

Lubricator MS9-LOE

FESTO



Characteristics

At a glance

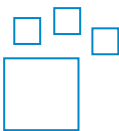
Very compact series for use close to the process directly on the machine

- Grid 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 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 [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. 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 tanks to integrated metal bowl.

Type of mounting

[WP] Mounting bracket basic design



- For connecting the modules for wall mounting
- In combination with connecting plate MS9-AG... for mounting an individual device on a wall

[WPM] Mounting bracket for hooking in service unit components



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

Characteristics

[WPB]

Mounting bracket for large wall gap



- For connecting the modules for wall mounting
- In combination with connecting plate MS9-AG... for mounting an individual device on a wall
- Same wall distance for mixed 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 flow in the opposite direction.

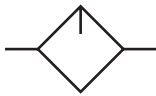
Type code

001	Series	
MS	MS series	
002	Size	
9	Grid dimension 90 mm	
003	Function	
LOE	Compressed air lubricator	
004	Pneumatic connection	
3/4	Female thread G3/4	
1	Female thread G1	
AGD	Sub-base G1/2	
AGE	Sub-base G3/4	
AGF	Sub-base G1	
AGG	Connecting plate G1 1/4	
AGH	Connecting plate 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	Female thread 3/4 NPT	
N1	Female thread 1 NPT	

005	Bowl type	
U	Aluminium	
006	Type of mounting	
	Without mounting bracket	
WP	Mounting bracket basic design	
WPB	Mounting bracket for large wall gap	
WPM	Mounting bracket for hooking in service unit components	
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



Design	Proportional standard mist lubricator
Type of mounting	Inline installation With accessories
Mounting position	Vertical +/-5°
Bowl guard	Plastic bowl guard, Integrated as metal bowl
Min. flow rate for lubricator function	100 l/min
Max. oil capacity	490 ml

Standard nominal flow rate q_N

Standard nominal flow rate (standardised to DIN 1343) ¹⁾	8,500 ... 27,000 l/min
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1) in main flow direction 1->2; Measured at p₁ = 6 bar and Δp = 1 bar.

Operating and environmental conditions

Operating pressure	1 ... 16 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4] Inert gas
Ambient temperature	-10 ... 60°C
Media temperature	-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) More information www.festo.com/catalogue/ms9-loe → Support/Downloads.

2) 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)
UKCA marking (see declaration of conformity) ²⁾	To UK EX instructions

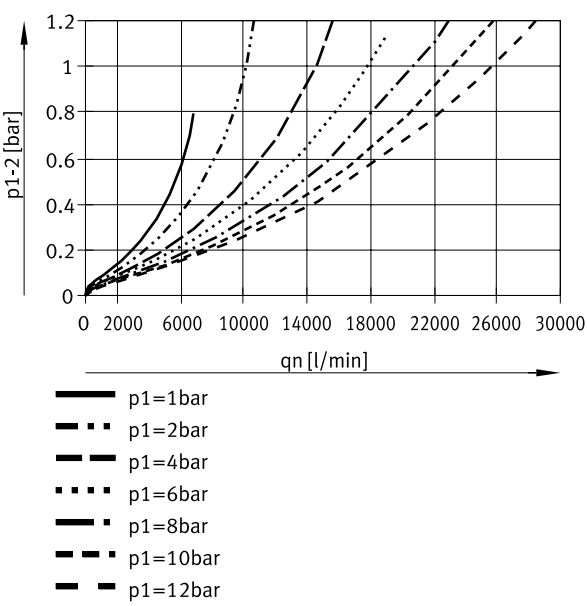
2) More information www.festo.com/catalogue/ms9-loe → Support/Downloads.

Materials

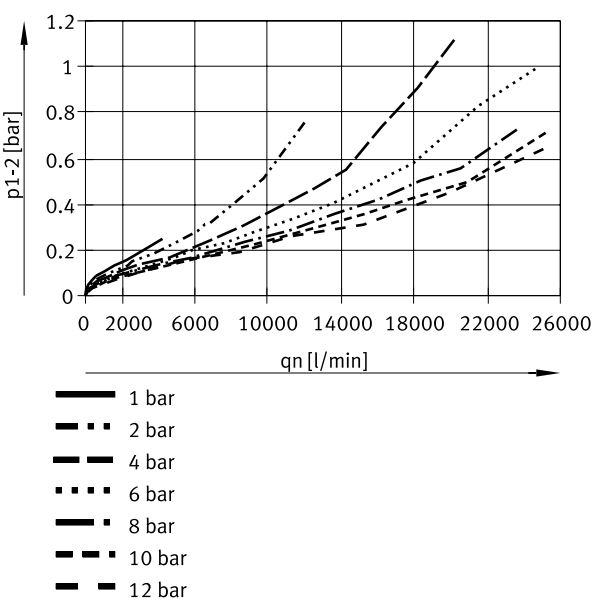
Bowl type	Aluminium
Material housing	Die-cast aluminium
Material bowl	Wrought aluminium alloy
Material seals	NBR
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Datasheet

