

## Water separators MS-LWS, MS series, NPT

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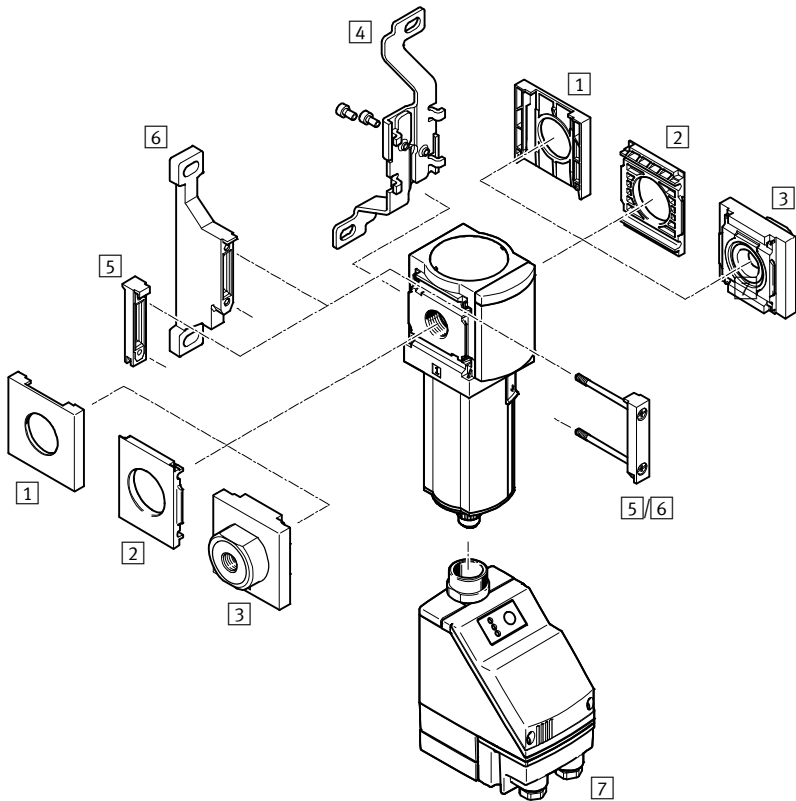


# Water separators MS6N-LWS, MS series, NPT

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	■ <sup>1)</sup>	–	■ <sup>1)</sup>	–	ms6-aend
3	Connecting plate-SET MS6N-AQ...	–	■ <sup>1)</sup>	–	■ <sup>1)</sup>	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 E2/E3/E4	■	■	■	■	8

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

# Water separators MS6N-LWS, MS series, NPT

Type codes

		MS	6	N	-	LWS	-	1/4	-	U	-	V
<b>Series</b>												
MS	Standard service unit											
<b>Size</b>												
6	Grid dimension 62 mm											
<b>Thread</b>												
N	NPT thread											
<b>Service function</b>												
LWS	Water separator											
<b>Pneumatic connection</b>												
1/4	Female thread NPT $\frac{1}{4}$											
3/8	Female thread NPT $\frac{3}{8}$											
1/2	Female thread NPT $\frac{1}{2}$											
<b>Bowl guard</b>												
U	Integrated as metal bowl											
<b>Condensate drain</b>												
V	Fully automatic											

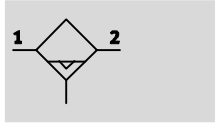
Further variants can be ordered using the modular system → 8

- Pneumatic connection
- Condensate drain
- Type of mounting
- Flow direction

# Water separators MS6N-LWS, MS series, NPT

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
- Available with fully automatic or fully automatic, electrically actuated condensate drain
- Metal bowl

