



## PLB5000 Intrinsically safe isolation barrier

### PLZ5291

#### Main features

- Isolated power and communication for Pentronic PLB5000 series temperature transmitters
- Zone 1 gas group IIC
- Communication repeater
- High galvanic isolation
- Part of the PLB5000 measurement system

#### PLB5000 System

The PLB5000 system is designed for high accuracy temperature measurement in harsh environment.

The system provides digital measurement values, has uniquely low power consumption and is easy to install with a minimum of cabling.

Designed for applications where a high degree of flexibility, accuracy and safety is required.

# PLB5000 Intrinsically safe isolation barrier

## Input

Supply	Supply from Ex Zone 2 or non hazardous area
PLB	PLB data bus from Ex Zone 2 or non hazardous area

## Input

Supply Ex	Intrinsic safe power output ex(ib)
PLB Ex	Intrinsic safe PLB data bus ex(ib)

## Performance

Supply Ex capacity	Up to 12 Pentronic PLB5000 series temperature transmitters
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## Service

Status LED	Power and data traffic
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## Electrical characteristics\*

Supply voltage range	15...32 VDC
Power consumption	Max 9.5 W
Heat dissipation	Max 6 W
Reverse polarity protection	Yes
PLB short circuit protection	Yes
Supply short circuit protection	Yes
Galvanic isolation input/output	1 kV

\* For Ex specific data see Ex Documentation

## Mechanical specifications

Housing	Aluminium
Dimensions	35x125x170 mm (WxDxH)
Weight	600 g
Terminal wire size	0.25...2.5 mm <sup>2</sup>
DIN rail	35 mm (DIN EN 60715)

## Environment conditions

Operating temperature	-40...85 °C (-40...185 °F) (IEC 60068-2-1:2007, IEC 60068-2-2:2007)
Storage temperature	-60...85 °C (-76...185 °F) (IEC 60068-2-1:2007, IEC 60068-2-2:2007)
Humidity range	5...95 % RH, non cond. (IEC 60068-2-30:2005, IEC 60068-2-78:2012)
Ingress protection	IP20 (IEC 60529:1989)
Vibration	
sinusoidal	1...150 Hz, 3.5 mm or 4 m/s <sup>2</sup> (IEC 60068-2-6:2007)
random	9...150 Hz, 1 (m/s <sup>2</sup> ) <sup>2</sup> /Hz (IEC 60068-2-64:2008)
shock	6 ms, 250 m/s <sup>2</sup> (IEC 60068-2-27:2008)

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## Directives

EMC	2014/30/EU (EN 61326-1:2013, IEC 61326-3-1:2008)
ATEX	2014/34/EU (EN 60079-0:2018, EN 60079-11:2012 EN 60079-18:2015)
RoHS2	2011/65/EU
WEEE	2012/19/EU

## Ex classification

Ex	II 2(1) G
IECEX	Ex mb [ib Gb] IIC T4 Gb
Ambient temperature range	-40 °C ≤ Tamb ≤ 85 °C (-40 °F ≤ Tamb ≤ 185 °F)

## Order information

PLZ5291	3751000-001
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## Approvals

Ex	Presafe 19 ATEX 34203X
IECEX	IECEX PRE 19.0057X

## Related documents

Ex documentation	PLZ5291 Ex Safety instructions
User instructions	PLZ5291 User manual
Brochure	PLB5000 System leaflet

