



6500 Series Control Unit, Type Ex pxb and Ex pyb

6500-01-* -PNO-LNO

- Automatic purge and pressurization system for most applications
- User-friendly, easy programming
- LCD screen for operation status and LEDs for quick visual system identification
- HART communication via RS-485 with PACTware and device app via Bluetooth
- Maximum enclosure size 12.75 cubic meters
- Compact design with panel mounts or direct mounts available
- Universal power 20 to 30 VDC / 100 to 250 VAC. 50 to 60 HZ
- Pressure, temperature, dilution control and monitoring
- Up to SIL 2 acc. to IEC/EN 61508

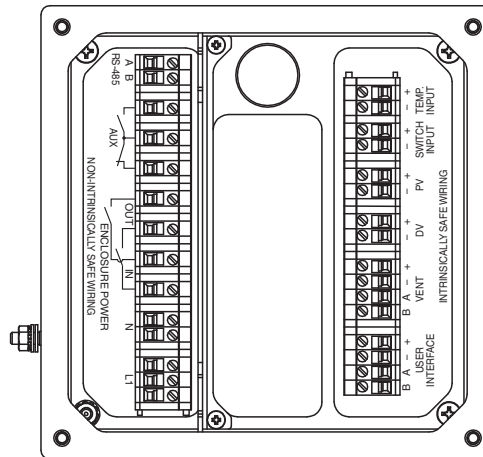
6500 series Ex pxb and Ex pyb purge and pressurization system



Function

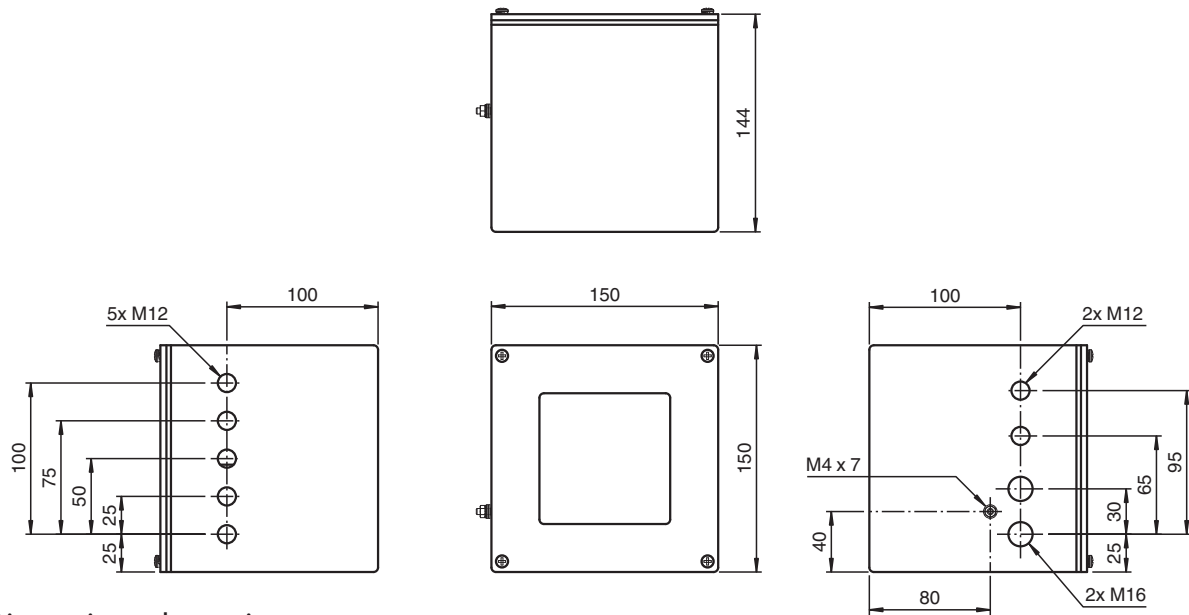
The 6500 series purge and pressurization system consists of a control unit, an EPV-6500 enclosure protection vent, and a valve for pressurization, purging, and, with some models, dilution for analyzer applications. The compact 6500 control unit features an LCD user interface with sealed capacitive touch buttons. LEDs provide quick indication of the system status. The control unit has an input for a 2-wire RTD for temperature control/monitoring. Models are available that allow the user interface to be panel mounted to an enclosure wall or mounted onto the exterior of the enclosure. A HART output allows the control unit to be connected to a PC using PACTware or the customer's AMS for remote monitoring. An app for Android, BlackBerry, and Apple devices allows connectivity via Bluetooth®.

Connection



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Dimensions



Dimensions shown in mm

Technical Data

General specifications	
Operating mode	user programmable
Series	6500
System	Ex pxb Purge , Ex pyb Purge
Number of volume exchanges	5 to 19
Hazardous environment	gas, dust, gas and dust
Functional safety related parameters	
Safety Integrity Level (SIL)	SIL 2
Supply	
Rated voltage	U _r 100 ... 240 V AC, 48 ... 62 Hz / 0.2 A 20 ... 30 V DC
Electrical specifications	
Connection	EPCU: Terminal blocks and grounding screw UIC: 4-pin connector and cable (provided), for the 6500-01-PM02, cable length is 5 meters Input type: intrinsically safe
Interface	
Physical	Bluetooth® 4.1
Transmitter frequency	2.4 ... 2.4835 GHz
Transmitter radiated power	-19 ... 7.5 dBm
Sensitivity	-92.5 dBm at 0.1 % BER
Detection range	100 m in air
Antenna	PCB
Communication	
Bluetooth	declaration ID: D037849
Input	
Input I	Voltage free contact or namur proximity sensor
Input type	Intrinsically Safe, Ex ib
Input II	(1) 2-wire, PT100 RTD
Input type	Intrinsically Safe, Ex ib
Output	