Standard flow rate q_n as a function of differential pressure p_{1-2} (pneumatic connection G3/4, 3/4 NPT)



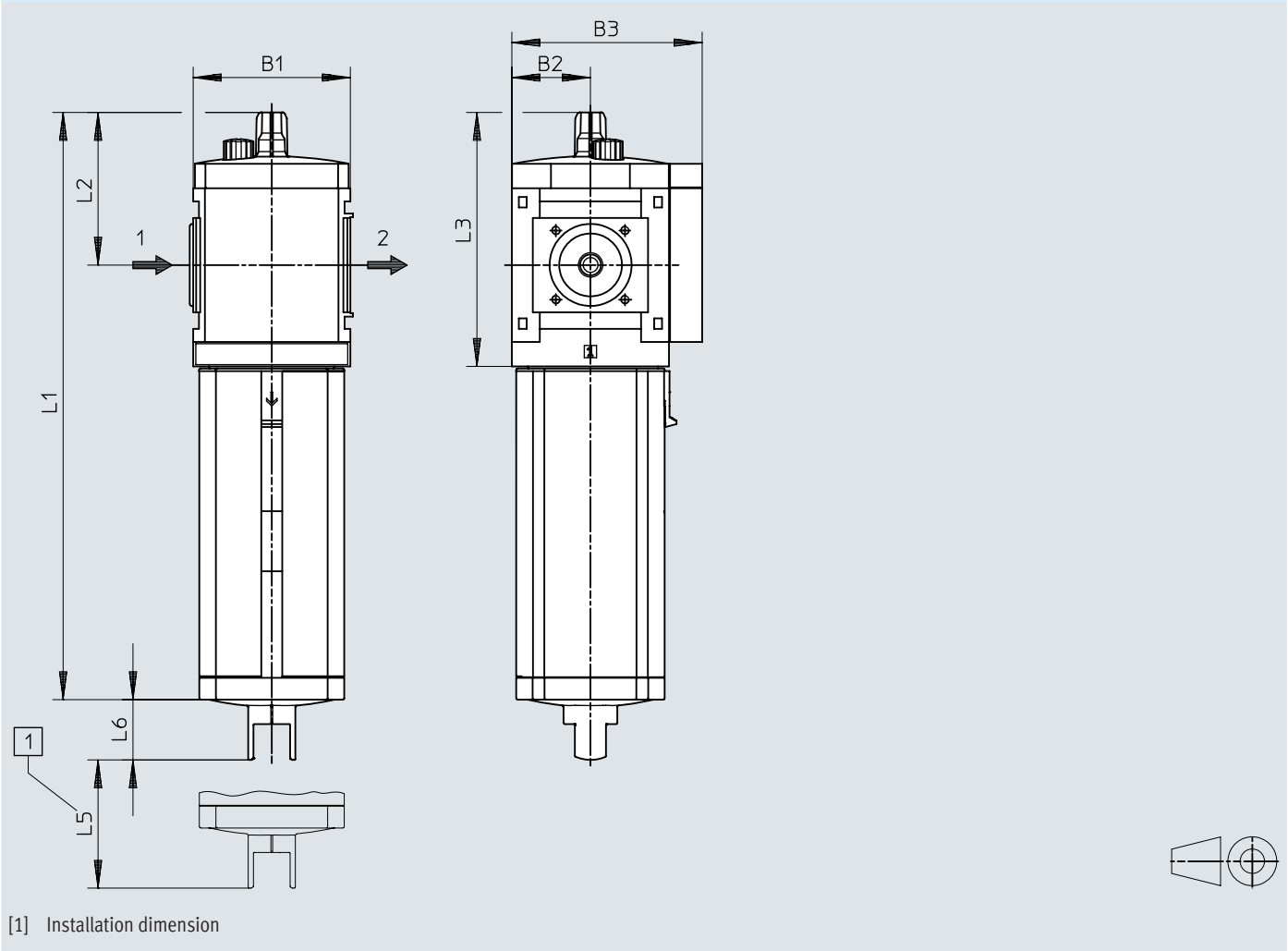
Standard flow rate q_n as a function of differential pressure p_{1-2} (pneumatic connection G1, 1 NPT)



