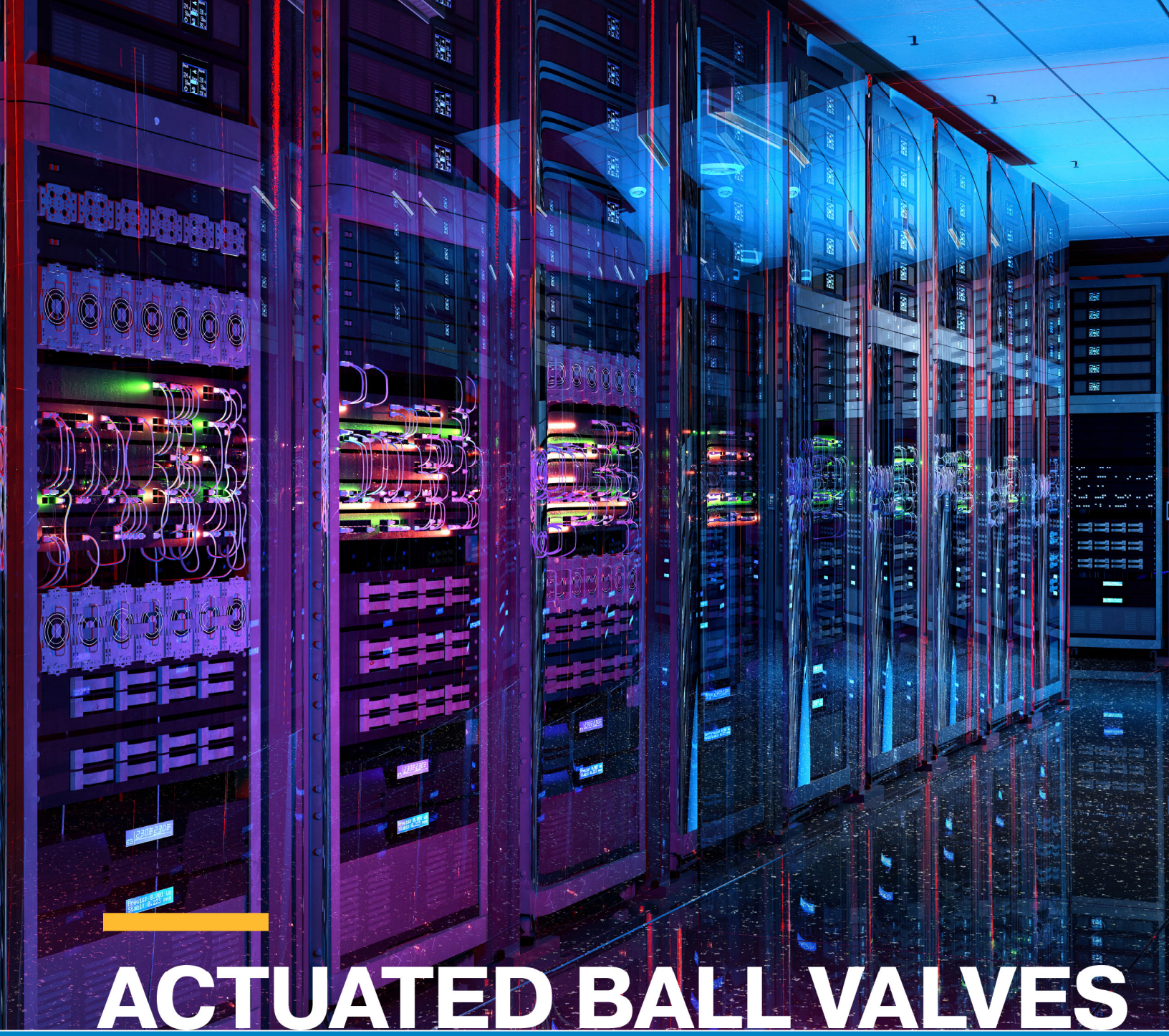


ACTUATED BALL VALVES FOR DATA CENTERS

Bul. FSC-ABV | November 2024

Parker

Parker Actuated Ball Valves For Data Centers

An actuated ball valve is a valve mechanically operatated by a hydraulic, electric or pneumatic actuator.

