



The TRS.2SSR is an inclinometer sensor and it's based on a single CPU and a single 3D MEMS accelerometer.

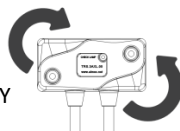
This version provide to switch a relay with dry contacts on a set threshold value.

It can be implemented as SLAVE in a CAN network.

The polyurethane resin case makes the controller is suitable for use on machines that operate in harsh work environments



TILT
MODALITY



ANGULAR
MODALITY

TECHNICAL FEATURES

| | | |
|----------------------------|--------------------------|---|
| MASTER CODE | | TRS.2SSR |
| POWER SUPPLY | | 9-36 VDC / CURRENT CONSUMPTION 15 mA AT 24 VDC (stand-by) |
| CAN BUS | 1 PORT | 2.0B COMPLIANT - (11, 29 BIT) - ISO 11898 - UP TO 1MBIT/S |
| CAN BUS PROTOCOLS | | CAN OPEN (CIA DS410 DEVICE PROFILE FOR INCLINOMETER, WITH DS306 COMPLIANT EDS FILE) |
| OUTPUT | RELAY SWITCH DRY CONTACT | |
| | MAX CURRENT | 2 A |
| | OVER CURRENT PROTECTION | NO |
| | SHORT CIRCUIT PROTECTION | NO |
| TECHNOLOGY | | 3D MEMS ACCELEROMETER |
| SAFETY | | SINGLE CPU AND SINGLE SENSOR |
| MEASURE OPTIONS | ANGLE | |
| | TILT | |
| LED | | NR.1 STATUS LED |
| CONNECTION PORT | | WIRED, WITH 30 cm SINGLE CABLE LENGHT |
| CASE | | PUR UL94-V0 |
| WORKING TEMPERATURE | | -40°C +80°C |





ELECTRONIC FEATURES

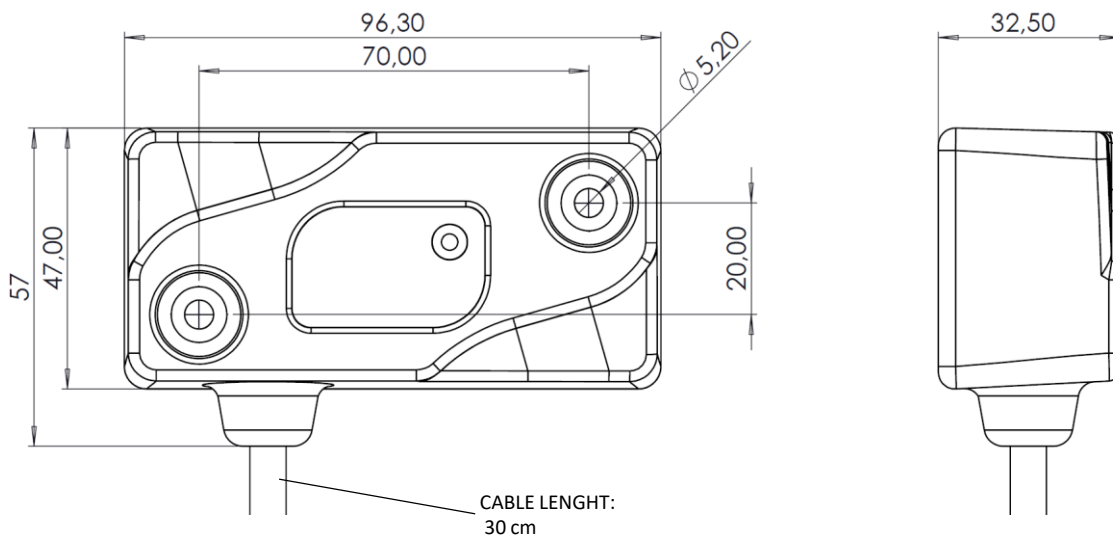
| | | |
|------------------------|---|------------|
| SLAVE USAGE | BY EDS FILE (CODESYS COMPATIBLE) | |
| PROGRAMMING | FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL | |
| CONFIGURING | THROUGH ALTILT CONFIG | |
| CPU | SINGLE 16 bit MICROCONTROLLER CORE | |
| SAMPLE TIME | LESS THAN 5 ms | |
| MEASURING RANGE | TILT | 0 - 360° |
| | ANGLE | -180°+180° |
| ACCURACY | TILT | 0,01° |
| | ANGLE | 0,1° |

