

Condensate drains WA/PWEA

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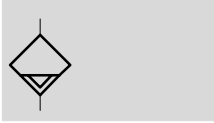




Condensate drains WA

Technical data

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Function



-  - Temperature range
0 ... +60 °C
-  - Operating pressure
1.5 ... 16 bar



Note

In order to close, the automatic condensate drain WA-2 requires a flow rate of 125 l/min; this sets in at approx. 1.5 bar.

For attachment to service units and compressed air networks/systems. Condensate present in the compressed air is separated in suitable filters. The condensate that accumulates must be emptied from time to time, as otherwise it would be drawn in and could lead to faults in the downstream elements. The devices shown perform this task automatically.

They contain a float which opens when a certain condensate level is achieved. The accumulated condensate is then emptied. With an additional, installed manual override, condensate emptying can also be performed manually.

- Automatic emptying after the max. fill level has been reached
- Automatic emptying after the operating pressure $p < 0.5$ bar is switched off
- Manual actuation during operation is possible

General technical data

Type	WA-1-B	WA-2
Pneumatic connection	M9	M9
Condensate drain connection	G $\frac{1}{4}$	PK-4
Design	External, mechanically-operated, fully automatic condensate drain valve	
Measured variable	Filling level	
Type of mounting	In-line installation	
Mounting position	Vertical, $\pm 10^\circ$	Vertical, $\pm 5^\circ$
Valve function	2/2-valve, closed, monostable	2/2-valve, open, monostable
Manual override facility	Non-detenting	

Operating and environmental conditions

Type	WA-1-B	WA-2
Operating pressure [bar]	4 ... 16	1.5 ... 14
Operating medium	Water	
Ambient temperature [°C]	0 ... +60	0 ... +50
Temperature of medium [°C]	0 ... +60	0 ... +50
Storage temperature [°C]	-20 ... +60	-20 ... +60
Corrosion resistance class CRC ¹⁾	2	

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.

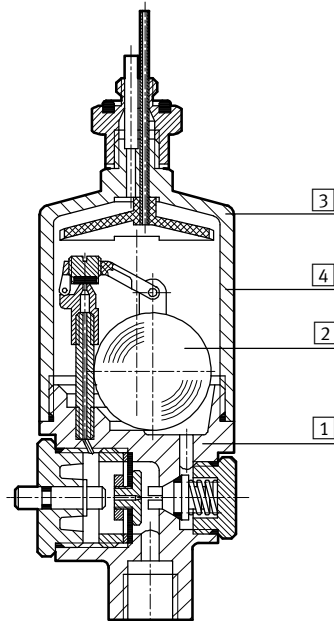
Condensate drains WA

Technical data

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Materials

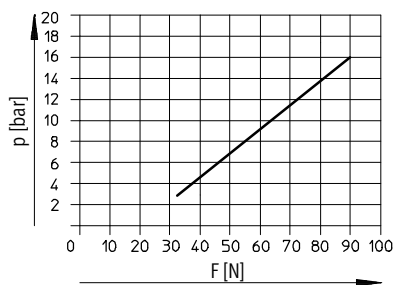
Sectional view



Condensate drain	WA-1-B	WA-2
1 Housing	Brass	Brass
2 Float	Polypropylene	Polyacetate
3 Cover	Polyamide	Wrought aluminium alloy
4 Bowl	–	Polycarbonate
– Seals	Nitrile rubber	Nitrile rubber
Note on materials	–	Contains PWIS (paint wetting impairment substances)

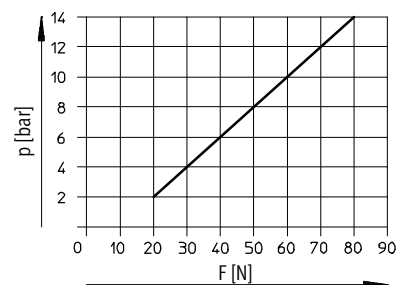
Actuating force F for manual actuation as a function of supply pressure p

