



# Ex pxb motor purge and pressurization control unit

BEBCO EPS®

## 6100-MP-EX-\*

- Certified for ATEX and IECEx Zone 1
- Maximum flow rate of 14,000 l/min
- Intrinsically safe user interface for programming and monitoring the system
- Control Unit monitors system operation and controls enclosure power
- Auxiliary contact outputs for alarm or control
- Multiple temperature inputs for monitoring and control
- Automatic pressure compensation for excess leakage from motor

### 6100 series Ex pxb motor purge and pressurization system control unit



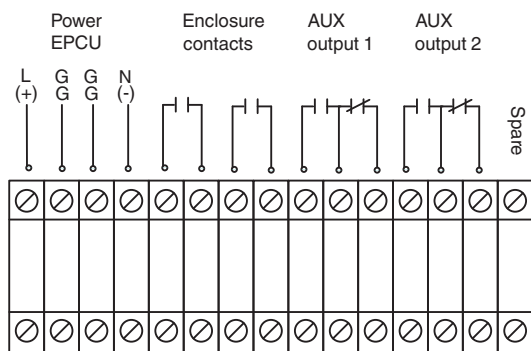
### Function

The Bebcos EPS® 6100 series Ex pxb, Zone 1 motor purge and pressurization system consists of the following components in an IP66 housing: a control unit and user interface, intrinsically safe and power terminals, manual pressurization valve, and electro-pneumatic valve for automatic purging and leakage compensation.

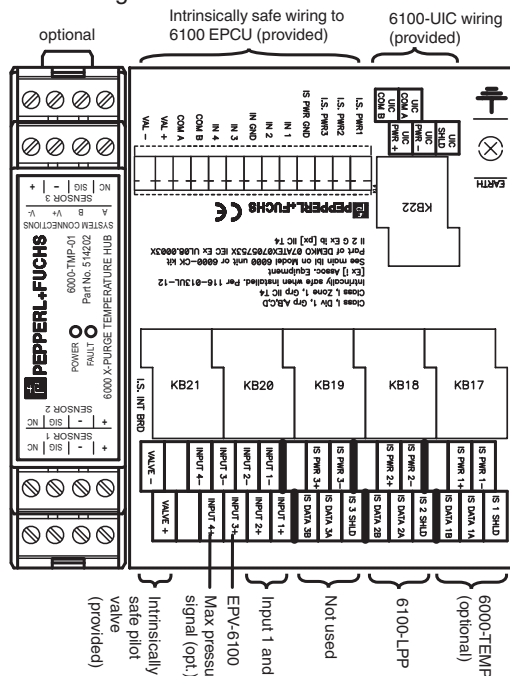
The configurable control unit features temperature and pressure compensation, an extra output for control or alarm, two selectable intrinsically safe inputs for various actions, and up to three temperature sensor inputs that can monitor various points with a motor housing. The intrinsically safe user interface can also be mounted in a separate enclosure near operating personnel for quick access and easy system monitoring. The 6100 purge and pressurization system can also be used to purge and protect large enclosures that require a large flow rate.