Parker Fluid System Connectors Division offers an UL Rated Electrically actuated Nickel Plated Brass Ball Valve with Teflon seats and EPDM Seals for PG25 applications.

ACTUATED BALL VALVES

Parker's electrically actuated ball valves ensures excellent performance for PG25 applications.

Product Features:

- Maintenace free design
- Silicone-free seals
- Chrome plated brass
- 100% Full port for maximum flow
- EPDM Seals
- No metal-to-metal moving parts
- Dual sealing system allows valve to be operated in either direction
- Blowout-proof nickel plated brass stem
- Reinforced PTFE self-lubricating seats
- RoHS Compliant

Specifications:

Shell Pressure: 600 psi (40 bar)

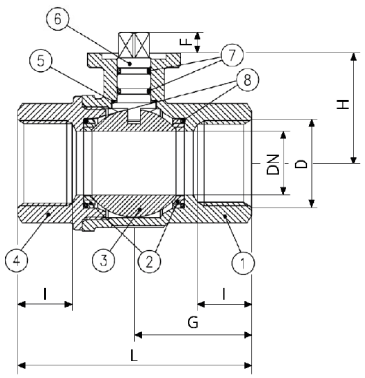
Differential Pressure:
1/2" to 1": 600 psi (40 bar)
1-1/4" to 2": 230 psi (16 bar)

Temperature Range: -4° to +302°F
-20° to +150°C

Media: Designed for data center cooling PG25, Ethylene Glycol or Propolyene Glycol. Contact factory for other applications.

Nickel-Plated Brass Ball Valve w/Actuator Mount, EPDM Seal

Part No.	Thd Size BSPP (in)	F (mm)	G (mm)	H (mm)	I (mm)	L (mm)
V640PE-8-SUB	1/2	7.5	30.5	31	15.5	75
V640PE-12-SUB	3/4	8.5	37	38.5	18	80
V640PE-16-SUB	1	8.5	45.5	42.5	21	90
V640PE-20-SUB	1-1/4	10	52	55.5	23	110
V640PE-24-SUB	1-1/2	10	59	62	24.5	120
V640PE-32-SUB	2	14.5	67.5	69	26.5	140



#	Part Description
1	Nickel plated body
2	Ball seat
3	Chrome plated ball
4	Nickel plated end-cap
5	Washer
6	Nickel plated stem O-ring design
7 & 8	O-ring

ELECTRIC ACTUATORS

Parker's electric actuator features a compact package to fit into restricted spaces. Our actuators are available in both AC and DC voltage.

Product Features:

- Clear cover for easy viewing of orientation
- Easily removed for manual override
- Maintenance free design
- Power consumed only during operation
- Actuator is 90° positionable on valve
- Bidirectional motor
- DC brushless motor
- Over 100,000 cycle tests made
- Corrosion resistant PC plastic housing
- Steel gearbox structure
- Control type: 2P (On-Off) or 3P (Intermediate Position)
- Output torque of up to 71in-lb (8Nm)
- 31" (0.8m) standard power cable length
- M12 connector available, call factory

Specifications:

Temperature Range: -4° to +180°F*
-20° to +80°C*

*UL approval up to +160°F (+70°C)

Compliance:

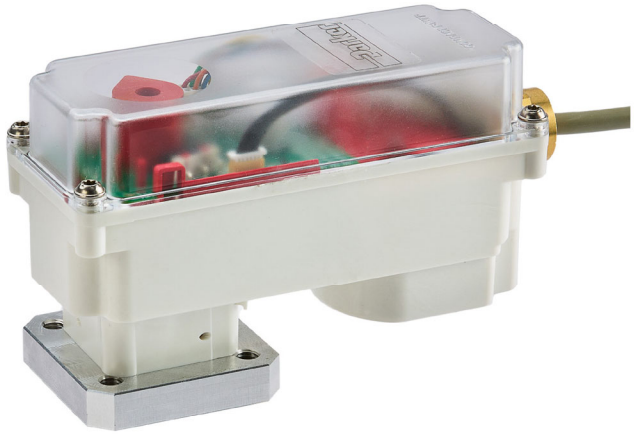
- UL-listed, Class XABE
- IEC 60529: IP65
- ANSI/NEMA 250: Enclosures for electrical equipment NEMA 4X

