

Water trap MS6-LWS

FESTO



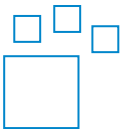
Characteristics

At a glance

- The water separator removes condensate from the compressed air.
- Constantly high condensate separation (99%) up to the maximum flow rate
 - Shell protection by means of integrated metal shell.
 - Available with fully automatic or fully automatic, electrically actuated condensate drain
 - Optional device variant EX4 for use in potentially explosive areas of zones 1, 2, 21 and 22
 - Product complies with ISO 1179-1 and ISO 228-1

Ordering data - modular system

Link [ms6-lws](#)



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

Diagrams

Link [ms6-lws](#)



The diagrams shown in this document are also available online. There, it is possible to display precise values.

Function

[LWS]	Water trap
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The centrifugal separator removes condensate from compressed air. It has a high separation efficiency, which protects the downstream pneumatic components from moisture, corrosion, and malfunctions.

Pneumatic connection

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

Condensate drains

The condensate is drained by a fully automatic condensate drain valve with float actuation or a fully automatic electric condensate drain valve.

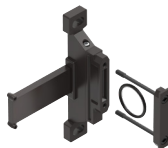
Type of mounting

[WP]	Mounting bracket standard design
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For wall mounting a single device or a service unit combination

[WPM]	Mounting bracket for hooking in air preparation units
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For wall mounting a single device or a service unit combination

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

Characteristics

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	
6	Width dimension 62 mm	
003	Thread type	
	G thread	
004	Function	
LWS	Water trap	
005	Pneumatic connection	
1/4	Internal thread G1/4	
3/8	Internal thread G3/8	
1/2	internal thread G1/2	
AGB	Sub-base G1/4	
AGC	Sub-base G3/8	
AGD	Sub-base G1/2	
AGE	Sub-base G3/4	
AGF	Sub-base G1	
006	Bowl type	
U	Aluminum	

007	Condensate drain	
E2	External fully automatic condensate drain, electric, 110 VAC, connection terminals	
E3	External fully automatic condensate drain, electric, 230 VAC, connection terminals	
E4	External fully automatic condensate drain, electric, 24 V DC, connection terminals	
V	Fully automatic, normally open	
VC	Fully automatic, normally closed	
008	Type of mounting	
	Without mounting bracket	
WB	Mounting centrally at rear (wall mounting top and bottom), sub-bases not required	
WP	Mounting bracket standard design	
WPM	Mounting bracket for hooking in air preparation units	
009	EX certification EU	
	None	
EX4	II 2GD	
010	UL certification	
	None	
UL1	cULus ordinary location for Canada and USA	
011	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data			
Pneumatic connection 1 ¹⁾	G1/4	G3/8	G1/2
Pneumatic connection 2 ²⁾	G1/4	G3/8	G1/2
Size	6		
Structural design	Centrifugal separator		
Type of mounting	Alternatively: In-line installation With accessories		
Mounting position	Vertical ±5°		
Air quality class at the output ³⁾	Compressed air as per ISO 8573-1:2010 [7:7:4]		
Bowl guard	Integrated as metal bowl		
Condensate drain	Fully automatic		
Degree of condensate separation	99%		
Max. condensate volume	38 ml		

1) Via sub-base [AG...]: G1/4, G3/8, G1/2, G3/4 or G1; [AQ...]: 1/4 NPT, 3/8 NPT, 1/2 NPT or 3/4 NPT

2) Via sub-base [AG...]: G1/4, G3/8, G1/2, G3/4 or G1; [AQ...]: 1/4 NPT, 3/8 NPT, 1/2 NPT or 3/4 NPT

3) With variant E2, E3 or E4: ISO 8573-1:2010 [7:7:4]

Standard nominal flow rate q _{nN}			
Pneumatic connection 1	G1/4	G3/8	G1/2
Normal nominal flow rate (normalized to DIN 1343)	2,400 l/min	3,500 l/min	3,800 l/min

Operating and environmental conditions – fully automatic condensate drain [V]	
Condensate drain	Fully automatic
Operating pressure	2 ... 12 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:-:-] Inert gases
Ambient temperature	-10 ... 60°C
Temperature of medium	-10 ... 60°C
Storage temperature	–
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress
For use in the food industry ²⁾	See supplementary material information

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

2) More information www.festo.com/catalogue/ms6-lws → Support/Downloads.

