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TILTIX Inclinometer

ACS-080-2-M100-HK2-PN

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General Specifications

Application	2-Axes Position Monitoring and Leveling
Measurement Range	$\pm 80^\circ$
Absolute Accuracy	$\pm 0.10^\circ$ (within $\pm 60^\circ$ range)
Resolution	0.01°

Electrical Specifications

Supply Voltage	4.5 - 30 VDC
Current Consumption	≤ 100 mA @5V, ≤ 45 mA @10V, ≤ 25 mA @24V
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
MTTF	450 years @ 40 °C

Environmental Specifications

Operating Temperature	- +85 °C (+185 °F)
Storage Temperature	-40 °C (-40 °F) - +85 °C (+185 °F)
Temperature Gradient	0.004°/ K
Protection Class	IP68/IP69K
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)



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Vibration Resistance	1.5 mm (10 Hz - 58 Hz) & ≤ 20 g (58 Hz to 2000 Hz)
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Mechanical Specifications

Housing Material	Die-Cast Aluminum Alloy
Potting Material	PUR (Polyurethane)
Weight	220 g (0.49 lb)

Interface

Interface	Modbus RTU
Settling Time	320 ms
Output Driver	Line Driver RS485
Default Node ID	127d

Electrical Connection

Connection Type	Connector 2 x M12 (m+f)
Connector 1	M12, Male, 5 pin, a coded
Connector 2	M12, Female, 5 pin, a coded

Product Life Cycle

Product Life Cycle	New
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Certification

Approval	CE + cULus
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Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
Power Supply	Connector 1	2
GND	Connector 1	3
RS485 A +	Connector 1	4
RS485 B -	Connector 1	5
Signal GND	Connector 1	1
Power Supply	Connector 2	2
GND	Connector 2	3
RS485 A +	Connector 2	4
RS485 B -	Connector 2	5
Signal GND	Connector 2	1

Dimensional Drawing

[2D Drawing](#)



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Accessories

Connectors & Cables

M12, 5pin A-Coded, Male
5m PUR Cable, 5pin, A-Coded, f
2m PUR Cable, 5pin, A-Coded, f
Angled M12, 5pin A-Coded, Female
2m PUR Cable, 5pin, A-Coded, m
10m PUR Cable, 5pin, A-Coded, f
5m PUR Cable, 5pin, A-Coded, m
POS M12 5pin-A Female+5m PUR Cable
10m PUR Cable, 5pin, A-Coded, m
POS M12 5pin-A Female+2m PUR Cable
POS M12 5pin-A Female+10m PUR Cable
M12, 5pin A-Coded, Female
More

Got questions? Need an individual solution? We are here to help!

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