

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 PTFE or Rulon® seat seals produce a truly robust Cryogenic valve for applications requiring high cycle life and media temperature control.

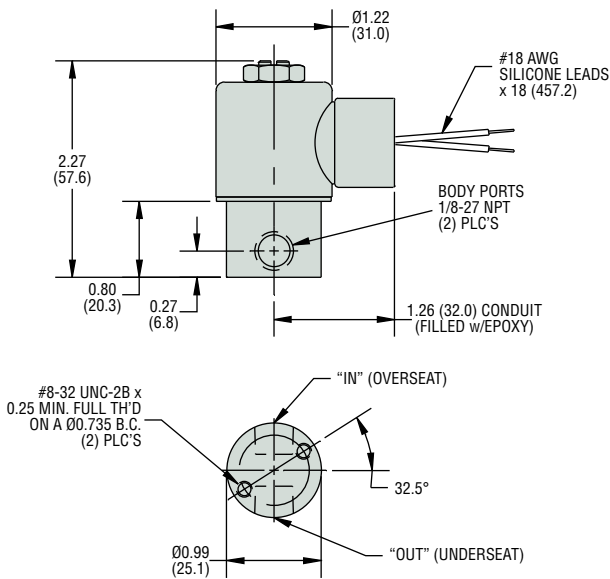


Typical Applications

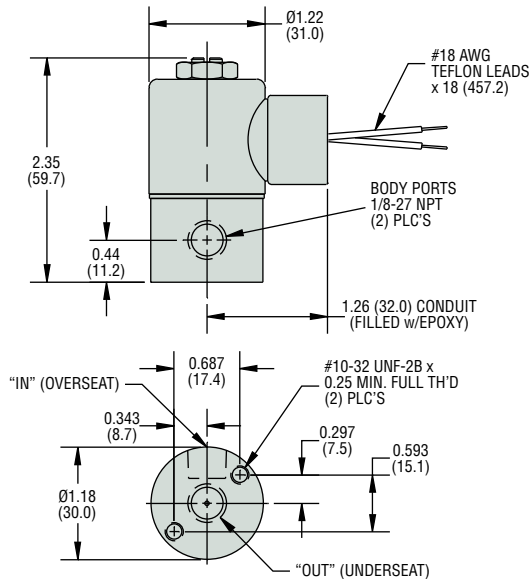
- Environmental Chambers
- Food Processing
- Laser Surgical Equipment
- Semiconductor Manufacturing

Dimensions

LN2-Liquid Nitrogen



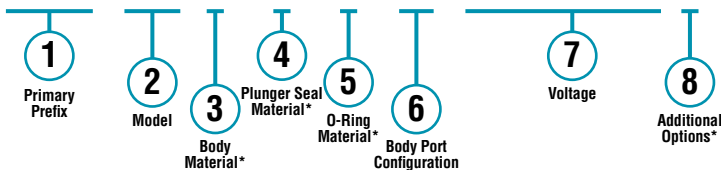
LCO2-Liquid Carbon Dioxide



How To Order

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

B2062 - LN2 - **LB - 120/50/60VAC**



* Blank entry indicates a "Standard" selection (430F Stainless Steel, Rulon® and Variseal®, in this case).

Example:

B2062-LN2-LB-120/50/60VAC

2-Way N.C. Liquid Nitrogen Class-H Encapsulated Coil with lead-wires, conduit filled housing solenoid valve, with 430F stainless steel body, Rulon® plunger seal, Variseal® o-ring, 1/4-18 NPT female thread, operating at 120/50/60 Volt AC.

Part Prefix Table ①

Orifice		MOPD		C _v	K _v	① Primary Prefix		
Body		psig	bar	Body		Class 180°C (H), Encapsulated Coils		
inches	mm			Lead Wires—Filled Conduit Housing	Lead Wires—Unfilled Conduit Housing	Lead Wires— Grommet Housing		
3/64	1.19	900	62	0.045	0.038	B2060	B2020	B2010
1/16	1.59	405	28	0.075	0.064	B2061	B2021	B2011
5/64	1.98	270	19	0.105	0.089	B2062	B2022	B2012
3/32	2.38	160	11	0.160	0.136	B2063	B2023	B2013
7/64	2.78	110	7.6	0.190	0.162	B2064	B2024	B2014
1/8	3.18	80	5.5	0.255	0.217	B2065	B2025	B2015
5/32	3.97	65	4.5	0.365	0.310	B2066	B2026	B2016
3/16	4.76	30	2.1	0.440	0.374	B2067	B2027	B2017

