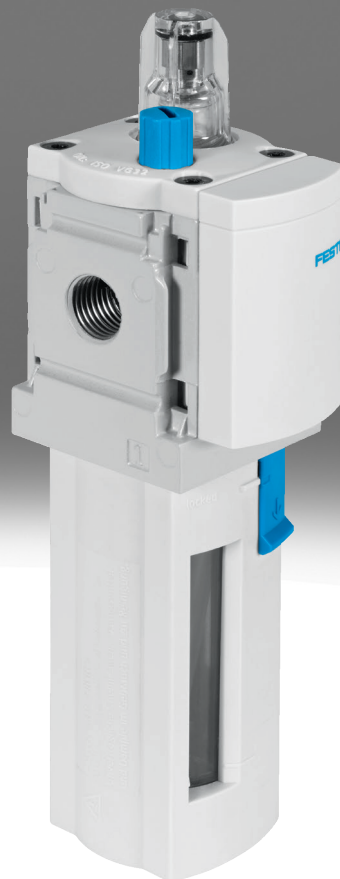


Air line lubricator MS4-LOE

FESTO



Characteristics

At a glance

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

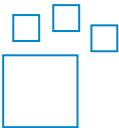
- Width dimension: 40 mm
- Proportional lubricator with precision oil dosing
- Reduces wear on drive units subject to high loads
- High flow rate performance
- Quick and easy oil top-up even during operation (under pressure)

The following oils are recommended for Festo devices (viscosity range according 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
- Mobile Nuto H 32
- Mobile 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. There, it is possible to display precise values.

Function

The proportional lubricator supplies finely adjustable quantities of oil to the compressed air. The pressure gradient created when oil flows through a venturi nozzle is used to convey oil from a reservoir to the drip cap. From there, the oil droplet flows just behind the proportional valve into the air duct, where it is atomized. The oil mist content is proportional to the flow rate of the compressed air.

Pneumatic connection

The installation of connection plates makes it easier to replace the module if necessary (e.g., when using piping).

Bowl type

Shell guard selectable either as plastic bowl guard or integrated as metal shell.

Characteristics

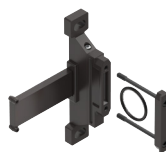
Type of mounting

[WP] Mounting bracket standard design



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

[WPM] Mounting bracket for hooking in air preparation units



- For connecting the modules for wall mounting
- In conjunction with sub-base MS4-AG... for wall mounting of an individual device
- Fast hooking and unhooking
- For installing modules with regulator knob pointing downwards

[WB] Mounting centrally at rear (wall mounting top and bottom), sub-bases not required



- For wall mounting an individual device

[WBM] Mounting centrally at rear (wall mounting top), sub-bases 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 opposite flow direction.

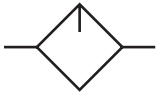
Type code

001	Series	
MS	MS series	
002	Size	
4	Width dimension 40 mm	
003	Function	
LOE	Compressed air lubricator	
004	Pneumatic connection	
1/8	Internal thread G1/8	
1/4	Internal 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 bowl with plastic bowl guard	
U	Aluminum	

006	Type of mounting	
	Without mounting bracket	
WB	Mounting centrally at rear (wall mounting top and bottom), sub-bases not required	
WBM	Mounting centrally at rear (wall mounting top), sub-bases not required	
WP	Mounting bracket standard design	
WPM	Mounting bracket for hooking in air preparation units	
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 1	G1/8	G1/4	G3/8
Bowl type	Plastic bowl with plastic bowl guard		Aluminum
Pneumatic connection 2	G1/8	G1/4	G3/8
Structural design	Proportional standard oil mist lubricator		
Type of mounting	Alternatively: In-line installation With accessories		
Mounting position	Vertical $\pm 5^\circ$		
Minimum 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 1	G1/8	G1/4	G3/8
Normal nominal flow rate (normalized 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 as per ISO 8573-1:2010 [7:4:4] Inert gases
Information on operating and pilot media	Lubricated operation possible
Ambient temperature	-10 ... 60°C
Temperature of medium	-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) Further information www.festo.com/catalogue/ms4-loe → Support/Downloads.3) Further information, visit www.festo.com/x/topic/kbk