### Connection

#### Ex d Wiring



#### Intrinsically Safe Wiring



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

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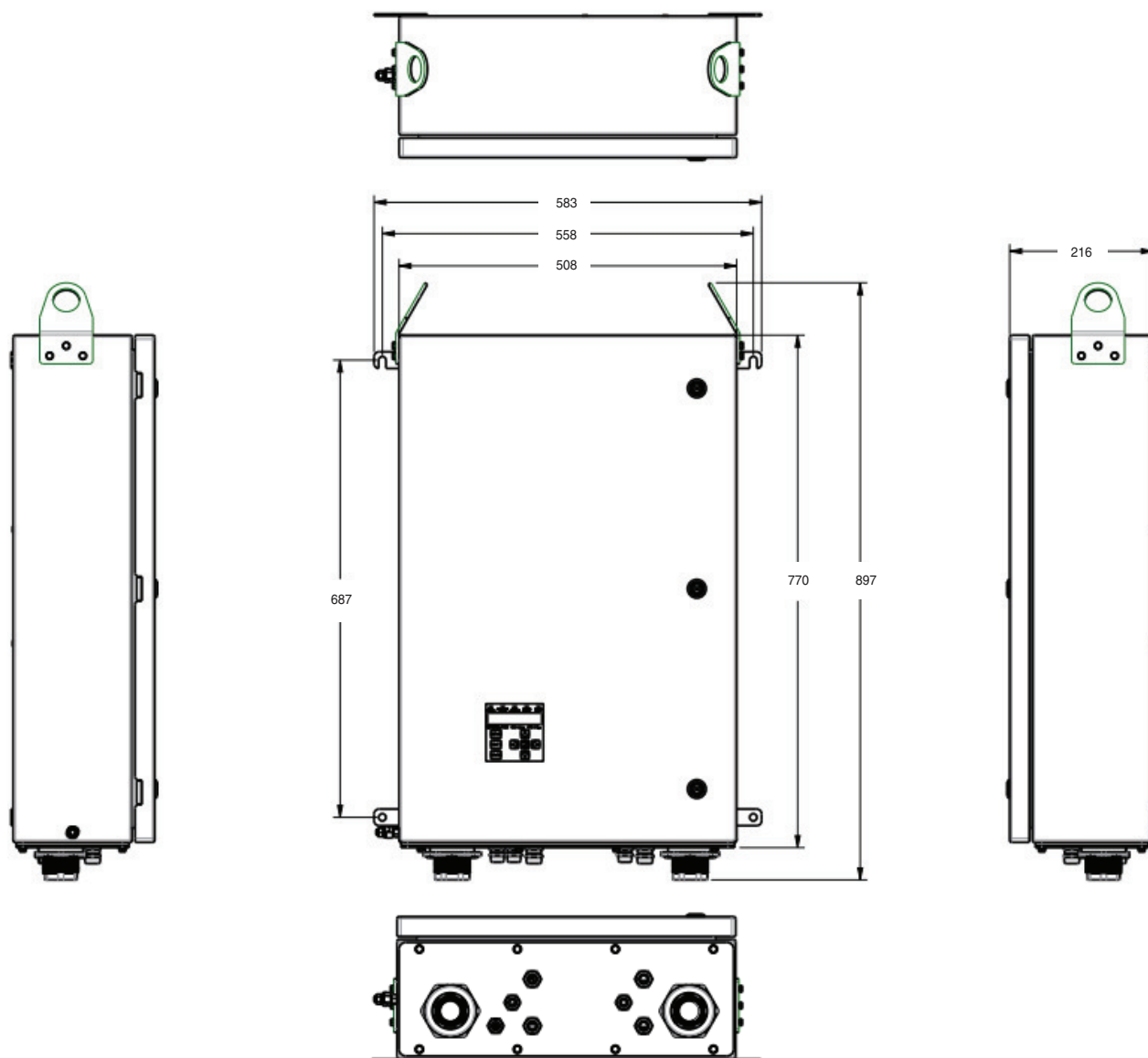
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## Dimensions



## Technical Data

### General specifications

Operating mode	manual, semi-automatic, or fully automatic - programmable
Series	6100 Series
System	Ex pxb Purge
Number of volume exchanges	4 to 19
Hazardous environment	gas

### Supply

Rated voltage	$U_r$	100 ... 250 V AC, 50 ... 60 Hz / 0.2 A 20 ... 30 V DC / 0.6 A
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### Electrical specifications

Connection	
Power	Ex e terminal blocks
Connection	6000-ISB DIN mounted terminal

### Input

## Technical Data

Input type	<b>IS 1:</b> Dedicated for 6000-TEMP-01 (optional) <b>IS 2:</b> Dedicated for 6100-MP-LPP <b>Input 1:</b> SRM, discrete input, Intrinsically Safe <b>Input 2:</b> SRM, discrete input, Intrinsically Safe <b>Input 3:</b> Dedicated for EPV-6100-MP, Flow Signal <b>Input 4:</b> Dedicated high pressure switch, Max Pressure Signal (optional)
<b>Output</b>	
Output I	AUX 1
Output type	Dry contacts, SPDT
Inrush current	5 A
Contact loading	2 A at 240 V AC resistive load 2 A at 24 V DC
Output II	AUX 2
Output type	Dry contacts, SPDT
Inrush current	5 A
Contact loading	2 A at 240 V AC resistive load 2 A at 24 V DC
Output III	enclosure 1 and 2
Output type	Dry contacts (2) SPST, NO
Inrush current	72 A
Contact loading	8 A at 240 V AC / 120 V AC resistive load 8 A at 24 V DC
<b>Indicators/settings</b>	
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) - fault
<b>Pneumatic parameters</b>	
Protective gas supply	regulated and filtered air or inert gas
Pressure requirement	regulated side: 1.4 ... 8.3 bar [20 ... 120 psig] unregulated side: 4.1 ... 8.3 bar [65 ... 120 psig]
Safe pressure	0.62 mbar [0.25 in wc / 6.4 mm wc] minimum for 6100-MP-LPP-*
Purge flow and enclosure pressure rate	2000 l/m ... 14000 l/m see EPV-6100 datasheet for flow rate steps
Valve flows	pressurization valve: manual gate valve purging valve: pilot drive angle seat valve pilot valve: intrinsically safe solenoid valve
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013
RoHS	
Directive 2011/65/EU (RoHS)	EN 50581:2012
<b>Ambient conditions</b>	
Ambient temperature	0 ... 60 °C (32 ... 140 °F) Standard version -20 ... 60 °C (-4 ... 140 °F) Low temp version, no regulator version
Storage temperature	0 ... 80 °C (32 ... 176 °F) Standard version -20 ... 80 °C (-4 ... 176 °F) Low temp version, no regulator version
Relative humidity	5 ... 95 %, noncondensing
Vibration resistance	1 g , 10 ... 150 Hz , all axes
Impact resistance	15 g, 11 ms, all axes
<b>Mechanical specifications</b>	
Connection type	Terminals
Core cross section	see manual
Degree of protection	IP66
Cable entry	3 x M16 holes, plugs that are included are not hazardous-location rated 4 x M20 holes, plugs that are included are not hazardous-location rated

