

Features

- Certified for Class I and Class II, Division I; Zone 1 / Zone 21 to nonhazardous
- Intrinsically safe electrical/pneumatic manifold assembly
- Intrinsically safe user interface for programming and monitoring the system
- Enclosure volume up to 7.1 m³ (250 ft³)
- Control Unit monitors system operation and controls enclosure power
- Universal mounting (brackets included)
- 316L stainless steel Type 4X enclosure

Function

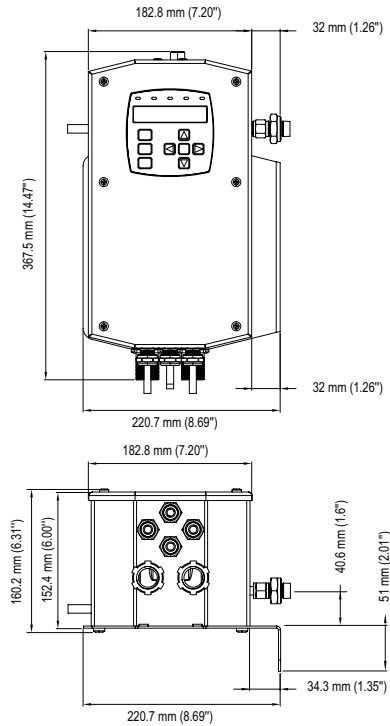
The 6000 series consists of the control unit (EPCU) and user interface (UIC) mounted in a 316L stainless steel Type 4X (IP66) enclosure with the pneumatic solenoid valve mounted on the unit. The EPV-6000 relief vent is separate and is mounted to the enclosure.

The user interface allows programming of up to 4 switch inputs, temperature modules, enclosure power contacts, 2 auxiliary outputs, and various operational functions. Also, the user interface screen allows monitoring and easy configuration.

Among the additional features are inputs for system bypass, enclosure power on/off, temperature overload and activation of Rapid Exchange flow for cooling or auxiliary relay for separate cooling source, and delay power shutdown.

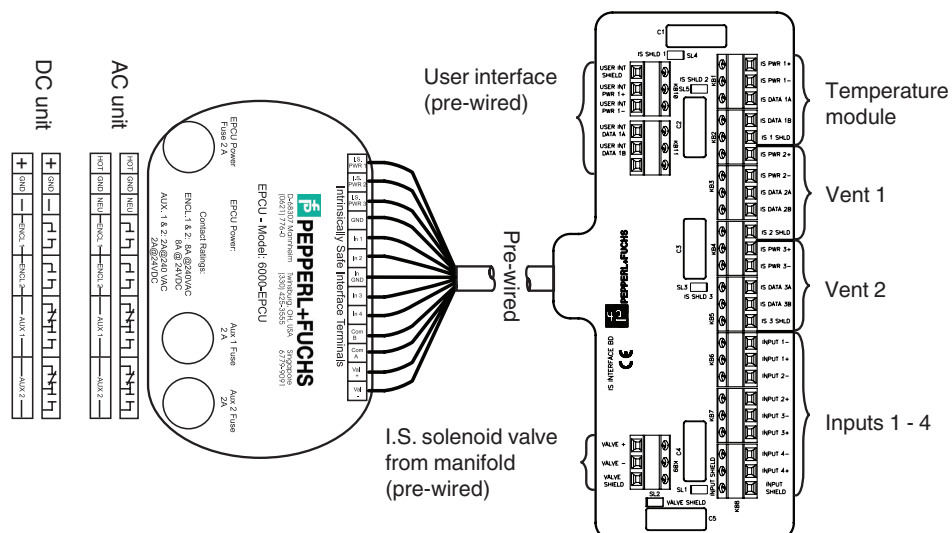
Component kits are available for custom installations.

Assembly



BEBCO EPS®

Connection



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www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

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PEPPERL+FUCHS
PROTECTING YOUR PROCESS