② Model

- LN2 = Liquid Nitrogen model
- LCO2 = Liquid Carbon Dioxide model

③ Body Material

LN2 Only

(blank) = 430F Stainless Steel*

LCO2 Only

(blank) = 303 Stainless Steel*

BB = Brass

SB = 304 Stainless Steel

SB5 = 316 Stainless Steel

④ Plunger Seal Material

LN2 Only

(blank) = Rulon®*

LCO2 Only

(blank) = PTFE*

MQ = Silicone (consult factory)

⑤ O-Ring Material

LN2 Only

(blank) = Variseal® (PTFE material with internal spring)*
TO = PTFE (consult factory)

LCO2 Only

(blank) = Variseal® (PTFE material with internal spring)*
TO = PTFE (consult factory)

⑥ Body Port Configuration

LN2 Only

(blank) = 1/8-27 NPT female thread*
LB = 1/4-18 NPT female thread
LT = 1/8-28 BSPT female thread
LU = 1/4-19 BSPT female thread
BI = Bottom over-seat port, female thread
 - max. orifice = 1/8" (3.18mm)
BO = Bottom under-seat port, female thread
RL = 90° porting - left hand
RR = 90° porting - right hand

LCO2 Only

(blank) = 1/8-27 NPT, bottom under-seat port, female thread*
LB = 1/4-18 NPT female thread (in-line porting only)
LT = 1/8-28 BSPT female thread
LU = 1/4-19 BSPT female thread (in-line porting only)
BOM = Bottom under-seat port, male thread
 - max. orifice = 1/8" (3.18mm), brass body only
IL = Inline porting, 180° apart

⑦ Voltage

LN2 Only

___ VDC = DC (specify voltage)
___ VAC = AC Rectified (specify voltage)

LCO2 Only

___ VDC = DC (specify voltage)
___ VAC = AC Rectified (specify voltage)

⑧ Additional Options

LN2 Only

(blank) = Chamfered and PTFE coated plunger*
(blank) = 316 Stainless Steel 1-piece guide assembly*
(blank) = 316 Stainless Steel spring*

LCO2 Only

(blank) = Chamfered and PTFE coated plunger*
(blank) = 316 Stainless Steel 1-piece guide assembly*
(blank) = 316 Stainless Steel spring*

* Standard selection; will be used unless otherwise specified. Standard selections are not referenced in final part number.

D-Cryo Series

- ▶ MOPD: 1000 PSI (69 Bar)
- ▶ C_v Range: 0.040 to 0.770 (K_v Range: 0.034 to 0.655)
- ▶ 15 Watts

The D-Cryo Series is a 2-way, high flow, miniature Cryogenic valve designed and built for service down to -320°F (-196°C). Depending on your temperature requirements, the D-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 PTFE or Rulon® seat seals produce a truly robust Cryogenic valve for applications requiring high cycle life and media temperature control.

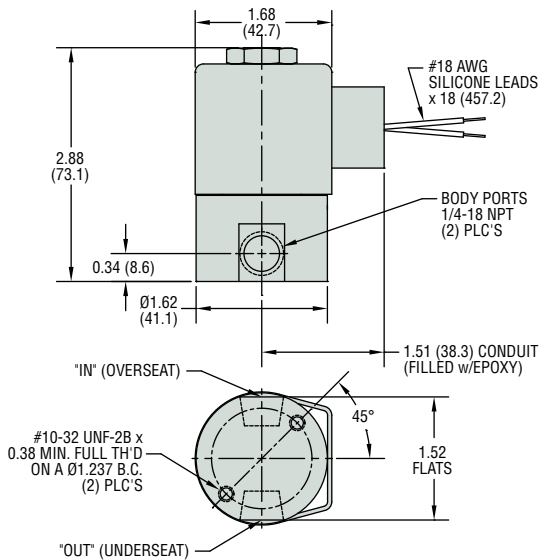


Typical Applications

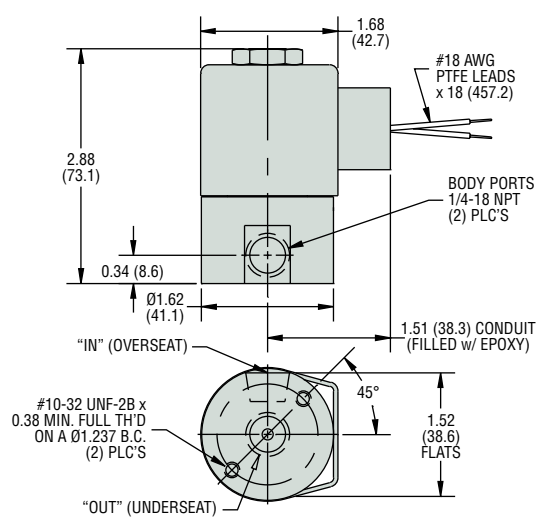
- Environmental Chambers
- Food Processing
- Laser Surgical Equipment
- Semiconductor Manufacturing

