

MV-SOL Series

Automatic air vent valves for solar energy systems

Technical Data Sheet



Description

MINIVENT **MV-SOL Series valves** are automatic valves for venting air from solar energy systems. They are inspectable because the cover can be unscrewed from the tank.

An O-ring ensures pressure-tightness between the tank and the cover. The internal components (float and lever) can therefore be cleaned if foreign bodies get into the valve.

The valve's design characteristics ensure the long-term efficiency and smooth running of the venting movement.



MV-SOL

MINIVENT.

Automatic air vent valve for solar thermal systems with unscrewable inspection cover. CW617N brass body and cover.

Polythene float switch. Connection between tank and cover sealed with an O-ring. DN 3/8" - 1/2" DIN - ISO 228/1 connection.

AISI 304 stainless steel vacuum breaker (for DN 3/8" only).

Maximum operating pressure: 10 bar. Maximum operating temperature: 160°C.

Type	Part No.	DN	Weight (kg)
MV-SOL	0249110	3/8"	0.191
MV-SOL	0249115	1/2"	0.194



RIA/MV-SOL

Automatic shut-off valve for MV-SOL Series air vent valves.

Makes it possible to change the valve with the system running.

Body: CW617 brass. Seal: high-strength elastomer.

Disc pin: high-strength polymer. Spring: stainless steel.

MF 3/8" and 1/2" DIN - ISO 228/1 connections.

Type	Part No.	DN	Weight (g)
RIA/MV-SOL	0259410	3/8" x 3/8"	30
RIA/MV-SOL	0259315	1/2" x 1/2"	30

Technical features MV-SOL Series

Connection	3/8" male DIN-ISO228/1 optional 1/2" (without vacuum breaker)
Maximum operating pressure	10 bar
Maximum operating temperature	160°C

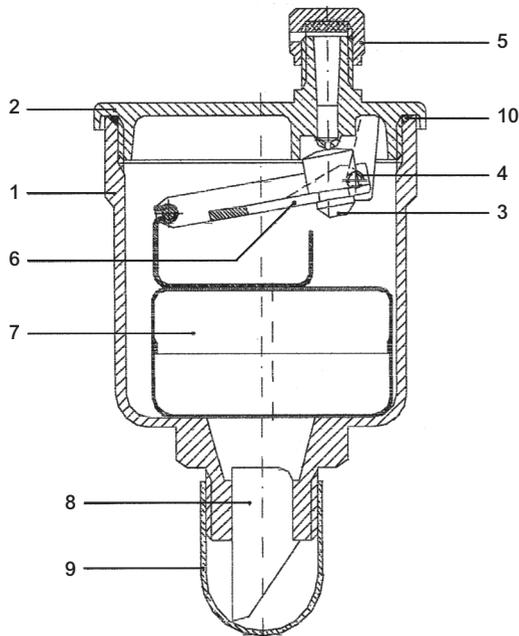
Design characteristics MV-SOL Series

Tank and cover	CW617N brass
Float	high-strength polymer
Disc	high-strength elastomer
Spring	AISI302 stainless steel
Cap	CW617N brass
Vacuum breaker (for 3/8" only)	AISI302 stainless steel

Design characteristics RIA/MV-SOL Series

Body	CW617N brass
Seal	high-strength elastomer
Disc pin	high-strength polymer
Spring	stainless steel
Connections	MF 3/8" DIN-ISO 228/1

Sectional view



1. Tank
2. Cover
3. Disc
4. Spring
5. Cap
6. Lever
7. Float
8. Vacuum breaker (for 3/8" only)
9. Protection (for 3/8" only)

Operation

MV-SOL Series

Valve opening and closing is determined by the movement (up-down) of the float.

- When there is air in the **MINIVENT** valve, the force of the float weight acts on the lever which is integral with the disc, thus causing it to move down. In this situation the seat is free and allows the air to be vented out of the system.
- As the system fills with water, the air trapped in the water circuit is pushed out through the **MINIVENT** valve.

As soon as all the trapped air is discharged, the water entering the tank pushes the float up. As a result, the lever causes the disc to press against the seat, thus sealing the system.

