

Air line lubricator MS9-LOE

FESTO



Characteristics

At a glance

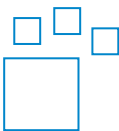
Very compact series for use close to the process directly on the machine

- Width 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 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 [ms9-loe](#)



Configurable product

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

Diagrams Link [ms9-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 protection by means of integrated metal shell.

Type of mounting

[WP] Mounting bracket standard design



- For connecting the modules for wall mounting
- In conjunction with sub-base MS9-AG... for mounting an individual device on a wall

[WPM] Mounting bracket for hooking in air preparation units



- For connecting the modules for wall mounting
- Fast hooking and unhooking
- Spacer for maintaining the mounting gap
- Same wall distance for mixing combination with series MS6 when using mounting bracket MS6-WPB

Characteristics

[WPB]

Mounting bracket for large wall gap



- For connecting the modules for wall mounting
- In conjunction with sub-base MS9-AG... for mounting an individual device on a wall
- Same wall distance for mixing combination with series MS12 when using the mounting bracket MS12-WP

UL certification

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

Flow direction

Available with opposite flow direction.

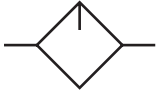
Type code

001	Series	
MS	MS series	
002	Size	
9	Width dimension 90 mm	
003	Function	
LOE	Compressed air lubricator	
004	Pneumatic connection	
3/4	Internal thread G3/4	
1	Internal thread G1	
AGD	Sub-base G1/2	
AGE	Sub-base G3/4	
AGF	Sub-base G1	
AGG	Sub-base G1 1/4	
AGH	Sub-base G1 1/2	
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	
F	Flange/sub-base	
G	Module without connecting thread, without sub-base	
N3/4	Internal thread 3/4 NPT	
N1	Internal thread 1 NPT	

005	Bowl type	
U	Aluminum	
006	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket standard design	
WPB	Mounting bracket for large wall gap	
WPM	Mounting bracket for hooking in air preparation units	
007	UL certification	
	None	
UL1	cULus ordinary location for Canada and USA	
008	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data



Structural design	Proportional standard oil mist lubricator
Type of mounting	In-line installation With accessories
Mounting position	Vertical $\pm 5^\circ$
Bowl guard	Plastic bowl guard, Integrated as metal bowl
Minimum flow rate for lubricator function	100 l/min
Max. oil capacity	490 ml

Standard nominal flow rate q_{nN}

Normal nominal flow rate (normalized to DIN 1343) ¹⁾	8,500 ... 27,000 l/min
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1) in main flow direction 1→2; Measured at $p_1 = 6$ bar and $\Delta p = 1$ bar.

Operating and environmental conditions

Operating pressure	1 ... 16 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gases
Ambient temperature	-10 ... 60°C
Temperature of medium	-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) Further information www.festo.com/catalogue/ms9-loe → Support/Downloads.

