

## Condensate drains WA/PWEA

**FESTO**





# Condensate drains WA

Technical data

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## Function



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



## Note

In order to close, the automatic condensate drain type 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	
Operating medium	Water	
Type of mounting	In-line installation	
Mounting position	Vertical, $\pm 10^\circ$	Vertical, $\pm 5^\circ$
Input pressure [bar]	4 ... 16	0 ... 14
Valve function	2/2-way single solenoid valve, closed	2/2-way single solenoid valve, open
Manual override facility	Pushing	

Ambient conditions		
Type	WA-1-B	WA-2
Ambient temperature [°C]	0 ... +60	0 ... +50
Temperature of medium [°C]	0 ... +60	0 ... +50
Corrosion resistance CRC <sup>1)</sup>	2	

1) Corrosion resistance class 2 according to Festo standard 940 070

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Weights [g]		
	WA-1-B	WA-2
Condensate drain	210	92

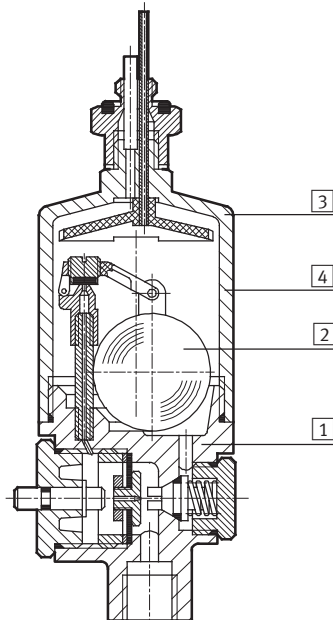
# Condensate drains WA

Technical data

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## Materials

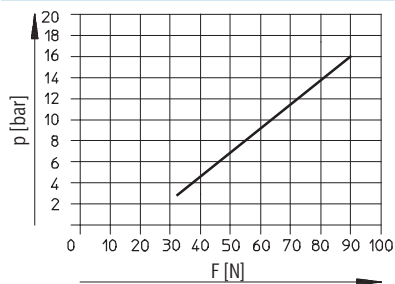
Sectional view



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

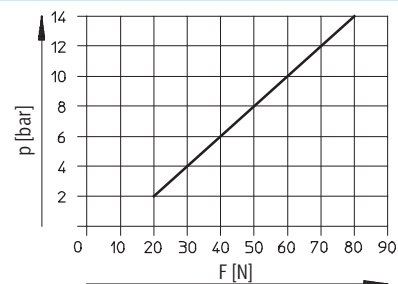
## Actuating force F for manual actuation as a function of supply pressure p

WA-1-B



Primary pressure p<sub>1</sub> = 7 bar

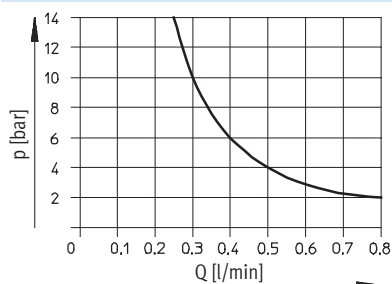
WA-2



Primary pressure p<sub>1</sub> = 7 bar

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

WA-2



Primary pressure p<sub>1</sub> = 7 bar

# Condensate drains WA

Technical data

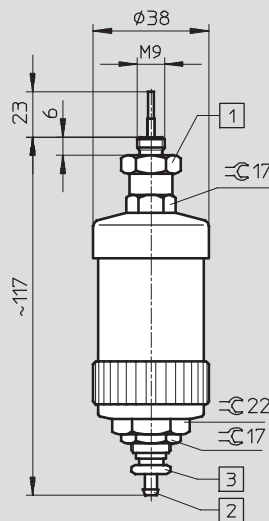
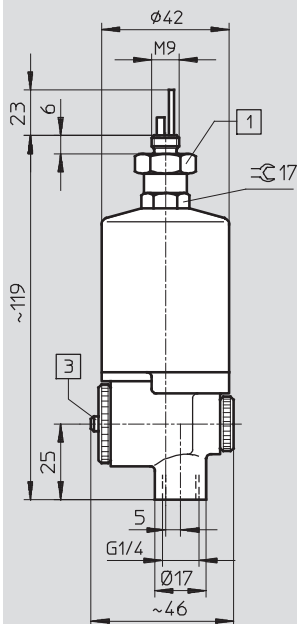
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## Dimensions