Operating and environmental conditions – fully automatic, electrically controlled condensate drain [E2], [E3], [E4]	
Condensate drain	Fully automatic, Fully automatic, electrically controlled, Manual, non-detenting
Operating pressure	0.8 ... 16 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [:-:-] Compressed air as per ISO 8573-1:2010 [7:-:-] Inert gases
Ambient temperature	-10 ... 60°C
Temperature of medium	-10 ... 60°C
Storage temperature	–
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress
For use in the food industry ²⁾	See supplementary material information
Certification ³⁾	c UL us - recognized (OL)

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

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Datasheet

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
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/ms6-lws → Support/Downloads.

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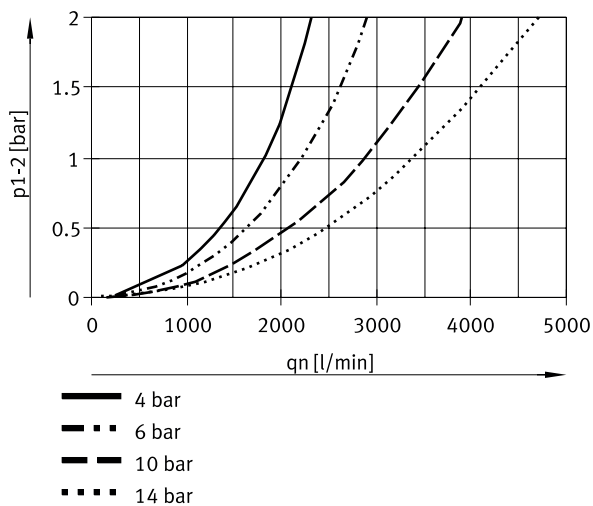
Weights

Product weight ¹⁾	820 g
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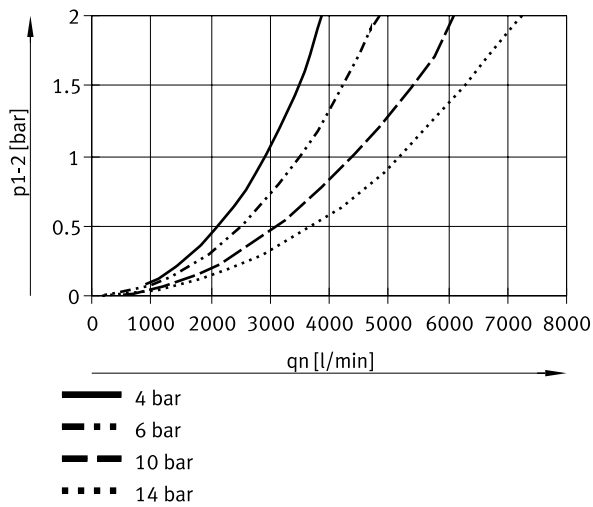
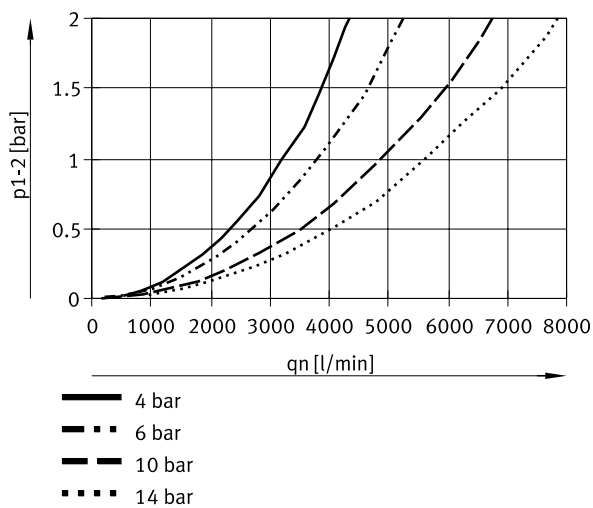
1) Water separator with electrically actuated condensate drain, fully automatic [E2], [E3], [E4]: 1800 g

