

B-Cryo Series

- ▶ MOPD: 900 PSI (62 Bar)
- ▶ C_v Range: 0.045 to 0.440 (K_v Range: 0.038 to 0.374)
- ▶ 9 Watts



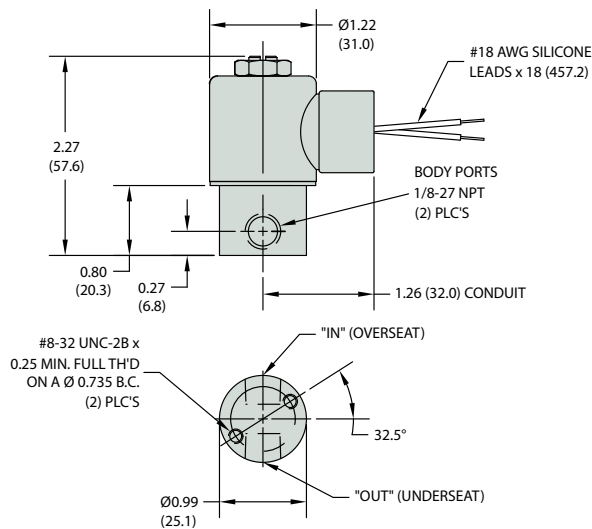
The B-Cryo Series is a 2-way miniature Cryogenic valve designed and built for service down to -320°F (-196°C) in applications needing a C_v between 0.045 and 0.440 (K_v between 0.038 and 0.374). Depending on your temperature requirements, the B-Cryo Series can be configured for liquid nitrogen (LN₂), liquid carbon dioxide (LCO₂), and other extreme temperature media. PTFE coated plungers, 316 Stainless Steel guide tubes and plunger springs, encapsulated coils, and Rulon® seat seals produce a truly robust Cryogenic valve for applications requiring high cycle life and media temperature control.

Typical Applications

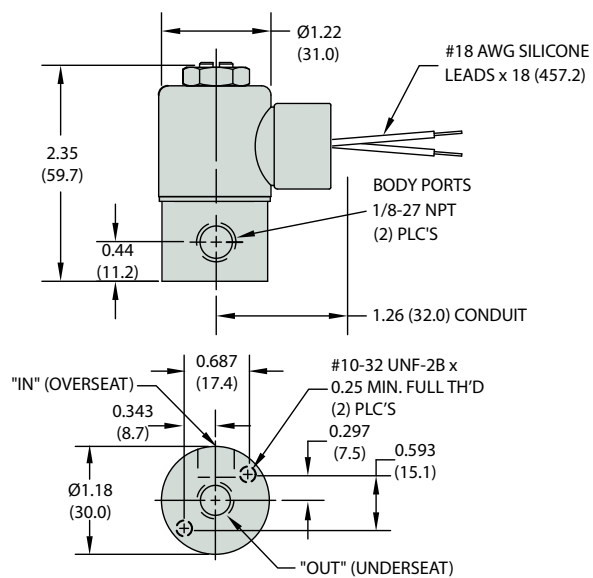
- Environmental Chambers
- Food Processing
- Laser Surgical Equipment
- Semiconductor Manufacturing

Dimensions

LN₂-Liquid Nitrogen



LCO₂-Liquid Carbon Dioxide



How To Order

Use the **Bold** characters from the choices listed on the following page to construct a product code.

B	C	20	05	-	01	LC	-	R	-	G6	-	203
Series	1	2	3		4	5		6		7		8
Series	Model	Function	MOPD		Body Material	Body Port		Seal Material		Coil Construction		Supply Voltage

Product Description from Example Shown Above:

BC2005-01LC-R-G6-203

BC2005 = B Series with LCO₂ Model, 2-Way Normally Closed Valve **Function**: 405 MOPD

-01LC = 303 Stainless Steel **Body Material**; 1/8" NPT Female **Body Port**

-R = Rulon® **Seal Material** (Plunger Seal and Internal Teflon Variseal)

-G6 = Grommit Housing, Epoxy Encapsulated (Class H) **Coil Construction**

-203 = 12 VDC **Supply Voltage**

B-Cryo Series – Part Number Build

Build a Valve Part Number by filling in the boxes below using the related code numbers on this page.

B	_	_	_	_	_	_	_	_
Series	1	2	3	4	5	6	7	8

1 Model

C LCO2
N LN2

4 Body Material

01 303 Stainless Steel
05 316 Stainless Steel

7 Coil Construction

G6 Grommet Housing, Epoxy Encapsulated (Class H) Lead Wires
C6 Conduit Housing, Epoxy Encapsulated (Class H) Lead Wires
C9 Conduit Housing (Filled), Epoxy Encapsulated (Class H) Lead Wires

2 + 3 Valve Function & Maximum Operating Pressure Differential

Valve Function	Code	MOPD		Orifice		C _v	K _v
		psig	bar	Body			
				inches	mm	Body	Body
2-WAY Normally Closed	2002	900	62	3/64	1.19	0.045	0.038
	2005	405	28	1/16	1.59	0.075	0.064
	2008	270	19	5/64	1.98	0.105	0.089
	2016	160	11	3/32	2.38	0.160	0.136
	2021	110	7.6	7/64	2.78	0.190	0.162
	2025	80	5.5	1/8	3.18	0.255	0.217
	2028	65	4.5	5/32	3.97	0.365	0.310
	2033	30	2.1	3/16	4.76	0.440	0.374

5 Body Port

LC 1/8" NPT Female

6 Seal Material

R Rulon®

8 Supply Voltages

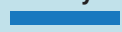
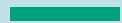
203 12 VDC
204 24 VDC

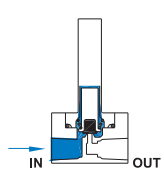
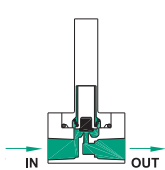
B-Cryo Series – Additional Component Details & Dimensions

2 Valve Function

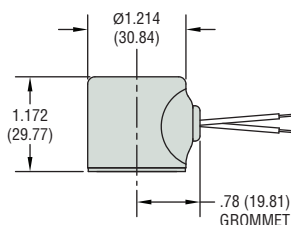
Flow Schematic

Flow Key

 Blocked Flow
 Free Flow
O/S = Over Seat
U/S = Under Seat

Valve Type	De-Energized	Energized
2-Way Normally Closed		

7 Coil Construction



Grommet