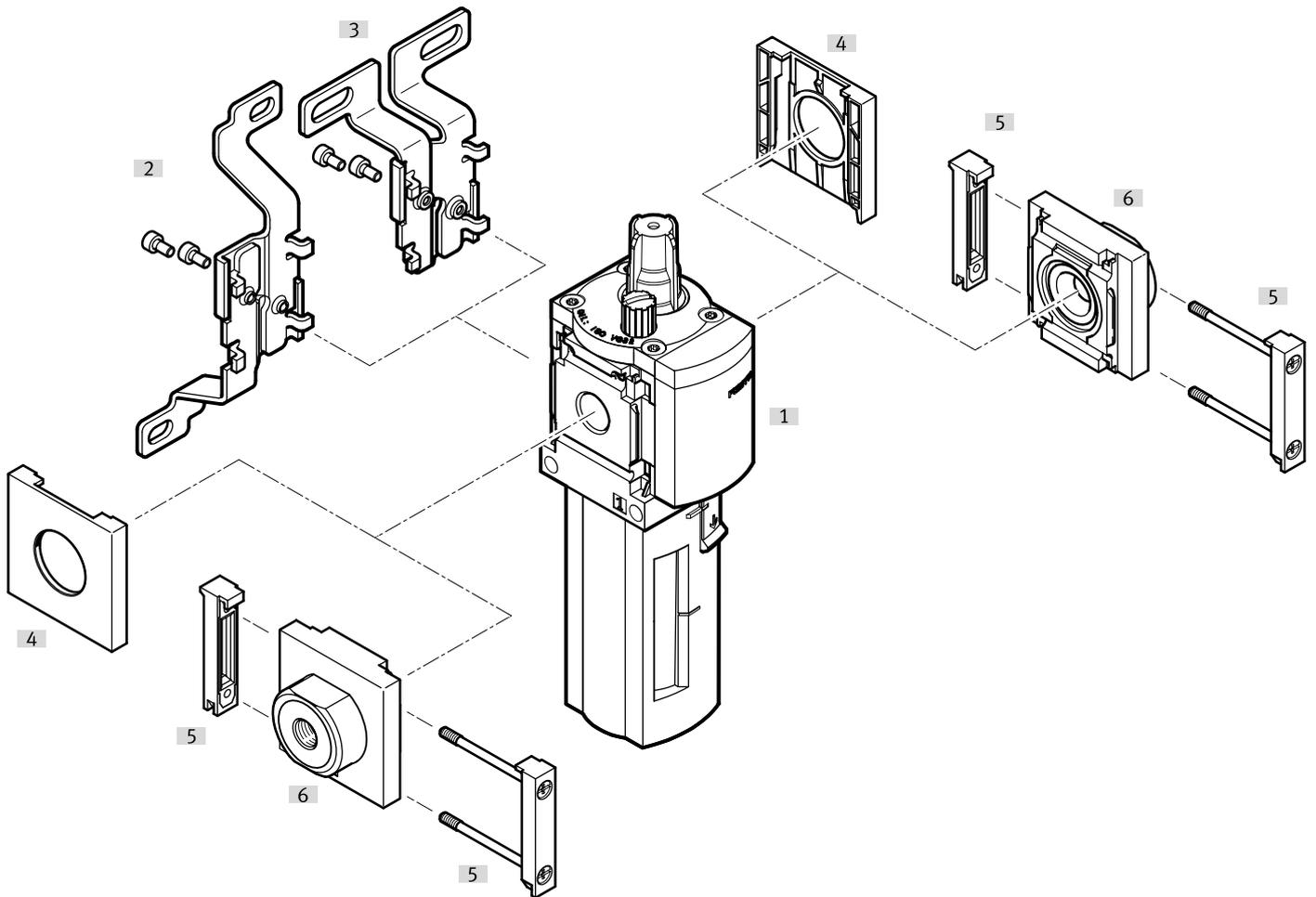
## Ordering data

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	<b>529413</b>	<b>MS4-LOE-1/8-R</b>
	G1/4				<b>529411</b>	<b>MS4-LOE-1/4-R</b>
		Aluminium		354 g	<b>535790</b>	<b>MS4-LOE-1/4-U</b>

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

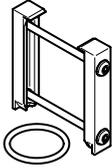
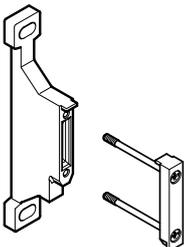
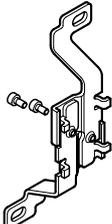
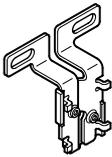
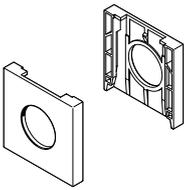
## Peripherals

### Peripherals overview

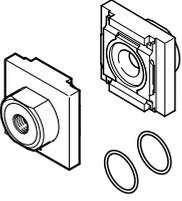


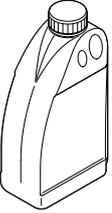
Accessories			→ Page/Internet
Type/order code	Description		
[1] Lubricator MS4-LOE			ms4-loe
[2] Mounting bracket MS4-WB	For individual device		9
[3] Mounting bracket MS4-WBM	For individual device		9
[4] Cover cap MS4-END	For devices without connecting plate		9
[5] Module connector MS4-MV1	For device 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