ATEX

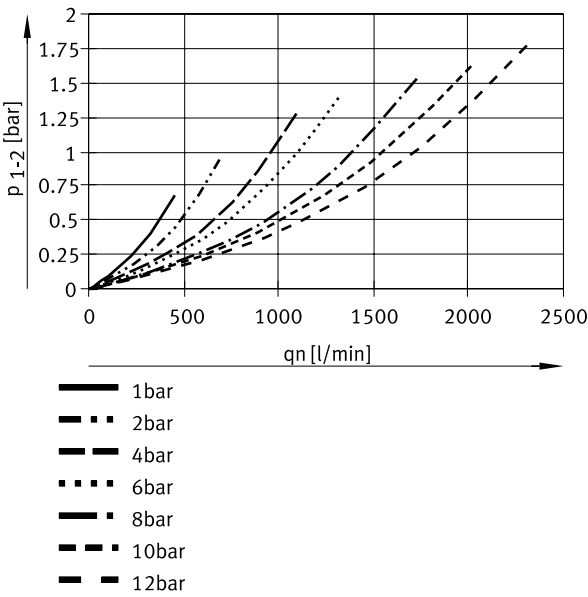
ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T6 Gb X
ATEX category for dust	II 2D
Type of (ignition) protection for dust	Ex h IIIC T60°C Db X
Explosive ambient temperature	-10°C ≤ Ta ≤ +60°C
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
CE marking (see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

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

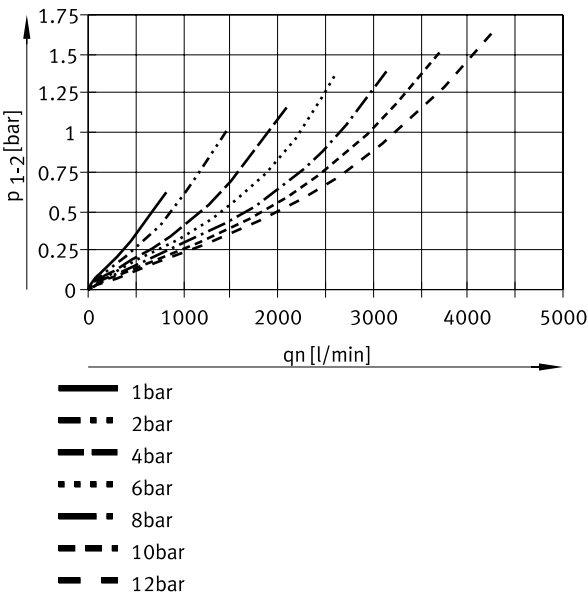
Datasheet

Materials		
Bowl type	Plastic bowl with plastic bowl guard	Aluminum
Housing material	Die-cast aluminum	
Material of bowl	PC	Die-cast aluminum, Wrought aluminum alloy
Seals material	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)



