

DMS-CB

Description

This inclinometer module is available with one or two measurement axes. The inclinometer working principle is based on a micromachined silicon capacitive transducer (developed with MEMS technology). This inclinometer has a compact design, low vibration sensitivity, low price and find application in a variety of industrial and automotive application. The CAN BUS interface enables the device to be directly linked to machine network. Typical application are cranes, aerial platforms, drilling machines and excavators. The CAN protocol is CAN open and conforms to CiA DSP 410 device profile for inclinometer.



Features

- Inclination sensor one or two axis;
- MEMS primary sensor;
- Angular range two axis $\pm 5^\circ$ - $\pm 60^\circ$ DMS-CB-O;
- Angular range one axis from 0 to 360° DMS-CB-V;
- CAN interface 2.0 B, ISO11898;
- No moving parts;
- Coated Zama Housing;
- Protection IP67;
- Electronics encapsulated with resin;
- MIL 5015 and Binder M12 connector;
- Bicolor Led operating status.

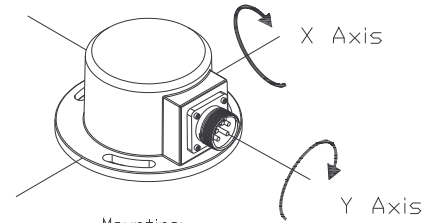
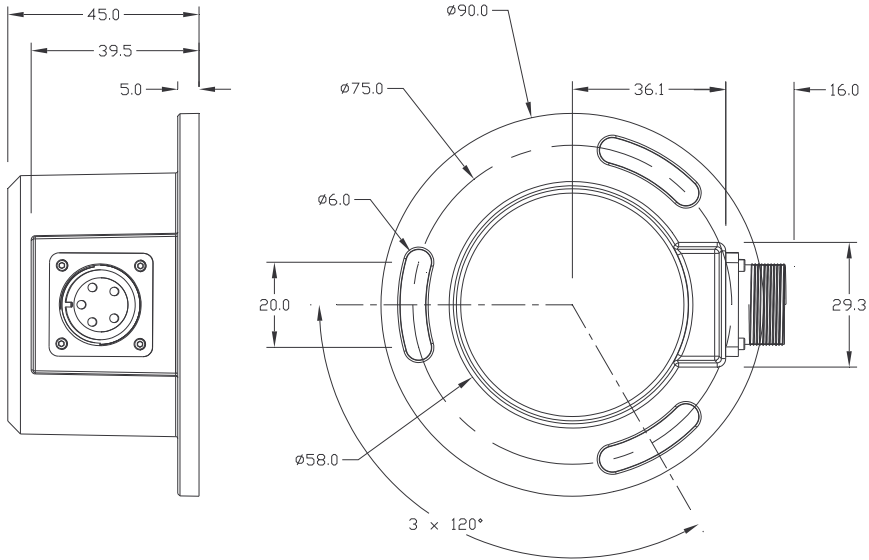
Technical specifications

Measuring range	°	$\pm 5^\circ$ to $\pm 60^\circ$ (programmable) Type O 0° to 360° single axis Type V
Input voltage	Volt	10 to 30 (max 32)
Output	-	CAN interface 2.0 B, ISO11898-2
Baud Rate	Bit/s	10K ÷ 1M Programmable
Non linearity	% F.S.	max 1
Resolution	°	0.01
Insulation Resistance	MOhm	> 100 @500Vdc
Temperature compensated Range	°C	-0 ÷ +60 -20° ÷ +70°
Stocking Temperature	°C	-40° + 80°
Frequency Response	s	0.3 (factory calibrated)
Zero temperature drift T 0°C- 60°C	°	< 0.005
Temperature Sensitivity drift T 0°C -60°C	°	< 0.002
Shock resistance	MIL- STD 202 E 213 B	1000 G
Vibration resistance	MIL STD 202E 204 C	20 G (10 to 2000 Hertz)

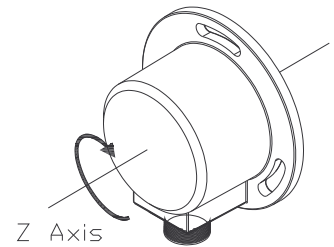


MOBILE AUTOMATION

Dimensions and mounting

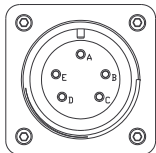


Mounting:
Horizontal
Tilt:
positive rotation
shown in figure

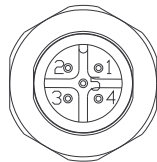


Mounting:
Vertical
Tilt:
positive rotation
shown in figure

Connections



CONNECTOR
Amphenol
Military series
MS3102A14S5



CONNECTOR
Binder
763 series
09-3441-88-05

- | | | | |
|----------------------------------|----------|---------------------------------|----------|
| A. Gnd | D. CAN_H | 1. Gnd | 4. CAN_H |
| B. Supply Voltage
(10-30 Vdc) | E. CAN_L | 2. Supply Voltage
(10-30Vdc) | 5. CAN_L |
| C. CAN_Gnd | | 3. CAN_Gnd | |

Ordering Informations

Ordering Information	
DMS-CB-X-XXX-X	
	CB: CANBUS output
	V: for vertical mounting (one axis), □: for Horizontal mounting (two axis)
	Angle range (each axis)
P: Connector Mil 5015 5 PIN; PR: P + termination resistor; M: M12 Binder connector; MR: M + termination resistor; D: Double M12 connectors to allow CAN-BUS signal pass through	

