

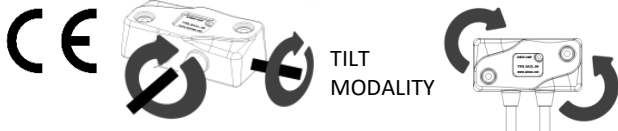


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THREEAXIAL ANGULAR SENSOR



- Quick and easy to use.
- Single CPU and a single 3D MEMS accelerometer
- Implementable as a SLAVE in a CAN network
- Polyurethane resin case



TECHNICAL FEATURES

MASTER CODE	TRS.QEU
POWER SUPPLY	9-36 VDC / CURRENT CONSUMPTION 15 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)
OUTPUT OPTIONS	4 ÷ 20 mA 0 ÷ 5 VDC DIGITAL ON/OFF TRIGGER
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 CABLE LENGHT
CASE	ENCAPSULATED IN PUR RESIN - SELF-EXTINGUISHING UL94 (V0)
WORKING TEMPERATURE	-40°C +80°C



(20/02/2026) - 1



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ELECTRONIC FEATURES

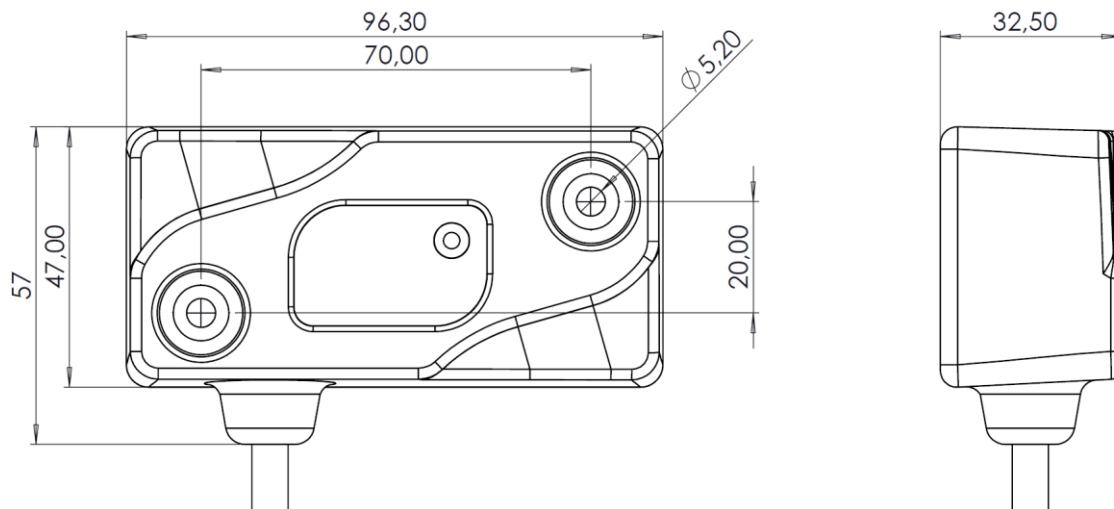
SLAVE USAGE	EDS FILE	
PROGRAMMING	FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL	
CONFIGURING	THROUGH ALTILT CONFIG	
CPU	SINGLE 16 bit MICROCONTROLLER CORE	
SAMPLE TIME	LESS THAN 5 ms	
MEASURING RANGE	TILT	-180°+180°
	ANGLE	0 - 360°
ACCURACY	TILT	0,01°
	ANGLE	0,1°

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: IP68
MTTFd	216,03 YEARS CALCULATED ACCORDING TO THE IEC61709 (SIEMENS SN29500), WITH ENVIRONMENTAL FACTORS 7K3 (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)







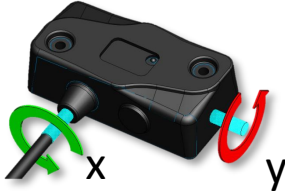


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OUTPUT FEATURES					
0..5 V		4..20 mA		DIGITAL OUTPUT	
MIN RESISTANCE LOAD	10 kΩ	MAX RESISTANCE LOAD	500 Ω	MAX OUTPUT CURRENT	500 mA PROTECTED AGAINST SHORT CIRCUIT AND REVERSE POLARITY
CENTRAL (0°) OUTPUT VALUE	2,5V	CENTRAL (0°) OUTPUT VALUE	12 mA		
MIN OUTPUT VOLTAGE	0,5V	MIN OUTPUT CURRENT	4 mA		
MAX OUTPUT VOLTAGE	5V	MAX OUTPUT CURRENT	20 mA		
NUMBER OF OUTPUT STEPS	4096 (12 BIT)	NUMBER OF OUTPUT STEPS	4096 (12 BIT)		

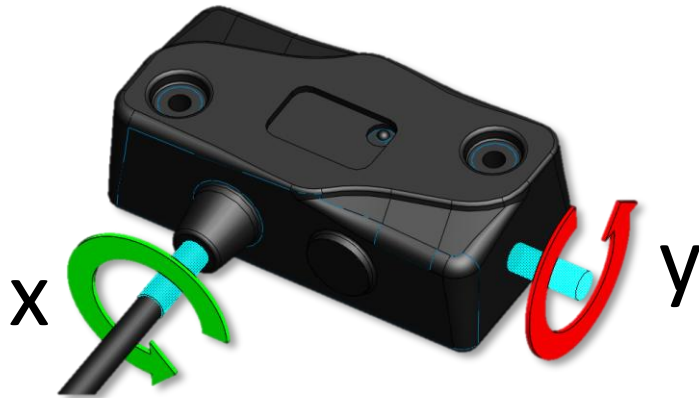
ELECTRICAL CONNECTIONS					
CONFIGURATION	CONNECTOR	CONNECTIONS			
ANGLE / TILT SENSOR	AMP SUPERSEAL 4 PIN FPM 	1	BN	POSITIVE POWER SUPPLY	
		2	WH	CANL	
		3	BU	GND POWER SUPPLY	
		4	BK	CANH	
ANGLE / TILT SENSOR N.1 OUTPUT	AMP SUPERSEAL 5 PIN FPM 	1	BN	+	
		2	OG	CAN H	
		3	WH	-	
		4	YE	CAN L	
		5	VT	OUTPUT	
ANGLE / TILT SENSOR N.2 OUTPUTS	AMP SUPERSEAL 6 PIN FPM 	1	BN	+	
		2	OG	CAN H	
		3	WH	-	
		4	YE	CAN L	
		5	VT	OUTPUT 1	
		6	TQ	OUTPUT 2	

MEASURE OPTIONS	
S01	S04
TRASDUCER WITH ANGLE MEASUREMENT MODE ONLY ON Z AXIS (ANGLE MEASUREMENT) 	TRASDUCER WITH ANGLE MEASUREMENT MODE ON X & Y AXIS (TILT MEASUREMENT) 



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THREEAXIAL ANGULAR SENSOR



N°	Col.	Board connection	Values
1	BN		
2	WH		
3	YE		
4	OG		
5	BU		I output X
6	BK		I output Y
7	VT		V output X
8	GY		V output Y



NOTE