WA-1-B



Primary pressure p₁ = 7 bar

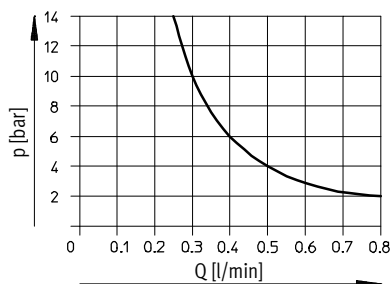
WA-2



Primary pressure p₁ = 7 bar

Max. possible condensate flow rate Q as a function of input pressure p

WA-2



Primary pressure p₁ = 7 bar

Condensate drains WA

Technical data

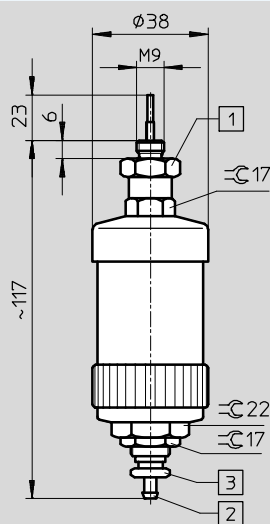
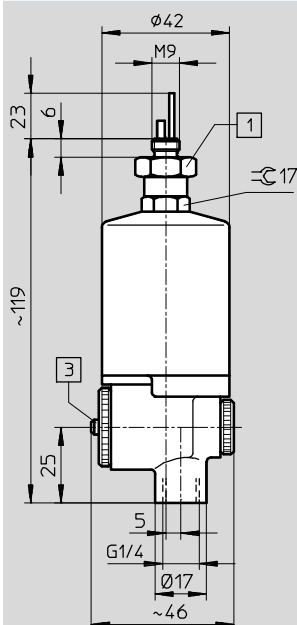
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Dimensions

Download CAD data → www.festo.com

WA-1-B

WA-2





1 Adapter SW17

2 Barbed fitting for plastic tubing
PCN-4

3 Manual override facility

Ordering data

	Pneumatic connection	Valve function	Weight [g]	Part No.	Type
	M9	2/2-valve, closed, monostable	210	158497	WA-1-B
	M9	2/2-valve, open, monostable	92	152810	WA-2




Condensate drains PWEA

Technical data

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Function



-  - Temperature range
+1 ... +60 °C
-  - Operating pressure
0.8 ... 16.0 bar
-  - www.festo.com



Condensate passes through the port in the bottom of the filter bowl into the attached condensate drain valve, where it is collected in a reservoir. A capacitive sensor detects once the maximum filling level is reached. The condensate escapes into the

atmosphere via the opening diaphragm valve through the discharge line. The diaphragm valve closes again after a specified response time. A residual amount of condensate remains in the reservoir so that no compressed air can escape into the discharge line.

- Fully automatic condensate drain with integrated electrical controller
- Interface for communicating with master control device
- Reliable thanks to non-contacting capacitive sensor
- Can be used with service units or simply in piping systems
- Operated via touch-sensitive keys or electrical interface
- Ready status and switching status indicated via LEDs and electrical interface

General technical data			
Type	PWEA-AC-6A	PWEA-AC-7A	PWEA-AC-3D
Pneumatic connection	G1/2		
Condensate drain connection	PK-8		
Design	External, fully automatic condensate drain valve with electrical control interface		
Measured variable	Filling level		
Type of mounting	In-line installation		
Mounting position	Vertical ±5°		
Valve function	3/2-way valve, closed, single solenoid		
Manual override	Non-detenting		

Electrical data			
Type	PWEA-AC-6A	PWEA-AC-7A	PWEA-AC-3D
Electrical connection	Screw terminal PG9		
Nominal operating voltage	[V AC]	115	230
	[V DC]	–	–
Mains frequency	[Hz]	50/60	–
Nominal power of condensate drain	[VA]	2	2
	[W]	–	–
Operating elements	Touch-sensitive keypad with test button		
Ready status display/switching status display	LED		
Alarm output	Contacting		
Protection class (IEC 60529)	IP65		
Protection class	II	II	III

Condensate drains PWEA

Technical data

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Operating and environmental conditions			
Type	PWEA-AC-6A	PWEA-AC-7A	PWEA-AC-3D
Operating pressure [bar]	0.8 ... 16.0		
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [–:–:–]		
Ambient temperature [°C]	+1 ... +60		
Temperature of medium [°C]	+1 ... +60		
Storage temperature [°C]	+10 ... +60		
Corrosion resistance class CRC ¹⁾	2		
CE mark (see declaration of conformity) ²⁾	In accordance with EU EMC Directive		
	In accordance with EU Low Voltage Directive		–
Certification	C-Tick		
KC marking	KC EMC		

- 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) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Materials	
Housing	Plastic
Condensate reservoir	Wrought aluminium alloy
Seals	NBR, FPM, PU
Note on materials	RoHS-compliant
	Free of copper and PTFE

Dimensions

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

B1	D1	D2	H1	L1	L2	L3	∅ 1	∅ 2
72	G3/4	G1/2	140	140	108	15	27	16

1 Screw terminal PG9

2 Connection for plastic tubing PUN-H-12x2, can be swivelled through 360°

3 Touch-sensitive keypad with LED display

Ordering data						
	Electrical connection	Nominal operating voltage		Weight [g]	Part No.	Type
		[V AC]	[V DC]			
	Screw terminal PG9	115	–	700	538679	PWEA-AC-6A
		230	–	700	538680	PWEA-AC-7A
		–	24	700	538681	PWEA-AC-3D