



aerospace
 climate control
 electromechanical
 filtration
 fluid & gas handling
 hydraulics
 pneumatics
 process control
 sealing & shielding



Ball valve with integral pressure relief

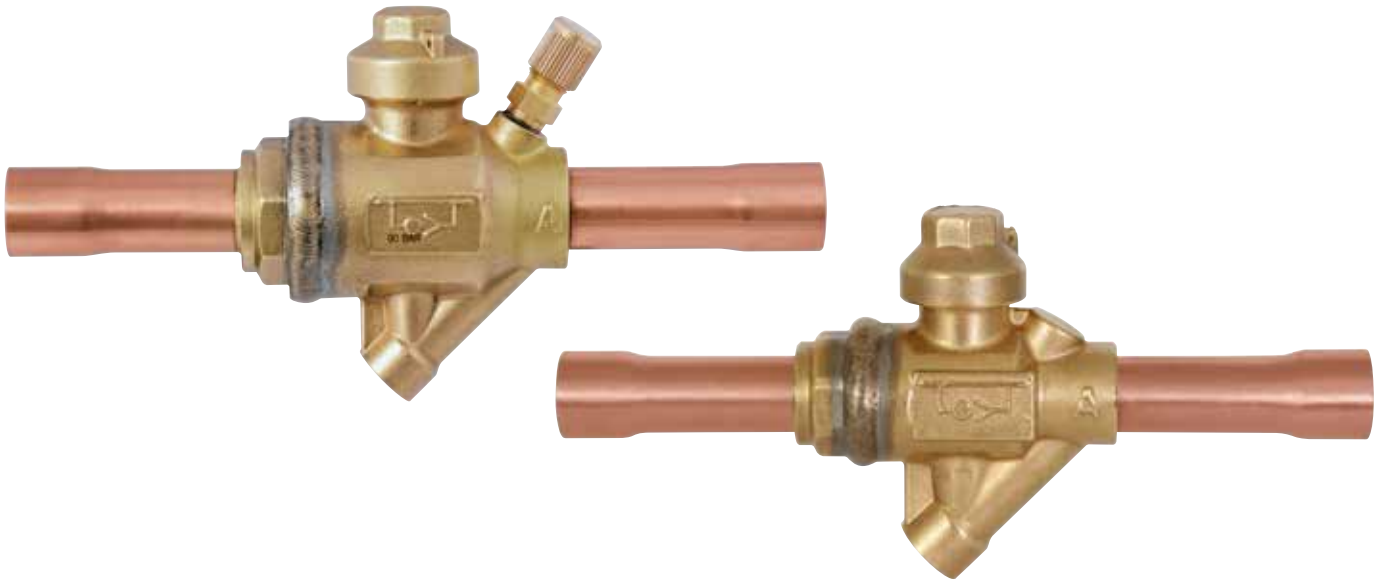
EBV(T)-PR Series



ENGINEERING YOUR SUCCESS

BALL VALVE WITH INTEGRAL PRESSURE RELIEF

EBV(T)-PR Series



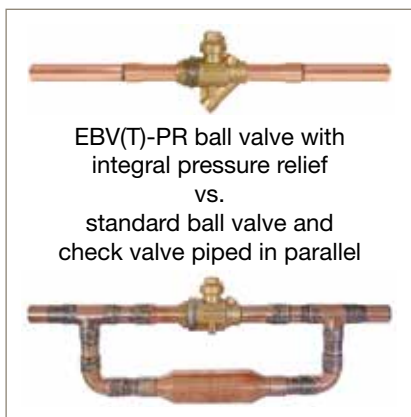
Advantages

For greater system design flexibility and increased productivity, specify the **EBV(T)-PR ball valve with integral 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 K65® fittings and optional access fittings
- Full size ports for unrestricted flow on most sizes 10 mm (3/8") through 28 mm (1-1/8")
- 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 use C19400 (K65) copper fitting material.




