



TILTIX Inclinometer

ACS-180-1-SV00-VK2-PM

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General Specifications

Application	1-Axis Position Monitoring and Leveling
Measurement Range	180°
Absolute Accuracy	±0.10°
Resolution	0.01°

Electrical Specifications

Supply Voltage	10 - 30 VDC
Power Consumption (no load)	≤ 0.7 W
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	400 years @ 40 °C

Environmental Specifications

Operating Temperature	-40 °C (-40 °F) - +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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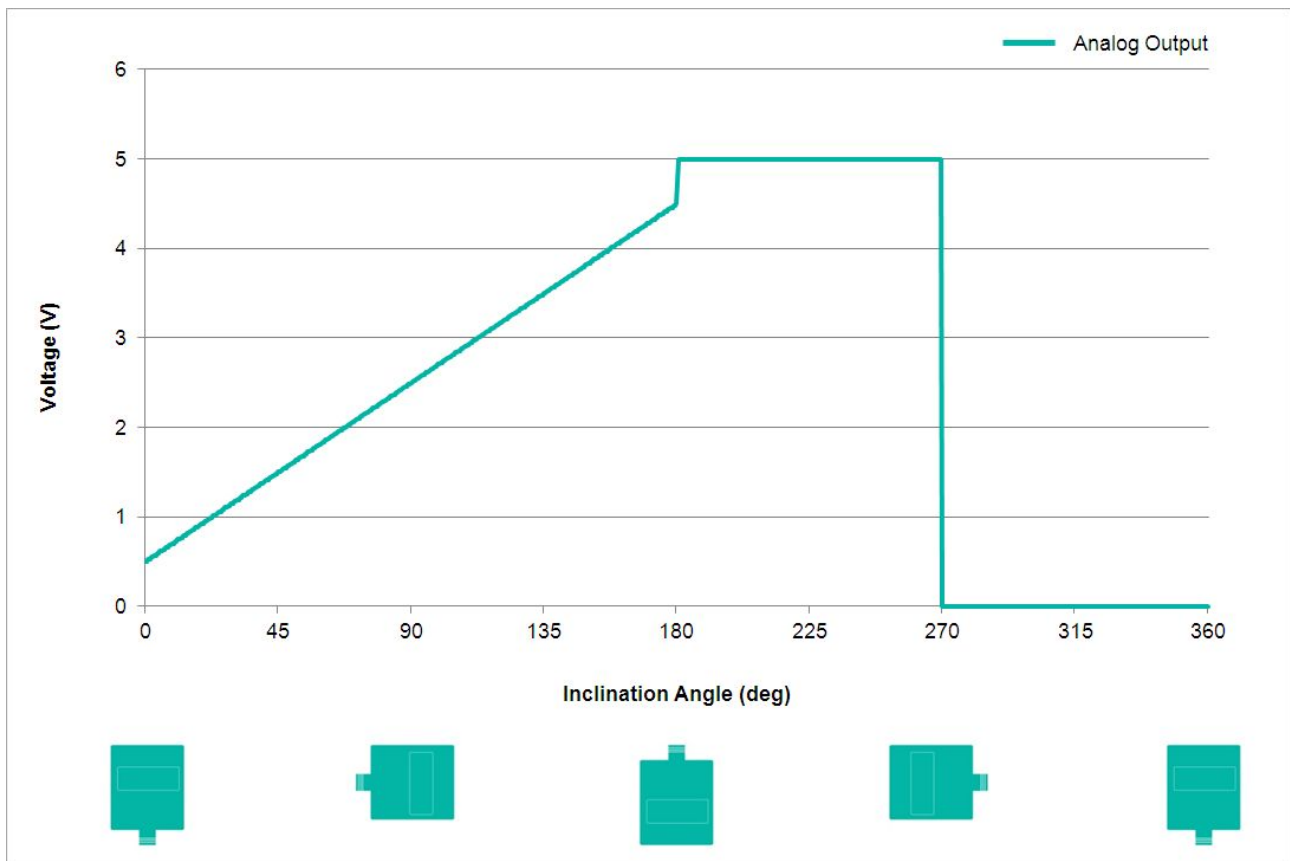
Vibration Resistance 1.5 mm (10 Hz - 58 Hz) & ≤ 20 g (58 Hz to 2000 Hz)

Mechanical Specifications

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

Interface

Interface	Analog Voltage 0.5-4.5 V + RS232
Teach In	Zero Positioning, Inverse Direction, Elevation Range Programming
Settling Time	125 ms
Output Type	Voltage 0.5 - 4.5 V
Min Load Resistance	5 k Ω
Transmission Rate	RS232: min. 1200 Baud; max. 115200 Baud
Default Transmission Rate	RS232: 9600 Baud
Linearity	$\pm 0.02\%$



Data Sheet

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Electrical Connection

Connection Type	Connector M12
Connector	M12, Male, 8 pin, a coded

Product Life Cycle

Product Life Cycle	Established
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Certification

Approval	CE + cULus
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Connection Plan

SIGNAL	PIN NUMBER
Power Supply	1
GND	4
Z-Axis, Voltage Output	5
Set1	6
Set2	8
RxD	2
TxD	3
Not Connected	7

Dimensional Drawing

[2D Drawing](#)



Accessories

Connectors & Cables

2m PUR Cable, 8pin, A-Coded, f
5m PUR Cable, 8pin, A-Coded, f
10m PUR Cable, 8pin, A-Coded, f
10m PUR Cable, 8pin, A-Coded, f
POS M12 8pin-A Female+5m PUR Cable
POS M12 8pin-A Female+2m PUR Cable
POS M12 8pin-A Female+10m PUR Cable
M12, 8pin A-Coded, Female

More

Displays

AP22-D0 Analog Display (4 dig. o/p)
DiMod-A Analog Display

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