General technical data		
Size	MS6	
Pneumatic connection 1, 2	Female thread	NPT $\frac{1}{4}$ , NPT $\frac{3}{8}$ or NPT $\frac{1}{2}$
	Connecting plate AQ...	NPT $\frac{1}{4}$ , NPT $\frac{3}{8}$ , NPT $\frac{1}{2}$ or NPT $\frac{3}{4}$
Constructional design	Centrifugal separator	
Type of mounting	Via accessories	
	In-line installation	
Mounting position	Vertical $\pm 5^\circ$	
Air purity class at the output	Compressed air in accordance with ISO 8573-1:2010 [7:7:4] (with variant E2, E3 or E4: [-:7:4])	
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 $q_{nN}^{1)}$			
Size	MS6		
Pneumatic connection	NPT $\frac{1}{4}$	NPT $\frac{3}{8}$	NPT $\frac{1}{2}$
$q_{nN}$ [l/min]	2,400	3,500	3,800

1) Measured at  $p_1 = 6$  bar and  $\Delta p = 1$  bar

Operating and environmental conditions		
Condensate drain	Fully automatic V	Fully automatic, electrical E2/E3/E4
Size	MS6	
Operating pressure [bar]	2 ... 12	0.8 ... 16
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:-]	Compressed air in accordance with ISO 8573-1:2010 [-:--:-]
	Inert gases	
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 <sup>1)</sup>	2	
Food-safe <sup>2)</sup>	See supplementary material information	-

1) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

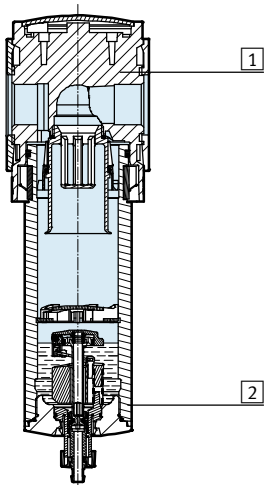
# Water separators MS6N-LWS, MS series, NPT

Technical data

Weight [g]	
Size	MS6
Water separator	820
Water separator with fully automatic, electrically actuated condensate drain E2/E3/E4	1,800

## Materials

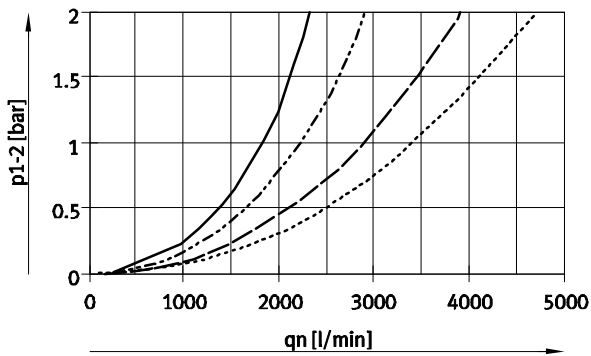
Sectional view



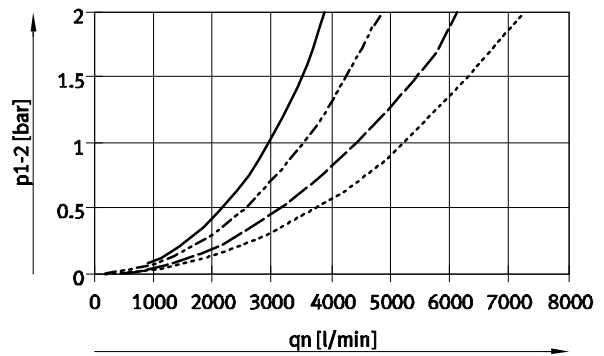
Water separator		
1	Housing	Die-cast aluminium
2	Bowl	Wrought aluminium alloy
	Inspection window	PA
-	Seals	NBR
Note on materials		RoHS-compliant
		Free of copper and PTFE