2) Further information, visit www.festo.com/x/topic/kbk

ATEX

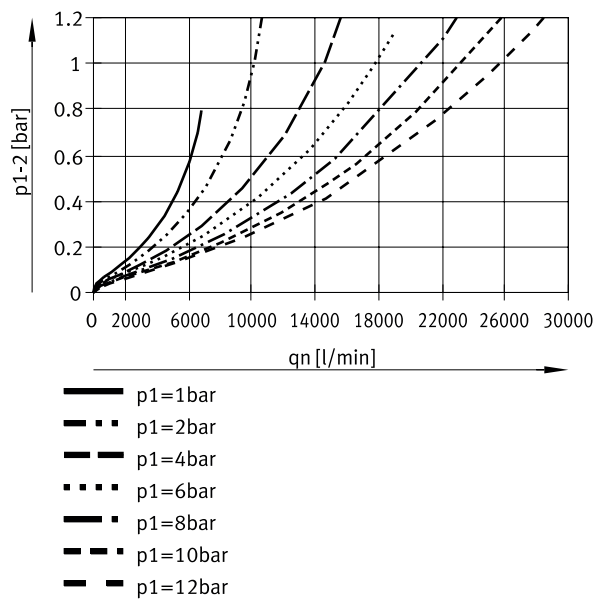
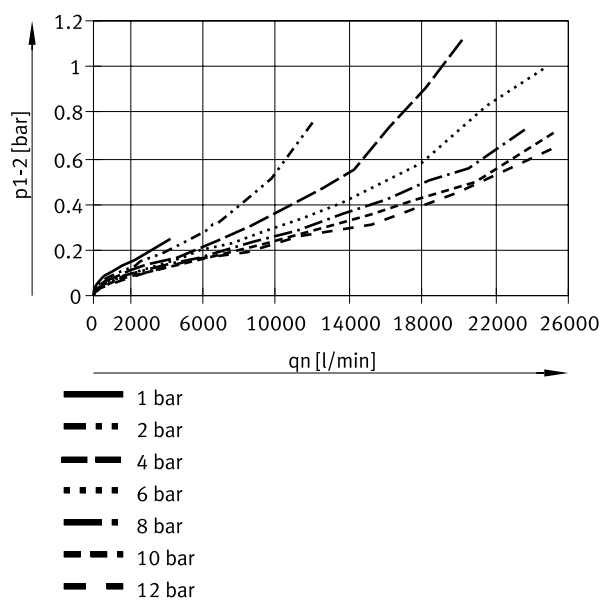
ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T6 Gb X
ATEX category for dust	II 2D
Type of (ignition) protection for dust	Ex h IIIC T60°C Db X
Explosive ambient temperature	-10°C ≤ Ta ≤ +60°C
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
UKCA marking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

2) Further information www.festo.com/catalogue/ms9-loe → Support/Downloads.

Materials

Bowl type	Aluminum
Housing material	Die-cast aluminum
Material of bowl	Wrought aluminum alloy
Seals material	NBR
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