Materials

Housing material	Die-cast aluminum
Material of bowl	Wrought aluminum alloy
Inspection window material	PA
Seals material	NBR
Note on materials	RoHS compliant
LABS (PWS) conformity	VDMA24364-B1/B2-L

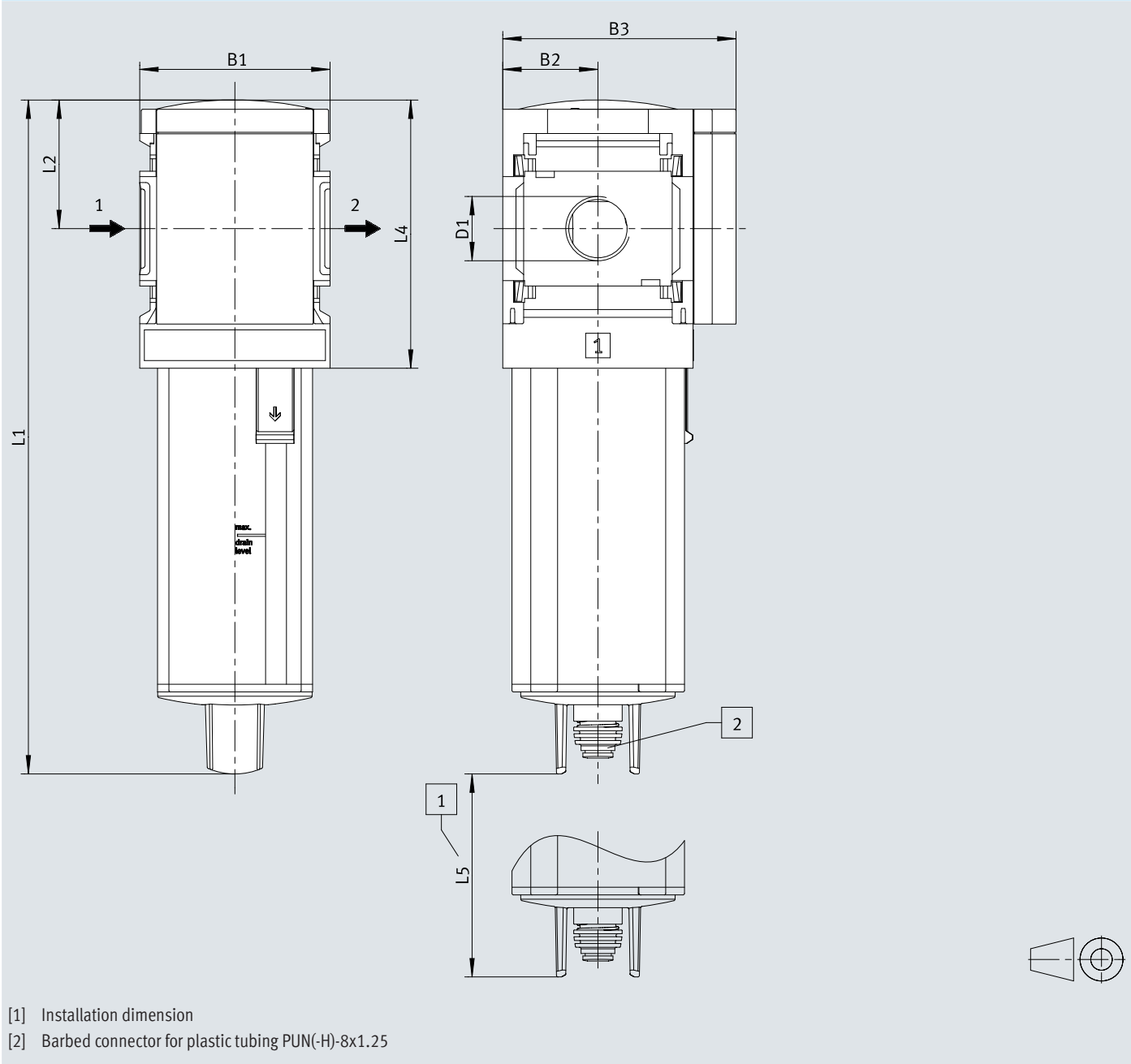
Standard flow rate q_n as a function of differential pressure p_{1-2} – pneumatic connection G1/4, NPT1/4

