7500 Series Mounted Control Unit, Type Z and Ex pzc

BEBCO EPS

7500-MTD-PMSW-01

- Must be used in conjunction with an EPV-7500-* vent
- Panel mount, square box
- Universal power: AC or DC
- Touch screen display with LEDs for easy visual indication
- Easy setup with pre-set purge programs for your application
- Automatic pressure compensation with digital manifold
- Rugged, corrosion-resistant housing
- Global third-party approvals for Class I, II, Div. 2 and Zone 2/22
- Manual valve, no electrical power requirement
- Purge and pressurization valving in one device

Type Z & Ex pzc purge and pressurization system, panel mount, square box

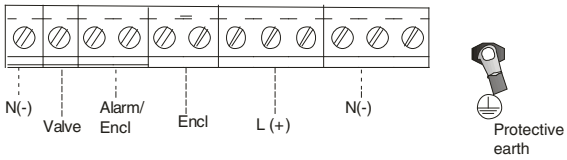
Function

The 7500 series panel/external mount purge and pressurization system consists of a control unit and a 7500-MAN-MV-01 manual manifold mounted to a panel.
The control unit's menu-driven touch screen display makes it easy to select pre-programmed and user-selected variables. The display has 4 LED indicators that allow users to determine system condition from a distance. See the 7500 control unit datasheet for technical data.
The 7500-MAN-MV-01 manifold combines in one compact housing a ball valve for purging and a needle valve for pressurizing an enclosure. The ball valve has a handle for easy actuation. To provide security and prevent tampering, the needle valve requires a slot-head screwdriver to set the enclosure pressure. See the 7500-MAN-MV-01 manifold datasheet for technical data.
The 7500 series system has NEC, CE Code, ATEX, CCC, and IECEx third-party certifications for Class I, II/Div. 2 Type Z and Zone 2/22 Ex Ppc.

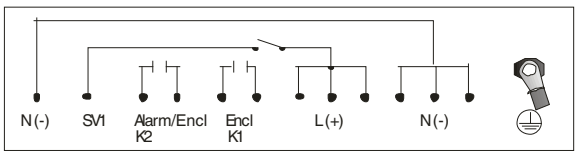
Connection

Electrical Connections

Terminal Block



Terminal Block Connections



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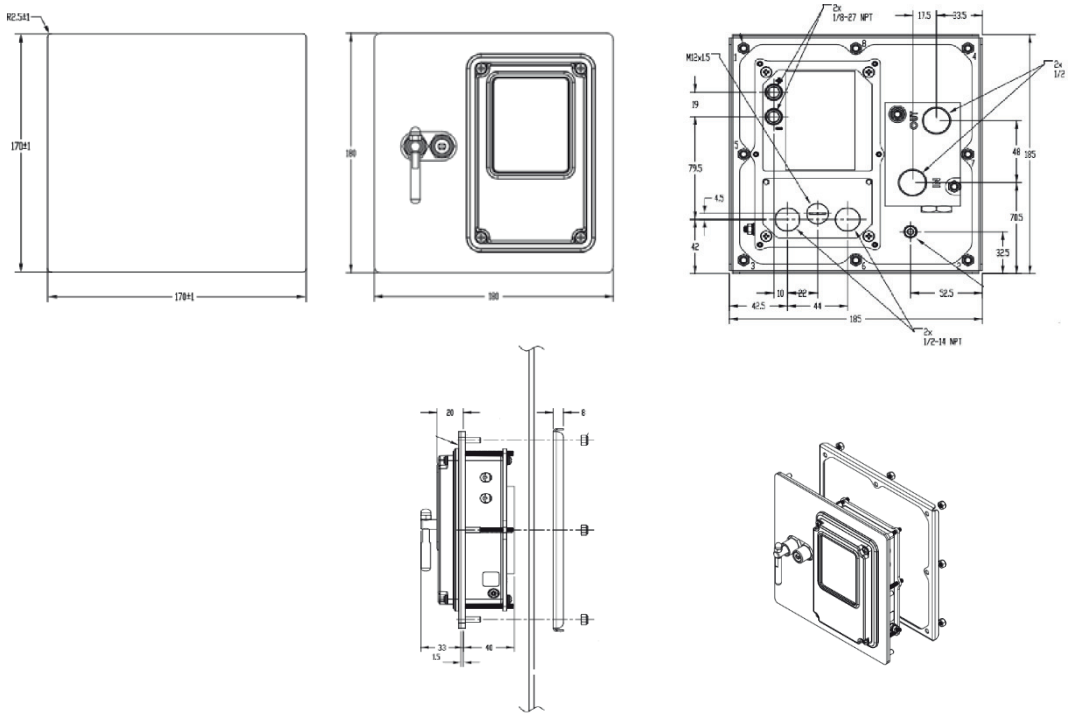
Dimensions



