6000 Series Vent

EPV-6000-**

BEBCO EPS®

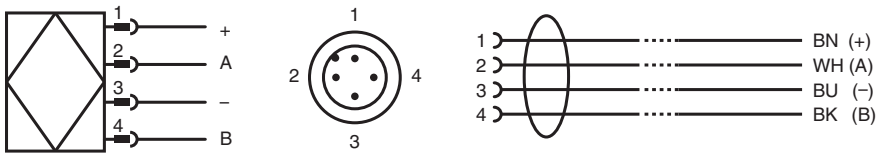
- Maximum enclosure size 450 ft³ (12.7 m³)
- Pressure relief vent with flow and pressure monitoring at the exhaust
- Universal mounting in any orientation
- 6000 Control Unit supports 2 vents
- Different vents for different applications

6000 series purge and pressurization system vent

Function

The EPV-6000 vent exhausts excess pressure from the enclosure and measures flow and pressure during operation. The 6000 series vent has a pressure transducer and thermal flow sensor that is connected to the 6000 EPCU. It is intrinsically safe through the galvanic isolation barrier within the 6000 EPCU.
Because measurement of the flow is always at the exhaust of the pressurized enclosure, the vent is located on the enclosure(s) such that it is venting to the atmosphere.The EPV-6000 vent can be mounted vertically or horizontally and is not gravity dependent.
The EPV-6000 vent can be mounted externall or internally to the enclosure. When mounting internally, only the vent cap is exposed to the outside atmosphere.

Connection



EPV-6000-**-** Cordset, M12, 4-pin, shielded 6000 Control Unit

Technical Data

General specifications	
Series	6000 Series
System	Type X Purge ; Ex pxb Purge
Number of volume exchanges	4 to 19
Hazardous environment	gas, dust, gas and dust
Electrical specifications	
Connection	
Power	Intrinsically Safe back to 6000 control unit
Signal	BUS back to 6000 control unit

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Technical Data

Connection	M12 connector, 4-pin
Indicators/settings	
LED indication	power: green vent number: yellow, on for second vent
Pneumatic parameters	
Protective gas supply	instrument grade air or inert gas
Safe pressure	Gas: 0.25" wc (6.4 mm wc) (0.625 mbar) (62 Pa) Dust: 0.65" wc (16.5 mm wc) (1.6 mbar) (162 Pa) Gas and Dust: 0.65" wc (16.5 mm wc) (1.6 mbar) (162 Pa)
Enclosure pressure	25 mbar (0 ... 9.9 in. w.c.)
Max. enclosure pressure	62 mbar (25 in. w.c.)
Purge flow rate	Maximum flow rate measurement for enclosure size (enclosure volume:flow rate): < 20 ft^3 (0.57 m^3): 5, 12 SCFM (141, 340 l/min), or dynamic 20 ... 30 ft^3 (0.57 ... 0.85 m^3): 5, 12, 20 SCFM (141, 340, 565 l/min), or dynamic > 30 ft^3 (0.85 m^3): 5, 12, 20, 30 SCFM (141, 340, 565, 850 l/min), or dynamic
Purge flow and enclosure pressure rate	With EPV-6000-xx-01, EPV-6000-xx-02 141 l/min @ 3.7 mbar, (5 scfm @ 1.5 in w.c.) 340 l/min @ 5.0 mbar, (12 scfm @ 2.0 in. w.c.) 565 l/min @ 6.7 mbar, (20 scfm @ 2.7 in. w.c.) 850 l/min @ 10.2 mbar, (30 scfm @ 4.1 in. w.c.) With EPV-6000-xx-03, EPV-6000-xx-04 141 l/min @ 5.2 mbar, (5 scfm @ 2.1 in. w.c.) 340 l/min @ 6.5 mbar, (12 scfm @ 2.6 in. w.c.) 565 l/min @ 10.2 mbar, (20 scfm @ 4.1 in. w.c.) 850 l/min @ 13.2 mbar, (30 scfm @ 5.3 in. w.c.) With EPV-6000-xx-05, 06 141 l/min @ 4.1 mbar, (5 scfm @ 1.64 in. w.c.) 340 l/min @ 5.5 mbar, (12 scfm @ 2.20 in. w.c.) 565 l/min @ 14.9 mbar, (20 scfm @ 6.00 in. w.c.)
Flow rate for leakage compensation	Depends on enclosure seal. EPV-6000-xx-01, EPV-6000-xx-02 10.0 l/min (0.35 scfm) @ 0.63 mbar (0.25 in. w.c.) 28.0 l/min (1.0 scfm) @ 1.9 mbar (0.75 in. w.c.) EPV-6000-xx-03, EPV-6000-xx-04 6.2 l/min (0.22 scfm) @ 0.63 mbar (0.25 in. w.c.) 16.4 l/min (0.58 scfm) @ 1.9 mbar (0.75 in. w.c.) EPV-6000-xx-05, EPV-6000-xx-06 Less than 1 l/min (0.035 scfm) @ 0.63 mbar (0.25 in. w.c.) Less than 1 l/min (0.035 scfm) @1.9 mbar (0.75 in. w.c.)
Breaking pressure	EPV-6000-xx-01, EPV-6000-xx-02: 2.0 mbar (0.8 in. w.c.) EPV-6000-xx-03, EPV-6000-xx-04: 3.2 ... 3.5 mbar (1.3 ... 1.4 in. w.c.) EPV-6000-xx-05, EPV-6000-xx-06: 3.5 ... 3.8 mbar (1.4 ... 1.5 in. w.c.)
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 EN 61000-6-2:2005
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-30 ... 80 °C (-22 ... 176 °F)
Relative humidity	5 ... 95 %, noncondensing
Vibration resistance	5 ... 100 Hz , 1 g, 12 m/s^2, all axes
Impact resistance	30 g, 11 ms, all axes
Mechanical specifications	
Material	EPV-6000-AA-.... Cap: marine grade 5052 anodized aluminum, marine grade 6061T6 anodized aluminum EPV-6000-SS-.... Cap: 316L (UNS S31603) stainless steel; Body: marine grade 6061T6 anodized aluminum
Spark arrestor	304 (UNS S30400) stainless steel
Installation	- any orientation to enclosure - not gravity dependent - internal and external mounting possible
Mass	approx. 1.4 kg (3.1 lb)
Dimensions	127.5 x 146 x 82.5 mm (5.05 x 5.75 x 3.25 inch)
Height	146 mm
Width	127.5 mm

