



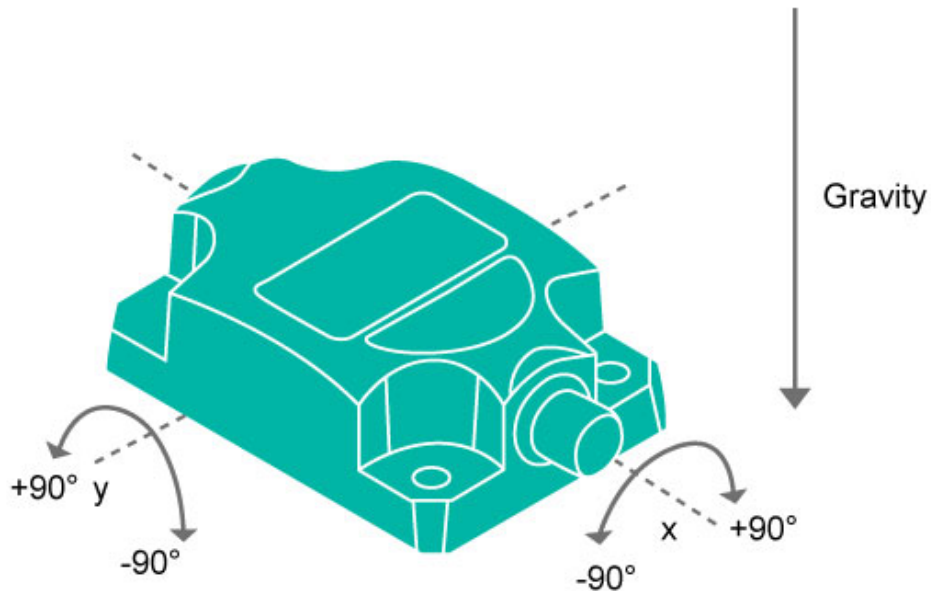
## TILTIX Inclinometer

**AKS-090-2-CA01-HK2-PV**



### General Specifications

|                        |                             |
|------------------------|-----------------------------|
| Application            | Dynamic Inclinometer 2-Axes |
| Measurement Range      | $\pm 90^\circ$              |
| Absolute Accuracy      | $\pm 0.30^\circ$            |
| Resolution             | $0.01^\circ$                |
| Repeatability          | $\leq 0.05^\circ$           |
| Dynamic Accuracy       | $\pm 0.50^\circ$            |
| Cycle Time Base Sensor | 5 ms                        |
| Hysteresis             | $\leq 0.05^\circ$           |
| Device Orientation     | Horizontal                  |



Only for reference of the orientation of the product.

### Electrical Specifications

|                             |                                      |
|-----------------------------|--------------------------------------|
| Supply Voltage              | 9 - 30 VDC                           |
| Current Consumption         | ≤ 65 mA @ 10 V DC, ≤ 60 mA @ 24 V DC |
| 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                        | 260 years @ 40 °C                    |

### Environmental Specifications

|                       |   |
|-----------------------|---|
| Operating Temperature | -40 °C (-40 °F) - +75 °C (+167 °F)      |
| Storage Temperature   | -40 °C (-40 °F) - +85 °C (+185 °F)      |
| Temperature Gradient  | 0.008°/ K                               |
| Protection Class      | IP68/IP69K                              |
| Shock Resistance      | ≤ 100 g (half sine 6 ms, EN 60068-2-27) |

Data Sheet

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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                 | CANopen  |
| Settling Time             | 50 ms  |
| Output Driver             | Transceiver (ISO 11898), Galvanically Isolated by Opto-Coupl |
| Profile                   | DS-410   |
| Transmission Rate         | min. 20 kBaud, max. 1 MBaud                                  |
| Default Transmission Rate | 125 kBaud  |
| Default Node ID           | 1h   |

### Electrical Connection

|                 |                           |
|-----------------|---------------------------|
| Connection Type | Connector M12 (5 pin)     |
| Connector       | M12, Male, 5 pin, a coded |

### Product Life Cycle

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

### Certification

|          |         |
|----------|---------|
| Approval | CE + E1 |
|----------|---------|

### Connection Plan

| SIGNAL       | PIN NUMBER |
|--------------|------------|
| Power Supply | 2          |
| GND          | 3          |
| CAN High     | 4          |
| CAN Low      | 5          |
| CAN GND      | 1          |

## Dimensional Drawing

[2D Drawing](#)



## Accessories

### Connectors & Cables

5m PUR Cable, 5pin, A-Coded, f

2m PUR Cable, 5pin, A-Coded, f

10m PUR Cable, 5pin, A-Coded, f

POS M12 5pin-A Female+5m PUR Cable

POS M12 5pin-A Female+2m PUR Cable

POS M12 5pin-A Female+10m PUR Cable

10m PUR Cable, 5pin, A-Coded, f IP69K

M12, 5pin A-Coded, Female

More

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



Contact Us

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.