

Water separators MS-LWS, MS series, NPT

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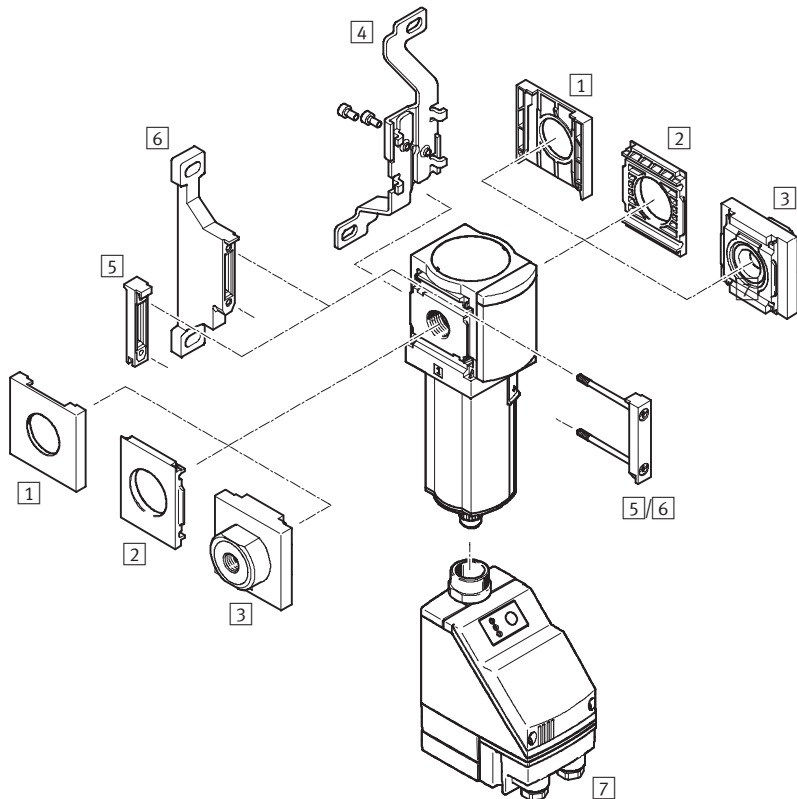


Water separators MS6N-LWS, MS series, NPT

Peripherals overview

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Water separator MS6N-LWS



Note

Additional accessories:

- Module connector for combination with size MS4/MS6 or size MS9 → Internet: amv, rmv, armv
- Adapter for mounting on profiles → Internet: ipm-80, ipm-40-80, ipm-80-80

Mounting attachments and accessories

		Individual device		Combination		→ Page/Internet
		Without connecting plate	With connecting plate	Without connecting plate	With connecting plate	
1	Cover cap MS6-END	■	–	■	–	ms6-end
2	Mounting plate MS6-AEND	■ ¹⁾	–	■ ¹⁾	–	ms6-aend
3	Connecting plate MS6N-AQ...	–	■ ¹⁾	–	■ ¹⁾	ms6n-aq
4	Mounting bracket MS6-WB	■	■	–	–	ms6-wb
5	Module connector MS6-MV	–	■	■	■	ms6-mv
6	Mounting bracket MS6-WP	■	■	■	■	ms6-wp
	Mounting bracket (not illustrated) MS6-WPB/WPE/WPM	■	■	■	■	ms6-wp
7	Fully automatic, electrically actuated condensate drain E1 ... E4	■	■	■	■	7

1) Module connector MS6-MV [5] or mounting bracket MS6-WP/WPB/WPE/WPM [6] is required for mounting.

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Type codes

		MS	6	N	-	LWS	-	1/4	-	U	-	V
Series												
MS	Standard service unit											
Size												
6	Grid dimension 62 mm											
Thread												
N	NPT thread											
Service function												
LWS	Water separator											
Pneumatic connection												
1/4	Thread NPT1/4-18											
3/8	Thread NPT3/8-18											
1/2	Thread NPT1/2-14											
Bowl guard												
U	Integrated as metal bowl											
Condensate drain												
V	Fully automatic											

Further variants can be ordered using the modular system → 7

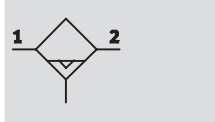
- Connecting plates
- Condensate drain
- Type of mounting
- Alternative flow direction

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Technical data

Condensate drain,
fully automatic



Flow rate
2,400 ... 3,800 l/min

Temperature range
+1 ... +60 °C

 Supply pressure
0.8 ... 16 bar



The maintenance-free water separator removes condensate from the compressed air.