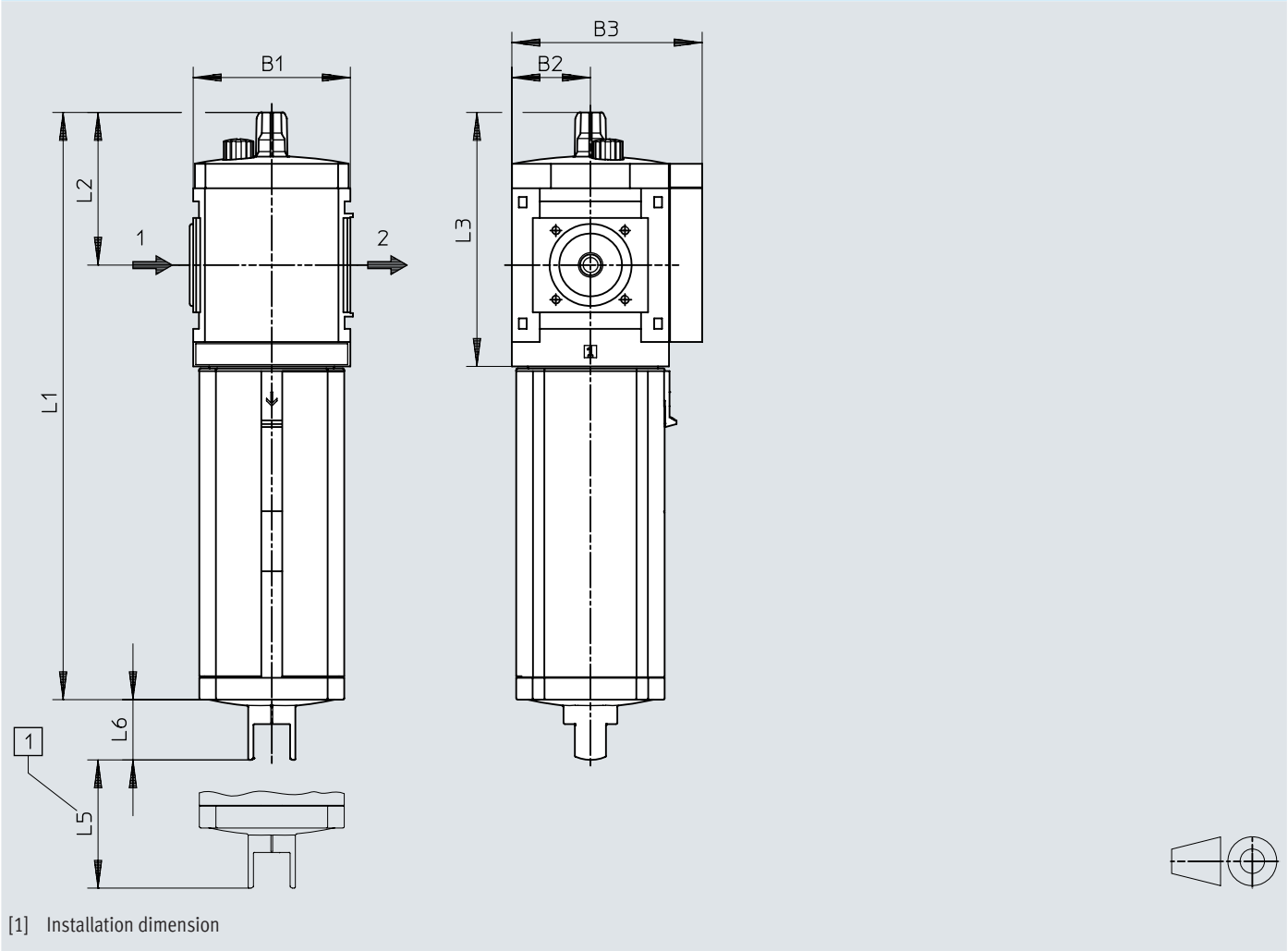
Datasheet

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

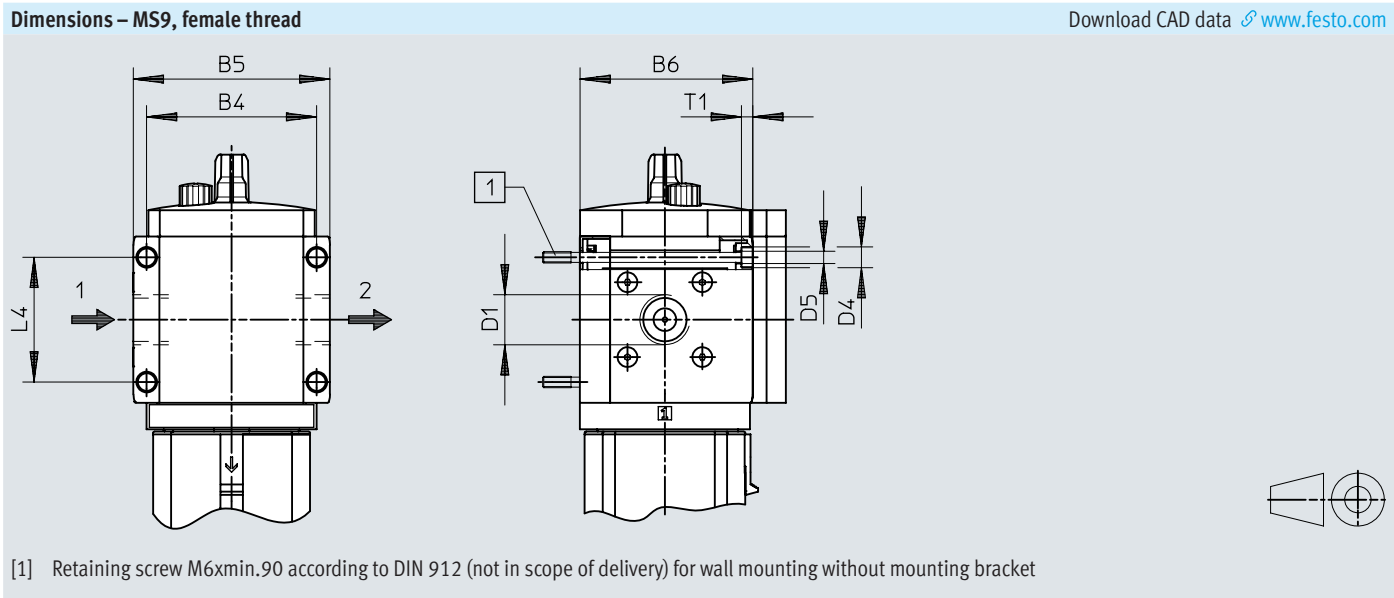
Dimensions – Basic type, module without connecting thread, without sub-base

