TRS.184

THREEAXIAL ANGULAR SAFETY SENSOR with DINAMIC COMPENSATION

- Double CPU, a double 3D-MEMS accelerometer and a double gyroscope, in a fully redundant circuit scheme
- The device can filter and improve the measure accuracy in presence of vibration and acceleration loads
- Implementable as a SLAVE in a CAN network
- Polyurethane resin case
- E3 certified UNECE regulation 10 automotive

TECHNICAL FEATURES		
MASTER CODE		TRS.184
POWER SUPPLY		9-36 VDC / CURRENT CONSUMPTION 10 mA AT 24 VDC
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)
TECHNOLOGY		3D-MEMS ACCELEROMETER AND GYROSCOPE
SAFETY		DOUBLE CPU AND DOUBLE SENSOR
CONNECTION PORT		WIRED, WITH SUPERSEAL/M12 CONNECTOR
LED		N.1 BI-COLOR STATUS LED
CASE		ENCAPSULATED IN PUR RESIN - SELF-EXTINGUISHING UL94 (V0)
WORKING TEMPERATURE		-40°C +85°C (TEMPERATURE DRIFT-REDUCTION)

MEASURE FEATURES	
OPTIONS	ANGLE – TILT
FILTERING	USER CONFIGURABLE
RESOLUTION	UP TO 0,01°
ADDITIONAL DATA	3-AXIS ACCELERATION ACCURACY: 0,5 mg/sample 3-AXIS ROTATION SPEED ACCURACY: 0,03 (deg/s)/sample

Scan me

(25/06/2025) - 1

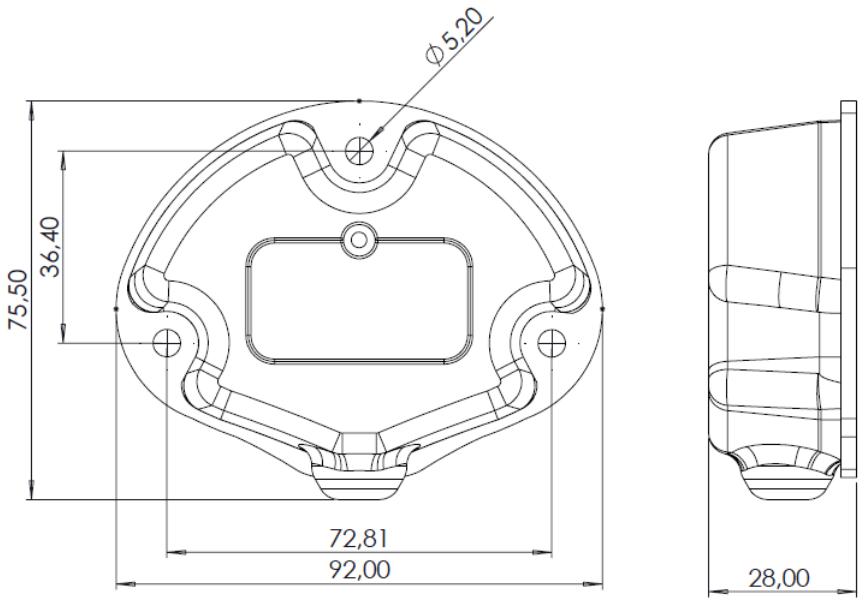
TRS.184

THREEAXIAL ANGULAR SAFETY SENSOR with DINAMIC COMPENSATION

ELECTRONIC FEATURES	
SLAVE USAGE	EDS FILE
PROGRAMMING	FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL
CONFIGURING	THROUGH ALTILT CONFIG
SAMPLE TIME	LESS THAN 5 ms
CPU	DOUBLE ARM CORTEX M4, 32 bit MICROCONTROLLER CORE

