

**CRYOGENIC RELIEF VALVE (BRASS)**  
**1/4", 3/8" and 1/2" NPT**  
**10 - 750 Psig (0.7 - 51.7 Bar)**

**CRV**  
**BRASS**

**SERIES**

**Description**

The Generant Series Brass CRV, Cryogenic Relief Valve is a spring reference over pressure protection device. Incorporating the exclusive "Dirt Guard" to protect from system debris, the CRV is ideally suited as a "Blocked Line Safety" in cryogenic systems. The CRV is supplied cleaned and packaged for O2 service standard. This valve can be ordered factory preset from 10 to 750 Psig (0.7 to 51.7 Bar) and are permanently locked. Seat and poppet geometry combined with optimized spring ranges provide high flow with minimum pressure accumulation. Relief pressure can be discharged to atmosphere or to a downstream connection. The CRV is supplied with Fluorosilicone seals for set pressures from 10 – 49 Psig (0.7 – 3.4 Bar) and PCTFE seals for set pressures 50 – 750 Psig (3.5 – 51.7 Bar).

**Features**

- **AVAILABLE CE MARKED:** "CE Marked" in accordance with the requirements of the Pressure Equipment Directive (PED).
- **EXCLUSIVE "DIRT GUARD" POPPET:** Incorporates a poppet screen to extend valve life and ensure reliability.
- **OPTIMIZED FOR HIGH FLOW:** High Flow Capacity and Excellent Reseat Performance.
- **TAMPER PROOF:** Supplied Factory Preset and Permanently Locked for Tamper Proof Service.
- **CONFIGURABLE:** Discharge to Atmosphere or a Wide Variety of Inlet and Outlet piping configurations, Optional Deflector Cap available for diverting exhausted gas.
- **100% FACTORY TESTED:** Tested for Leakage, Crack and Reseat performance.
- **OXYGEN SERVICE COMPATIBLE:** Cleaned and Packaged for Oxygen Service standard.

**Technical Data**

Nominal Set Pressure Range: 10 – 750 PSIG (0.7 to 51.7 Bar)  
 Factory Set Tolerance: Set Pressure ≤ 28.90 PSI, ± 5%  
                                     Set Pressure 29.00 – 48.30 PSI, ± 1.45 PSI  
                                     Set Pressure ≥ 48.40 PSI, ± 3%  
 NOTE: Tolerance specifications per *EN ISO 4126-1*.  
 Zero Leakage to 95% of Set Pressure  
 Full Rated Flow @ 110% of Set Pressure  
     Unaffected by up to 10% Back Pressure  
 Reseat: 90% of set pressure  
     85% for PCTFE seals set below 100 Psig (6.9 Bar)  
 Temperature Rating: -320° to 350° F (-196° C to 176° C)  
     based on seal material (see How To Order)  
 Lubricant: Krytox®