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

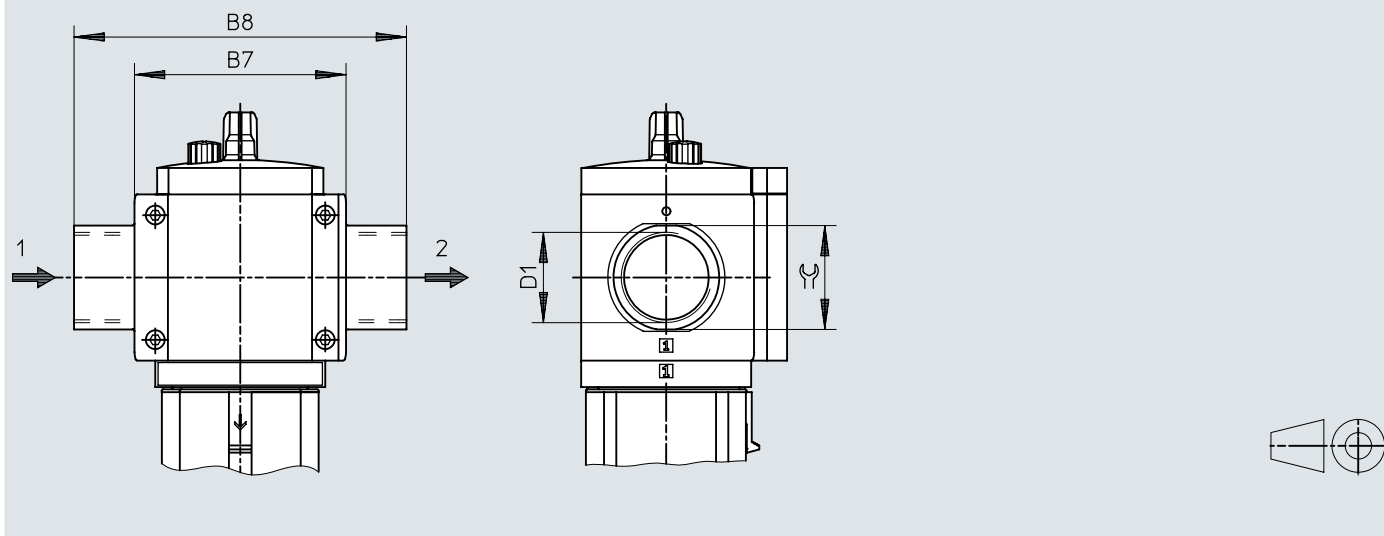
Dimensions



	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, sub-base

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	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

