



TILTIX Inclinometer

ACS-120-1-SV00-VE2-AW

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General Specifications

| | |
|-------------------|---|
| Application | 1-Axis Position Monitoring and Leveling |
| Measurement Range | 120° |
| 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 |

Environmental Specifications

| | |
|-----------------------|---|
| Operating Temperature | -30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +70 °C (+158 °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) |
| Vibration Resistance | 1.5 mm (10 Hz - 58 Hz) & ≤ 20 g (58 Hz to 2000 Hz) |

Data Sheet

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Mechanical Specifications

| | |
|------------------|---|
| Housing Material | Fibre-Reinforced PBT (Polybutylene Terephthalate) |
| Potting Material | PUR (Polyurethane) |
| Weight | 800 g (1.76 lb) |

Certificates / Lifetime

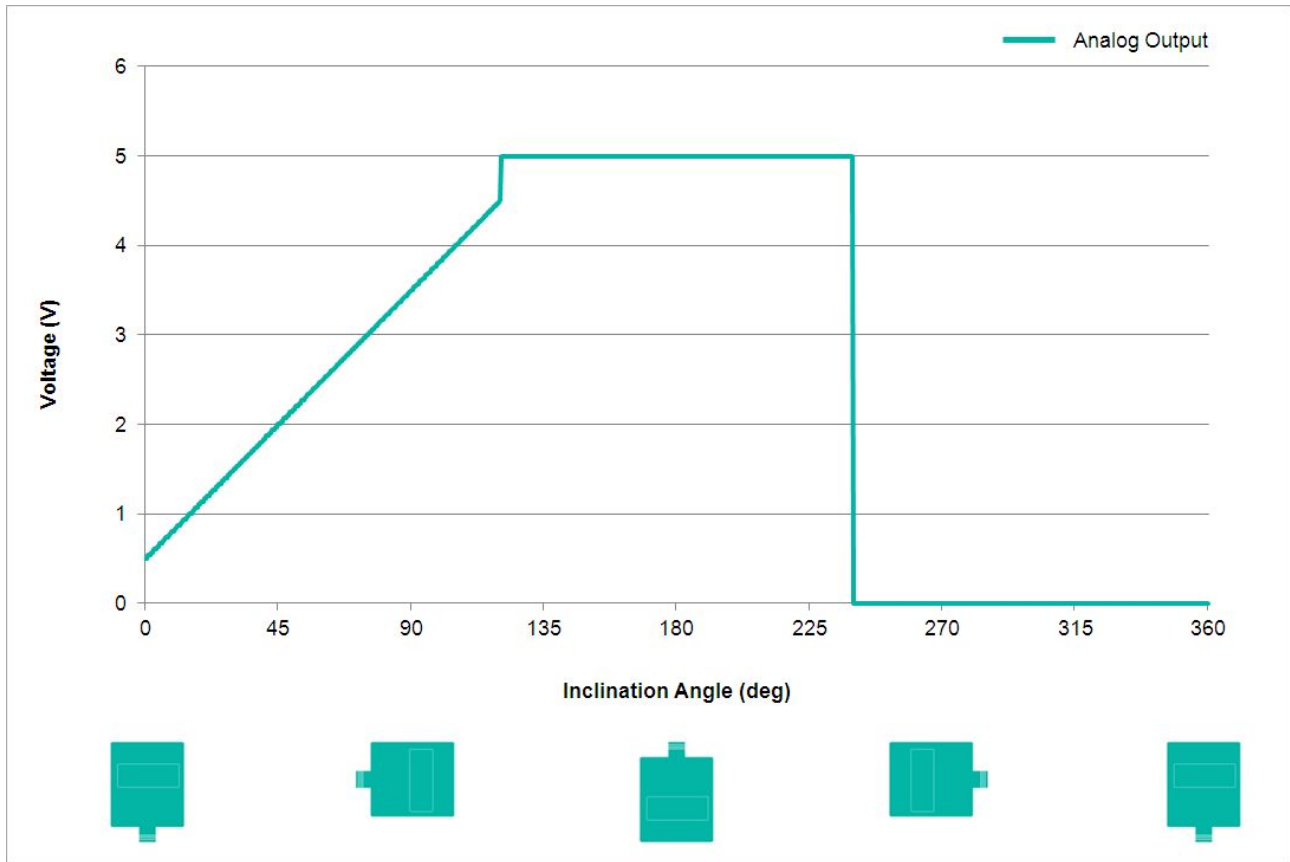
| | |
|--------------|-------------------|
| MTTF | 400 years @ 40 °C |
| Certificates | CE |

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 kΩ |
| Transmission Rate | RS232: min. 1200 Baud; max. 115200 Baud |
| Default Transmission Rate | RS232: 9600 Baud |
| Linearity | ± 0.02% |

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Electrical Connection

| | |
|---------------------|---|
| Connection Type | Cable 10 m |
| Cable Length | 10 m [394"] |
| Wire Cross Section | 0.14 mm ² / AWG 26 |
| Material / Type | PVC |
| Cable Diameter | 6 mm (0.24 in) |
| Minimum Bend Radius | 46 mm (1.81") fixed, 61 mm (2.4") flexing |

Product Life Cycle

| | |
|--------------------|-------------|
| Product Life Cycle | Established |
|--------------------|-------------|

Connection Plan

| | |
|------------------------|-------------|
| SIGNAL | CABLE COLOR |
| Power Supply | Red |
| GND | Yellow |
| Z-Axis, Voltage Output | Green |

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| | |
|---------------|--------|
| Set1 | Brown |
| Set2 | White |
| TxD | Pink |
| RxD | Gray |
| Not Connected | Blue |
| Shielding | Shield |

Dimensional Drawing



[2D Drawing](#)

Accessories

Contact

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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.