

Cartridge Safety Relief Valve

Data Sheet

Type: CSR, CSRH



Purpose:

The cartridge safety relief valves (CSRV) are designed to offer the highest level of protection while maintaining easy serviceability. The CSRV was designed from the existing Parker SR and SRH safety relief valve housing, which allows for a simple and easy upgrade path to the new cartridge based design.

As local or state codes govern the frequency of valve replacement, the CSRV is a cost effective alternative to standard safety relief valve designs.

Typical applications for the CSRV include compressor packages, accumulator vessels, and anywhere else protection from overpressure is required.



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Product Features:

- Suitable for ammonia and halocarbon refrigerants
- ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 compliant
- ANSI/ASHRAE 15 safety standard for refrigeration systems
- Stainless steel cartridge and internal components
- Same lay in length as SR and SRH series safety relief valves
- Cartridge based design allows for replacement while housing remains in the system
- Non-stick PTFE seat
- Set pressure tolerance of $\pm 3\%$
- Unaffected by vibration



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Technical Data

- Temperature Range:
-40°C to 150°C (-40°F to 300°F)
 - Maximum Rated Pressure (MRP):
27.6 barg (400 psig)
 - Pressure Setting Range:
10.3 to 27.6 barg (150 to 400 psig)
±3% set pressure tolerance
 - 20 percent below set point re-seat pressure after release
 - 50 percent blow down to re-seat
- Important:** Recommended sizing guidelines should follow local codes ANSI/ASHRAE 15, IIAR, ASME Section VIII Division 1 and API-520.

Valve Type	Connection (FPT)		Orifice Diameter (inch)	Pressure Setting (psig) ^①	Flow Capacity		Manifold Connection (FPT)
	Inlet (Inch)	Outlet (inch)			Lbs. Per Min Air	SCFM Air	
CSR1	1/2	3/4	0.500	150 - 400	10 - 25	130 - 329	1/2" M1
CSR2	1/2	1	0.500	150 - 400	19 - 48	246 - 622	1/2" M1
CSR3	3/4	1 1/4	0.750	150 - 400	29 - 73	377 - 955	3/4" M1
CSR4	3/4	1 1/2	0.750	150 - 400	37 - 94	491 - 1241	3/4" M1
CSRH1	1/2	3/4	0.500	150 - 400	35 - 89	463 - 1173	1/2" M1
CSRH2	1/2	1	0.500	150 - 400	35 - 89	463 - 1173	1/2" M1
CSRH3	3/4	1	0.500	150 - 400	35 - 89	463 - 1173	3/4" M1
CSRH4	1	1 1/4	0.750	150 - 350	61 - 135	798 - 1775	1" M1
CSRH5	1 1/4	1 1/2	0.750	150 - 350	73 - 163	963 - 2142	1 1/4" M1

1. Standard pressure relief settings of 150 - 400 psig increment are available. CSRH4 and CSRH5 are not available with a setting above 350 psi.

See bulletin 72-10 for information on the CSR/CSRH safety relief valves.

