



# Enclosure protection vent

BEBCO EPS®

## EPV-\*-SA-\*

- Top or side mount configurations
- Seamless cap
- Friction free valve assembly
- Spark arresting exhaust
- Can only be purchased in conjunction with corresponding Purge system or as a replacement

Pressure relief vent for use with the Pepperl+Fuchs Bebcos EPS® purge and pressurization systems



## Function

The EPV (enclosure protection vents) are self-seating, gravity controlled, low pressure relief valve designed to ventilate excessive enclosure pressures created by the Rapid Exchange® process, or the failure of the enclosure pressure control devices. Each vent features a seamless cap, a spark arresting (SA) style exhaust element, a friction-free valve assembly, a base, and a mounting hub. The mounting hub, along with associated pipe fittings, permits direct mounting through a round cutout on the top or side of a protected enclosure. This device functions only in conjunction with Pepperl+Fuchs Bebcos EPS® purge systems, to reduce the hazardous (classified) area rating within protected enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496, and ISA 12.4.

## Technical Data

### General specifications

|                       |              |
|-----------------------|--------------|
| Series                | EPV          |
| System                | Type Z Purge |
| Hazardous environment | gas or dust  |

### Pneumatic parameters

|                       |                                      |
|-----------------------|--------------------------------------|
| Protective gas supply | instrument grade air or inert gas    |
| Pressure requirement  | 2" ... 5" wc (50.8 mm ... 127 mm wc) |
| Maximum pressure      | 5" ... 7" wc (127 mm ... 177 mm wc)  |
| Breaking pressure     | 0.65" wc (16.5 mm wc)                |

### Ambient conditions

|                     |                                    |
|---------------------|------------------------------------|
| Ambient temperature | -29 ... 49 °C (-20.2 ... 120.2 °F) |
| Relative humidity   | 5 ... 95 %, noncondensing          |

### Mechanical specifications

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material | <p>Body:</p> <ul style="list-style-type: none"> <li>cap - 3003 drawn aluminum</li> <li>base - A.S.E. 306, 308 cast aluminum</li> <li>mounting hub - zinc plated steel</li> <li>pipe fittings - schedule 40 3003 aluminum</li> <li>nameplates - Lexan®</li> <li>hardware - 316 SS</li> </ul> <p>Exhaust elements:</p> <ul style="list-style-type: none"> <li>spark arrestor - 316 SS</li> <li>element cap - 6061 aluminum</li> </ul> <p>Valve assembly:</p> <ul style="list-style-type: none"> <li>base - 14 Ga. machined 316 ss</li> <li>seat disc - 14 Ga. machined 316 SS</li> <li>hinge - Zytel® 8018, 14% glass fill</li> <li>pin &amp; rivets - 316 SS</li> <li>disc adhesive - urethane epoxy</li> </ul> |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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PEPPERL+FUCHS

Technical Data

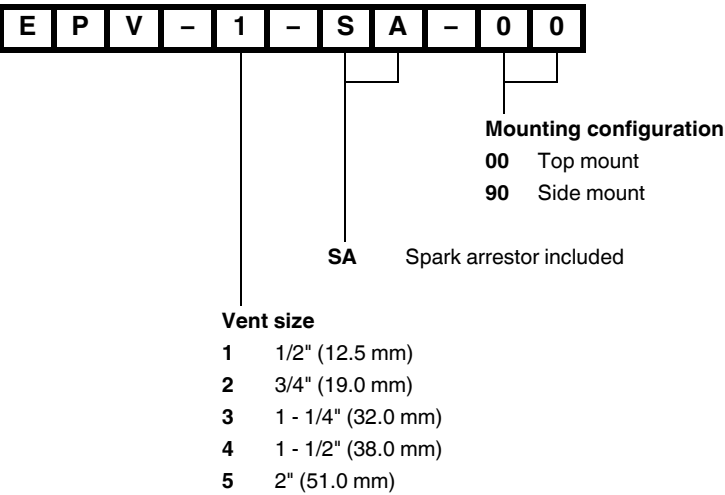
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mass                      | EPV-1-SA-00: 3 lb (1.36 kg)<br>EPV-1-SA-90: 4 lb (1.81 kg)<br>EPV-2-SA-00: 3 lb (1.36 kg)<br>EPV-2-SA-90: 4 lb (1.81 kg)<br>EPV-3-SA-00: 4 lb (1.81 kg)<br>EPV-3-SA-90: 5 lb (2.27 kg)<br>EPV-4-SA-00: 7 lb (3.18 kg)<br>EPV-4-SA-90: 9 lb (4.08 kg)<br>EPV-5-SA-00: 10 lb (4.54 kg)<br>EPV-5-SA-90: 12 lb (5.44 kg)                                                                                                                             |
| Mounting                  | -00: top mount<br>-90: side mount                                                                                                                                                                                                                                                                                                                                                                                                                |
| General information       |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Supplementary information | EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .<br>Vents are only certified for use with Pepperl+Fuchs Bebcos EPS® purge and pressurization systems.<br>See specific purge and pressurization system for associated certifications. |