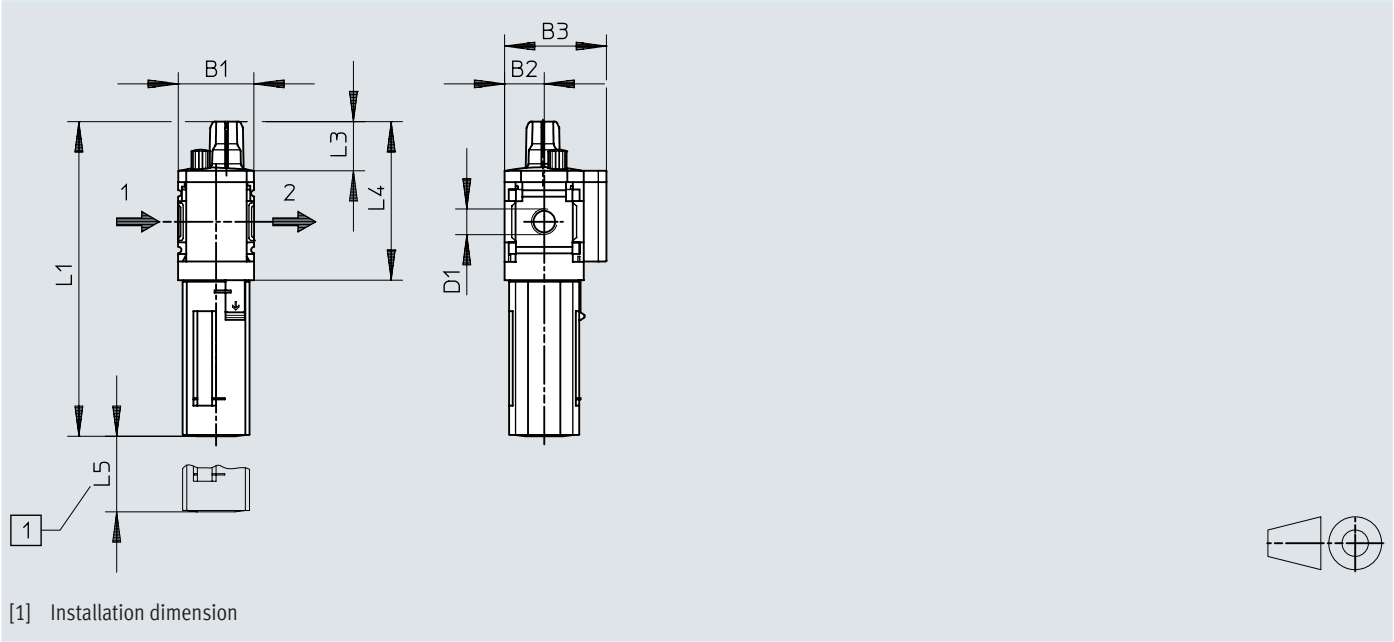
Standard flow rate qn as a function of differential pressure p1-2 (MS4-LOE-1/4)



Dimensions

Dimensions – Basic type

Download CAD data www.festo.com



	B1	B2	B3	D1	1)	L1	2)	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

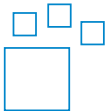
Ordering data

Ordering data



Pneumatic connection 1	Bowl type	Flow direction	Product weight	Part no.	Type
G1/8	Plastic bowl with plastic bowl guard	Flow direction from left to right	194 g	529413	MS4-LOE-1/8-R
G1/4				529411	MS4-LOE-1/4-R
	Aluminum		354 g	535790	MS4-LOE-1/4-U
G3/8	Plastic bowl with plastic bowl guard		325 g	8232827	MS4-LOE-AGC-R