Dimensions

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

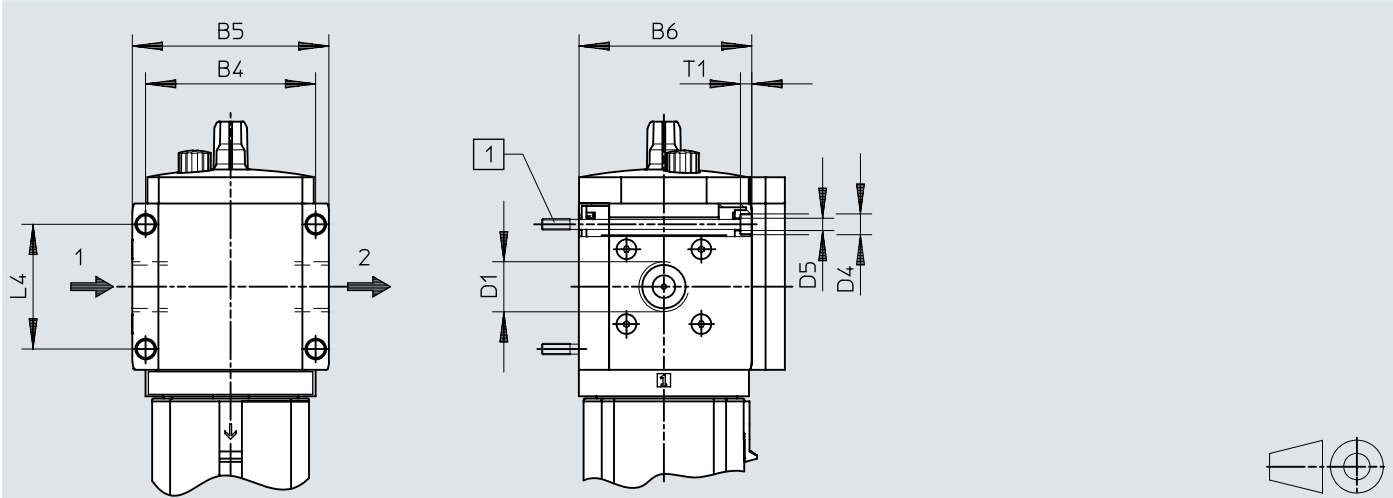
Download CAD data www.festo.com



	B1	B2	B3	L1	L2	L3	L5 min.	L6
MS9-LOE-G	90	45	109	336,3	87	145	225	34,5

Dimensions

Dimensions – MS9, Female thread Download CAD data www.festo.com

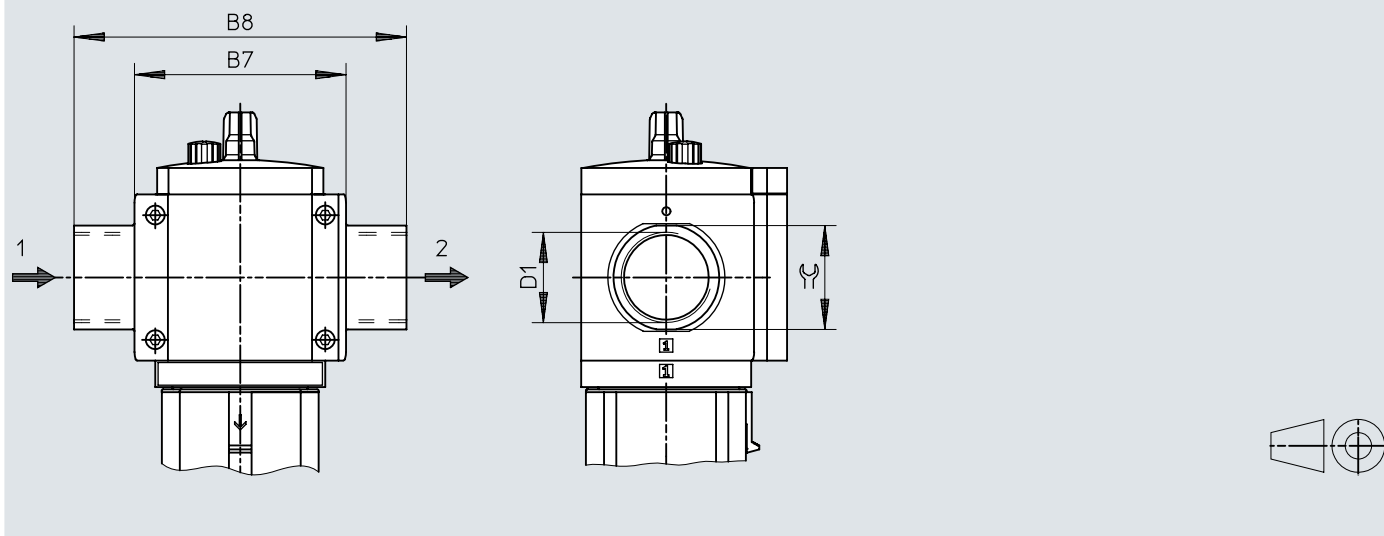


[1] Retaining screw M6xmin.90 according to DIN 912 (not included in the scope of delivery) for wall mounting without mounting bracket

