



Inclination sensor

INC-M2M180C-1-KG/US-H



Product characteristics		
Measuring principle		MEMS capacitive; (Acceleration sensor ; gyroscope)
Number of measurement axes		2; (X/Y)
Communication interface		CAN
Inclination measurement		
Angular range	[°]	± 90
Application		
Function principle		dynamic
Application		High-precision inclination measurement in dynamic applications
Electrical data		
Operating voltage	[V]	9...30 DC
Current consumption	[mA]	< 65; (9 ... 30 V DC)
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Reverse polarity protection		yes
Measuring/setting range		
Measuring principle		MEMS capacitive; (Acceleration sensor ; gyroscope)
Number of measurement axes		2; (X/Y)



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Inclination measurement		
Angular range	[°]	± 90
Measuring range acceleration	[g]	± 4
Measuring range vehicle yaw rate	[°/s]	± 500
Accuracy / deviations		
Hysteresis	[°]	≤ ± 0,05
Repeatability	[°]	± 0,05
Resolution	[°]	0.01; (parameterisable)
Temperature coefficient	[1/K]	≤ ± 0,008°
Dynamic measurement		
Accuracy	[°]	± 0,5
Static measurement		
Accuracy	[°]	± 0,3
Interfaces		
Communication interface		CAN
Number of CAN interfaces		1
Terminating resistor		yes; (internal ; parameterisable)
CAN		
Protocol		CANopen
Factory settings		Baud rate: 125 kBit/s node ID: 10
Version		CiA DS301 V4.2.0; DSP-410 V2.0.0; CiA 306 V1.3.0
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Protection		IP 67; IP 68; IP 69K
Tests / approvals		
EMC		DIN EN 61000-6-2
		DIN EN 61000-6-4
Shock resistance		DIN EN 60068-2-27
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	260
Mechanical data		
Weight	[g]	198
Dimensions	[mm]	27 x 59 x 105.3
Materials		housing: diecast aluminium black; potting compound: polyurethane resin
Installation position		horizontal
Displays / operating elements		
Display	preoperational mode	1 x LED, green
	operational mode	1 x LED, green flashing
	fault	1 x LED, red
Accessories		
Items supplied		Protective cover: 1

JD2110



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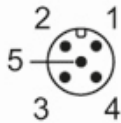
INC-M2M180C-1-KG/US-H

Remarks

Pack quantity	1 pcs.
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Electrical connection - CAN-In

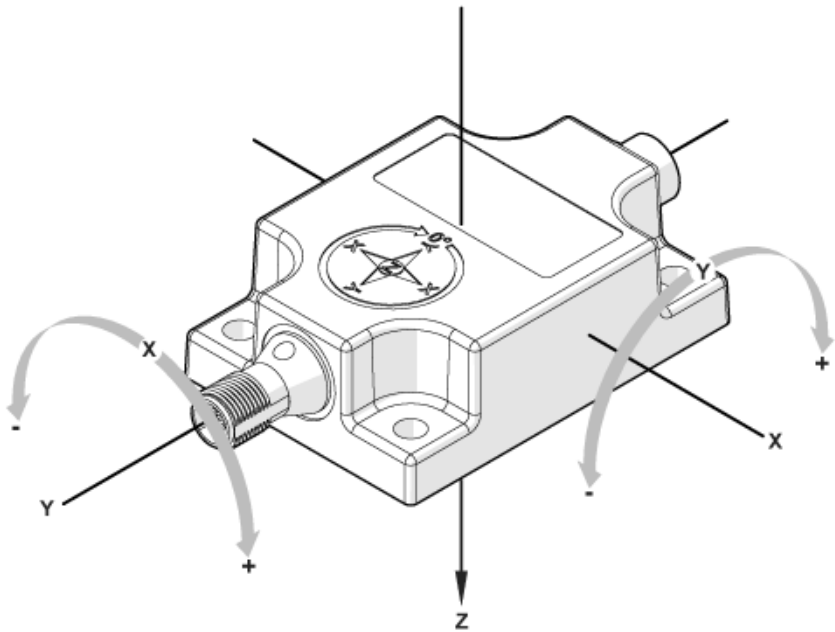
Connector: 1 x M12; coding: A



1	CAN_GND
2	power supply
3	GND
4	CAN_H
5	CAN_L

Diagrams and graphs

measuring and installation direction



horizontal installation position / rotation about x- and y-axis