

## L12E0101 I.S. Barrier IECEx TSA 23.0006X with Marking [Ex\_ib Mb] I

Type L12E [Ex ib Mb] I Barrier is an industrialised control interface module designed for the rigours of underground mobile mining machinery.

Designed to exacting requirements of IEC 60079.0 and IEC 60079.11 and MSHA CFR 30, this Ex i Barrier Module is designed for world-wide explosive atmosphere regulatory approval allowing it to be installed into any underground environment after certification assessment.

Designed to interface with Pempek Systems L12D I.S. Oracle and L12J I.S. Inclinometer using RS422 communication interface, the Type L12E IS Barrier can be integrated into almost any control system with relative ease since its equipped with a myriad of communication interfaces on the non-I.S. side which includes RS-422, CAN and Ethernet.

The apparatus shall be installed in a flameproof enclosure or in a safe area in an enclosure with an ingress protection of at least IP54.

- Highly ruggedised, industrial design using all industrial grade components.
- A nominal operating temperature range spanning -20°C ... 70 °C
- IECEx I approvals and pending in other parts of the world.
- Features internal I.S. power supply to power up I.S. devices connected to the barrier in the field.
- Simplifies machine installation for connecting devices.



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### Specifications

I.S. Power (Blue)	
U <sub>o</sub>	5.355VIS
I <sub>o</sub>	2.46A
P <sub>o</sub>	1.46W
C <sub>o</sub>	498µF
L <sub>o</sub>	27.5µH
Non-I.S. Power (Green)	
U	15-30VDC
I	0.2A max
Electronics	
I.S. Interface	RS-422
Non-I.S Interface	RS-422, CAN 2.0B, Ethernet
Mechanical	
Material	Brass / Teflon / Stainless Steel
Width	88mm
Height	93mm
Depth	48mm
Mass	500g
Environmental	
Operating Temperature	-20°C..+70°C
Operating relative humidity	10-90% non-condensing
Approvals	
IEC Australia	IECEx TSA 23.0006X Group I
MA China	Pending
MSHA USA	Pending
ATEX Europe	Pending
MASC RSA	M/23-8594X

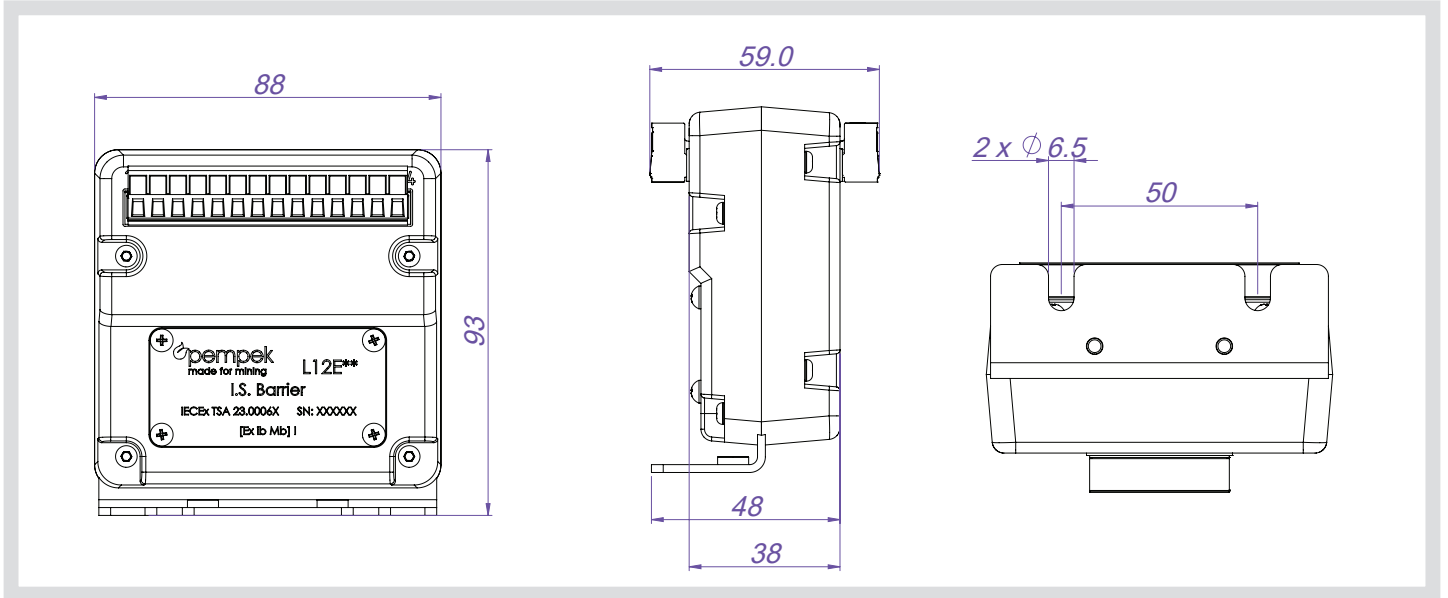
### Wiring

B12E3 Green Connector		External Wiring
Item	PIN	LABEL
1	J2-1	Shield
2	J2-2	Ethernet-Tx-
3	J2-3	Ethernet-Tx+
4	J2-4	Ethernet-Rx+
5	J2-5	Ethernet-Rx-
6	J2-6	RS422-Rx+
7	J2-7	RS422-Rx-
8	J2-8	RS422-Tx-
9	J2-9	RS422-Tx+
10	J2-10	CAN-L
11	J2-11	CAN-H
12	J2-12	Shield
13	J2-13	0V
14	J2-14	+ Vin

B12E Blue Connector		External Wiring
Item	PIN	LABEL
1	J2-1	+ VIS
2	J2-2	OVIS
3	J2-3	RS422-Rx+
4	J2-4	RS422-Rx-
5	J2-5	RS422-Tx+
6	J2-6	RS422-Tx-
7	J2-7	N/C

## L12E0101 I.S. Barrier IECEx TSA 23.0006X with Marking [Ex\_ib Mb] I

### Dimensions



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