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

WA-1-B

WA-2



1 Adapter SW17

2 Barbed fitting for plastic tubing  
type PCN-4

3 Manual override facility

## Ordering data

Part No. Type

158497 WA-1-B

152810 WA-2

# Condensate drains PWEA

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Technical data

Function



Temperature range  
+1 ... +60 °C  
Pressure  
0.8 ... 16.0 bar

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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	G $\frac{1}{2}$		
Condensate drain connection	PK-8		
Design	Fully automatic condensate drain valve with electrical control interface		
Measured variable	Filling level		
Type of mounting	In-line installation		
Mounting position	Vertical $\pm 5^\circ$		
Valve function	3/2-way single solenoid valve, closed		
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]	110	230
	[V DC]	–	–
Mains frequency	[Hz]	50/60	
Nominal power of condensate drain	[VA]	2	–
	[W]	–	2
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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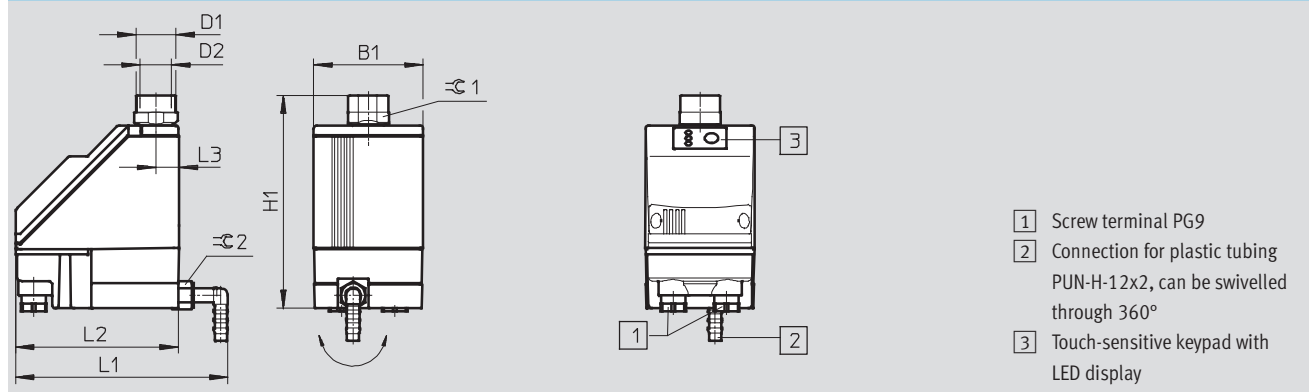
Operating and environmental conditions	
Operating pressure [bar]	0.8 ... 16.0
Operating medium	Compressed air
Ambient temperature [°C]	+1 ... +60
Temperature of medium [°C]	+1 ... +60
Storage temperature [°C]	+10 ... +60
Corrosion resistance class CRC <sup>1)</sup>	2

1) Corrosion resistance class 2 according to Festo standard 940 070

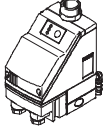
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Materials	
Housing	Plastic
Condensate reservoir	Wrought aluminium alloy
Seals	Nitrile rubber, fluoro elastomer
Note on materials	Free of copper and PTFE

## Dimensions Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



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

Ordering data						
	Electrical connection	Nominal operating voltage		Weight [g]	Part No.	Type
		[V AC]	[V DC]			
	Screw terminal PG9	110	–	700	538679	PWEA-AC-6A
		230	–	700	538680	PWEA-AC-7A
		–	24	700	538681	PWEA-AC-3D

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