- Constantly high condensate separation (99%) up to the maximum flow rate
- Metal bowl
- Available with fully automatic or fully automatic, electrically actuated condensate drain

General technical data				
Size	MS6			
Pneumatic connection 1, 2	NPT1/4-18	NPT3/8-18	NPT1/2-14	NPT1/4-18 ... NPT3/4-14 (with connecting plate AQ...)
Constructional design	Centrifugal separator			
Type of mounting	Via accessories			
	In-line installation			
Mounting position	Vertical ±5°			
Air purity class at the output	-7.- to DIN ISO 8573-1			
Bowl guard	Integrated as metal bowl			
Condensate drain	Fully automatic			
	Fully automatic, electrically actuated			
Degree of condensate separation [%]	99			
Max. condensate volume [ml]	38			

Standard nominal flow rate q _N ¹⁾			
Size	MS6		
Pneumatic connection	NPT1/4-18	NPT3/8-18	NPT1/2-14
q _N [l/min]	2,400	3,500	3,800

1) Measured at p₁ = 6 bar and Δp = 1 bar

Operating and environmental conditions		
Condensate drain	Fully automatic V	Fully automatic, electrically actuated E1 ... E4
Size	MS6	MS6
Supply pressure [bar]	2 ... 12	0.8 ... 16
Operating medium	Compressed air	
Ambient temperature [°C]	+5 ... +60	+1 ... +60
Temperature of medium [°C]	+5 ... +60	+1 ... +60
Storage temperature [°C]	-10 ... +60	+1 ... +60
Corrosion resistance class CRC ¹⁾	2	

1) Corrosion resistance class 2 to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricants.

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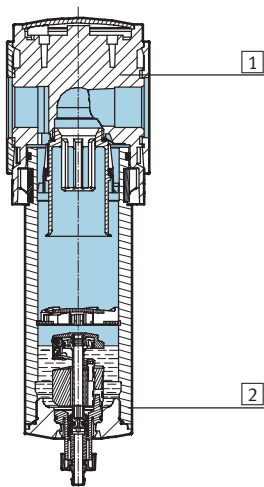
Technical data

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Weight [g]	
Size	MS6
Water separator	820
Water separator with fully automatic, electrically actuated condensate drain E1 ... E4	1,800

Materials

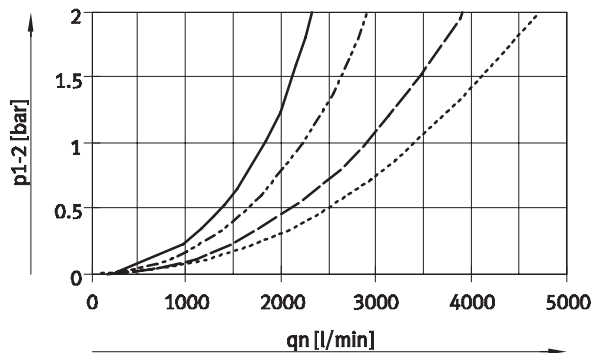
Sectional view



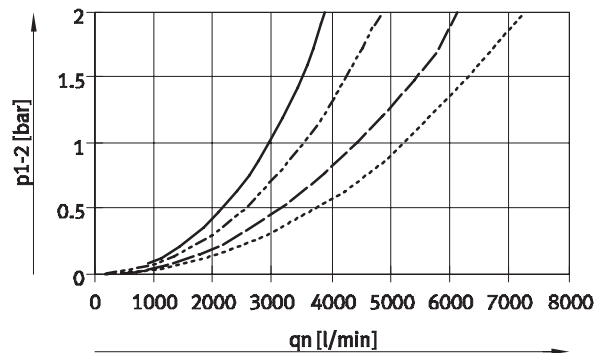
Water separator		
1	Housing	Die-cast aluminium
2	Bowl	Wrought aluminium alloy
	Inspection window	PA
–	Seals	NBR
Note on materials		Free of copper and PTFE
		RoHS-compliant (not with variant E1, E2, E3 or E4)