EBV(T)-PR ball valve with integral pressure relief vs. standard ball valve and check valve piped in parallel

Specifications

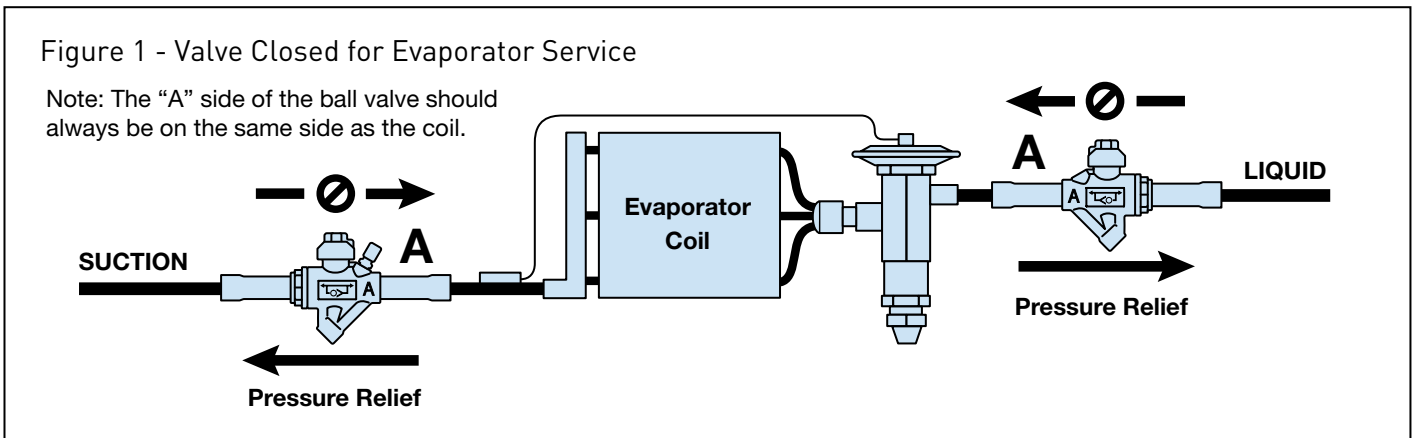
The EBV(T)-PR valve will close in one direction and relieve pressure in the other direction. This single valve would replace a current ball valve plus a check valve plumbed around the ball valve.

Allows evaporator coil to be isolated without over pressurizing due to warm up. May also have needs in loop piping and at the rack.

The symbol 'A' 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 (refer to Figure 1).

 This symbol indicates the direction of pressure relief and direction of check valve feature. Flow from left to right is check direction. Flow from right to left is pressure relief direction.

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.



Technical specifications

| | EBVT-PR | EBV-PR |
|---|---|--------|
| Full refrigeration service temperature range | -40°C to +149°C (-40°F to +300°F) | |
| Design working pressure | 90 barg (1.305 psig) | |
| Integral pressure relief: | | |
| • Crack open pressure | <0,345 bar (5 psid) | |
| • Full open pressure | 3,45 bar (50 psid) | |
| • Wide open flow | 7,30 l/min H ₂ O @ 3,45 bar (1.93 gpm H ₂ O @ 50 psid) | |
| For refrigeration or air conditioning systems | ✓ | |
| Compatible refrigerants | suitable for use with Class A1 refrigerants: HFC, HCFC, HFO and CO ₂ | |
| Patents | US Patent 10,107,406; International Patents Pending | |
| Certifications | PED Art. 4.3 - REACH | |
| Access Fitting | Yes | No |

NOMENCLATURE

Inches - example: EBV(T)-PR1030

| EBV | T | - | PR | 1 | 03 | 0 |
|------------|----------------|-----------------|--|--|--------------------------------------|---|
| Valve type | Access fitting | Pressure relief | Series: 1 = Full port 2 = Reduced port | Fitting size: (In eighths of an inch): 03 = 3/8" | Fitting configuration: 0 = ODF x ODF | |

Millimeters - example: EBV(T)-PR 12MM

| EBV | T | - | PR | 12mm |
|------------|----------------|-----------------|---------------------|----------------------------------|
| Valve type | Access fitting | Pressure relief | Metric fitting size | Fitting configuration: ODF x ODF |