Datasheet

Standard flow rate q_n as a function of differential pressure p_{1-2} – pneumatic connection G3/8, NPT3/8Standard flow rate q_n as a function of differential pressure p_{1-2} – pneumatic connection G1/2, NPT1/2

Dimensions

Dimensions – [V] Condensate drain fully automatic Download CAD data www.festo.com



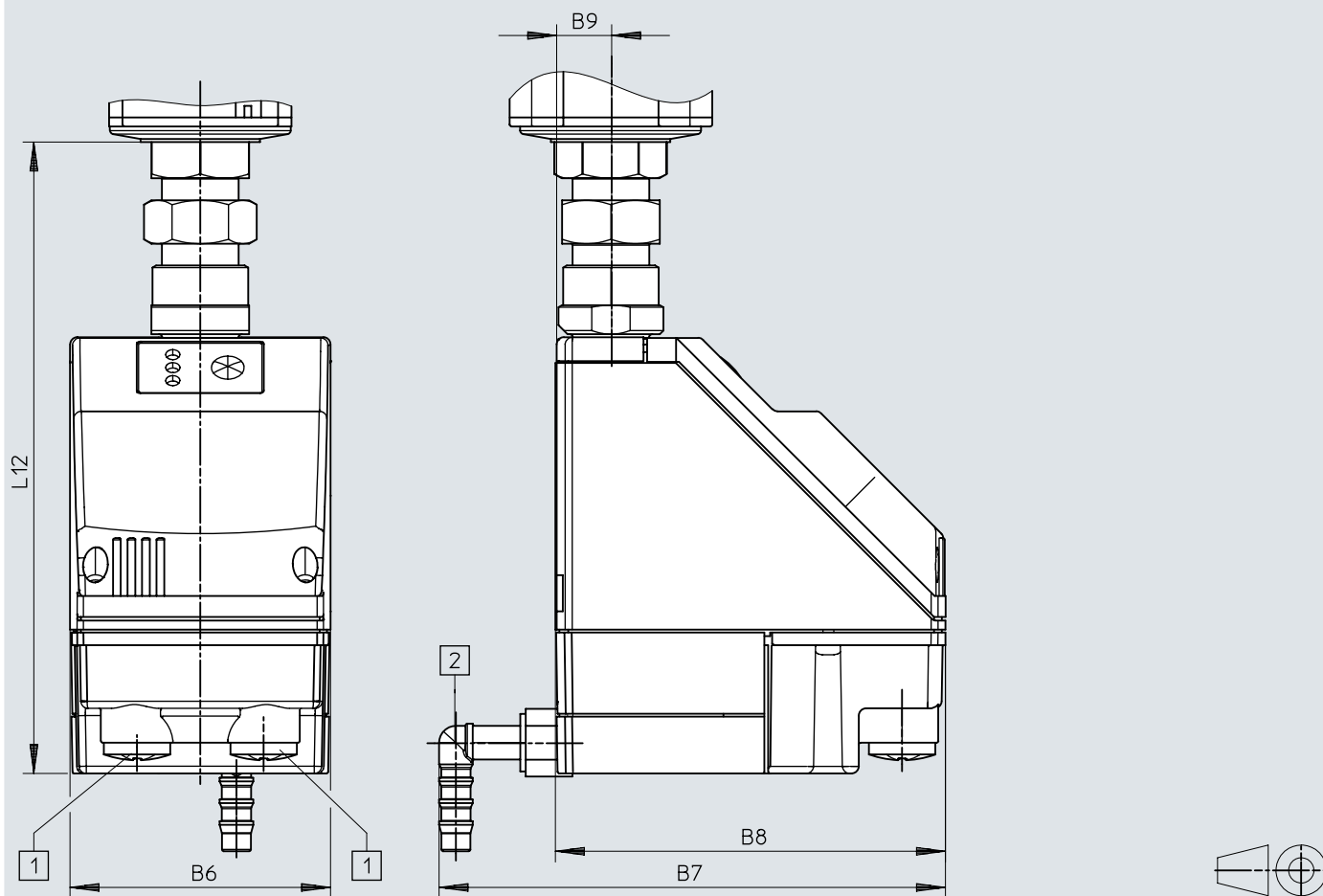
	B1	B2	B3	D1	L1	L2	L4	L5
MS6-LWS-1/4-...-V	62	31	76	G1/4	220	42	88	64
MS6-LWS-3/8-...-V				G3/8				
MS6-LWS-1/2-...-V				G1/2				