Standard flow rate q_n as a function of differential pressure p_{1-2}

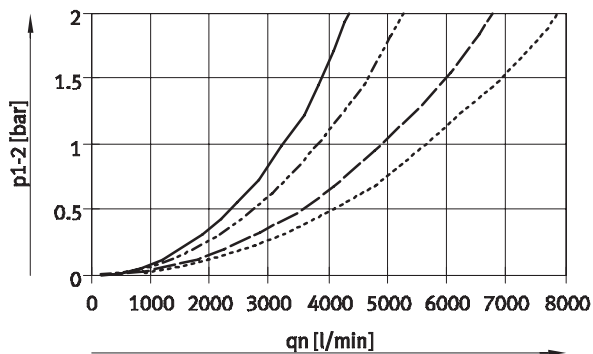
MS6N-LWS-1/4



MS6N-LWS-3/8



MS6N-LWS-1/2



— 4 bar
 - - - 6 bar
 - · - 10 bar
 · · · 14 bar

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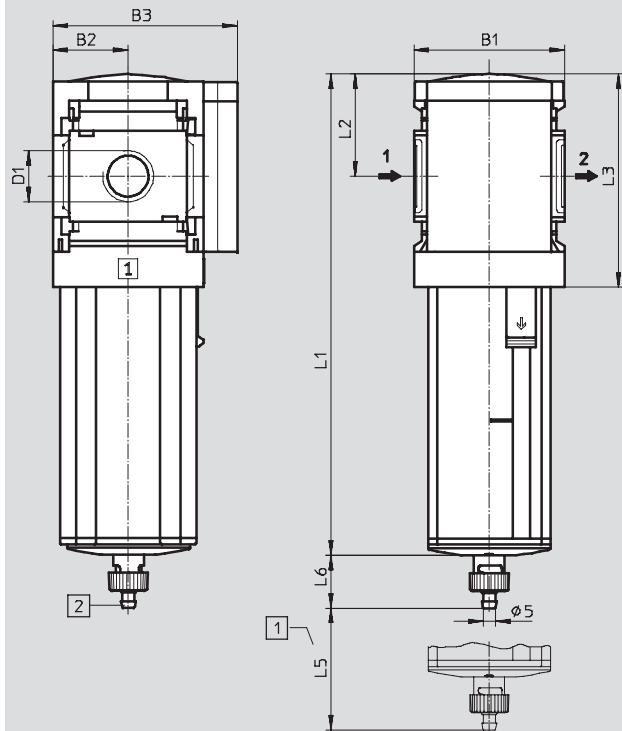
Technical data

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Dimensions – Standard

Download CAD Data → www.festo.com/us/cad

Fully automatic condensate drain V



- 1 Installation dimensions
- 2 Barbed connector for plastic tubing PCN-4

→ Flow direction

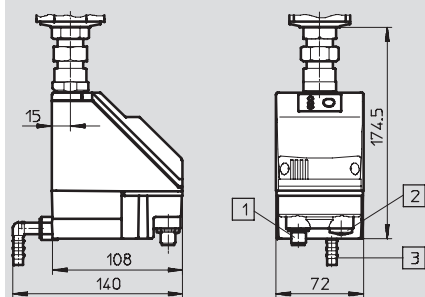
Type	B1	B2	B3	D1	L1	L2	L3	L5	L6
MS6N-LWS-1/4-...-V	62	31	76	NPT1/4-18	198	42	87	68	22
MS6N-LWS-3/8-...-V				NPT3/8-18					
MS6N-LWS-1/2-...-V				NPT1/2-14					

Dimensions – Condensate drain

Download CAD Data → www.festo.com/us/cad

Fully automatic, electrically actuated E1 ... E4

Technical data → Internet: pwea



- 1 Variant E1:
Condensate drain PWEA-AP
with M12x1 plug, 5-pin for
NEBU-M12...-LE5
- 2 Variant E2/E3/E4:
Condensate drain PWEA-AC
with cable conduit fitting Pg9
- 3 Connection 360° rotatable for
plastic tubing PUN-H-12x2

Ordering data

Size	Condensate drain	Connection	Part No.	Type
Integrated as metal bowl				
MS6	Fully automatic	NPT1/4-18	564871	MS6N-LWS-1/4-U-V
		NPT3/8-18	564872	MS6N-LWS-3/8-U-V
		NPT1/2-14	564873	MS6N-LWS-1/2-U-V

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Ordering data – Modular products

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M Mandatory data								O Options	
Module No.	Series	Size	Thread	Function	Connection size	Bowl guard	Condensate drain	Type of mounting	Alternative flow direction
564898	MS	6	N	LWS	1/4, 3/8, 1/2, AQN, AQP, AQR, AQS	U	V, E1, E2, E3, E4	WP, WPM, WB	Z
Ordering example									
564898	MS	6	N	- LWS	- AQN	- U	- V	- WP	- Z

Ordering table					
Grid dimension	[mm]	62	Condition s	Code	Enter code
M Module No.	564898				
Series	Standard			MS	MS
Size	6			6	6
Thread	NPT thread			N	N
Function	Water separator			-LWS	-LWS
Connection size	Thread NPT1/4			-1/4	
	Thread NPT3/8			-3/8	
	Thread NPT1/2			-1/2	
	Connecting plate NPT1/4			-AQN	
	Connecting plate NPT3/8			-AQP	
	Connecting plate NPT1/2			-AQR	
	Connecting plate NPT3/4			-AQS	
Bowl guard	Metal bowl			-U	-U
Condensate drain	Fully automatic (P1 max. 12 bar)			-V	
	External fully automatic condensate drain, electrical, 24 V DC, M12 (P1 max. 16 bar)			-E1	
	External fully automatic condensate drain, electrical, 110 V AC, terminals (P1 max. 16 bar)			-E2	
	External fully automatic condensate drain, electrical, 230 V AC, terminals (P1 max. 16 bar)			-E3	
	External fully automatic condensate drain, electrical, 24 V DC, terminals (P1 max. 16 bar)			-E4	
O Type of mounting	Mounting bracket			1 -WP	
	Mounting bracket			1 -WPM	
	Mounting bracket			-WB	
Alternative flow direction	Flow direction from right to left			-Z	

1 WP, WPM Only with connecting plate AQN, AQP, AQR or AQS

Transfer order code

564898	MS	6	N	- LWS	-	-U	-	-	-
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Custom Automation Components
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