

CRYOGENIC RELIEF VALVES



The Cryogenic Relief Valve (CRV) is a spring-tensioned, over-pressure protection device. With an exclusive "dirt guard" poppet screen to protect from system debris, the cryogenic relief valve serves as a blocked line safety in cryogenic piping systems. The seat and poppet configuration combined with optimized spring ranges ensures high flow capacity with minimum pressure accumulation. CONCOA offers the cryogenic relief valve with PTFE or PCTFE seals for set pressures above 50 PSIG (3.5 BAR).

Typical Applications

- Vacuum-Jacketed Piping Systems
- Biotech and Pharmaceutical Gas Systems
- Modified Atmosphere Packaging (MAP)
- Nitrogen Dosing
- In Vitro Fertilization (IVF) Incubators



Features

Self-Aligning Seat and Poppet Design offers bubble tight cutoff for zero leakage to 95% of nominal set pressure

Stainless Steel Gooseneck Adapter allows safe discharge to atmosphere or to downstream connection

Unique 'Dirt-Guard' Poppet protects against contamination for optimum reliability

Rugged Materials of Construction extend service life

Materials and Specifications

Body: Brass

Poppet: Brass

Spring: 302 Stainless steel

Adapter: Stainless steel

Nominal Set Pressure Range: 50 – 750 PSIG (3.5 – 52 BAR)

Crack Pressure Tolerance: \pm 3% of nominal set pressure

Relief Flow: Full rated flow @ 110% of nominal set pressure, unaffected by up to 10% back pressure

Max Operating Pressure: 1000 PSIG (70 BAR)

Conformances: Cleanliness meets or exceeds CGA G-4.1; PED Cat IV

Ordering Information

Part Number	Description	Connections	Seat	Temperature Range
580 2039	Cryogenic Oxygen Relief Valve	Male x Female CGA 440 (5/8" flare)	PTFE	-60°F to 375°F (-51°C to 190°C)
580 2040	Cryogenic Inert (liquid nitrogen, air) Relief Valve	Male x Female CGA 295 (1/2" flare)	PCTFE	-320°F to 165°F (-196°C to 74°C)