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

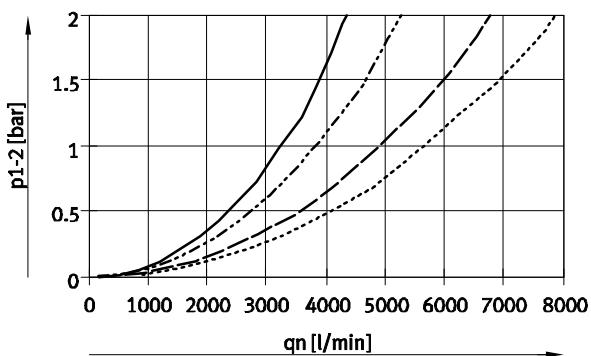
Pneumatic connection NPT $\frac{1}{4}$



Pneumatic connection NPT $\frac{3}{8}$



Pneumatic connection NPT $\frac{1}{2}$



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

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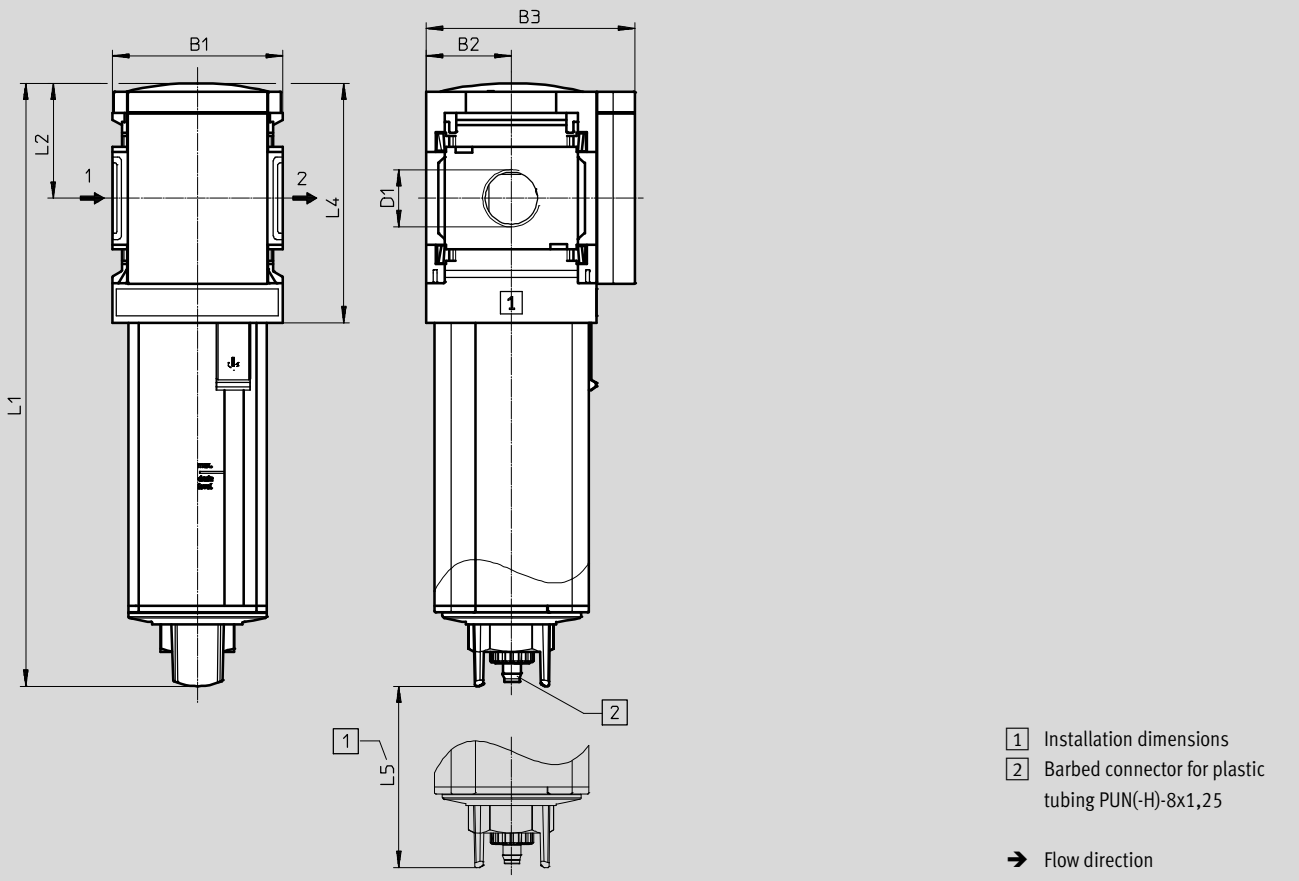
Technical data