Assembly



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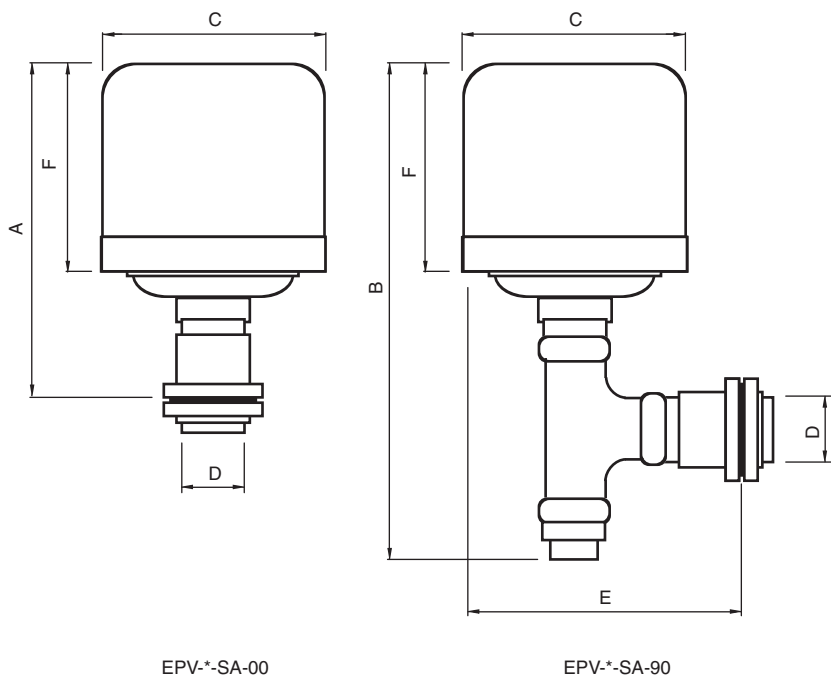
Type Code



Technical Features

| Vent Compatibility & Flow Rate Chart                                 |                          |                         |                            |                             |
|----------------------------------------------------------------------|--------------------------|-------------------------|----------------------------|-----------------------------|
| Vent model                                                           | Required use             | Optional use            | SCFH (l)/hr @ 3" (76.2 mm) | SCFH (l)/hr @ 7" (177.8 mm) |
| EPV-1-SA                                                             |                          | 11, 1011, 1001A & 2001A | 568 (16086)                | 1044 (29566)                |
| EPV-2-SA                                                             | 1012, 1002 & 2002        |                         | 685 (19399)                | 122 (34041)                 |
| EPV-3-SA                                                             | 1003, 2003, 3003 & 4004  | 1001C & 201B            | 1143 (32370)               | 1971 (55819)                |
| EPV-4-SA                                                             | 1004, 2004, 3004, & 4004 | 1001C & 2001C           | 2510 (71083)               | 4387 (124240)               |
| EPV-5-SA                                                             | 1005 & 2005              |                         | 4280 (121210)              | 4479 (126845)               |
| Normal SCFH measured with enclosure pressure @ 3" (76.2 mm) of water |                          |                         |                            |                             |
| Max SCFH measured @ 7" (177.8 mm) of water                           |                          |                         |                            |                             |

| Overall Vent Dimensions [inches (mm)]                                                                                              |               |              |              |             |              |
|------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|--------------|-------------|--------------|
| Vent model                                                                                                                         | EPV-1         | EPV-2        | EPV-3        | EPV-4       | EPV-5        |
| Hub size                                                                                                                           | 1/2"          | 3/4"         | 1 - 1/4"     | 1 - 1/2"    | 2"           |
| A                                                                                                                                  | 4.75 (120.70) | 4.88 (123.8) | 5.25 (133.4) | 7 (177.8)   | 7 (177.8)    |
| B                                                                                                                                  | 7 (177.8)     | 7.36 (187.3) | 8 (203.2)    | 11 (279.4)  | 11.5 (292.1) |
| C                                                                                                                                  | 4 (101.6)     | 4.63 (117.5) | 5 (127)      | 8 (203.2)   | 8 (203.2)    |
| D                                                                                                                                  | 0.88 (22.2)   | 1.13 (28.6)  | 1.75 (44.5)  | 2 (50.8)    | 2.5 (63.5)   |
| E                                                                                                                                  | 4.25 (108)    | 5.25 (133.4) | 5.5 (139.7)  | 9 (228.6)   | 9 (228.6)    |
| F                                                                                                                                  | 2.75 (69.9)   | 2.75 (69.9)  | 2.75 (69.9)  | 3.75 (95.3) | 3.75 (95.3)  |
| Hub Size indicates standard trade conduit size. All vents require 4" to 7" (101.6 mm to 177.8 mm) underside clearance for testing. |               |              |              |             |              |



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