STANDARDS

| | |
|---|---|
| ELECTROMAGNETIC EMISSIONS | EN 61000-6-4// EN 55011 (RF RADIATE) |
| ELECTROMAGNETIC IMMUNITY | EN 61000-6-2// EN 61000-4-2/3/4/6 |
| IP | BOX: IP67 |
| MTTFd | 216,03 YEARS CALCULATED ACCORDING TO THE IEC61709 (SIEMENS SN29500), WITH ENVIRONMENTAL FACTORS 3K7 (IEC60721) |
| PERFORMANCE AND SAFETY INTEGRITY LEVEL | PLc – SIL1 (SINGLE CHANNEL INTERNAL SCHEME) |

IN ACCORDANCE WITH THE EN50498 THE DEVICE MEETS THE TECHNICAL SPECIFIC REQUIREMENTS OF 2004/104 DIRECTIVE (AUTOMOTIVE).
THE DEVICE IS EMC 2004/108 COMPLIANT.

SIZE (mm)

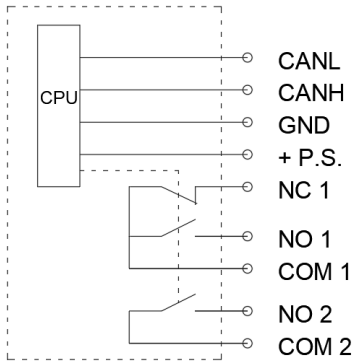




OUTPUT FEATURES

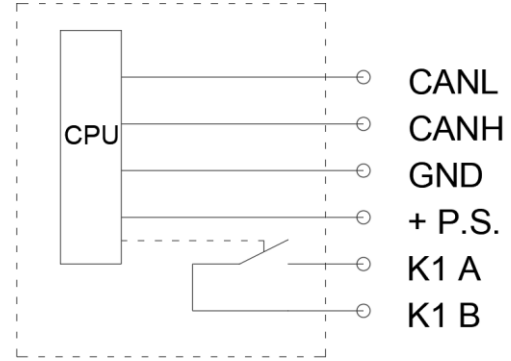
CONFIGURATION A



OUTPUT SWITCH RELAY WITH DRY CONTACT
No.2 NO CONTACT
No.1 NC CONTACT



CONFIGURATION B

OUTPUT SWITCH RELAY WITH DRY CONTACT
No.1 NO CONTACT



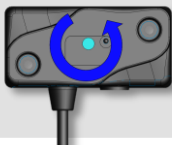
| CONNECTOR | PIN | WIRE COLOR | DESCRIPRION |
|--|-----|------------|------------------|
| CONNECTOR 1 AMP SUPERSEAL 4 PIN FPM  | 1 | BN | POSITIVE P.S. |
| | 2 | YE | CAN L |
| | 3 | WH | GND POWER SUPPLY |
| | 4 | RD | CAN H |
| CONNECTOR 2 AMP SUPERSEAL 6 PIN MPF  | 1 | VT | ZERO IN |
| | 2 | TQ | NC SWITCH 1 |
| | 3 | BK | NO SWITCH 1 |
| | 4 | GY | COM SWITCH 1 |
| | 5 | GN | NO SWITCH 2 |
| | 6 | PK | COM SWITCH 2 |

| CONNECTOR | PIN | WIRE COLOR | DESCRIPRION |
|---|-----|------------|---------------------|
| CONNECTOR 1 AMP SUPERSEAL 6 PIN FPM  | 1 | BN | POSITIVE P.S. |
| | 2 | YE | CAN L |
| | 3 | WH | GND POWER SUPPLY |
| | 4 | RD | CAN H |
| | 5 | VT | NO SWITCH IN (K1A) |
| | 6 | TQ | NO SWITCH OUT (K1B) |

MEASURE OPTIONS

S01

TRASDUCER WITH ANGLE MEASUREMENT MODE ONLY ON Z AXIS
(ANGLE MEASUREMENT)



S04

TRASDUCER WITH ANGLE MEASUREMENT MODE ON X & Y AXIS
(TILT MEASUREMENT)





ALMEC
MECHATRONICS

NOTE