



### TILTIX Inclinometer

ACS-180-1-SV10-VE2-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	IP66/IP67
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) & $\leq$ 20 g (58 Hz to 2000 Hz)
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### Mechanical Specifications

Housing Material	Fibre-Reinforced PBT (Polybutylene Terephthalate)
Potting Material	PUR (Polyurethane)
Weight	100 g (0.22 lb)

### Interface

Interface	Analog Voltage 0-5 V + RS232
Teach In	Zero Positioning, Inverse Direction, Elevation Range Programming
Settling Time	125 ms
Output Type	Voltage 0 - 5 V
Min Load Resistance	5 k $\Omega$
Transmission Rate	RS232: min. 1200 Baud; max. 115200 Baud
Default Transmission Rate	RS232: 9600 Baud
Linearity	$\pm$ 0.02%

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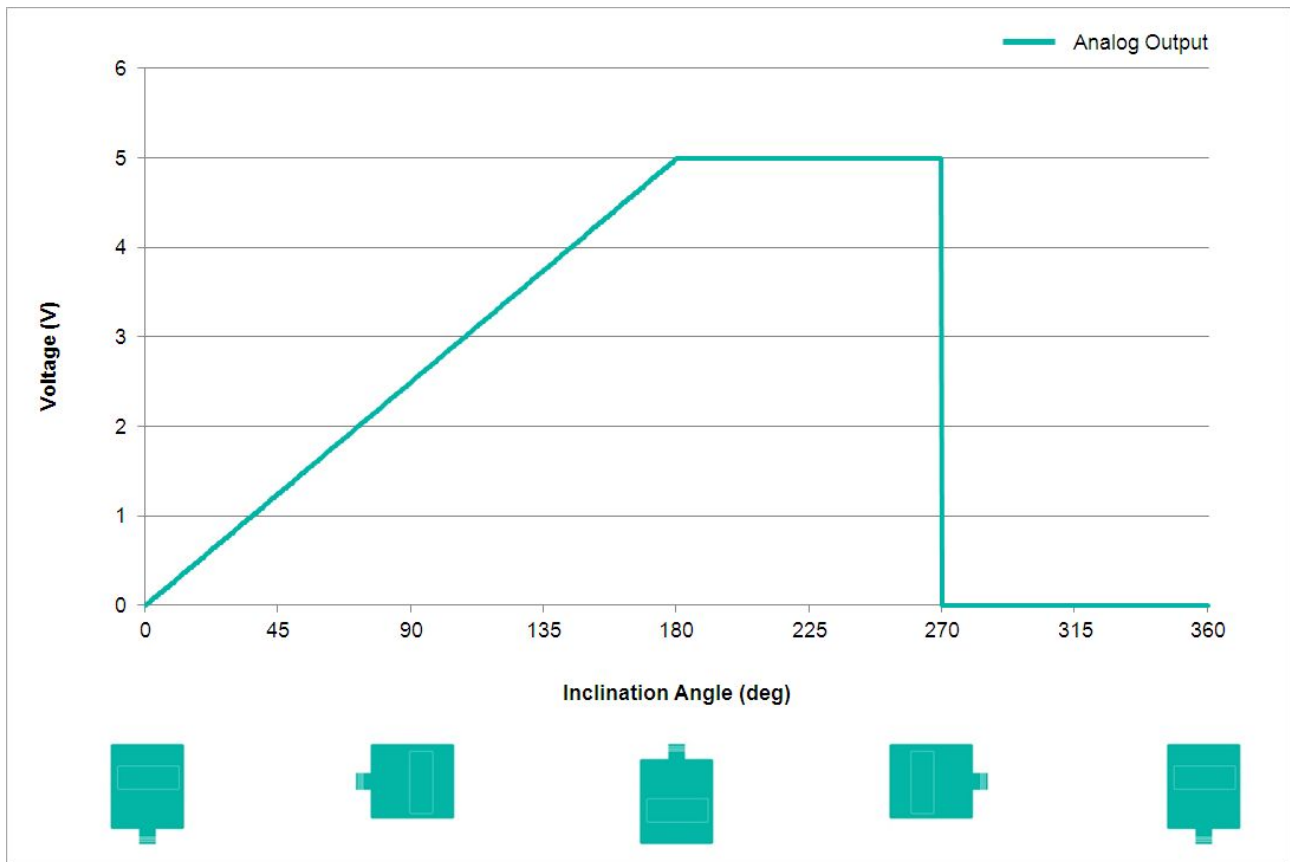
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Data Sheet

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### Electrical Connection

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

### Product Life Cycle

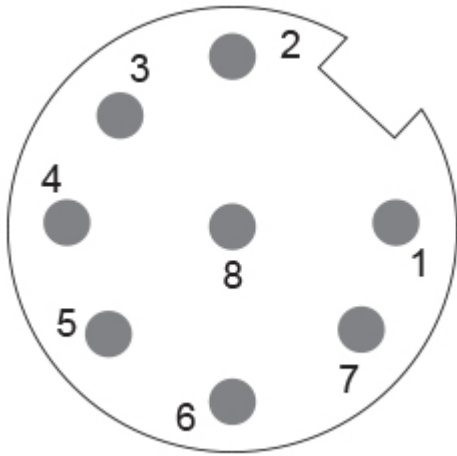
Product Life Cycle	Established
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### Certification

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

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

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All dimension in [inch] mm. This drawing and the information contained is for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings. © FRABA B.V., All rights reserved. We do not assume responsibility for technical inaccuracies or omissions. Specifications are subject to change without notice.