1) Note: This product complies with ISO 1179-1 and ISO 228-1.

Dimensions

Dimensions – [E2]/[E3]/[E4] Fully automatic, electrically actuated

Download CAD data www.festo.com



- [1] Electrical connection screw terminal PG9
 [2] Connection 360° swiveling for plastic hose PUN-H-12x2

	B6	B7	B8	B9	L12
MS6-LWS-...-E2/E3/E4	72	140	108	15	174,5

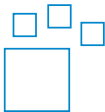
Ordering data

Ordering data



Size	Pneumatic connection 1	Condensate drain	Product weight	Part no.	Type
6	G1/4	Fully automatic	820 g	564868	MS6-LWS-1/4-U-V
	G3/8			564869	MS6-LWS-3/8-U-V
	G1/2			564870	MS6-LWS-1/2-U-V

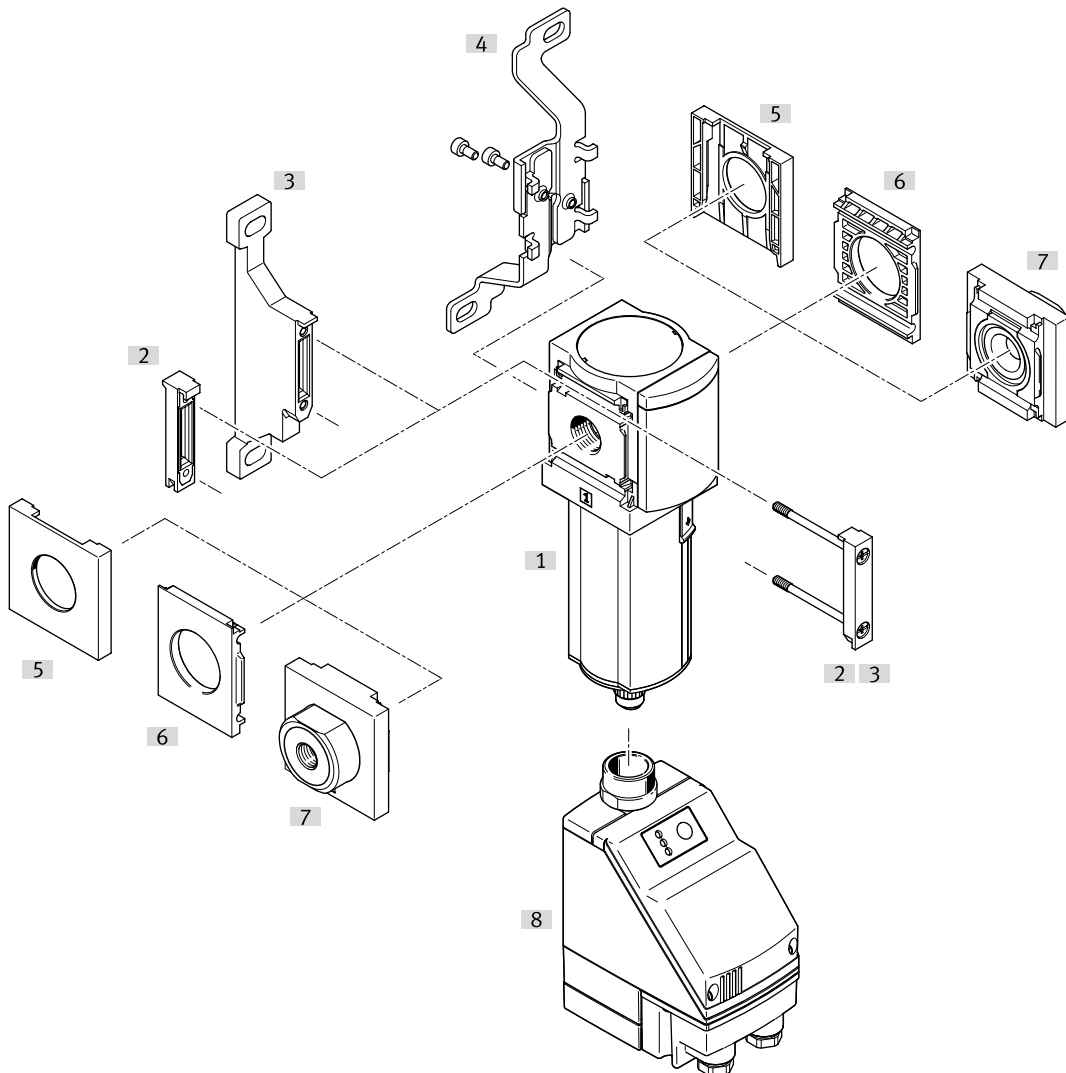
Ordering data – Modular product system



Type code	Part no.	Type
MS6-LWS	564858	MS6-LWS

Peripherals overview

Peripherals overview



Accessories		→ Page/Internet
Type/order code	Description	
[1] Water separator MS6-LWS		ms6-lws
[2] Module connector MS6-MV1		12
[3] Mounting bracket MS6-WP	Order code [WP]	12
[3] Mounting bracket MS6-WPB	Without illustration	12
[3] Mounting bracket MS6-WPE	Without illustration	12
[3] Mounting bracket MS6-WPM	Order code [WPM] (not shown)	12
[4] Mounting bracket MS6-WB	Order code [WB]	12
[5] Cover cap MS6-END		12
[6] Mounting plate MS6-AEND	Module connector MS6-MV1 [2] or mounting bracket MS4-WP, WPB, WPE, WPM [3] is required for mounting.	12
[7] Sub-base-SET MS6-AG.../AQ...	Order code [AG...], [AQ...]; for mounting, module connector MS6-MV1 [2] or mounting bracket MS6-WP, WPB, WPE, WPM [3] is required.	13