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## Dimensions – Standard

Download CAD data → [www.festo.com](http://www.festo.com)

Fully automatic condensate drain V



Type	B1	B2	B3	D1	L1	L2	L4	L5
MS6N-LWS-1/4-...-V	62	31	76	NPT $\frac{1}{4}$ -18	220	42	88	64
MS6N-LWS-3/8-...-V				NPT $\frac{3}{8}$ -18				
MS6N-LWS-1/2-...-V				NPT $\frac{1}{2}$ -14				

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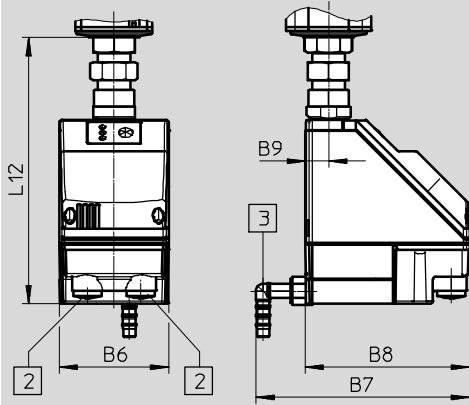
Technical data

## Dimensions – Condensate drain

Fully automatic, electrically actuated E2/E3/E4

Download CAD data → [www.festo.com](http://www.festo.com)

Technical data → Internet: [pwea](http://pwea)



Condensate drain PWEA:

- 2 Electrical connection: Screw terminal PG9
- 3 Connection 360° rotatable for plastic tubing PUN-H-12x2

Type	B6	B7	B8	B9	L12
MS6N-LWS-...-E2/E3/E4	72	140	108	15	174.5

## Ordering data

Size	Condensate drain	Connection	Part No.	Type
Integrated as metal bowl				
MS6	Fully automatic	NPT $\frac{1}{4}$	564871	MS6N-LWS-1/4-U-V
		NPT $\frac{3}{8}$	564872	MS6N-LWS-3/8-U-V
		NPT $\frac{1}{2}$	564873	MS6N-LWS-1/2-U-V

# Water separators MS6N-LWS, MS series, NPT

Ordering data – Modular products

Ordering table		Grid dimension [mm]	62	Condi- tions	Code	Enter code	
<b>M</b>	Module No.	<b>564898</b>					
	Series	Standard			<b>MS</b>	MS	
	Size	6			<b>6</b>	6	
	Thread	NPT thread			<b>N</b>	N	
	Function	Water separator			<b>-LWS</b>	-LWS	
	Pneumatic connection	Female thread NPT $\frac{1}{4}$			<b>-1/4</b>		
		Female thread NPT $\frac{3}{8}$			<b>-3/8</b>		
		Female thread NPT $\frac{1}{2}$			<b>-1/2</b>		
		Connecting plate NPT $\frac{1}{4}$			<b>-AQN</b>		
		Connecting plate NPT $\frac{3}{8}$			<b>-AQP</b>		
		Connecting plate NPT $\frac{1}{2}$			<b>-AQR</b>		
		Connecting plate NPT $\frac{3}{4}$			<b>-AQS</b>		
	Bowl guard	Metal bowl			<b>-U</b>	-U	
	Condensate drain	Fully automatic (P1 max. 12 bar)			<b>-V</b>		
		External, fully automatic, electric	115 V AC, terminals (P1 max. 16 bar)			<b>-E2</b>	
			230 V AC, terminals (P1 max. 16 bar)			<b>-E3</b>	
			24 V DC, terminals (P1 max. 16 bar)			<b>-E4</b>	
<b>O</b>	Type of mounting	Mounting bracket standard design		<b>1</b>	<b>-WP</b>		
		Mounting bracket for attaching the service units		<b>1</b>	<b>-WPM</b>		
		Mounting bracket centrally at rear (wall mounting top and bottom), connecting plates not required			<b>-WB</b>		
	Flow direction	Flow direction from right to left			<b>-Z</b>		

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

**M** Mandatory data

**O** Options

Transfer order code

564898 MS 6 N - LWS - U - - - -