Dimensions

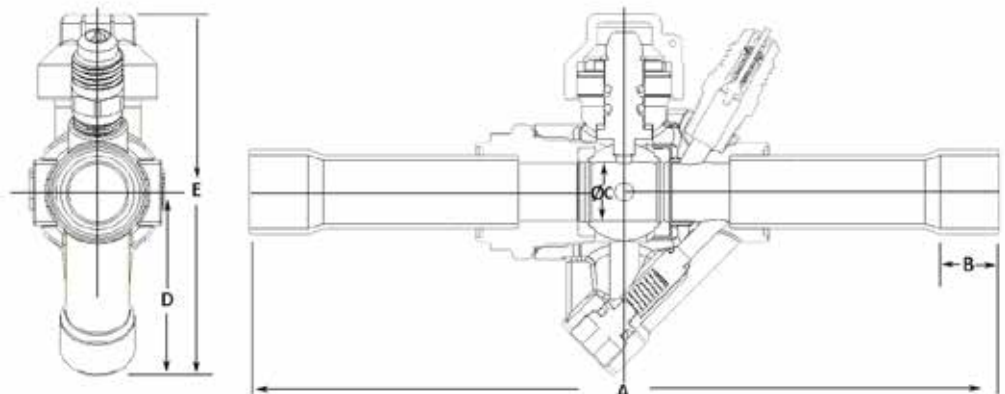
EBV(T)-PR Series - Imperial

| Valve Type | Part Number | Connection (ODF) | Dim. A (mm) | Dim. B (mm) | Dim. C (mm) | Dim. D (mm) | Dim. E (mm) | Kv m ³ /h |
|--------------|-------------|------------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| EBV-PR-1030 | 502199 | 3/8" | 165,10 | 7,87 | 12,70 | 39,62 | 78,23 | 3,67 |
| EBV-PR-1040 | 502200 | 1/2" | 165,10 | 9,65 | 12,70 | 39,62 | 78,23 | 5,97 |
| EBV-PR-1050 | 502201 | 5/8" | 165,10 | 12,70 | 12,70 | 39,62 | 78,23 | 11,86 |
| EBV-PR-1060 | 502202 | 3/4" | 184,15 | 15,75 | 19,05 | 45,47 | 91,19 | 17,93 |
| EBV-PR-1070 | 502203 | 7/8" | 184,15 | 19,05 | 19,05 | 45,47 | 91,19 | 25,86 |
| EBV-PR-1090 | 502204 | 1-1/8" | 215,90 | 23,11 | 25,40 | 54,10 | 104,39 | 52,29 |
| EBVT-PR-1030 | 502205 | 3/8" | 165,10 | 7,87 | 12,70 | 39,62 | 78,23 | 3,67 |
| EBVT-PR-1040 | 502206 | 1/2" | 165,10 | 9,65 | 12,70 | 39,62 | 78,23 | 5,97 |
| EBVT-PR-1050 | 502207 | 5/8" | 165,10 | 12,70 | 12,70 | 39,62 | 78,23 | 11,86 |
| EBVT-PR-1060 | 502208 | 3/4" | 184,15 | 15,75 | 19,05 | 45,47 | 91,19 | 17,93 |
| EBVT-PR-1070 | 502209 | 7/8" | 184,15 | 19,05 | 19,05 | 45,47 | 91,19 | 25,86 |
| EBVT-PR-1090 | 502210 | 1-1/8" | 215,90 | 23,11 | 25,40 | 54,10 | 104,39 | 52,29 |

