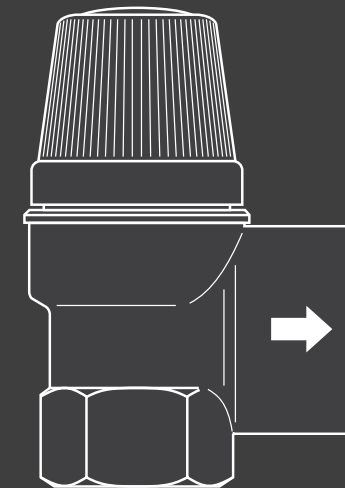


WATERWARE

Solar Safety valves



1/2" - 3/4"

Available 300, 400, 600, 800 1000kPa

Installation Manual

PH 09 273 9191 | info@waterware.co.nz

PO Box 58 776 Botany, Manukau

waterware.co.nz

WARRANTY

If any material defect arising from the manufacturing process is found in a new tap or valve Waterware Services Ltd. will undertake to repair or replace it (at its option). This undertaking will not apply if:

1. The defect is brought to Waterware's attention later than 5 years from the date of manufacture.
2. Failure by any person to follow installation instructions or installation in an environment outside the recommended limitations or relevant NZ and or Australian Standards and local plumbing codes. No installation should proceed without installation instructions and claims instructions were missing are not accepted as a means of avoiding this condition.
3. Evidence cannot be produced which confirms that the relevant tap or valve was purchased from a known customer of Waterware Services Ltd.
4. Repair work is undertaken without prior arrangement with Waterware Services Ltd.
5. Normal maintenance requirements, refer to specific product maintenance guides.

Waterware Services Ltd. shall in no way be liable for any loss, damage (direct, indirect or consequential), cost or expense suffered or incurred by the purchaser. Obligations accepted by Waterware Products Ltd. are....

..... in addition to all other rights and remedies had by the Purchaser in law in respect of the valve and does not limit the right the Consumer may have under the Consumers Guarantee Act 1993.

..... subject to the exceptions and conditions previously listed. All expressed or implied conditions, statements or warranties as to the quality or fitness on any purpose of a tap or valve or otherwise are hereby expressly excluded to the fullest extent permitted by law except under conditions and warrants which cannot be legally excluded by law and which are intended in the contract for the supply of the valve by the Trade Practises and any other Act of Law.

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CALEFFI DSV253 TECHNICAL DATA

The Caleffi Safety Valve has been designed to meet the requirements of many engineers and designers and is also the result of many years of experience in meeting international safety regulations.

Caleffi DSV's offers the greatest safety, thanks to the following characteristics:

- Fail-safe Valve performance is ensured even in the case of diaphragm wear or breakage.
- Maximum allowable working temperature 160°C
- Suitable for systems up to maximum 50kW
- Discharge over pressure < 10%.
- Closing pressure < 20%. It allows minimization of damage due to water leakage in the case of accidental opening of the valve.
- Increased outlet diameter. This characteristic, prescribed by the main European Standards, considerably reduces the possible decrease of discharge capacity or possible variation in the opening or closing behavior, due to the presence of piping.
- Metallic construction. The body, in copper alloy, are particularly strong. This guarantees the maximum safety in the case of damage from accidental breakage.

FUNCTION AND USE

For sealed solar heating systems using water or water solutions to DIN Standard 4757 Sheet 1 as the carrying fluid, and using a diaphragm expansion vessel. The Series 253 diaphragm safety valve is designed exclusively for solar heating systems.

The diaphragm safety valve only opens the discharge when the system pressure exceeds the rated calibration of the valve. The diaphragm safety valve discharges the heating power of the solar system in the form of hot water and steam.

Code	Calibration	Sizes
253043	3 bar	1/2"F Inlet 3/4"F Outlet
253044	4 bar	1/2"F Inlet 3/4"F Outlet
253046	6 bar	1/2"F Inlet 3/4"F Outlet
253048	8 bar	1/2"F Inlet 3/4"F Outlet
253040	10 bar	1/2"F Inlet 3/4"F Outlet

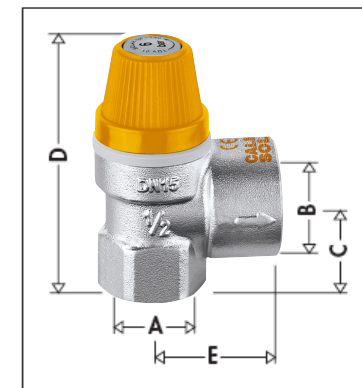
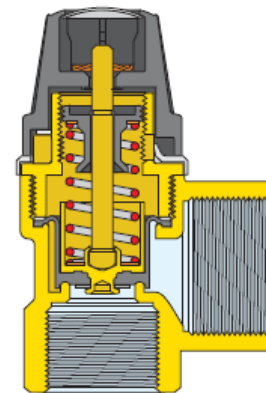
INSTALLATION

Diaphragm safety valves should be installed vertically, in line with the direction of the arrow. The connecting pipework should be a maximum of 1m long without any bends. Filters and other restrictions should be avoided in the connecting pipework to the solar safety valve. The cross-section of the connecting pipe must be at least equal to the inlet cross-section of the safety valve. Horizontal connections should be avoided, to prevent the build up of dirt and debris.

These safety valves should be installed in the coldest part of the solar heating system, without interfering with the solar manifolds and must be accessible. It is also advisable to install the valves near the solar control station. The diameter of the discharge pipework must correspond to the valve outlet diameter; the maximum length should not exceed 2m, and not more than two bends are permitted. If these maximum values are unavoidable exceed (2bends, 2m of piping), the next diameter up must be selected for the discharge pipework. However, on no account are more than 3 bends and 4 meters of pipework permitted. If the discharge piping of the safety valve is connected via a tundish, the cross-section of the valve discharge pipework should be at least double the cross-section of the valve discharge itself.

Water/Glycol solutions must be collected in a container of suitable dimensions under the safety valve discharge pipe. The discharge piping must be installed with a downward slope; the outlet of the pipework must be open and inspectable and positioned in such a way that nobody is endangered during a discharge.

Dimensions



Code	A	B	C	D	E
25304.	1/2"	3/4"	24	70	33,5