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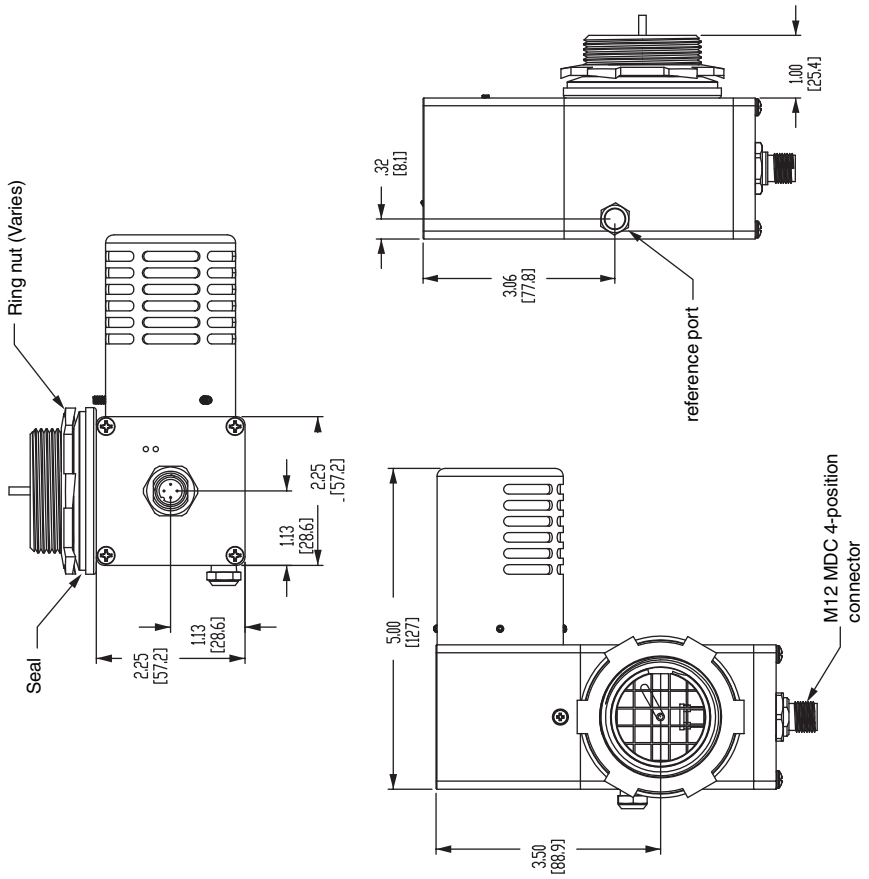
Technical Data

Depth	82.5 mm
Mounting	1 1/2" NPT knockout (50.8 mm (2") hole) with sealed nut
Data for application in connection with hazardous areas	
EU-type examination certificate	DEMKO 15 ATEX 1622X
Marking	II 2 G Ex ib [pxb Gb] IIC T4 Gb II 2 D Ex ib [pxb Db] IIIC T135 °C Db -20 °C ≤ Ta ≤ 60 °C
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018 , EN 60079-2:2014 , EN 60079-11:2012
International approvals	
UL approval	cULus Class I, Division 1, Groups A, B, C, D IP66/Type 4X Class I, Zone 1, Groups IIC, T4 Class II, Division 1, Groups E, F, G Class II, Zone 21, Group IIIC T135 °C -20 °C ≤ TA ≤ 60 °C Ex i intrinsically safe
IECEx approval	Ex ib [pxb Gb] IIC T4 Gb Ex ib [pxb Db] IIIC T135 °C Db -20 °C ≤ Ta ≤ 60 °C IECEx UL 15.0147X
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

Dimensions



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Type Code

E	P	V	-	6	0	0	0	-	A	A	-	0	1

Configuration

01 standard configuration
02 standard configuration, 2nd vent
03 low leakage rate for pressurization/low flow
04 low leakage rate for pressurization/low flow, 2nd vent
05 very low leakage rate for pressurization/low flow
06 very low leakage rate for pressurization/low flow, 2nd vent

Body type

AA anodized aluminum body and cap
SS anodized aluminum body and 316L stainless steel cap

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