[8] Condensate drain fully automatic, electrically controlled PWEA	Order code [E2], [E3], [E4]	ms6-lws

Accessories

Module connector MS6-MV1



Module connector material	LABS (PWIS) conformity	Product weight	Part no.	Type
POM, high-alloy stainless steel	VDMA24364-B1/B2-L	33 g	8119204	MS6-MV1

Mounting bracket MS6-WP...



Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
Die-cast aluminum	VDMA24364-B1/B2-L		1025936	MS6-WPE
		76 g	532195	MS6-WP
			541544	MS6-WP-EX
		115 g	526074	MS6-WPB
			541542	MS6-WPB-EX
		144 g	526073	MS6-WPM-D
		154 g	532186	MS6-WPM-2D

Mounting bracket MS6-WB



Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
Steel	VDMA24364-B1/B2-L	121 g	532196	MS6-WB

Cover cap MS6-END



Housing material	LABS (PWIS) conformity	Part no.	Type
PA-reinforced	VDMA24364-B1/B2-L	538780	MS6-END

Mounting plate MS6-AEND



Housing material	LABS (PWIS) conformity	Product weight	Part no.	Type
PA-reinforced	VDMA24364-B1/B2-L	11.1 g	535408	MS6-AEND1

Accessories

Sub-base-SET MS6-AG.../-AQ...



Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
G1/4	Die-cast aluminum	VDMA24364-B1/B2-L	300 g	526080	MS6-AGB
				541538	MS6-AGB-EX
G3/8				526081	MS6-AGC
				541539	MS6-AGC-EX
G1/2				526082	MS6-AGD
				541540	MS6-AGD-EX
G3/4				526083	MS6-AGE
				541541	MS6-AGE-EX
1/4 NPT				526076	MS6N-AQN
3/8 NPT				526077	MS6N-AQP
1/2 NPT				526078	MS6N-AQR
3/4 NPT				526079	MS6N-AQS