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Technical Data

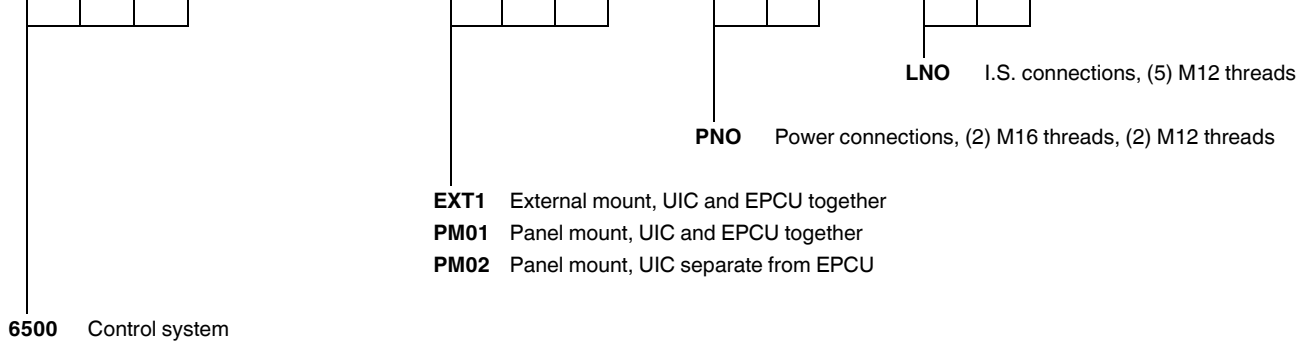
Output I	AUX
Output type	Voltage free contact outputs, SPDT configuration
Inrush current	2 A
Contact loading	2 A @ 240VAC, resistive, 2 A @ 24VDC
Output II	Enclosure
Output type	Voltage free contact outputs, 2 N.O. configuration
Inrush current	8 A
Contact loading	8A @ 240 V AC, resistive up to 60 °C 8A @ 24 V DC up to 60 °C 5A @ 240 V AC, resistive, 60 to 70 °C 5A @ 24 V DC up to 60 to 70 °C
Fuse	External fusing is required at no more than 11 amps/1500 A breaking current
Output III	Digital valve When used with the 6500-MAN-DV-01, intrinsically safe Internal resistance 280 Ω
Output IV	Proportional valve When used with the 6500-MAN-PV-01, intrinsically safe Current: 4 to 20 mA Max. load: 300 Ω
Communication	HART via RS485 (PACTware available)
Indicators/settings	
Display elements	2x20 LCD for configuration, monitoring, and status of the 65000 system with back light and contrast selection. Capacitive touch buttons
LED indication	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 Key: green - a button on the capacitive touch display has been activated. Momentary indication
Pneumatic parameters	
Protective gas supply	instrument grade air or inert gas
Pressure requirement	For 6500-MAN-DV: 1.4 to 8.3 bar (20 to 120 psig) regulated For 6500-MAN-PV: 3.5 to 6.9 bar (50 to 100 psig) regulated Note: max. pressure will depend on the vent model used.
Safe pressure	Gas: 0.82 mbar (0.33 in wc) Dust: 0.82 mbar (0.33 in wc) Gas+Dust: 0.82 mbar (0.33 in wc)
Valve flows	Standard vent series: EPV-6500-*-01, 03, 05 Readout on display is from 56 to 850 l/min (2 to 30 scfm) in increments of 28l/min (1 scfm). Minimum and maximum reading depending on type of vent and supply pressure. See datasheet for EPV-6500 series vent. Continuous (Dilution) vent series: EPV-6500-*-07, 08 Readout on display is from 17 to 226 l/min (0.6 to 8 scfm) continuous reading. Maximum reading depending on type of vent and supply pressure. See datasheet for EPV-6500 series vent.
Ambient conditions	
Ambient temperature	-20 ... 70 °C (-4 ... 158 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	5 ... 85 %, non-condensing
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	See mounting in 6500 manual and cable gland requirements
Cable gland	Cable gland requirement: cable glands are not included. Customer can supply their own approved glands or use one of the 6500-CBLG-... cable gland kits. I.S.cable glands: requires (5) M12 approved cable glands Power cable glands: requires (2) M16 and (2) M12 approved cable glands
Degree of protection	IP66
Material	UIC display: Makrolon FI cover and A380 Aluminum anodized casing Housing: 316L stainless steel Hardware: 316L stainless steel
Mass	approx. 5 kg (11.0 lbs)

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Dimensions	6500-01-EXT1: 150 x 150 x 145 mm (5.9" x 5.9" x 5.7") 6500-01-PM01: 150 x 150 x 185 mm (5.9" x 5.9" x 7.3") 6500-01-PM02: EPCU: 150 x 150 x 145 mm (5.9" x 5.9" x 5.7"), UIC: 150 x 150 x 45 mm (5.9" x 5.9" x 1.8")
Height	367.5 mm
Width	183 mm
Depth	152.5 mm
Data for application in connection with hazardous areas	
Certificate	DEMKO 16 ATEX 1640X
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018 , EN 60079-2:2014 , EN 60079-5:2015 , EN 60079-7:2015+A1:2018 , EN 60079-11:2012 , EN 60079-31:2014
International approvals	
IECEx approval	IECEx UL 16.0003X
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 .

Type Code



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