

DPS-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.



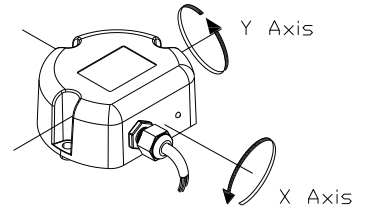
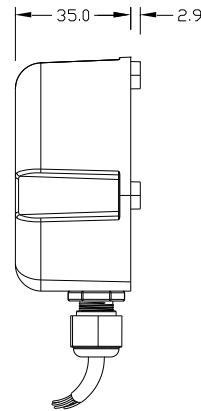
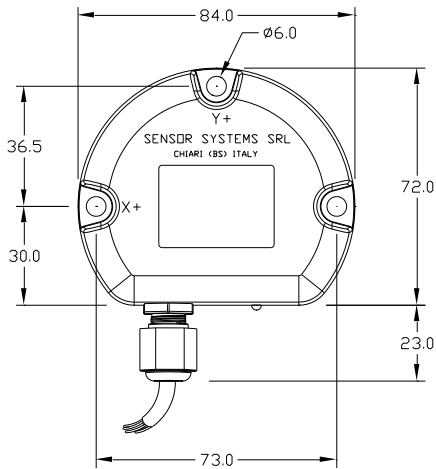
Features

- Inclination sensor one or two axis;
- MEMS primary sensor;
- Angular range: two axis $\pm 5^\circ \dots \pm 60^\circ$ DPS-CB-O;
- Angular range: one axis from 0 to 360° DPS-CB-V;
- CAN interface 2.0 B, ISO11898;
- No moving parts;
- PBT Ultradur black Resin Housing;
- Protection IP67;
- Electronics encapsulated with resin;
- Cable gland exit or connector;
- Bicolor status operating LED.

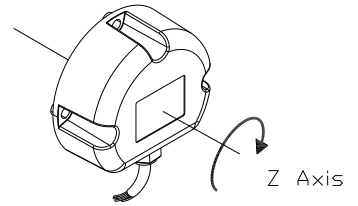
Technical specifications

| | | |
|--|----------------------|--|
| 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 | sec | 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 D | 20 g_(10 to 2000 Hertz) |

Dimensions and mounting

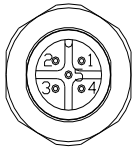


Mounting:
Horizontal
Tilt:
positive rotation
shown in figure



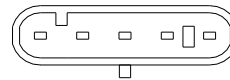
Mounting:
Vertical
Tilt:
positive rotation
shown in figure

Connections



CONNECTOR

Binder
763 Series
09-3441-88-05



CONNECTOR

AMP
Superseal series
282107-1

- | | |
|----------------------------------|----------|
| 1. Gnd | 4. CAN_H |
| 2. Supply Voltage (10-30 Vdc) | 5. CAN_L |
| 3. CAN_Gnd | |

- | | |
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Ordering informations

| Ordering Information | |
|--|--|
| DPS-CB-X-XXX-XX | |
| | CB: CANBUS output |
| | V: for vertical mounting (one axis), H: for Horizontal mounting (two axis) |
| | Measuring range (0°-360° V version, 5°-60° H version) |
| P: cable gland 300 mm exit wire; C: P + AMP 5 ways superseal connector; PR: P + termination resistor; CR: C + termination resistor; D1: Two cable gland exit 300 mm long wire; D2: D1 + 2 AMP 5 ways superseal connectors; B: Binder Connector | |