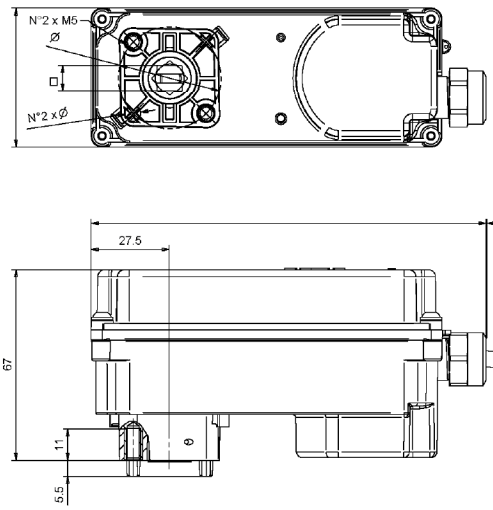
Connection:

- Actuator requires stem adaptor "F 05/03 Reducer" for connection to flange on the 1-1/2" and 2" actuated ball valve.

Actuator for V640PE Valve

Valve Size	Indexing Speed	Length (mm)	Height (mm)	Width (mm)
1/2" to 2"	3 sec	138.5	72.5	49





How to Order:

Part No.		Power Supply	Control Type	Operating Time (90°)	Power Consumption
w/ 2 Motor-voltage Switches	w/ 2 Free Auxiliary Switches				
-	V640P-eACTA2	220 - 240V (AC)	2pt	15/20sec*	8W
-	V640P-eACTA3	220 - 240V (AC)	3pt	15/20sec*	8W
-	V640P-eACTB2	110 - 120V (AC)	2pt	15/20sec*	8W
-	V640P-eACTB3	110 - 120V (AC)	3pt	15/20sec*	8W
-	V640P-eACTC2	24V (AC)	2pt	15/20sec*	8W
-	V640P-eACTC3	24V (AC)	3pt	15/20sec*	8W
V640P-eACTDD2	V640P-eACTD2	24V (DC)	2pt	3sec	5.5W
V640P-eACTDD3	V640P-eACTD3	24V (DC)	3pt	3sec	5.5W
-	V640P-eACTE2	24V (AC/DC)	2pt	3sec	5.5W
-	V640P-eACTE3	24V (AC/DC)	3pt	3sec	5.5W
V640P-eACTFF2	V640P-eACTF2	12V (DC)	2pt	3sec	5.5W
V640P-eACTFF3	V640P-eACTF3	12V (DC)	3pt	3sec	5.5W
-	V640P-eACTG2	3.5 - 12V (DC)	2pt	3sec	5.5W
-	V640P-eACTG3	3.5 - 12V (DC)	3pt	3sec	5.5W

*AC 50Hz: 20sec / AC 60Hz: 15sec

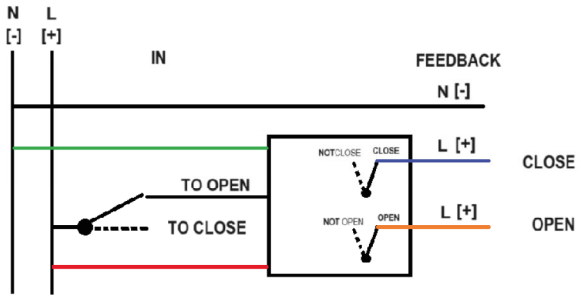
Actuator/Valve Compatibility Chart:

Valve Series	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
V640PELT (Low Torque)	-	-	♦	♦	♦	♦
V640PE	♦	♦	♦	-	-	-

