



Type Z & Ex pzc purge and pressurization system

7500-MTD-PMRW-01

- Must be used in conjunction with an EPV-7500-* vent
- Panel mount, rectangular panel
- 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, rectangular panel



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.

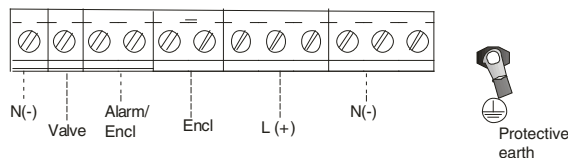
The ball valve has a handle for easy actuation. To provide security and prevent tampering, the needle valve requires a slot-head screwdriver to set the enclosure pressure. See the 7500-MAN-MV-01 manifold datasheet for technical data.

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.

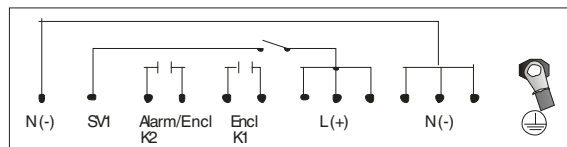
Connection

Electrical Connections

Terminal Block



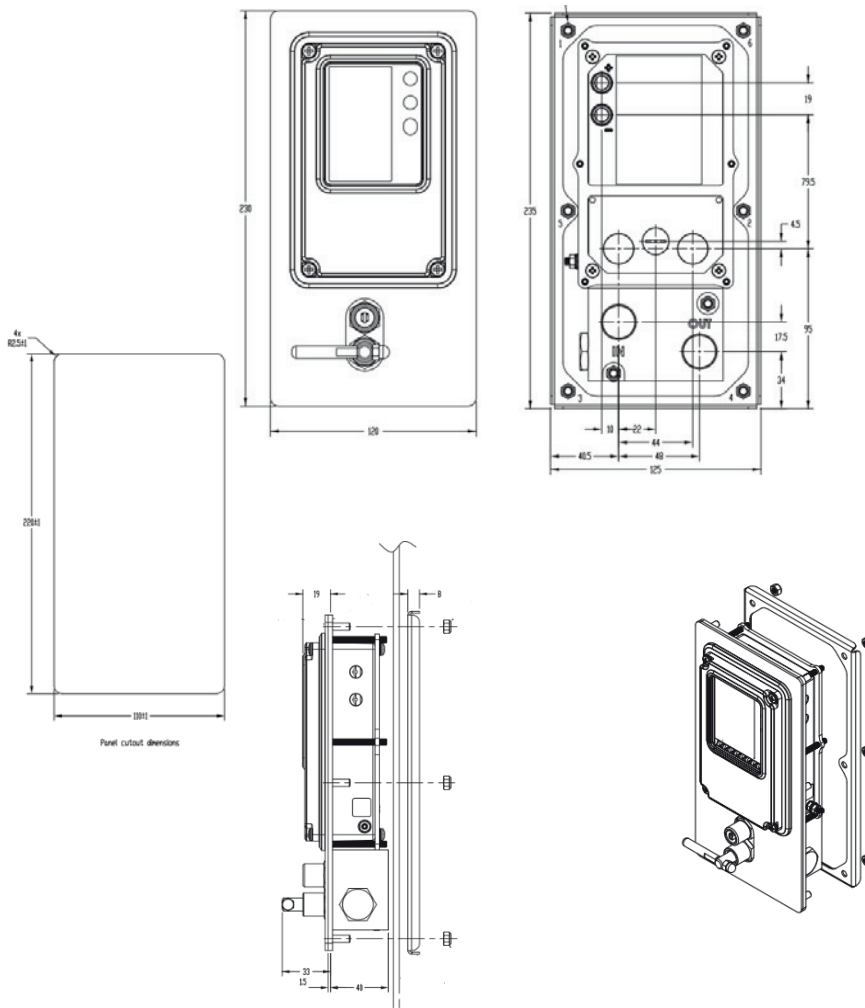
Terminal Block Connections



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Dimensions



Technical Data

General specifications

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment architecture | max. enclosure size 12.7 m ³ (450 ft ³) 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 |

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Technical Data

| | | |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 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 | | |
| 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: 0.12 inch w.c. (0.30 mbar) P1 for dust: 0.52 inch w.c. (1.29 mbar) P2: 0.8 inch w.c. (1.99 mbar) P3: 2.5 inch w.c. (6.22 mbar) P4: 4.5 inch w.c. (11.2 mbar) pressure sensing: ± 0.125 in wc (0.31 mbar) | |
| 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/s ² , 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 | Ⓔ 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 | | |

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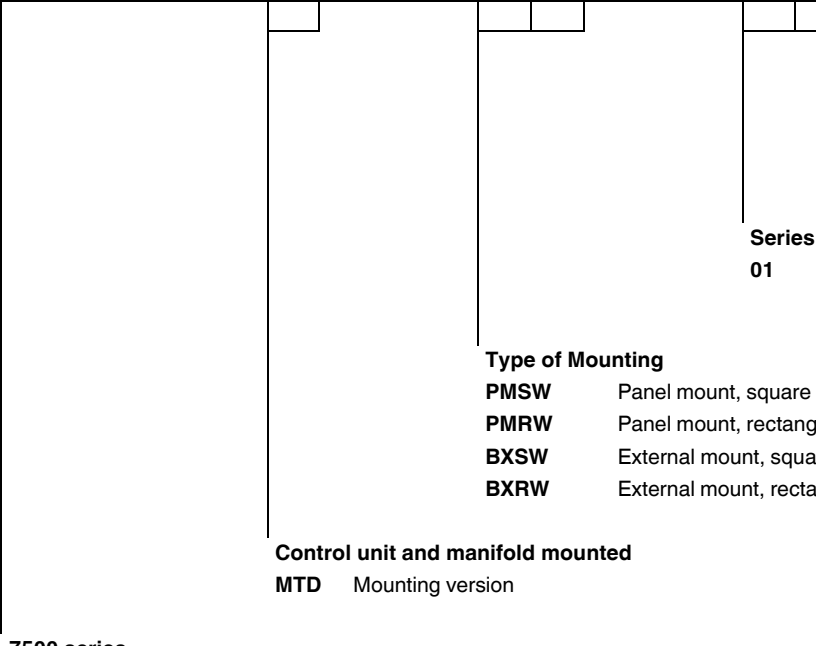
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Technical Data

| | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 . |

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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