RIA/MV-SOL Series

The **RIA** shut-off valve makes it possible to disassemble automatic air vent valves (**MV-SOL Series**) without draining the system, thanks to the device for total, rapid drainage of water from the valve.

Installation

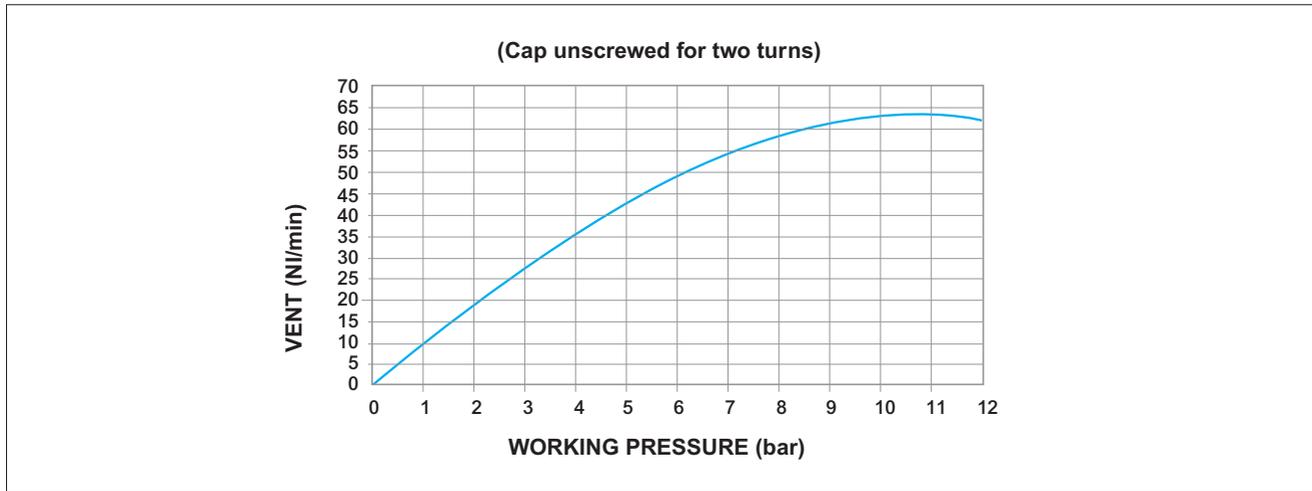
For maximum air venting efficiency, install the **MINIVENT** valve at points where the water speed is relatively low.

After installation, to ensure optimum air venting, unscrew the protection cap by at least two turns (this will provide the venting characteristics shown in the diagram).

Maintenance

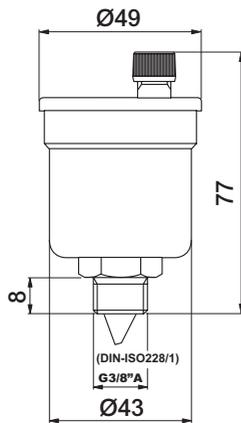
MINIVENT valves are normally maintenance-free. If you need to disassemble the valve, however, the presence of the **RIA/MV-SOL** shut-off valve enables you to do so without draining the system.

Chart

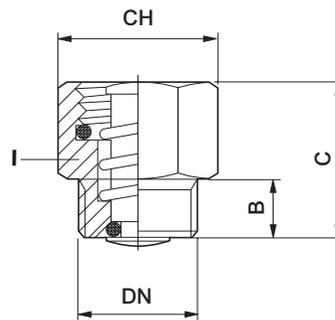


Overall dimensions (mm)

MV-SOL



RIA



DN	B	C	CH
3/8"	8	11	19
1/2"	8	11	24

Specification text

MV-SOL Series

Automatic air vent valve **MV-SOL Series** – WATTS brand – for solar energy systems with unscrewable inspection cover. CW617N brass body and cover. Polythene float switch. Connection between tank and cover sealed with an O-ring. DN 3/8"-1/2" DIN-ISO 228/1 connection. AISI 304 stainless steel vacuum breaker (for DN 3/8" only). Maximum operating pressure: 10 bar. Maximum operating temperature: 160°C.

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding.

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