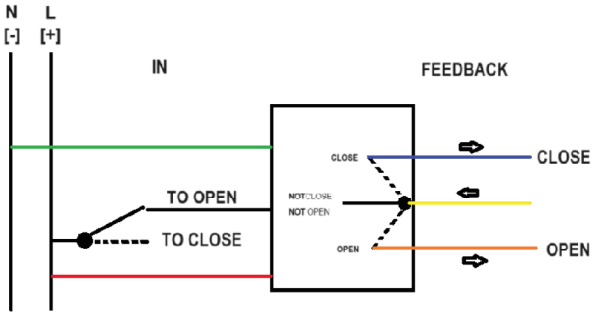
WIRING DIAGRAMS

2 POINT CONTROL (V AC / V DC MODEL)

Motor-Voltage Switches

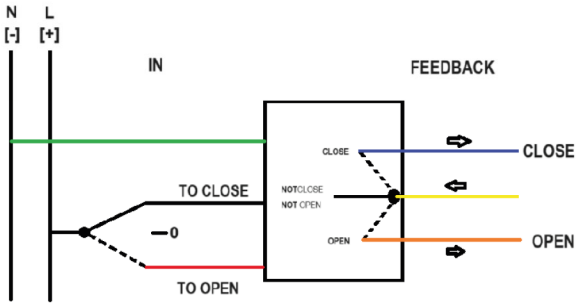


Free Auxillary Switches

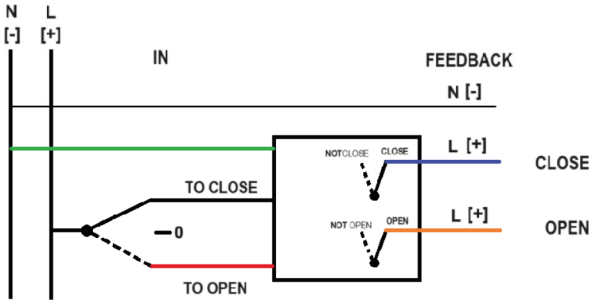


3 POINT CONTROL (V AC / V DC MODEL)

Motor-Voltage Switches

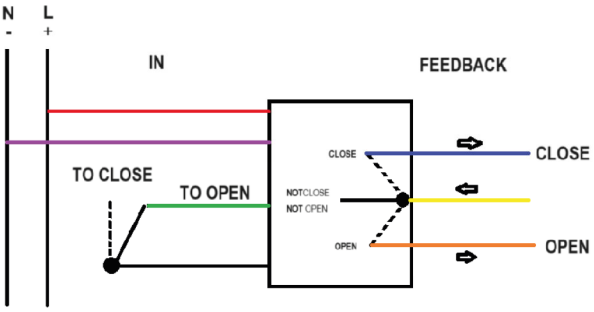


Free Auxillary Switches



2 & 3 POINT CONTROL (V AC-DC MODEL)

Free Auxillary Switches



February 2026 / **Bulletin 50-10-1**

SPORLAN

Ball Valve with Integral Pressure Relief

Type EBV(T)-PR

Parker

ENGINEERING YOUR SUCCESS.

⚠ WARNING

Failure or improper selection or improper use of the products described herein or related items can cause death, personal injury and property damage.

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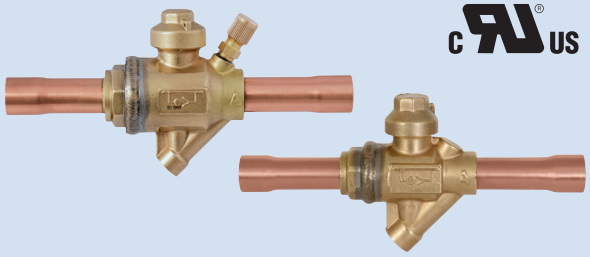
Bulletin 50-10-1 February 2026, supersedes Bulletin 50-10-1, October 2025 and all prior publications. This is a preliminary copy, please refer back at a later time for updated information.



BALL VALVE WITH INTEGRAL PRESSURE RELIEF

EBV(T)-PR Series

For greater system design flexibility and increased productivity, specify the **EBV(T)-PR Ball Valve with Integrated Pressure Relief.** This compact solution eliminates the check valve and associated brazing involved when piping a ball valve and check valve in parallel to protect a system from over pressurization.