	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, connecting plate

[Download CAD data](#) www.festo.com


	B7	B8	D1	$\approx 45^\circ$
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

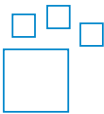
Ordering data

Ordering data



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

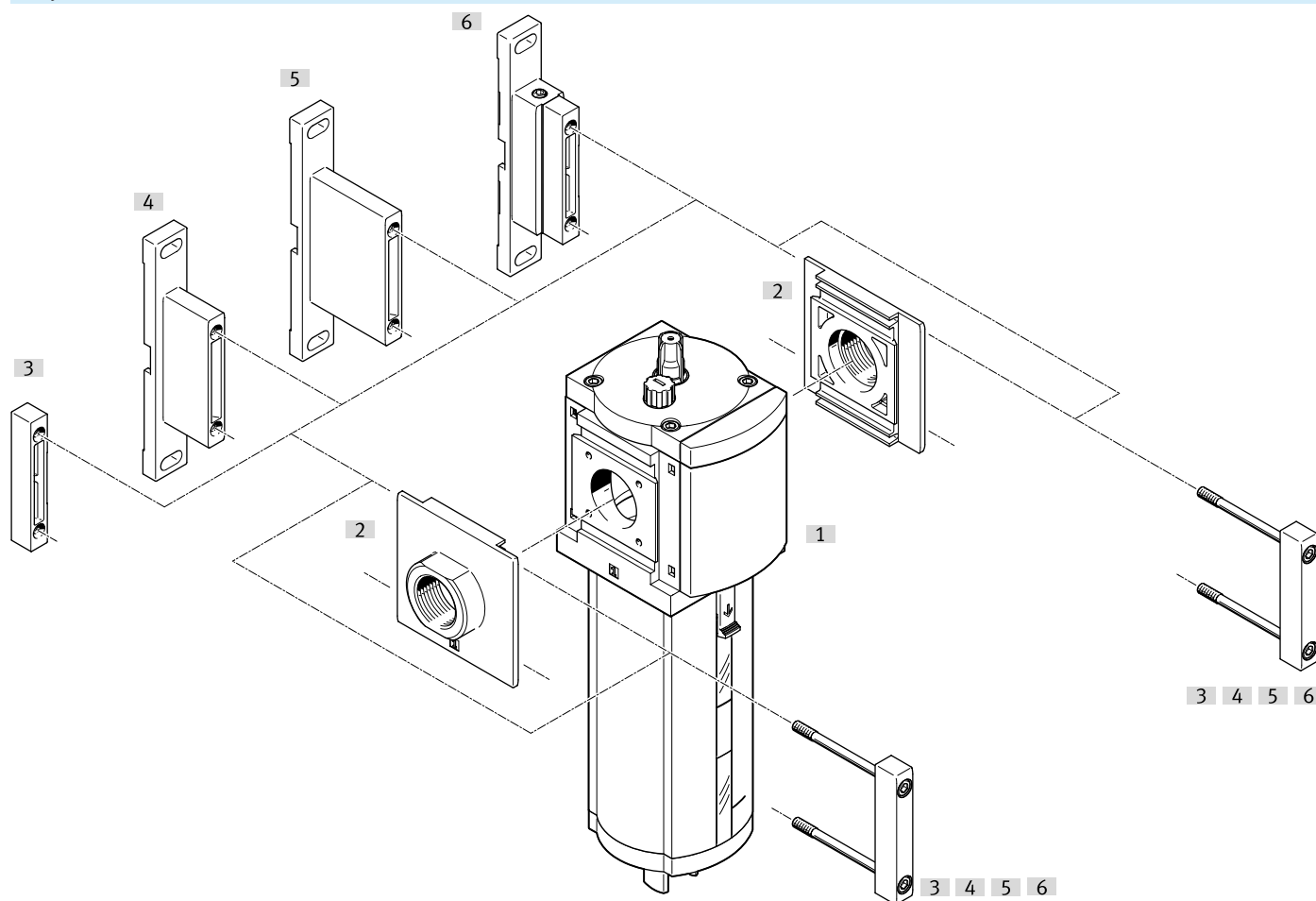
Ordering data – Modular product system



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

Peripherals

Peripherals overview



Accessories		→ Link
Type/order code	Description	
[1] Lubricator MS9-LOE		ms9-loe
[2] Connecting plate SET MS9-A...	For device combinations	12
[3] Module connector MS9-MV	For device combinations and individual devices with connecting plate	12
[4] Mounting bracket MS9-WP	For individual device	12
[5] Mounting bracket MS9-WPB	For individual device	12
[6] Mounting bracket MS9-WPM	For individual device	12

Accessories

Module connector MS6-MV1



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

Mounting bracket MS6-WP...



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

Connecting plate-SET MS6-AG...



Pneumatic connection, port 1	Material sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
G1/2	Die-cast aluminium	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 litre)



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