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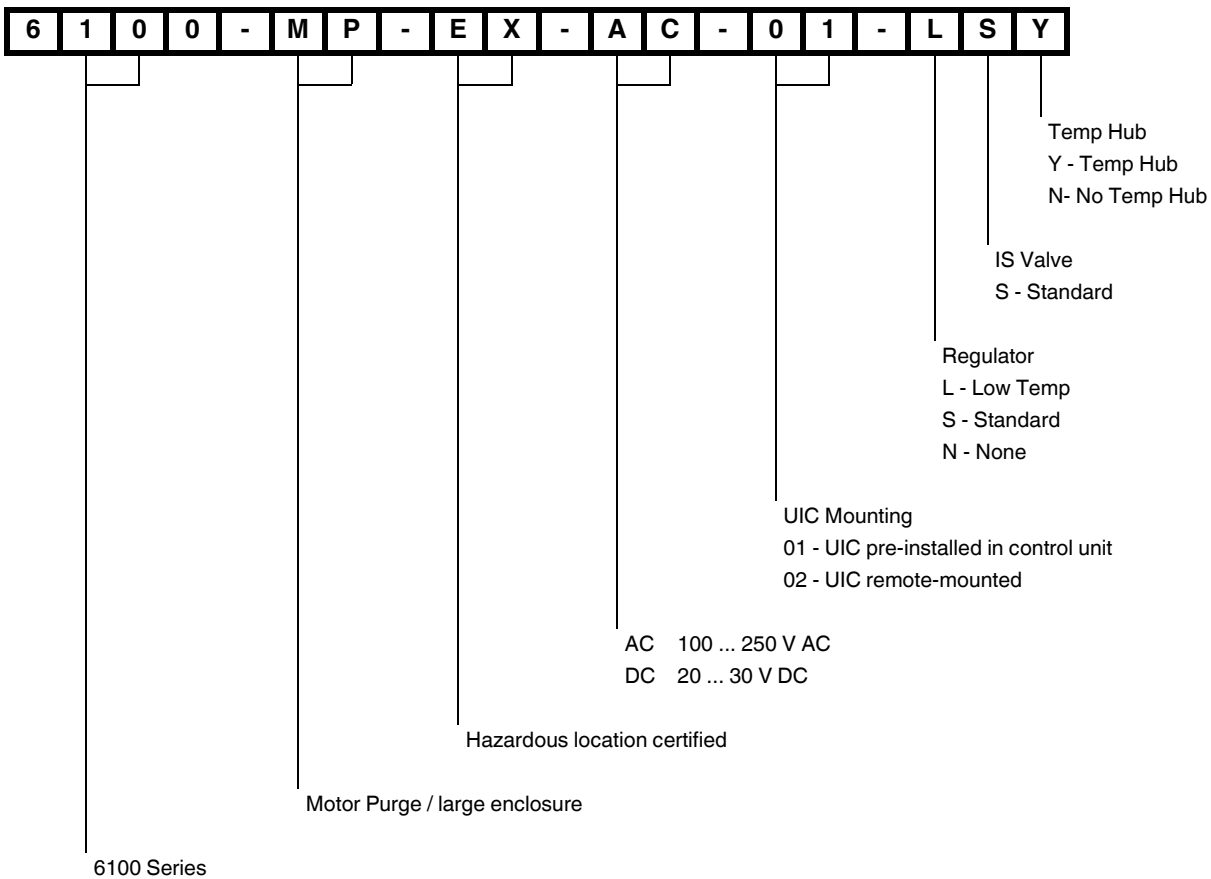
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## Technical Data

Material	inlet and outlet: 1¼ inch NPTF, 316 stainless steel internal piping: copper bulkhead fittings: 316 stainless steel (no regulator model) gate valve: bronze, Grafoil seals purging valve: 316 stainless steel, PTFE seals solenoid valve: brass housing: 316L stainless steel regulator: zinc (standard temp); aluminum (low temp); N/A (no regulator) filter (pneumatic): aluminum tubing (pneumatic): nylon fittings (pneumatic): nickel-plated brass
Mass	47.2 kg (104 lb)
Dimensions	216 mm x 508 mm x 770 mm (8.5 in x 20 in x 30.3 in)
Height	762 mm
Width	558 mm
Depth	213 mm
<b>Data for application in connection with hazardous areas</b>	
Certificate	CML 19 ATEX 1425X
Marking	Ⓔ II 2G Ex db eb ib [ib Gb][pxb Gb] IIC T4 Gb
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-2:2014 EN 60079-7:2015 EN 60079-11:2012
<b>International approvals</b>	
IECEx approval	IECEx CML 19.0156X Ex db eb ib [ib Gb][pxb Gb] IIC T4 Gb
<b>General information</b>	
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> . Supplemental Standards : EN 61010-1:2010

**Type Code**



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