- Compact design **simplifies installation**
- Eliminates the check valve and associated piping, resulting in significant **material cost savings**
- Decreases braze joints resulting in **labor savings and increased productivity**
- Minimizes the potential for leaks and decreases nuisance call-backs

FEATURES

- Allows for positive shut-off in one direction and flow in the other direction whenever pressure differential is present. (The integrated pressure relief feature is one direction only)
- Protects system from pressure spikes when servicing equipment
- Welded body joint. Factory tested to ensure positive, leak-free performance. Forged brass body construction with extended copper fittings. Optional access fitting versions available
- Full size ports for unrestricted flow on most sizes, 3/8" (10 mm) through 2-1/8" (51 mm)
- Dual Teflon seals surround the polished, brass ball to prevent leakage. Stem seal and stem washer provide the primary stem seal. Bottom load stem for safety
- Stainless steel stop plate ensures fully open to fully closed with a 1/4 turn
- All EBV(T)-PR ball valves may be installed in any position
- All EBV(T)-PR ball valves use C19400 (K65) copper fitting material

SPECIFICATIONS

- Continuous temperature range: -40°F (-40°C) to 248°F (120°C)
- Installation temperature (15 minutes max.) limit: 300°F (149°C)
- Design working pressure: 1,305 psig (90 barg)
- Integral Pressure Relief
  - Crack open pressure: <5 psid
  - Full open pressure: 50 psid
  - Wide open flow: 1.93 gpm H_2O @ 50 psid
- For refrigeration or air conditioning systems
- Suitable for use with Class A1, A2L and A3 refrigerants: HFC, HCFC, HFO, and CO_2
- U.S. Patent 10, 107, 406; EP3295067; International Patents pending
- U.L. Recognized, File No SA5460 (SFJQ2)
- CE and RoHS Compliant
- Date code is YYMMDD

The EBV(T)-PR valve will close in one direction and relieve pressure in the other direction. This single valve would replace a current ball valve plus a check valve plumbed around the ball valve. Allows evaporator coil to be isolated without over pressurizing due to warm up. Can also be used in loop piping and at the rack.

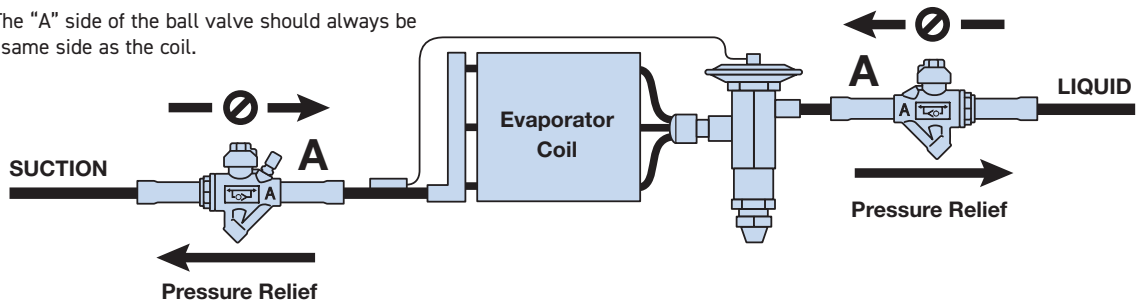
The 'A' symbol indicates the pressure relief side of the valve. Any pressure build up on the 'A' side with the ball valve in the closed position can relieve to the other side of the ball valve. When used on an evaporator coil, the 'A' side of the valve should always be on the coil side of the valve. (See Figure 1)

This symbol indicates the direction of pressure relief and direction of check valve feature. The check direction will flow from left to right. The pressure relief direction will flow from right to left

IMPORTANT: This valve has a pressure relief feature in one direction only. If installed incorrectly, pressures may drastically increase causing rupture of valve, piping and/or other components exposed to such pressure. This could cause damage to equipment and cause injury or possible death to anyone in the area.

Figure 1 - Valve Closed for Evaporator Service

Note: The "A" side of the ball valve should always be on the same side as the coil.