Dimensions

LN2-Liquid Nitrogen



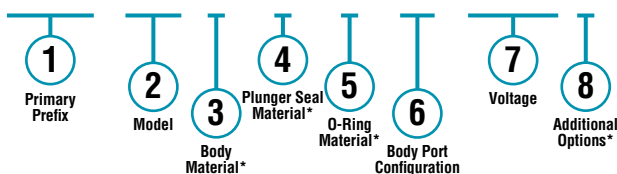
LCO2-Liquid Carbon Dioxide



How To Order

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

D2062 - LN2 - LT - 12VDC



* Blank entry indicates a "Standard" selection (303 Stainless Steel, Rulon® and Variseal®, in this case).

Example:

D2062-LN2-LT-12VDC

2-Way N.C. Liquid Nitrogen Class-H Encapsulated Coil with lead-wires, conduit filled housing solenoid valve, with 303 stainless steel body, Rulon® plunger seal, Variseal® o-ring, 1/8-28 BSPT female thread, operating at 12 DC with rectified coil.

Part Prefix Table ①

						① Primary Prefix		
Orifice		MOPD		C _v	K _v	Class 180°C (H), Encapsulated Coils		
Body		psig	bar	Body		Lead Wires—Filled Conduit Housing	Lead Wires—Unfilled Conduit Housing	Lead Wires— Grommet Housing
inches	mm							
3/64	1.19	1000	69	0.040	0.034	D2061	D2021	D2011
1/16	1.59	1000	69	0.070	0.060	D2062	D2022	D2012
3/32	2.38	640	44	0.165	0.140	D2063	D2023	D2013
1/8	3.18	375	26	0.305	0.259	D2064	D2024	D2014
5/32	3.97	185	13	0.365	0.310	D2065	D2025	D2015
3/16	4.76	130	9	0.470	0.400	D2066	D2026	D2016
1/4	6.35	40	3	0.770	0.655	D2067	D2027	D2017

② Model

- LN2 = Liquid Nitrogen model
- LCO2 = Liquid Carbon Dioxide model

③ Body Material

LN2 Only

(blank) = 303 Stainless Steel*

LCO2 Only

(blank) = 303 Stainless Steel*
BB = Brass

④ Plunger Seal Material

LN2 Only

(blank) = Rulon®*

LCO2 Only

(blank) = PTFE*
MQ = Silicone (consult factory)

⑤ O-Ring Material

LN2 Only

(blank) = Variseal® (PTFE material with internal spring)*

LCO2 Only

(blank) = Fluorosilicone*
TO = PTFE

⑥ Body Port Configuration

LN2 Only

(blank) = 1/4-18 NPT female thread*
LC = 1/8-27 NPT female thread
LT = 1/8-28 BSPT female thread
LU = 1/4-19 BSPT female thread
BI = Bottom over-seat port, female thread
BO = Bottom under-seat port, female thread

LCO2 Only

(blank) = 1/4-18 NPT, bottom under-seat port, female thread*
LC = 1/8-27 NPT female thread
LT = 1/8-28 BSPT female thread
LU = 1/4-19 BSPT female thread
IL = Inline porting, 180° apart

⑦ Voltage

LN2 Only

___ VDC = DC (specify voltage)
___ VAC = AC Rectified (specify voltage)

LCO2 Only

___ VDC = DC (specify voltage)
___ VAC = AC Rectified (specify voltage)

⑧ Additional Options

LN2 Only

(blank) = Chamfered and PTFE coated plunger*
(blank) = 316 Stainless Steel 1-piece guide assembly*
(blank) = 316 Stainless Steel spring*

LCO2 Only

(blank) = Chamfered and PTFE coated plunger*
(blank) = 316 Stainless Steel 1-piece guide assembly*
(blank) = 316 Stainless Steel spring*

* Standard selection; will be used unless otherwise specified. Standard selections are not referenced in final part number.