General specifications	
Operating mode	manual, semi-automatic, or fully automatic - programmable
Series	6000 Series
Number of volume exchanges	4 to 19
Hazardous environment	gas, dust, gas and dust
Supply	
Rated voltage U_n	90 ... 264 V AC, 48 ... 62 Hz / 0.2 A 20 ... 30 V DC
Electrical specifications	
Connection	Terminal blocks
Input	
Input I	Inputs 1, 2, 3, 4: contact input, 5 VDC @ 2 mA
Input type	Intrinsically Safe
Input II	Temperature inputs
Input type	Intrinsically Safe
Sensor type	6000-TEMP
Input III	EPV-6000 Vent
Input type	Intrinsically Safe
Input IV	User interface module
Connection	M8 connector, 4-pin
Input type	Intrinsically Safe
Output	
Output I	AUX 1
Output type	Dry contacts, SPDT
Inrush current	5 A
Contact loading	2 A @ 240 VAC resistive load 2 A @ 24 VDC
Output II	AUX 2
Output type	Dry contacts, SPDT
Inrush current	5 A
Contact loading	2 A @ 240 VAC resistive load 8 A @ 24 VDC
Output III	ENC_1, ENC_2 (protected enclosure contacts)
Output type	Dry contacts (2) SPST, NO
Contact loading	8 A @ 240 VAC / 120 VAC resistive load 8 A @ 24 VDC
Indicators/settings	
LED indicator	Safe pressure: Blue - safe pressure is achieved Enclosure power: Green - power on; Red - power off Rapid exchange: Blue - purging is running System bypass: Yellow - bypass is activated Alarm fault: Red (blinking) - any alarm input detected; Red (solid) - 6000 series system fault
Pneumatic parameters	
Protective gas supply	instrument grade air or inert gas
Pressure requirement	20 ... 120 psig (1.4 ... 8.3 bar) (138 ... 827 kPa) regulated
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)
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 5 SCFM @ 1.3" wc, (141 l/min @ 33 mm wc) (3.3 mbar) (324 Pa) 12 SCFM @ 2.5" wc, (340 l/min @ 64 mm wc) (6.3 mbar) (623 Pa) 20 SCFM @ 3.2" wc, (565 l/min @ 80 mm wc) (8.0 mbar) (800 Pa) 30 SCFM @ 3.6" wc, (850 l/min @ 90 mm wc) (9.0 mbar) (900 Pa) Minimum purge time = 2 min With EPV-6000-xx-03, EPV-6000-xx-04 5 SCFM @ 2.1" wc, (141 l/min @ 52.5 mm wc) (5.3 mbar) (525 Pa) 12 SCFM @ 2.7" wc, (340 l/min @ 67.5 mm wc) (6.8 mbar) (675 Pa) 20 SCFM @ 3.9" wc, (565 l/min @ 97.5 mm wc) (9.8 mbar) (975 Pa) Minimum purge time = 2 min

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Flow rate for leakage compensation	With EPV-6000-xx-01, EPV-6000-xx-02 0.6 SCFH (17 l/hr) @ 0.25" (0.63 mbar) 12 SCFH (339 l/hr) @ 0.75" (1.9 mbar) depends on enclosure seal With EPV-6000-xx-03, EPV-6000-xx-04 0.1 SCFH (2.8 l/hr) @ 0.25" (0.63 mbar) 1 SCFH (28 l/hr) @ 0.75" (1.9 mbar) depends on enclosure seal
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	
Connection type	Pneumatic : Inlet fitting to manifold: 3/8" NPT (female) Outlet fitting from manifold: 3/8" bulkhead fitting (provided)
Cable gland	4 - M16 x 1.5 cable gland
Degree of protection	Type 4X, IP6X
Material	Enclosure: 316L (UNS S31603) stainless steel Manifold valve: anodized 6082 aluminum Fittings: 316L (UNS S31603) stainless steel
Mass	-WH- 11.4 kg (25 lb) -CK- 7.2 kg (16 lb)
Dimensions	183 x 367.5 x 152.5 mm (7.20 x 14.45 x 6.00 in)
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	
Group, category, type of protection, temperature class	With EPV-6000-xx-01, EPV-6000-xx-02 II 2 GD Ex d [ib px] IIC T4 tD A21 IP6X T60 °C Sira 09ATEX9337X With EPV-6000-xx-01, EPV-6000-xx-02, EPV-6000-xx-03, EPV-6000-xx-04 II 2 G Ex d [ib px] IIC T4 DEMKO 07 ATEX 0705753x
Directive conformity	
Directive 94/9/EC	EN 60079-0:2006 EN 60079-1: 2004 with Corrigendum April 2006 EN 60079-11:2007 EN 60079-2: 2004 with Corrigendum April 2006 EN 60529:1991 + A1:2000 EN 61241-0:2004 EN 61241-1:2004
International approvals	
UL approval	With EPV-6000-xx-01, EPV-6000-xx-02, EPV-6000-xx-03, EPV-6000-xx-04 cULus Class I, Division 1, Groups A, B, C, D Class I, Zone 1, Groups IIC T4 Intrinsically safe when installed per 116-013UL-12 [Ex i] Associated Equipment Ex d [ib px] IIC T4 -20 °C ≤ TA ≤ 60 °C
CSA approval	With EPV-6000-xx-01, EPV-6000-xx-02 only cCSAus Class I, Division 1, Groups A, B, C, D T4 Class I, Zone 1, Groups IIC T4 Intrinsically safe when installed per 116-013UL-12 [Ex i] Associated Equipment Class II, Groups E, F, G, Class III Ex tD 21 T60 °C AEx tD 21 T60 °C -20 °C ≤ TA ≤ 50 °C
IECEx approval	With EPV-6000-xx-01, EPV-6000-xx-02 Ex d [ib px] IIC T4 tD A21 IP6X T60 °C IECEx CSA09.0007X With EPV-6000-xx-01, EPV-6000-xx-02, EPV-6000-xx-03, EPV-6000-xx-04 II 2 G Ex [ib px] IIC T4 IECEx UL 08.0003x
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 www.pepperl-fuchs.com .

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Type code/model number

6 0 0 0 - D V - S 2 - U N - W H - A C

Valve type
DV digital solenoid valve
NV no valve

Voltage requirement
AC 100 - 250 VAC
DC 20 - 30 VDC

Connection style
WH with stainless steel housing
CK component kit
XD with Ex de coupling

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