Compact Performance.

Design for heat transfer fluid applications.





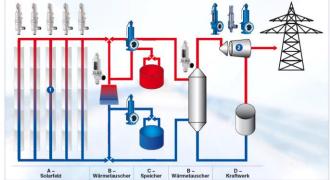
Applications.

1. Applications | 2. Design | 3. Benefits

Protection in Concentrated Solar Power Plants (CSP):

- Thermal expansion in heat absorber tube
- Medium: thermal oil as heat transfer fluid (HTF)
- Temperature: up to 400° C / 752° F
- Set pressure: 25 40 barg / 363 580 psig
- Backpressure: up to 83% (20 25 barg / 290 363 psig)
- No external leakage of the creeping medium allowed







Design.

1. Applications | 2. Design | 3. Benefits

This configuration is specifically developed and proven for the extreme conditions of the application in CSPs.

- Body materials made for high temperatures
- Inlet and outlet as welding connection
- 3 Durable, wear-resistant sealing surfaces
- 4 High-quality, temperatureresistant bellows material



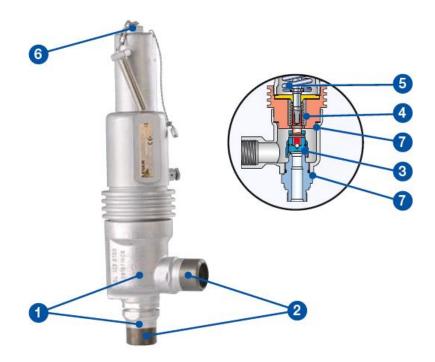


Design.

1. Applications | 2. Design | 3. Benefits

- 5 High-temperature spring material
- 6 Test gag
- High pressure sealing and sealing weld

- Valve size 1"
- Actual orifice diameter $d_0 = 13 \text{ mm}$





Benefits.

1. Applications | 2. Design | 3. Benefits

- Operationally proven protection in concentrated solar power plants (CSP)
- Specifically developed configuration for extreme, combined conditions
- Installation in isolated piping with high operating temperature possible
- Compact dimensions
- External tightness ensures high level on safety in view to probable pollution by and inflammability of the medium
- Improved functional tightness and durable, wear-resistant sealing surfaces increase the plant efficiency (loss of medium, maintenance intervals)





Benefits.

1. Applications | 2. Design | 3. Benefits

- Hydrostatic pressure test of the installation possible
- Quick delivery times and simple ordering due to standardization



Compact Performance Thank you for your attention



