



# 7500 Series Mounted Control Unit, Type Z and Ex pzc

## 7500-MTD-BXSW-01

- Must be used in conjunction with an EPV-7500-\* vent
- External 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, external mount, square box

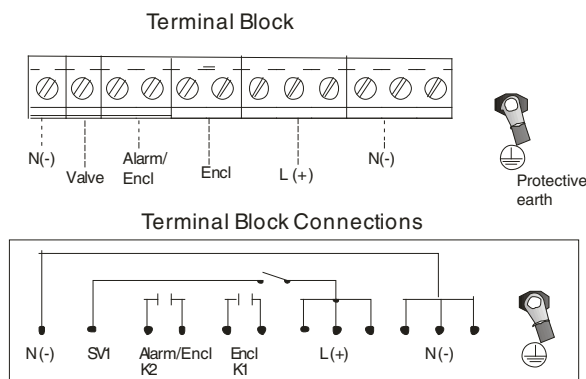


### Function

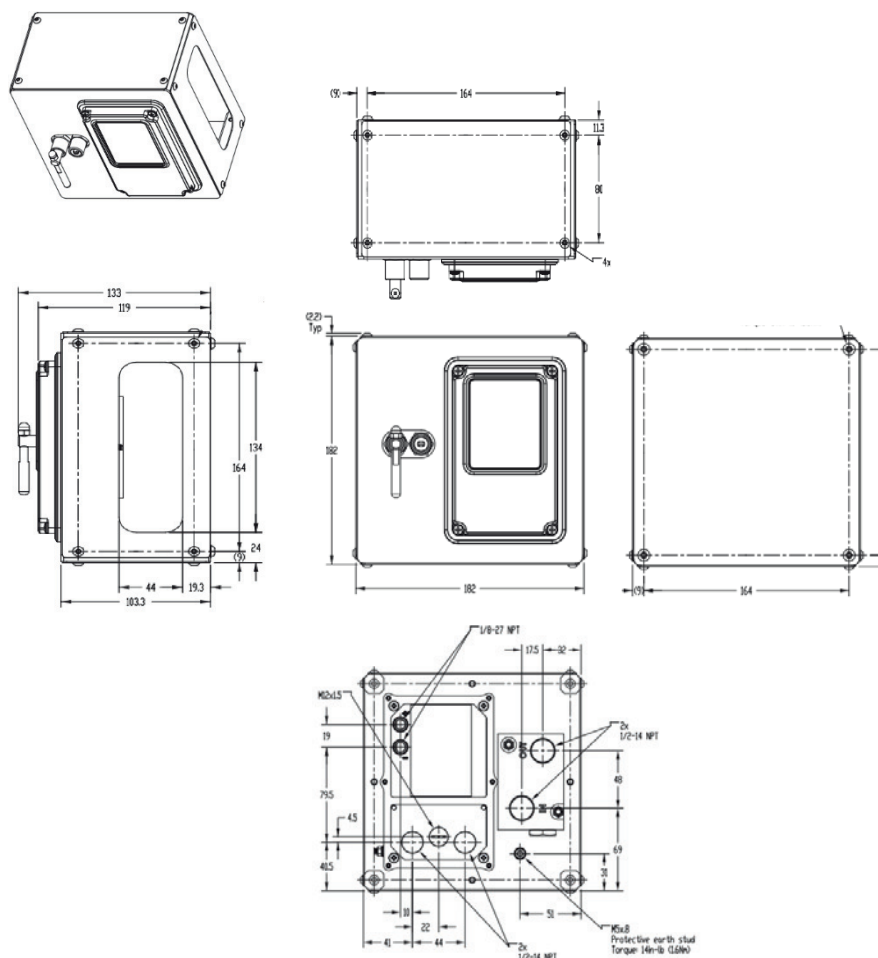
The 7500 series panel/external mount purge and pressurization system consists of a control unit and a 7500-MAN-MV-01 manual manifold mounted to a panel. The control unit's menu-driven touch screen display makes it easy to select pre-programmed and user-selected variables. The display has 4 LED indicators 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



## Dimensions



## Technical Data

General specifications	
Equipment architecture	max. enclosure size 12.7 m <sup>3</sup> (450 ft <sup>3</sup> ) 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 <sub>r</sub> 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

## Technical Data

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
<b>Indicators/settings</b>	
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)
<b>Pneumatic parameters</b>	
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)
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018
<b>Conformity</b>	
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
<b>Ambient conditions</b>	
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/s <sup>2</sup> , all axes
Impact resistance	30 g, 11 ms, all axes
<b>Mechanical specifications</b>	
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	<b>Lens:</b> Makrolon® GP-V polycarbonate <b>Screws:</b> AISI 316 (1.4401), 304, or 18-8 stainless steel <b>Housing:</b> A380, A356, or 6061-T6 aluminum <b>Mounting gasket:</b> Bisco® HT-800 medium cellular silicone <b>Mounting tabs:</b> SAE 304 stainless steel <b>M12 plug:</b> 6061-T6 aluminum
Mass	2.5 kg (5 lb 10 oz)
<b>Data for application in connection with hazardous areas</b>	
Certificate	
Marking	Ⓜ II 3 G Ex ec mc nC [pzc Gc] IIC T6...T4 Gc Ⓜ 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
<b>International approvals</b>	

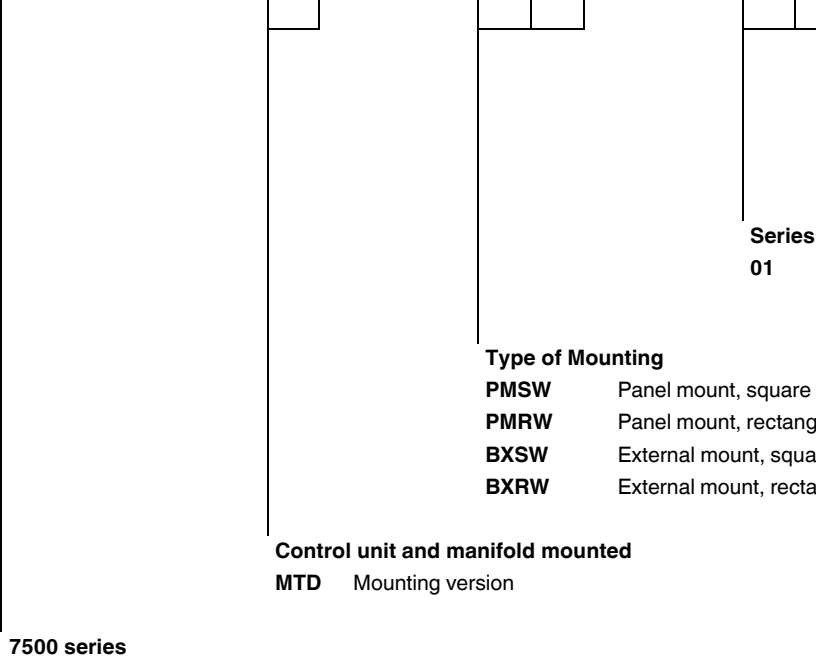
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## Technical Data

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] IIC T60 °C ... T80 °C Dc
<b>General information</b>	
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

**Type Code**

7 5 0 0 - M T D - P M S W - 0 1



**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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