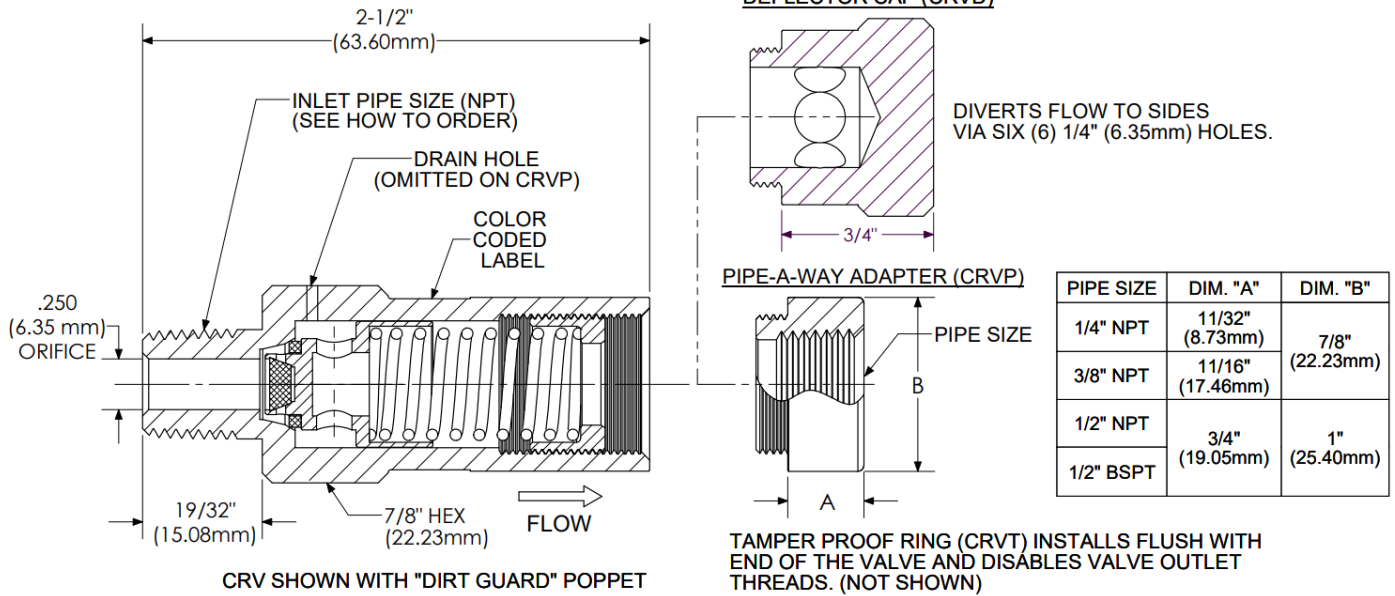
**Materials of Construction**

Component	Material
Body, Poppet, Adjusting Spring Retainer, Pipe-Away Adapters, Deflector Cap, Tamper Proof Ring	Brass, ASTM B16
Spring	302 (ASTM A313) or 17-4PH (ASTM A564)
Seal	PCTFE (ASTM D1430), or Fluorosilicone
Color Coded Identification Label	Film Coated Vinyl



# CRYOGENIC RELIEF VALVE (BRASS)

OPTIONAL CONFIGURATIONS (SEE HOW TO ORDER)



## Flow Data

Set Pressure Range (PSIG)		Discharge Coefficient (Kd*)	Valve Orifice .250" (6.35mm) Diameter (same for 1/4", 3/8" and 1/2" NPT)  *Discharge Coefficient (Kd) is stated at 110% accumulation with a 90% safety factor applied.  Relief Valve Flow Capacity can be calculated using <b>Generant's Online Flow Calculator</b> at <a href="http://www.generant.com">www.generant.com</a> or contact Customer Service at 973-838-6500.
From	To		
10.0	17.0	0.62	
17.1	29.0	0.62	
29.1	45.0	0.53	
45.1	60.0	0.53	
60.1	90.0	0.61	
90.1	125.0	0.76	
125.1	190.0	0.76	
190.1	275.0	0.67	
275.1	400.0	0.61	
400.1	600.0	0.48	
600.1	750.0	0.40	

## How To Order

**CRV - 250B - K - 350**

**SERIES**

- CRV -Cryogenic Relief Valve
- CRVP2 -Cryogenic Relief Valve with 1/4" Female Pipe-A-Way Adapter Installed
- CRVP3 -Cryogenic Relief Valve with 3/8" Female Pipe-A-Way Adapter Installed
- CRVP4 -Cryogenic Relief Valve with 1/2" Female Pipe-A-Way Adapter Installed
- CRVT -Cryogenic Relief Valve with Tamper Proof Ring Installed
- CRVD -Cryogenic Relief Valve with Deflector Adapter Installed
- CRVB4 -Cryogenic Relief Valve with 1/2" BSPT Female Pipe-A-Way Adapter Installed

**NOMINAL SET PRESSURE**  
10-750 Psig (0.7 - 51.7 Bar)

**SEAL MATERIAL**  
FS - Fluorosilicone for 10-49 Psig (-85° to 350° F (-65° to 176° C))  
K - PCTFE for Above 50 Psig (-320° to 165° F (-196° to 74° C))

**INLET PIPE SIZE (NPT)**  
250B - 1/4" Male  
375B - 3/8" Male  
500B - 1/2" Male

PROPER COMPONENT SELECTION – When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.



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