

# Automatic air vent and safety relief valve for solar heating systems

series 250-253



01089/03 GB

cert. n° 0003  
ISO 9001



The Caleffi Solar series of products are specifically designed for use in primary circuit of solar systems. In these systems the heating fluid of the primary circuit contains glycol as additive and operates at high temperatures.

The materials and components used in its manufacture and the performance of these must be suitable for these operating conditions.



## Series 250 automatic air vent

### Function

Automatic air vents are used in the closed circuits of solar heating systems to allow air contained in the fluid to be released automatically by means of a valve operated by a float in contact with fluid in the system.

### Product range

Code 250031 Automatic air vent for solar heating systems \_\_\_\_\_ Size 3/8" M

### Technical specification

Materials: - body: brass, EN 12165 CW617N, chrome plated  
 - cover: brass, EN 12165 CW617N, chrome plated  
 - control spindle: alloy CR EN 12164 CW602N  
 - float and arm: high resistance polymer  
 - seals: high resistance elastomer

Medium: water, glycol solutions  
 Max percentage of glycol: 50%

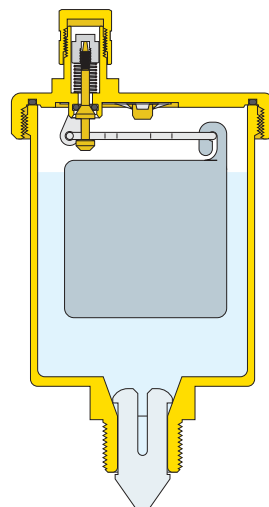
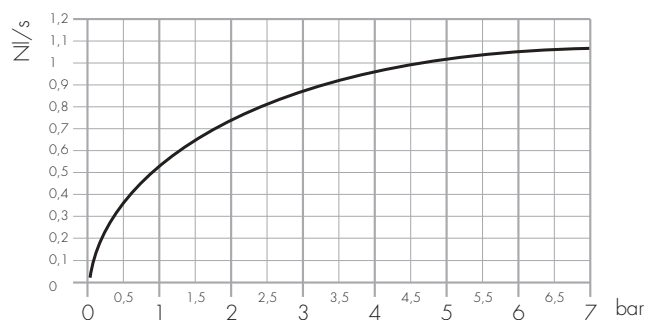
Working temperature range: -30÷150°C

Max working pressure: 10 bar

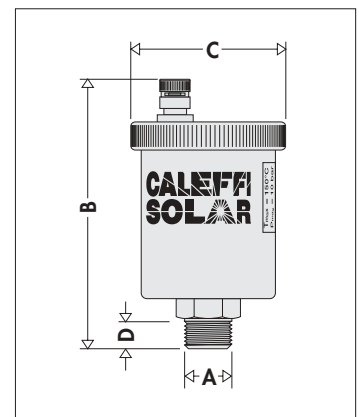
Max discharge pressure: 5 bar

Connections: 3/8" M

### Discharge flow-rates



### Dimensions



| Code   | A    | B  | C    | D  |
|--------|------|----|------|----|
| 250031 | 3/8" | 97 | Ø 55 | 11 |

## SPECIFICATION SUMMARIES

### Series 250

Automatic air vent for solar heating systems. Threaded connection 3/8"M. Brass body and cover. Chrome plated. Float in high resistance polymer. Seals in high resistance elastomer. Working temperature range -30÷150°C. Maximum working pressure 10 bar. Maximum discharge pressure 5 bar. Maximum percentage of glycol 50%.



## Series 253 safety relief valves

### General characteristics

The safety relief valves manufactured by Caleffi are produced in compliance with the essential safety requirements laid down by Directive 97/23/EC of the European Parliament and the Council of the European Union for the harmonisation of member States with regard to pressurised equipment.

### Function

These safety relief valves are used to control pressure in the primary circuits of solar heating systems.

When the calibrated pressure is reached, the valve opens to release the fluid into the atmosphere and prevents the pressure in the system from reaching levels that might damage the solar collectors and equipment installed in them. The outlet diameter is larger to ensure discharge of the required output capacity.



### Product range

Series 253 Safety relief valve for solar heating systems \_\_\_\_\_ Size 1/2" F x 3/4" F

### Technical specification

Materials: - body: brass, EN 12165 CW617N, chrome plated  
 - control spindle: brass, EN 12165 CW617N  
 - obturator seal: high resistance elastomer  
 - spring: steel, UNI 3823  
 - control knob: PA 6 G 30

Medium: water, glycol solutions  
 Max percentage of glycol: 50%

Nominal pressure: PN 10  
 Temperature range: -30÷160°C

PED Category: IV  
 Approval: TÜV according to SV100 7.7  
 N° TÜV 01.SOLAR 02.146

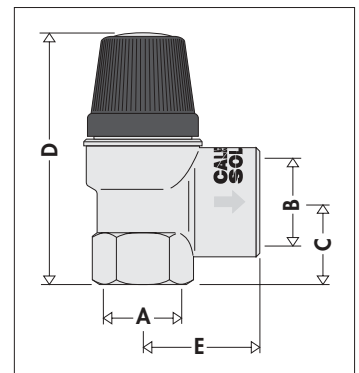
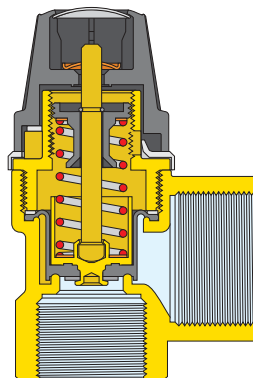
Connections: 1/2" F x 3/4" F

### Performance

Opening overpressure: 10%  
 Closing differential: 20%  
 Discharge capacity: 50 kW

| Code         | 253043 | 253044 | 253046 | 253048 | 253040 |
|--------------|--------|--------|--------|--------|--------|
| Set pressure | 3 bar  | 4 bar  | 6 bar  | 8 bar  | 10 bar |

### Dimensions



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

## SPECIFICATION SUMMARIES

### Series 253

Diaphragm safety relief valve for solar heating systems. CE mark as per Directive 97/23/EC. TÜV approval for solar heating systems. Threaded connections 1/2" F x 3/4" F. Chrome plated brass body. Diaphragm and obturator seal in high resistance elastomer. Spring in steel UNI 3823. Control knob in PA 6 G 30. Temperature range -30÷160°C. Nominal pressure PN 10. Calibration setting 3 bar (3, 4, 6, 8, 10 bar). Maximum percentage of glycol 50%.

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice.

