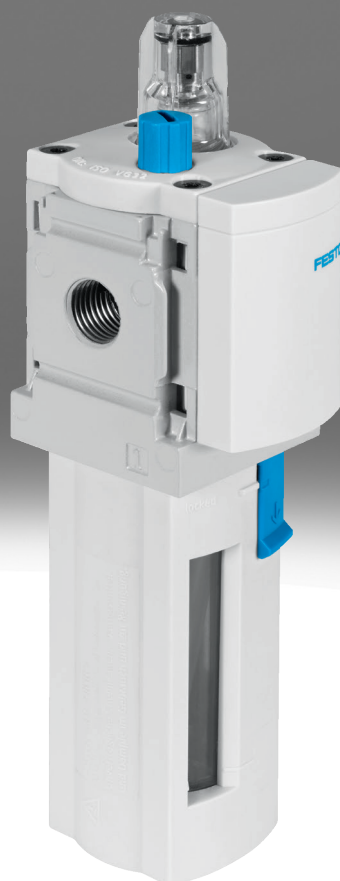


Lubricator MS4-LOE

FESTO



Characteristics

At a glance

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

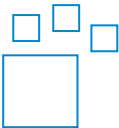
- Grid dimension: 40 mm
- Proportional lubricator with precision oil dosing
- Reduces wear on drive units subject to high loads
- High flow rate performance
- Quick and easy oil top-up even during operation (under pressure)

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

Link [ms4-loe](#)



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

By installing connecting plates it is easier to replace the module if necessary (e.g. when using piping).

Bowl type

Bowl guard can be selected either as a plastic bowl guard or integrated as a metal bowl guard.

Characteristics

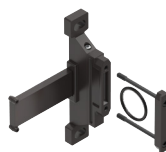
Type of mounting

[WP] Mounting bracket basic design



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- In conjunction with mounting plate MS4-AEND for wall mounting of a single device
- Same wall distance for mixing combination with MS4 and MS6 series

[WPM] Mounting bracket for hooking in service unit components



- For connecting the modules for wall mounting
- In combination with connecting plate MS4-AG... for mounting an individual device on a wall
- Fast hooking and unhooking
- For installing modules with the regulator knob pointing downwards

[WB] Mounting centrally at rear (wall mounting top and bottom), connecting plates not required



- For wall mounting an individual device

[WBM] Mounting centrally at rear (wall mounting top), connecting plates not required



- For wall mounting an individual device

EX certification EU

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.

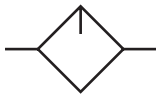
Type code

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	
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	
WP	Mounting bracket basic design	
WPM	Mounting bracket for hooking in service unit components	
007	EX certification EU	
	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	Plastic tray with plastic basket
Pneumatic connection, port 2	G1/8	G1/4	G3/8
Design	Proportional standard mist lubricator		
Type of mounting	Either: Inline 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_{nN}

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 gas
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

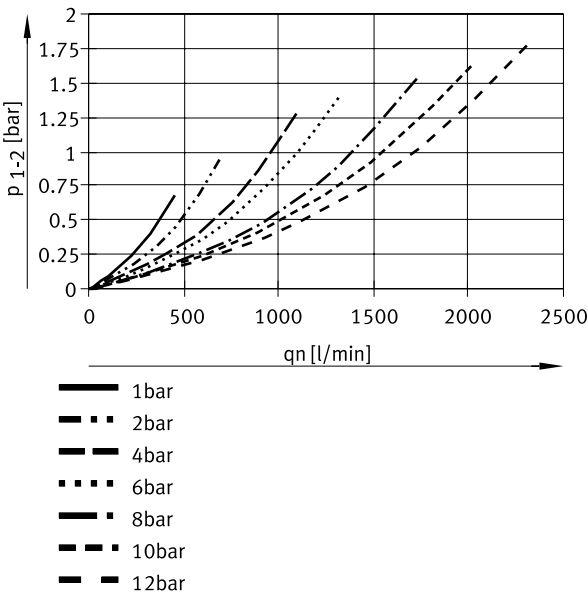
1) More information www.festo.com/catalogue/ms4-loe → Support/Downloads.

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

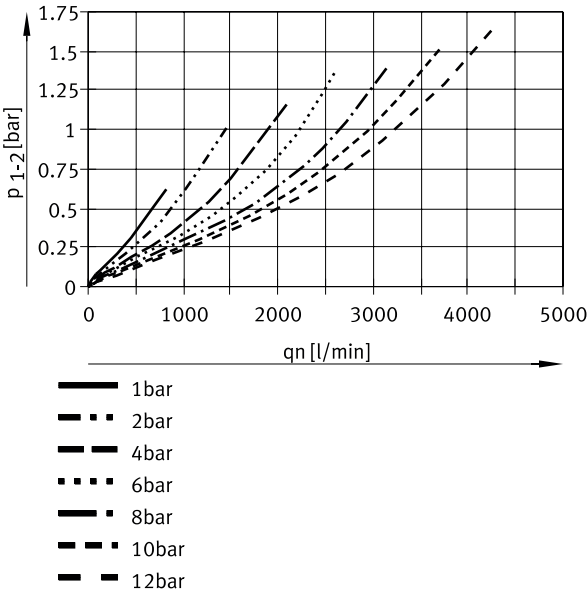
Datasheet

Materials		
Bowl type	Plastic tray with plastic basket	Aluminium
Material housing	Die-cast aluminium	
Material bowl	Makrolon®	Die-cast aluminium, Wrought aluminium alloy
Material seals	NBR	–
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)



