



## TILTIX Inclinometer

ACS-120-1-SV20-VK2-5W

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FRABA



### 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 | -40 °C (-40 °F) - +80 °C (+176 °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)            |
| 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 | Die-Cast Aluminum Alloy |
| Potting Material | PUR (Polyurethane)      |
| Weight           | 970 g (2.14 lb)         |

### Certificates / Lifetime

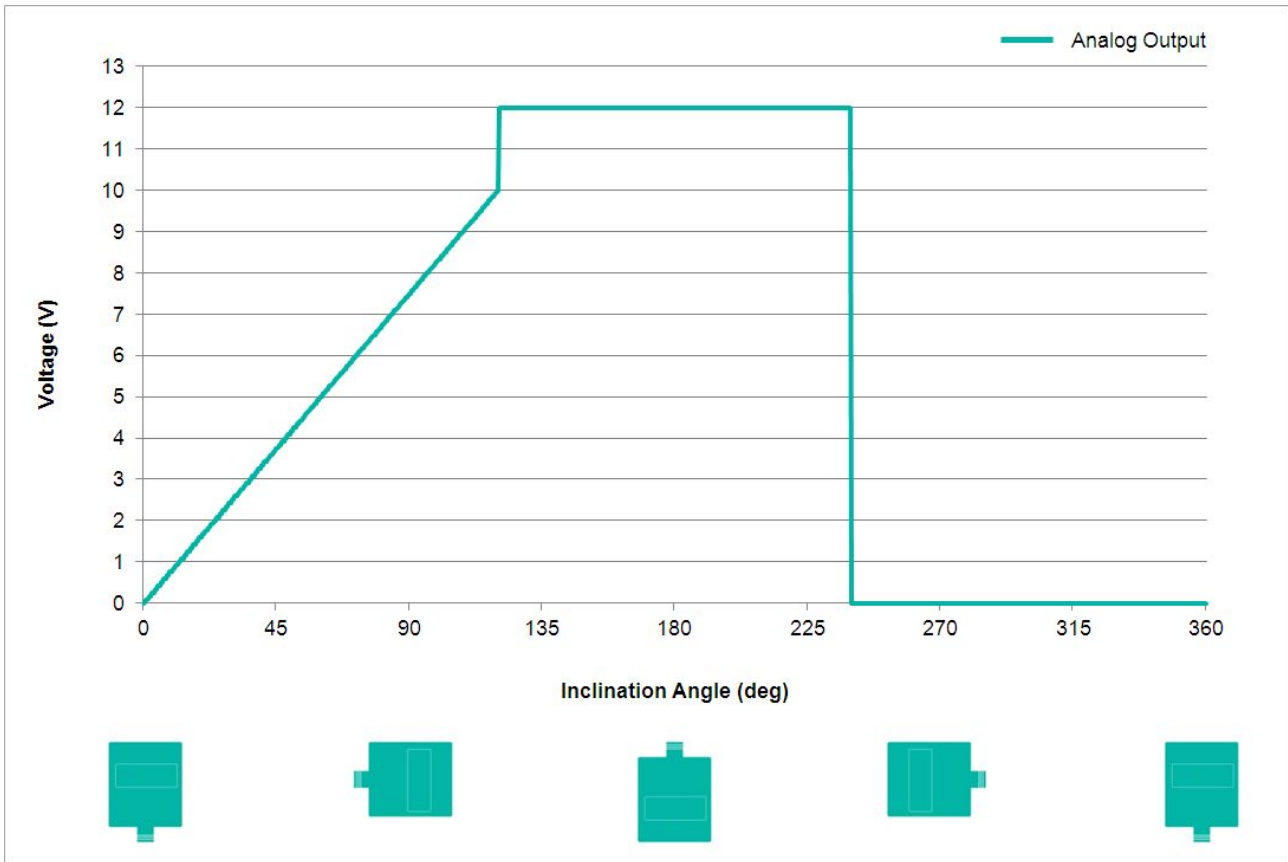
|              |                   |
|--------------|-------------------|
| MTTF         | 400 years @ 40 °C |
| Certificates | CE                |

### Interface

|                           |  |
|---------------------------|--|
| Interface                 | Analog Voltage 0-10 V + RS232                                    |
| Teach In                  | Zero Positioning, Inverse Direction, Elevation Range Programming |
| Settling Time             | 125 ms   |
| Output Type               | Voltage 0 - 10 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 5 m                              |
| Cable Length        | 5 m [197"]                             |
| Wire Cross Section  | 0.34 mm <sup>2</sup> / AWG 22          |
| Material / Type     | PUR / PU                               |
| Cable Diameter      | 7.5 mm (0.30 in)                       |
| Minimum Bend Radius | 56 mm (2.2") fixed, 75 mm (3") 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.