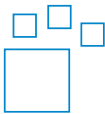
Ordering data

Ordering data



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

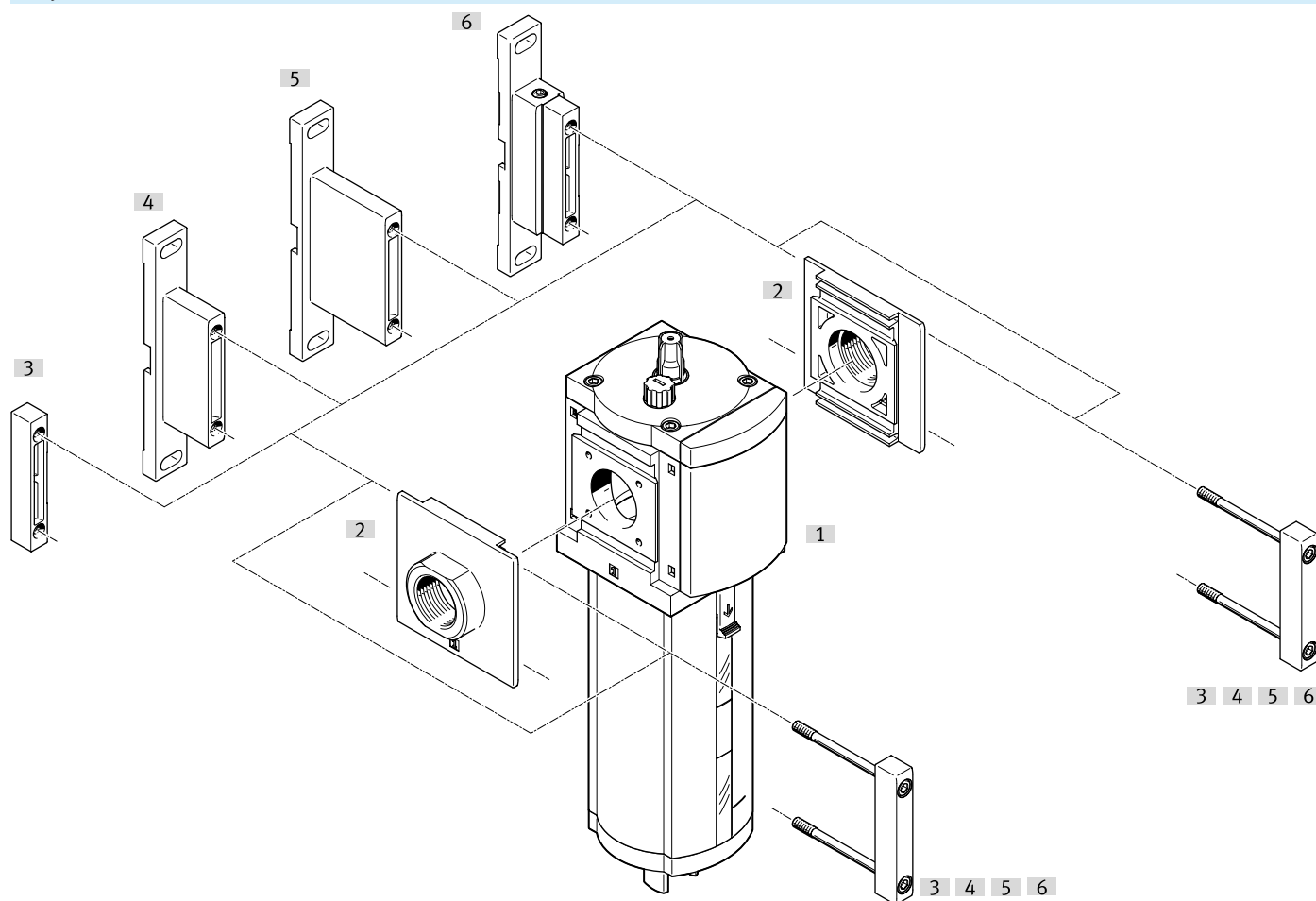
Ordering data– Modular product system



Type code	Part no.	Type
MS9-LOE	562533	MS9-LOE

Peripherals overview

Peripherals overview



Accessories		→ Page/Internet
Type/order code	Description	
[1] Lubricator MS9-LOE		ms9-loe
[2] Sub-base-SET MS9-AQ...	for device combinations	12
[3] Module connector MS9-MV	for appliance combinations and individual appliances with connection plate	12
[4] Mounting bracket MS9-WP	for single device	12
[5] Mounting bracket MS9-WPB	for single device	12
[6] Mounting bracket MS9-WPM	for single device	12

Accessories

Module connector MS6-MV1



Module connector material	LABS (PWIS) conformity	Product weight	Part no.	Type
Die-cast aluminum	VDMA24364-B1/B2-L	110 g	552950	MS9-MV

Mounting bracket MS6-WP...



Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
Die-cast aluminum	VDMA24364-B1/B2-L	180 g	552947	MS9-WP
		210 g	552949	MS9-WPB
		220 g	552948	MS9-WPM

Sub-base-SET MS6-AG...



Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
G1/2	Die-cast aluminum	VDMA24364-B1/B2-L	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	MS9-AQR
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 liter)



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