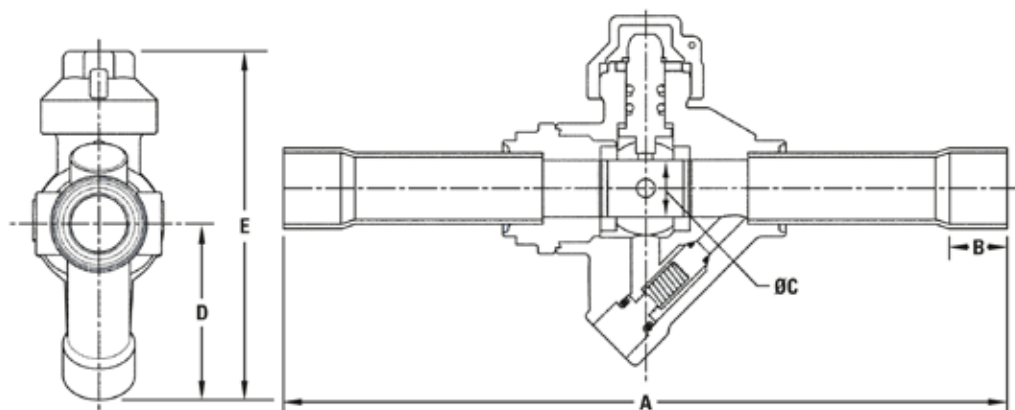
EBV(T)-PR Series - Metric

| Valve Type | Part Number | Connection (ODF) | Dim. A (mm) | Dim. B (mm) | Dim. C (mm) | Dim. D (mm) | Dim. E (mm) | Kv m ³ /h |
|--------------|-------------|------------------|-------------|-------------|-------------|-------------|-------------|----------------------|
| EBV-PR-10MM | 502399 | 10 mm | 165,10 | 8,00 | 12,70 | 39,62 | 78,23 | 3,67 |
| EBV-PR-12MM | 502400 | 12 mm | 165,10 | 10,00 | 12,70 | 39,62 | 78,23 | 5,97 |
| EBV-PR-16MM | 502401 | 16 mm | 165,10 | 13,00 | 12,70 | 39,62 | 78,23 | 11,86 |
| EBV-PR-18MM | 502402 | 18 mm | 184,15 | 16,00 | 19,05 | 45,47 | 91,19 | 17,93 |
| EBV-PR-22MM | 502403 | 22 mm | 184,15 | 19,00 | 19,05 | 45,47 | 91,19 | 25,86 |
| EBV-PR-28MM | 502405 | 28 mm | 215,90 | 24,00 | 25,40 | 54,10 | 104,39 | 52,29 |
| EBVT-PR-10MM | 502406 | 10 mm | 165,10 | 8,00 | 12,70 | 39,62 | 78,23 | 3,67 |
| EBVT-PR-12MM | 502407 | 12 mm | 165,10 | 10,00 | 12,70 | 39,62 | 78,23 | 5,97 |
| EBVT-PR-16MM | 502408 | 16 mm | 165,10 | 13,00 | 12,70 | 39,62 | 78,23 | 11,86 |
| EBVT-PR-18MM | 502409 | 18 mm | 184,15 | 16,00 | 19,05 | 45,47 | 91,19 | 17,93 |
| EBVT-PR-22MM | 502410 | 22 mm | 184,15 | 19,00 | 19,05 | 45,47 | 91,19 | 25,86 |
| EBVT-PR-28MM | 502411 | 28 mm | 215,90 | 24,00 | 25,40 | 54,10 | 104,39 | 52,29 |

EBVT-PR



EBV-PR



Parker Worldwide

United Arab Emirates

Middle East

Sarkis OHANNESSIAN

Tel +961 3334622

sohannessian@parker.com

Germany, Austria, German speaking part of Switzerland

Francesco GALANTE

Tel +49 (0)175 5756 032

francesco.galante@parker.com

Spain and Portugal

Alberto PEÑA

Tel +34 609 153 154

alberto.pena@parker.com

France, Belgium, French speaking part of Switzerland

Goska WARNECK

Tel + 33 (0)6 73 89 36 08

gwarneck@parker.com

Italy, Greece, Malta, Cyprus

Italian speaking part of Switzerland

Andrea BRAGA

Tel +39 334 6944386

abraga@parker.com

Baltic Countries, Eastern and Central Europe, Africa

Eliane EMERIT-BONNOT

Tel +33 (0)6 73 89 36 01

ebonnot@parker.com

Turkey

parker.turkey@parker.com

UK and Northern Europe

Kenny ADAMSON

Tel +44 (0)77853 71229

kadamson@parker.com

Customer Service:

Parker Hannifin Ltd

Instrumentation Group

Refrigeration and

Air Conditioning Europe

Manvers House

Office 21

Pioneer Close

Wath Upon Dearne

Rotherham S63 7JZ

United Kingdom

Tel +44 (0) 1709 774600

Fax +44 (0) 1709 774601

racecustomerservice@parker.com

www.parker.com/race



▲ WARNING – USER RESPONSIBILITY

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

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