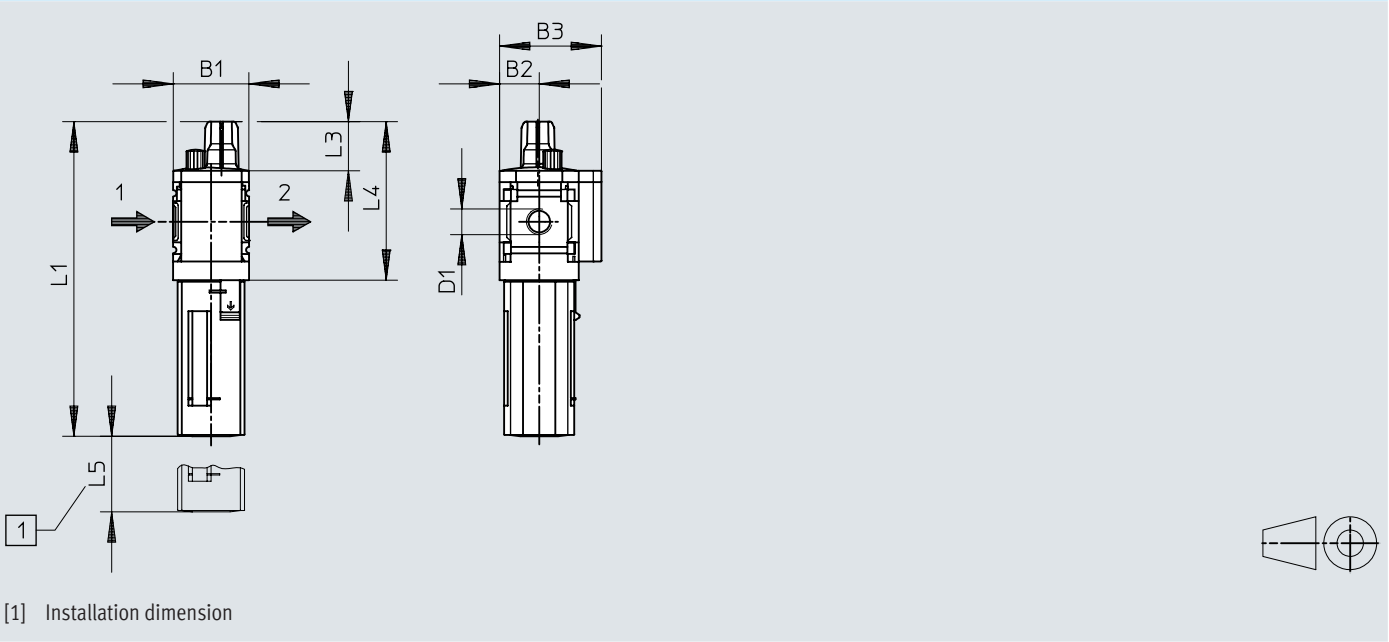
Standard flow rate qn as a function of differential pressure p1-2 (MS4-LOE-1/4)



