5500 series vent

EPV-5500 Vent System

BEBCO EPS®

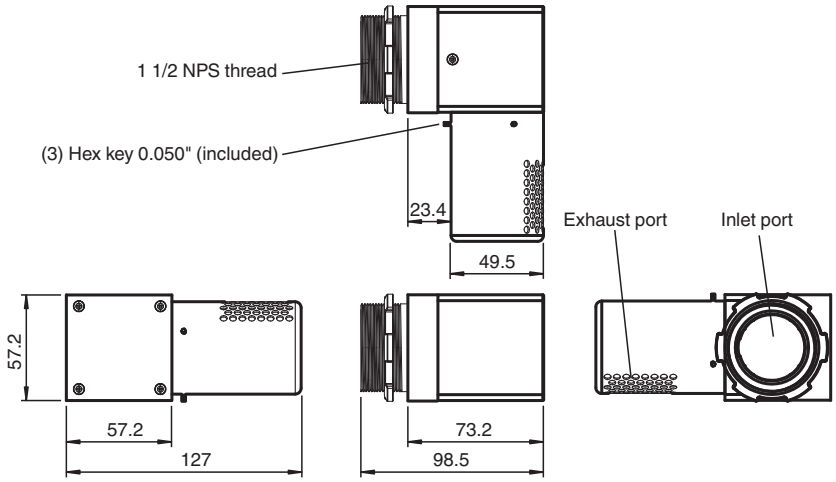
- One design, three flow rate variants to support your design requirements
- Anodized aluminum with an optional stainless steel cap
- Universal mounting

5500 series purge and pressurization system vent

Function

The EPV-5500 vent works with the 5500 control unit and manifold valve to form a certified purge and pressurization system for enclosures. It can not be used alone.
Vents are a required component for all pressurized enclosure systems. The EPV-5500 functions as a pressure relief device, allowing the purge gas to exit the enclosure and includes a spark arrestor. The vent also provides a seal when enclosure is pressurized and operating.

Dimensions



Technical Data

General specifications	
Series	5500
System	Type Z Purge ; Ex pzc Purge
Hazardous environment	gas or dust
Pneumatic parameters	
Protective gas supply	instrument grade air or inert gas
Maximum pressure	depends on the integrity of the enclosure (strength)
Purge flow rate	See graphs

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Flow rate for leakage compensation	EPV-5500....-01: approx. 593 l/hr (21scfh) @ 0.63 mbar (0.25 in w.c.) approx. 1640 l/hr (58 scfh) @ 1.9 mbar (0.75 in w.c.) EPV-5500....-02: approx. 395 l/hr (14 scfh) @ 0.63 mbar (0.25 in w.c.) approx. 961 l/hr (34 scfh) @ 1.9 mbar (0.75 in w.c.) EPV-5500....-03: approx. 260 l/hr (9.2 scfh) @ 0.63 mbar (0.25 in w.c.) approx. 622 l/hr (22 scfh) @ 1.9 mbar (0.75 in w.c.)
Breaking pressure	EPV-5500....-01: 2.0 mbar (0.8 in w.c.) EPV-5500....-02: 3.5 mbar (1.4 in w.c.) EPV-5500....-03: 3.8 mbar (1.5 in w.c.)
Conformity	
Degree of protection	EN 60529
Shock resistance	EN 60068-2
Ambient conditions	
Ambient temperature	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	5 ... 95 %, non-condensing
Vibration resistance	5 ... 100 Hz , 1 g, 12 m/s², all axes
Impact resistance	30 g, 11 ms, all axes
Mechanical specifications	
Degree of protection	EPV-5500....-01/02: mounting only Type 4X / IP66 EPV-5500....-03: Type 4X / IP66
Material	
Housing	EPV-5500-AA... body and cap: 6061T6 aluminum EPV-5500-SS... body: 6061T6 aluminum, cap: 316L stainless steel
Spark arrestor	AISI 316L, (1.4404) stainless steel
Installation	- any orientation to enclosure - not gravity dependent - internal and external mounting possible
Mass	approx. 1 kg (2.2 lb)
Dimensions	see dimensions
Mounting	mounting hole 1.5 in NPT knockout (50.8 mm) hole sealing nut (provided)
Data for application in connection with hazardous areas	
Directive conformity	
Directive 2014/34/EU	part of DEMKO 14 ATEX 1282X
International approvals	
UL approval	
cULus	UL File E184741
IECEx approval	part of IECEx UL 14.0019X
General information	
Supplementary information	Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

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Technical Features

Flow Rate Tables

EPV-5500-...-01 Vent Flow vs. Enclosure Pressure

ft^3/m	Inches of water
5	1
10	1.4
12.5	1.75
15	2.05
17.5	2.4
20	2.75
22.5	3.1
25	3.5
27.5	3.9
30	4.5

l/m	mbar
141	2.5
283	3.5
354	4.4
424	5.1
495	6.0
566	6.8
636	7.7
707	8.7
778	9.7
849	11.2

EPV-5500-...-02 Vent Flow vs. Enclosure Pressure

ft^3/m	Inches of water
5	1.8
10	2.1
12.5	2.5
15	2.9
17.5	3.4
20	3.8
22.5	4.3
25	4.9
30	5.7

l/m	mbar
141	4.5
283	5.2
354	6.2
424	7.2
495	8.5
566	9.5
636	10.7
707	12.2
849	14.2

EPV-5500-...-03 Vent Flow vs. Enclosure Pressure

ft^3/m	Inches of water
2	1.6
5	2.1
7	2.4
10	2.7
12	3.3
15	5.1
20	7.5

l/m	mbar
57	4.0
141	5.2
198	6.0
283	6.7
339	8.2
424	12.7
566	18.7

Type Code

E	P	V	-	5	5	0	0	-	A	A	-	0	1

Configuration

01 30 SCFM (850 l/min) max flow, brk press. 0.8" w.c. (2 mbar)
02 20 SCFM (565 l/min)max flow, brk press. 1.4" w.c. (3.5 mbar)
03 12 SCFM (340 l/min) max flow, brk. press. 1.5" w.c. (3.8 mbar)

Material

AA Body EPV-...-01: Body: 6061T Al, Cap: 6061T Al
SS Body EPV-...-02: Body: 6061T Al, Cap: 316L stainless steel

Series of vent

5500 5500 Series

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