L12J0101 I.S Inclinometer Module IECEx TSA 23.0005X with Marking Ex ib I Mb

Type L12J Ex ib I Mb Machine Mounted Inclinometer is an industrialised 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 inclinometer module is designed and approved under certificate number IECEx TSA 23.0005X for world-wide explosive atmosphere regulatory approval allowing it to be installed into any underground environment after certification assessment.

- The L12J** I.S. Inclinometer is a high-performance inclinometer component featuring three-axis inclinometer sensor with angle output based on capacitive 3D-MEMS technology designed to be used on mining machines such as continuous miners, bolter miners, road headers, loaders, trucks etc.
- The L12J** provides high stability, reliability and quality and has extremely stable output over wide range of temperatures and vibration that guarantees reliable operation over product's lifetime.
- Designed to interface with Pempek Systems L12E barrier to integrate with non-I.S. systems using



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RS422 communication interface, the Type L12J** I, S. Inclinometer can be integrated into almost any control system with relative ease.

- Highly ruggedised, industrial design using all brass and PTFE industrial grade components.
- Three-axis inclinometer sensor with angle output based on capacitive 3D-MEMS technology.
- A nominal operating temperature range spanning -20°C. +40°C class with an IP66/67 ingress protection rating.
- Simplifies machine installation.

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Specifications		Wiring		
Power			B12J3 Board	External Wiring
Un	3.5-5.5∨	Item	PIN	LABEL
In	< 30mA	1	J1-1	+ VIS
Li	OuH	2	J1-2	OVIS
Ci	< 10uF	3	J1-3	RS422-Rx+
Electronics		4	J1-4	R\$422-Rx-
Interfaces	RS-422	5	J1-5	R\$422-Tx+
Inclinometer	3-axis (XYZ)	6	J1-6	R\$422-Tx-
Measurement range	±90°	7	J1-7	OVIS
Long term Accuracy	<0.2° after calibration	/	JI-/	0 13
Linearity error	+/-2mg (at -1g to 1g)			
Integrated noise	0.13mg(rms)			
Lifetime drift	+/-4mg (~0.3deg)			
Offset temperature error	+/-0.005deg/degC			
Mechanical				
Material	Brass / Teflon / Stainless Steel			
Width	110mm			
Height	55mm			
Depth	69mm			
Mass	715g			
Environmental				
Operating Temperature	-20°C. +40°C			
Ingress Protection	IP66/67			
Operating relative humidity	10-90% non-condensing			
Approvals				
IEC Australia	IECEx TSA 23.0005X Group I			
MA China	Pending			
MSHA USA	Pending			

Dimensions (mm)

ATEX Europe



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