Dimensions

Dimensions – Basic type

Download CAD data www.festo.com



	B1	B2	B3	D1	¹⁾ L1	²⁾ L1	L2	L3	L4	L5
MS4-LOE-1/8	42	21	54	G1/8	166,6	184,9	53	26	84,5	100
MS4-LOE-1/4				G1/4						

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

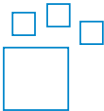
Ordering data

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

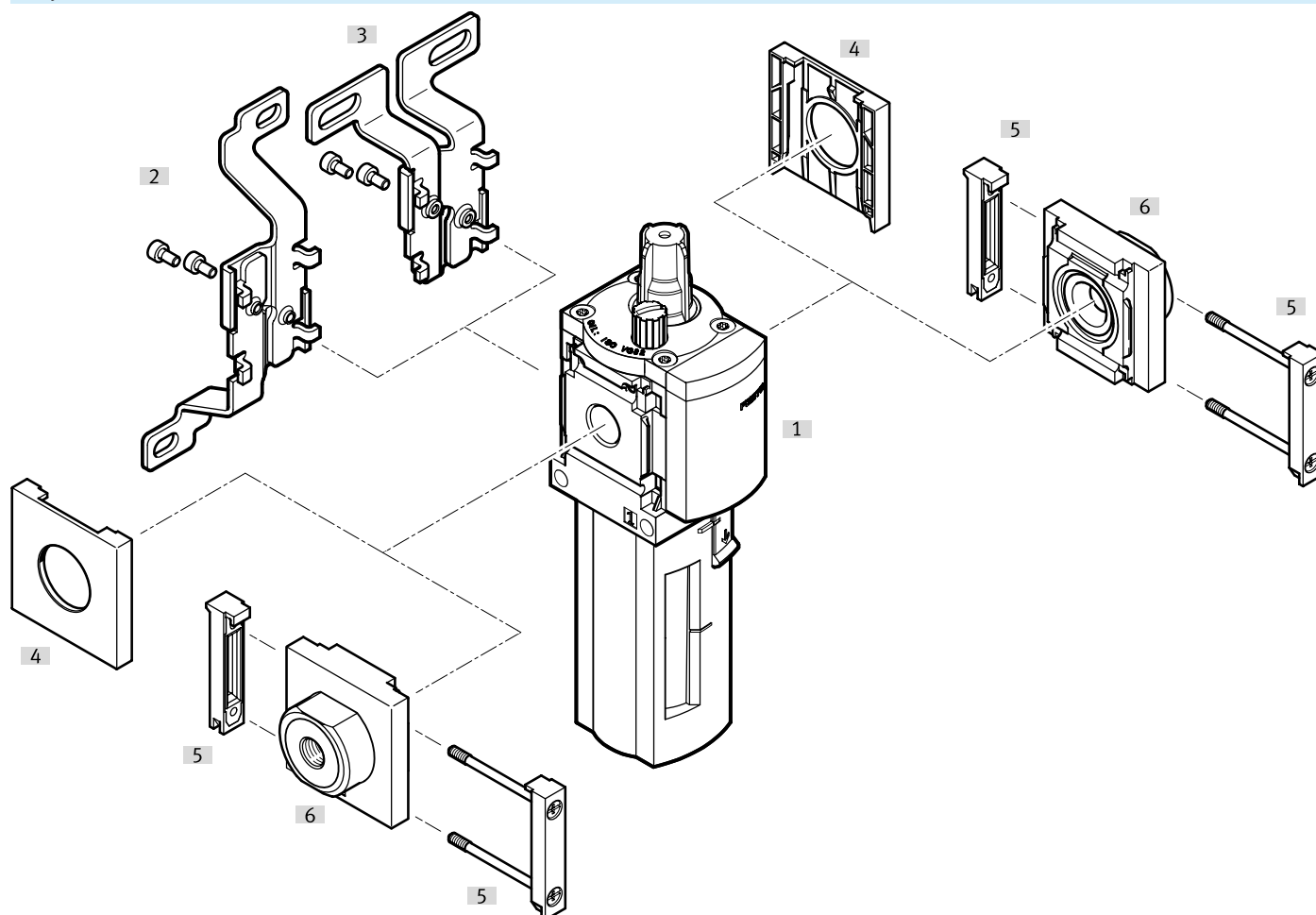
Ordering data – Modular product system



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	10
[3] Mounting bracket MS4-WBM	For individual device	10
[4] Cover cap MS4-END	For devices without connecting plate	10
[5] Module connector MS4-MV1	For device combinations and individual devices with connecting plate	10
[6] Connecting plate SET MS4-AG...	For device combinations	11

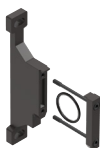
Accessories

Module connector MS4-MV1



Material module connector	LABS (PWIS) conformity	Product weight	Part no.	Type
POM, High-alloy stainless steel	VDMA24364-B1/B2-L	13 g	8119201	MS4-MV1

Mounting bracket MS4-WP...



Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
Die-cast aluminium	VDMA24364-B1/B2-L		558869	MS4-WPE
		39 g	541554	MS4-WP-EX
			532184	MS4-WP
		45 g	526060	MS4-WPM-D
		55 g	526063	MS4-WPB
			541552	MS4-WPB-EX
			526061	MS4-WPM-2D

Mounting bracket MS4-WB



Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
Steel	VDMA24364-B1/B2-L	46 g	532185	MS4-WB

Mounting bracket MS4-WBM



Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
Steel	VDMA24364-B1/B2-L	48 g	526062	MS4-WBM

Cover cap MS4-END



Material housing	LABS (PWIS) conformity	Part no.	Type
Reinforced PA	VDMA24364-B1/B2-L	538779	MS4-END

Accessories

Connecting plate-SET MS4-AG...



Pneumatic connection, port 1	Material sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
G1/8	Die-cast aluminium	VDMA24364-B1/B2-L	128 g	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	LABS (PWIS) conformity	Part no.	Type
OFSW	VDMA24364-B2-L	152811	OFSW-32