NOMENCLATURE

Inches - Example: EBVT-PR1030

EBV	T	-	PR	1	03	0
Valve Type	Access Fitting		Pressure Relief	**Series:** 1 = Full Port 2 = Reduced Port	**Fitting Size:** 03 = 3/8"	**Fitting Configuration:** 0 = ODF x ODF

Millimeters - Example: EBVT-PR 12MM

EBV	T	-	PR	12mm
Valve Type	Access Fitting		Pressure Relief	Metric Fitting Size

DIMENSIONS

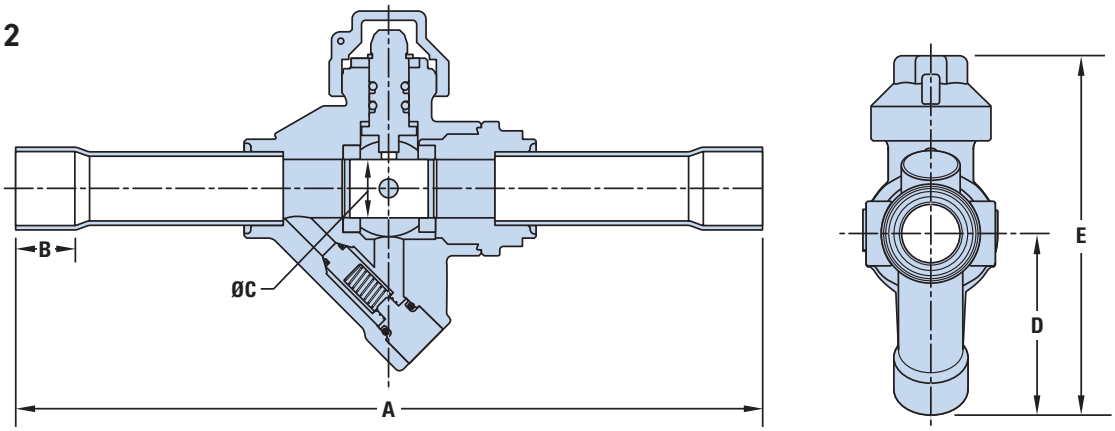
EBV(T)-PR Series - Inches

PART NUMBER	MODEL NUMBER	ACCESS FITTING	CONNECTION (ODF)	OVERALL LENGTH A	SOCKET DEPTH B	PORT SIZE C	D	OVERALL HEIGHT E	CV
502199	EBV-PR1030	No	3/8	6.50	0.31	0.50	1.56	3.08	4.3
502200	EBV-PR1040	No	1/2	6.50	0.38	0.50	1.56	3.08	7.0
502201	EBV-PR1050	No	5/8	6.50	0.50	0.50	1.56	3.08	13.9
502202	EBV-PR1060	No	3/4	7.25	0.61	0.75	1.79	3.59	21.0
502203	EBV-PR1070	No	7/8	7.25	0.75	0.75	1.79	3.59	30.3
502204	EBV-PR1090	No	1-1/8	8.50	0.91	1.00	2.13	4.11	61.3
502205	EBVT-PR1030	Yes	3/8	6.50	0.31	0.50	1.56	3.08	4.3
502206	EBVT-PR1040	Yes	1/2	6.50	0.38	0.50	1.56	3.08	7.0
502207	EBVT-PR1050	Yes	5/8	6.50	0.50	0.50	1.56	3.08	13.9
502208	EBVT-PR1060	Yes	3/4	7.25	0.61	0.75	1.79	3.59	21.0
502209	EBVT-PR1070	Yes	7/8	7.25	0.75	0.75	1.79	3.59	30.3
502210	EBVT-PR1090	Yes	1-1/8	8.50	0.91	1.00	2.13	4.11	61.3
502214	EBVT-PR1110	Yes	1-3/8	9.29	0.97	1.25	2.45	4.93	85.2
502215	EBVT-PR1130	Yes	1-5/8	10.5	1.09	1.5	2.78	5.44	212
502216	EBVT-PR1170	Yes	2-1/8	11.45	1.34	2	3.37	6.68	285