STANDARDS	
ELECTROMAGNETIC EMISSIONS	EN 61000-6-4
ELECTROMAGNETIC IMMUNITY	EN 61000-6-2
ROAD VEHICLES — ELECTRICAL DISTURBANCES FROM CONDUCTION AND COUPLING — PART 2	ISO 7637-2: 2011
ROAD VEHICLES — COMPONENT TEST METHODS FOR ELECTRICAL DISTURBANCES FROM NARROWBAND RADIATED ELECTROMAGNETIC ENERGY — PART 1	ISO 11452-1: 2005
VERIFICATIONS AND TESTS PERFORMED ACCORDING TO THE REQUIREMENTS OF UNECE REGULATION 10 - AMENDMENT 06 - SUPPLEMENT 0	E3 – TYPE APPROVAL
BOX IP	IP68
MTTFd CALCULATED ACCORDING TO THE IEC61709 (SIEMENS SN29500), WITH ENVIRONMENTAL FACTORS 3K7 (IEC60721)	231,98 YEARS
PERFORMANCE AND SAFETY INTEGRITY LEVEL	PLd – SIL2 (DUAL CHANNEL INTERNAL SCHEME)

SIZE (mm)



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TRS.184

THREEAXIAL ANGULAR SAFETY SENSOR with DINAMIC COMPENSATION

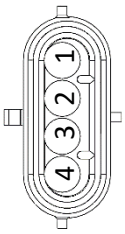
ELECTRICAL CONNECTIONS

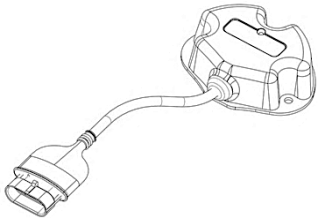
CABLE + CONNECTOR

SUPERSEAL CONNECTOR
4 POLES

CABLE L: 300 mm

PINOUT	
1	POSITIVE POWER SUPPLY
2	CAN L
3	GND
4	CAN H



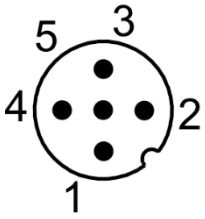


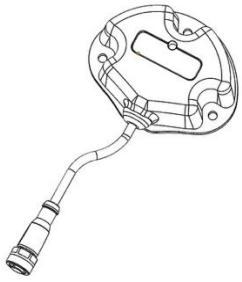
CABLE + CONNECTOR

M12 MALE CONNECTOR
5 POLES

CABLE L: 50 or 300 mm

PINOUT	
1	CAN GND
2	POSITIVE POWER SUPPLY
3	GND
4	CAN H
5	CAN L

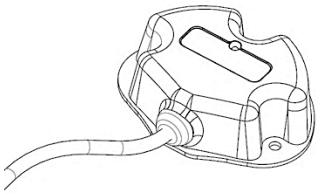




CABLE

CABLE L: 1000 mm

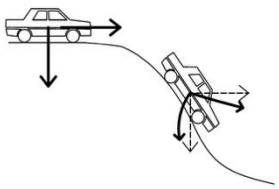
PINOUT	
BN	POSITIVE POWER SUPPLY
WH	CAN L
BU	GND
BK	CAN H



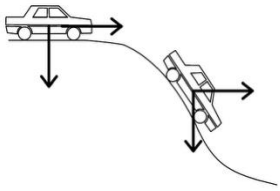
FEATURES

DEVICE SUITABLE FOR MOTION APPLICATION WITH BASIC CONSTANT REFERENCE

ACCURANCY OF A TRADITIONAL DEVICE

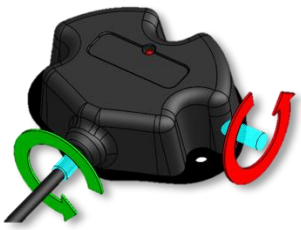


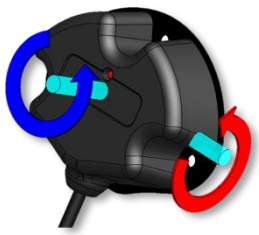
ACCURANCY WITH TRS.184



MEASURE OPTIONS

S00	S01	S04	S10
TRANSDUCER IN ANGLE MEASUREMENT MODE ON X, Y, Z AXES, WITH CONFIGURABLE PARAMETERS	TRANSDUCER IN ANGLE MEASUREMENT MODE ON Z AXLE	TRANSDUCER IN TILT MEASUREMENT MODE ON X AND Y AXES	TRANSDUCER IN ROTATION MEASUREMENT MODE ON Z AND Y AXES





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NOTE