Technical Data

General specifications		
Equipment architecture		max. enclosure size 12.7 m³ (450 ft³) For complete technical data, see the 7500 Control Unit and 7500-MAN-MV-01 datasheets
Operating mode		fully automatic (FA)
Series		7500
System		Type Z Purge ; Ex pzc Purge
Hazardous environment		gas or dust
Supply		
Rated voltage	U_r	20 ... 30 V DC at 0.1 A 90 ... 250 V AC , 50 ... 60 Hz at 0.04 A without solenoid valve Supply voltage can be line-to-line or line-to-neutral, single phase OVC II
Power consumption		max. 2.7 W / 7.3 VA without valve
Electrical specifications		
Connection		screw terminals -- see manual for specifications on wire size and torque values
Output		
Output I		
Connection		K1, terminals, 1 x NO
Output type		enclosure power contacts
Contact loading		5 A at 250 V AC , 5 A at 30 V DC, relays must be externally fused inrush current: 50 A
Output II		
Connection		K2, terminals, 1 x NO
Output type		alarm and control contacts
Contact loading		5 A at 250 V AC , 5 A at 30 V DC, relays must be externally fused inrush current: 50 A
Output III		
Connection		SV1, terminals, L1 powered contact
Output type		solenoid manifold, contact
Contact loading		0.5 A at 250 V AC , 0.5 A
Indicators/settings		

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Technical Data

LED indication	K1: Green - Contact K1 is energized (enclosure contacts) K2: Amber - Contact K2 is energized (alarm/control contacts) P/SV: Blue - Safe pressure P1 (minimum enclosure pressure) P/SV: Amber - Solenoid manifold is energized (purging/pressure compensation)
Pneumatic parameters	
Protective gas supply	compressed air or inert gas, 40 µm filter, free from oil
Pressure requirement	supply pressure: 1.4 ... 8.2 bar (20 ... 120 psig)
Safe pressure	P1 for gas: 0.30 mbar (0.12 in. w.c.) P2 for dust: 1.29 mbar (0.52 in. w.c.) P2: 1.99 mbar (0.8 in. w.c.) P3: 6.22 mbar (2.5 in. w.c.) P4: 11.2 mbar (4.5 in. w.c.)
Enclosure pressure	0 ... 12.9 mbar (0 ... 5 in wc)
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018
Conformity	
Electromagnetic compatibility	EN 61326-3-2:2008, EN 61000-6-2:2005
Emitted interference	FCC CFR 47, part 15, subpart B: 2017 , ICES-003, Issue 6:2016, Class A ITE
Ambient conditions	
Ambient temperature	-40 ... 50 °C (-40 ... 122 °F) at T6 -40 ... 65 °C (-40 ... 149 °F) at T5 -40 ... 70 °C (-40 ... 158 °F) at T4
Storage temperature	-40 ... 80 °C (-40 ... 176 °F)
Relative humidity	5 ... 90 %, non-condensing
Altitude	max. 2000 m
Vibration resistance	5 ... 100 Hz , 1 g, 12 m/s², all axes
Impact resistance	30 g, 11 ms, all axes
Mechanical specifications	
Connection type	electrical: 2 x 1/2 inch NPTF (open from factory) 1 x M12 opening (plugged from factory) pneumatic: high-pressure port - 1/8 in NPTF, low-pressure port - 1/8 in NPTF
Degree of protection	Mounting to enclosure Type 4X / IP66
Material	**Lens:** Makrolon® GP-V polycarbonate **Screws:** AISI 316 (1.4401), 304, or 18-8 stainless steel **Housing:** A380, A356, or 6061-T6 aluminum **Mounting gasket:** Bisco® HT-800 medium cellular silicone **Mounting tabs:** SAE 304 stainless steel **M12 plug:** 6061-T6 aluminum
Mass	2.5 kg (5 lb 10 oz)
Data for application in connection with hazardous areas	
Certificate	
Marking	⟨Ex⟩ II 3 G Ex ec mc nC [pzc Gc] IIC T6...T4 Gc ⟨Ex⟩ II 3 D Ex mc tc [pzc Dc] IIIC T60 °C ... T80 °C Dc
Directive conformity	
Directive 2014/34/EU	IEC/EN 60079-0 , IEC/EN 60079-2 , IEC/EN 60079-7 , IEC/EN 60079-15 , IEC/EN 60079-18 , IEC/EN 60079-31 Supplements: EN 61010-1:2010
International approvals	
UL approval	
cULus	Class I, Division 2, Groups A, B, C, D T6 ... T4 Class II, Division 2, Groups F, G T6 ... T4
IECEx approval	Ex ec mc nC [pzc Gc] IIC T6...T4 Gc Ex mc tc [pzc Dc] IIIC T60 °C ... T80 °C Dc
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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Type Code

Series - option

01 **standard housing type**

Type of Mounting

PMSW	Panel mount, square panel
PMRW	Panel mount, rectangular panel
BXSW	External mount, square box
BXRW	External mount, rectangular box

Control unit and manifold mounted

MTD Mounting version

7500 series

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