EBV(T)-PR Series - Millimeters

PART NUMBER	MODEL NUMBER	ACCESS FITTING	CONNECTION (ODF)	OVERALL LENGTH A	SOCKET DEPTH B	PORT SIZE C	D	OVERALL HEIGHT E	KV
502399	EBV-PR 10MM	No	10 mm	165.1	8	12.7	39.6	78.2	3.7
502400	EBV-PR 12MM	No	12 mm	165.1	10	12.7	39.6	78.2	6.0
502401	EBV-PR 16MM	No	16 mm	165.1	13	12.7	39.6	78.2	12.0
502402	EBV-PR 18MM	No	18 mm	184.1	17	19.1	45.5	91.3	18.1
502403	EBV-PR 22MM	No	22 mm	184.1	20	19.1	45.5	91.3	26.2
502405	EBV-PR 28MM	No	28 mm	216.0	24	25.4	54.2	104.3	53.0
502406	EBVT-PR 10MM	Yes	10 mm	165.1	8	12.7	39.6	78.2	3.7
502407	EBVT-PR 12MM	Yes	12 mm	165.1	10	12.7	39.6	78.2	6.0
502408	EBVT-PR 16MM	Yes	16 mm	165.1	13	12.7	39.6	78.2	12.0
502409	EBVT-PR 18MM	Yes	18 mm	184.1	17	19.1	45.5	91.3	18.1
502410	EBVT-PR 22MM	Yes	22 mm	184.1	20	19.1	45.5	91.3	26.2
502411	EBVT-PR 28MM	Yes	28 mm	216.0	24	25.4	54.2	104.3	53.0

Figure 2

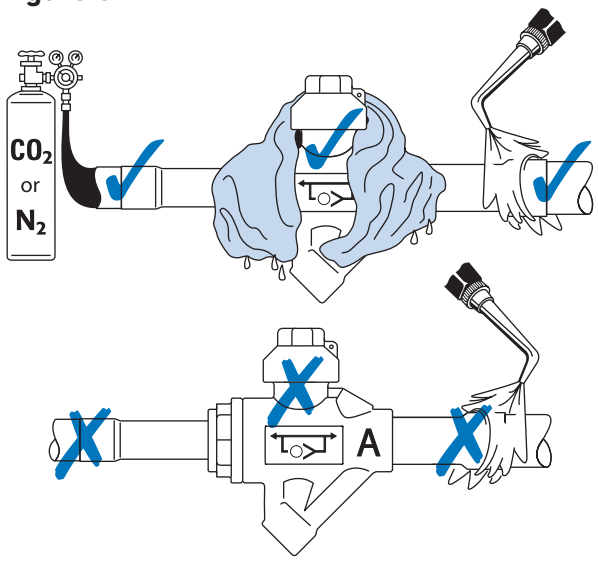


INSTALLATION

Brazing Instructions

1. **DO NOT DISASSEMBLE.**
2. **WRAP THE BODY OF THE VALVE WITH A WET RAG**
   (to dissipate heat - overheating will damage the valve).
3. Bleed dry nitrogen or CO_2 through the valve while brazing.
4. Use flux with silver brazing alloys.
5. Flux not required with phoscopper alloys, on copper to copper joints, but flux is recommended for deeper penetration and more uniform results with all alloys.
6. Use large enough torch to rapidly heat joint to brazing temperature. Direct flame away from existing copper to brass joints.
7. Quench to reduce heat spread after brazing.

Figure 3



OPERATION NOTES

1. Remove seal cap. **CAUTION:** Pressure may be under seal cap, remove slowly.
2. Rotate stem using adjustable wrench. Turn 90° against the mechanical stops. Align open arrow with refrigerant line for non-directional flow. Turn clock-wise to close; counter-clockwise to open.
3. This valve contains mechanical stops. **DO NOT USE EXCESSIVE FORCE AGAINST STOPS OR PERMANENT DAMAGE MAY OCCUR.**
4. Install seal cap.
5. Valves are designed for use with Class A1, A2L and A3 refrigerants: HFC, HCFC, HFO, and CO_2.

NOTICE:
DO NOT DISASSEMBLE VALVE FOR ANY REASON.

IF THE STOP PLATE IS DAMAGED OR MISSING, REMOVE THE VALVE FROM SERVICE.