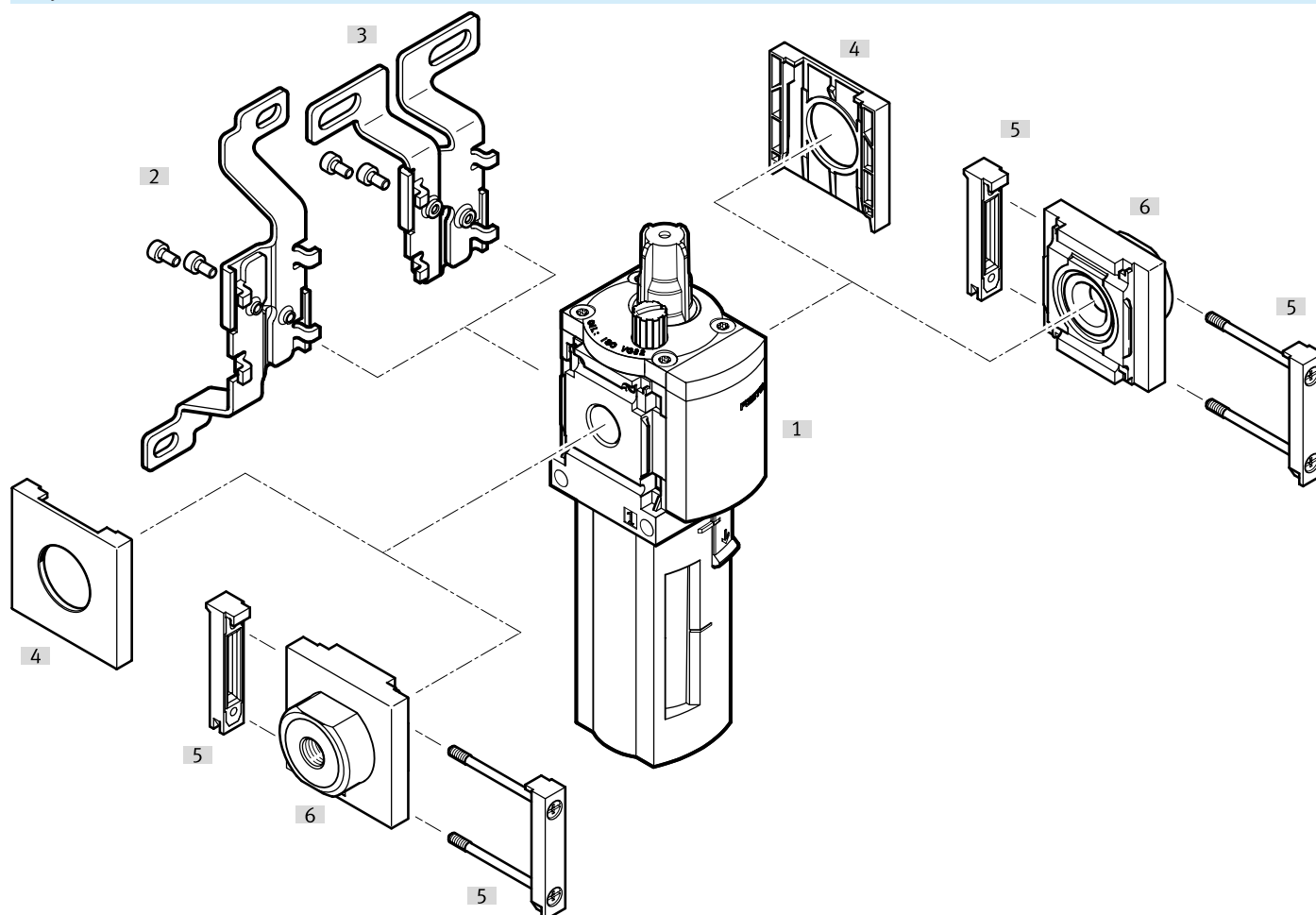
Ordering data– Modular product system



Type code	Part no.	Type
MS4-LOE	527701	MS4-LOE

Peripherals overview

Peripherals overview



Accessories		→ Page/Internet
Type/order code	Description	
[1] Lubricator MS4-LOE		ms4-loe
[2] Mounting bracket MS4-WB	for single device	10
[3] Mounting bracket MS4-WBM	for single device	10
[4] Cover cap MS4-END	for devices without connection plate	10
[5] Module connector MS4-MV1	for appliance combinations and individual appliances with connection plate	10
[6] Sub-base SET MS4-AG...	for device combinations	11

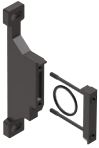
Accessories

Module connector MS4-MV1



Module connector material	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...



Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
Die-cast aluminum	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



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

Mounting bracket MS4-WBM



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

Cover cap MS4-END



Housing material	LABS (PWIS) conformity	Part no.	Type
PA-reinforced	VDMA24364-B1/B2-L	538779	MS4-END

Accessories

Sub-base-SET MS4-AG...



Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
G1/8	Die-cast aluminum	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 liter)



Type code	LABS (PWIS) conformity	Part no.	Type
OFSW	VDMA24364-B2-L	152811	OFSW-32