GENERANT

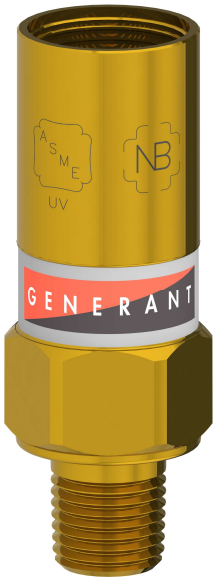
RVA SERIES
1/4", 3/8" and 1/2" NPT
20 - 550 PSIG (1.37 – 37.92 Bar)

RVA SERIES

Description

The Generant Series RVA, Cryogenic Relief Valve is a spring reference over pressure protection device that meets the safety relief valve requirements of ASME BPVC Section XIII. RVA Series valves are designed for use on piping systems or liquid cylinders when an "ASME Coded" relief valve is required. Every RVA Series valve is supplied cleaned and packaged for oxygen service standard. Valves can be ordered factory-preset from 20 - 550 PSIG (1.37 - 37.92 Bar) and are permanently locked. Seat and poppet geometry combined with optimized spring ranges provide consistent, high flow at allowable overpressures.

The RVA is supplied with either a Fluorosilicone (FS) seal for set pressures from 20 - 149 PSI (1.37 - 10.27 Bar) or a Carbon-Filled PTFE (CT) seal for set pressures from 150 - 550 PSI (10.34 - 37.92 Bar).



Features

- **HIGH PERFORMANCE SEAL:** State-of-the-Art Sealing Technology Ensures Durability and Reliability.
- **HIGH FLOW, ASME RATED, & NB CERTIFIED:** ASME UV and NB Stamp Standard, Industry Leading Flow Capacity.
- **LOCKED SETPOINT:** Factory Preset and Permanently Locked.
- **CONFIGURABLE:** Multiple Port Options and Optional Drain Hole.
- **100% FACTORY TESTED**: Crack and Reseat Performance Guaranteed.
- **OXYGEN SERVICE COMPATIBLE:** Cleaned and Packaged for Oxygen Service per CGA G-4.1.
- **COLOR CODED LABELS:** Easily identify relief valve set pressure with an easy-to-read color-coded label.

Technical Data

Nominal Set Pressure Range: 20 - 550 PSIG (1.37 - 37.92 Bar)
Factory Set Tolerance: Set Pressure 20 - 48 PSI, ± 1.45 PSI
Set Pressure ≥ 49 PSI, ± 3%
Note: Tolerances per EN ISO 4126-1
Reseat: >90% of Nominal Set Pressure
Zero Leakage to 95% of Set Pressure

*Temperature Rating: -320º to 392º F (-196º to 200º C)
*Based on seal material (see How To Order)
Full Rated Flow @ 110% of Set Pressure
Unaffected by up to 10% Back Pressure
Rated for Gas Service Only. If used for cryogenic media, valve must be installed with vapor barrier piping upstream (candy cane).

Set Pressure Range		Seal Type	Rated Slope
20	149	FS – Fluorosilicone	0.693
150	550	CT – Modified PTFE	0.764

NOTE: FLOW RATING IS DETERMINED BY MULTIPLYING 110% FLOW PRESSURE IN PSIA BY RATED SLOPE.
E.G. 300 PSIG SET: ((300 x 110%) + 14.7) PSIA X 0.764 = 263 SCFM Air

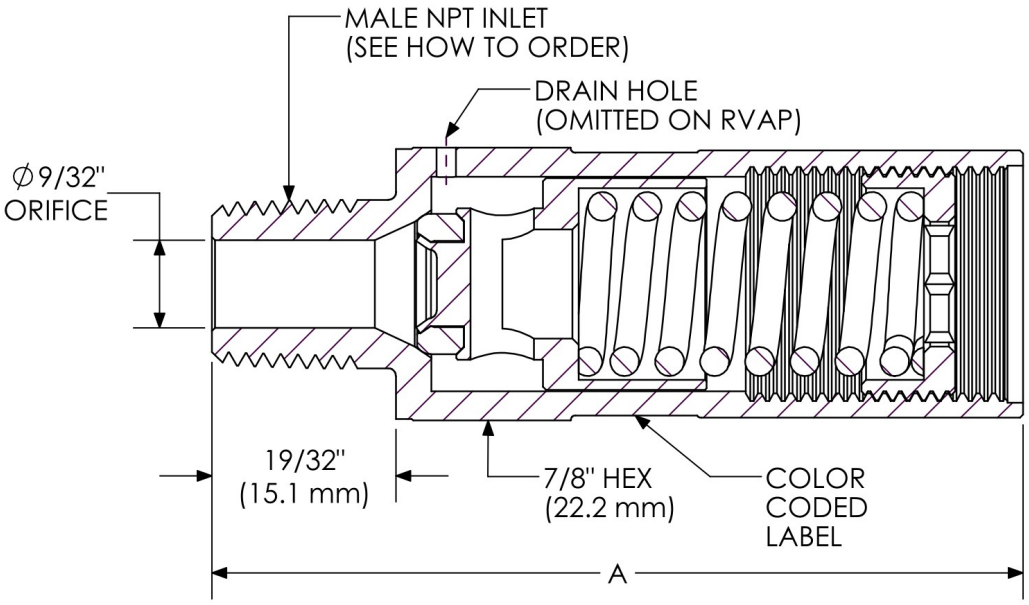
Orifice Area: 0.062 in^2 (40 mm^2)
Derated Kd Value: 0.667

Materials of Construction

Component	Material Grade	
Body & Poppet	Brass, ASTM B16	316 Stainless Steel, ASTM A479
Spring	17-7PH (ASTM A564)	
Spring Retainer	Brass, ASTM B16	Stainless Steel
Seal	Fluorosilicone or Modified PTFE (25% Carbon-Filled)	
Color Coded Identification Label	Film Coated Vinyl	
Lubricant	Krytox ®	

RVA SERIES RELIEF VALVE

Dimensional Information



PIPE SIZE	DIM. "A"
1/4" NPT	2.6" (66.0 mm)
3/8" NPT	2.6" (66.0 mm)
1/2" NPT	2.8" (71.1 mm)

How To Order

RVA - 250B - CT - 350

SERIES

RVA - Cryogenic Relief Valve, ASME Rated with Drain Hole
RVAP - Cryogenic Relief Valve, ASME Rated without Drain Hole

INLET PIPE SIZE (NPT)

250B - 1/4" Male, Brass
375B - 3/8" Male, Brass
500B - 1/2" Male, Brass
250SS - 1/4" Male, 316 Stainless Steel
375SS - 3/8" Male, 316 Stainless Steel
500SS - 1/2" Male, 316 Stainless Steel

NOMINAL SET PRESSURE

Specify 20 - 550 PSI (1.37 - 37.9 Bar)

SEAL MATERIAL

FS - Fluorosilicone for 20 - 149 PSI (-85° to 392°F)
CT - 25% Carbon-Filled PTFE for 150 - 550 PSI (-320° to 200°F)

Pipe-A-Way options with an integrated external seal are available (sold separately). Not compatible with the Drain Hole (RVA) option.

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.

GENERANT
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