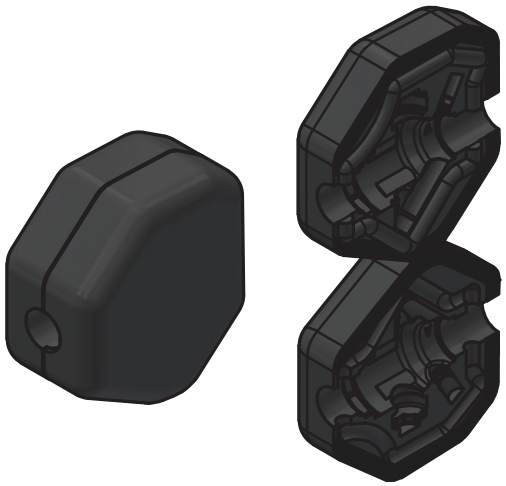
NOTE:
WARRANTY IS VOID IF THESE INSTRUCTIONS ARE NOT FOLLOWED.

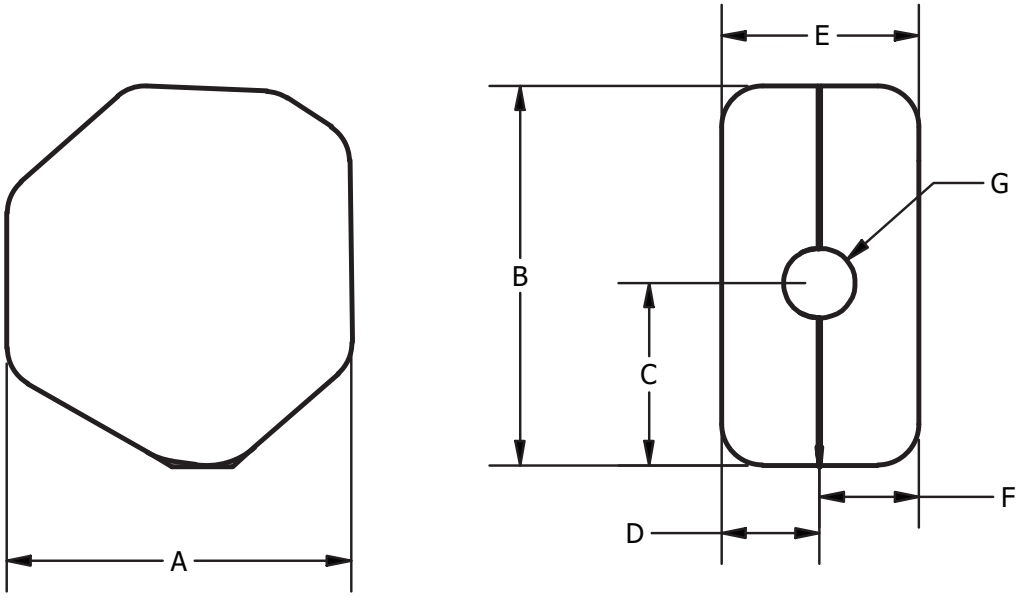
REPLACEMENT STEM CAPS

PART NUMBER	CONNECTION	TORQUE (FT-LB)
183390	3/8 - 5/8	7.3
183391	3/4 - 1-1/8	8.7
183392	1-3/8 - 1-5/8	14.5
183393	2-1/8	29

MOLDED INSULATION

Molded insulation is available for the EBV(T)-PR Series ball valves. Insulation clamshells feature a hook & loop fastener on the perimeter. Insulation is made of expanded crosslinked polyolefine (XLPO) that features a class B2 fire resistance and does not absorb moisture.





PART NUMBER	DESCRIPTION	CONNECTION	EXTERNAL DIMENSIONS						
			A	B	C	D	E	F	G
502242	EBV(T)-PR - S1	3/8" thru 5/8" 10mm thru 16mm	4.9	5.7	2.8	1.6	3.1	1.5	0.3
502243	EBV(T)-PR - S2	3/4" & 7/8" 18mm & 22mm	5.4	5.9	2.8	1.5	3.1	1.7	0.4
502244	EBV(T)-PR - S3	1-1/8" 28mm	5.6	6.2	3	1.6	3.2	1.6	0.6

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