CAN-bus slope sensor

Description
FSI-CAN is a sigle-axis inclination sensor with CanBus interface. The sensor can be used for measuring the angular tilt in reference to gravity.

It can operate in the measurement range of 360°. Inclination measuring is based on the high accuracy accelerometer IC.

Each inclination sensor is factory calibrated at 25 °C to guarantee high accuracy.

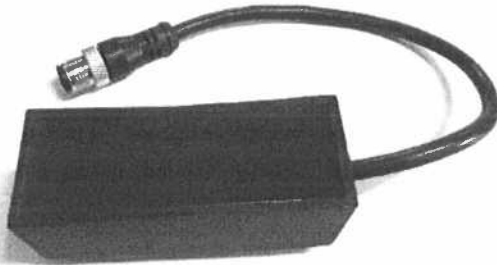The inclination sensor has hardware and software filters to reduce interference.

Setting
Using configuration parameter, which are stored permanently in the internal device memory, it is possible to make the inclination sensor suitable for differents application solutions.

In particular, using special CanBus message, it is possible to configure:
- baud rate (up to 500kb/s)
- Node-ID
- transmission interval
and other parameters.

Using a "calibration" CanBus message it is possible to perform the Zero-calibration.

Features
The inclination sensor is supplied with M12 male connector with cable of 25 cm.
A metallic support is also provided to facilitate the fitting.

The inclination value is written cyclically (interval adjustable) to the bus.

The inclination sensor are not terminated internally (optional).

The CanBus protocol complies with CAN Specification version 2.0B.

Connections

M12 Male connector
(frontal view)
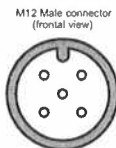
PIN	SIGNAL	
1	(CAN_SHLD)	(Optional) Can Shield
2	Valim	Supply voltage
3	GND	GND (device and CanBus line)
4	CAN_H	CAN_H-bus line
5	CAN_L	CAN_L-bus line

Technical specifications

Power supply	10Vdc ÷ 30Vdc
Current absorption	18mA @ 12VDC, 20mA @ 24VDC
Working temperature range	-40 ÷ +70 °C
Seal integrity	IP67
Resolution	0,01°
Accuracy	0,16°
Measurement range	0° ÷ 360°
Temperature drift	0,01° / °C
Overall dimensions (without connector)	80mm x 40mm x 35mm

Ordering code

Code: PSIC _ _ F _ _ _
                    └─ CanBus Protocol
                    └─ Measurement Range

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