

FNC INA 47 Series Analog Inclinometer

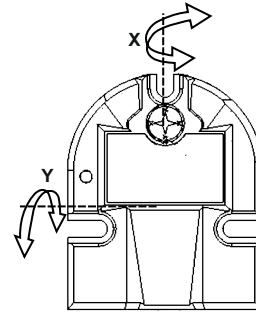


Features

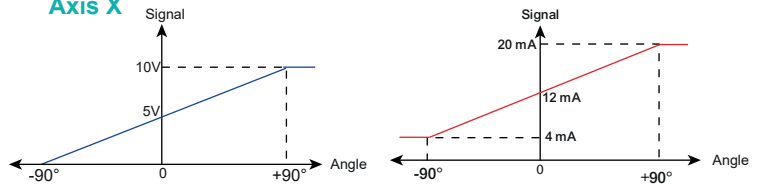
- 4 different analog output options
- Compensated axis sensitivity
- High sensitivity : $\pm 0.003^\circ$
- Ability to determine 0° point
- Easy installation
- IP67 protection
- Small and robust mechanical construction
- Compact design

Axis and analog output graphs

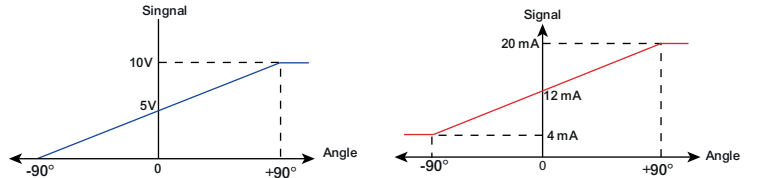
2 Axis ($\pm 90^\circ$)



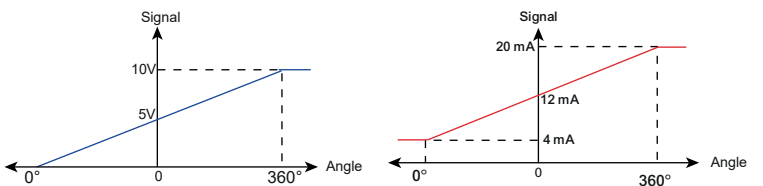
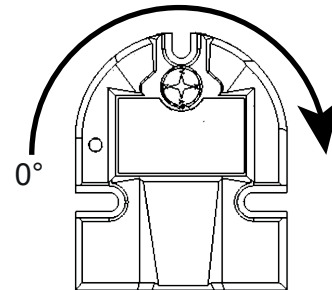
Axis X



Axis Y



1 Axis (360°)



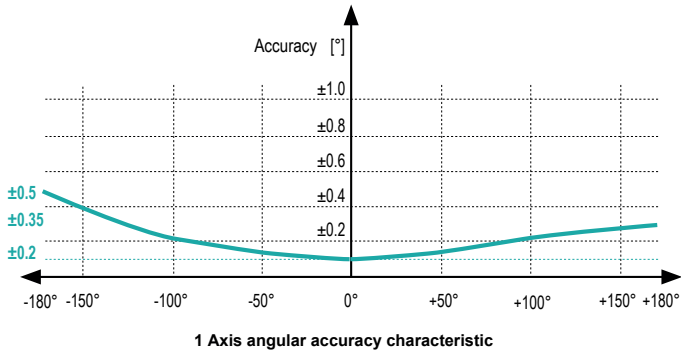
Technical data - electrical design

Voltage Supply	15VDC to 30VDC
Output options	4 - 20 mA analog output 0 - 20 mA analog output 0 - 10 Volt analog output 0 - 5 Volt analog output
Current consumption (no load)	32 mA
Reverse polarity protection of the supply voltage	Yes
Sampling rate	400 Hz (20 ms)
PowerON time	< 20 ms
Resolution	Internal sensor 0,003° D/A converter 11 bit
Accuracy at 25°C	1 - dimensional type $\pm 0.5^\circ$ 2 - dimensional type $\pm 1.0^\circ$
Temperature coefficient	0.01% / °C
Cross-axis-sensitivity typ.	0.3 %
Measuring range	1 axis: 0 ... 360° 2 axis: $\pm 90^\circ$
Limit frequency	0.1 ... 10 Hz
Over Voltage Protection	Yes
Short Circuit Protection	Yes
Protection EN 60529	IP67
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +125°C

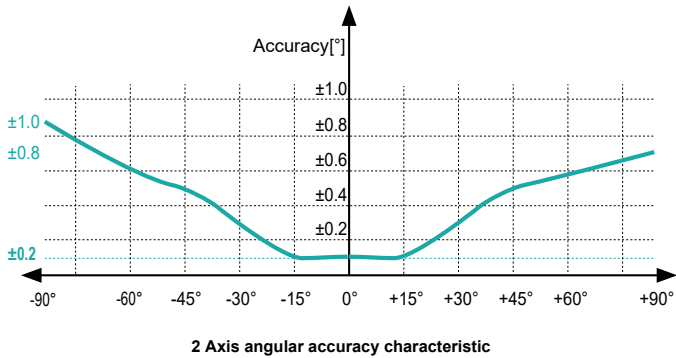
FNC INA 47 Series Analog Inclinometer

Angular accuracy characteristic

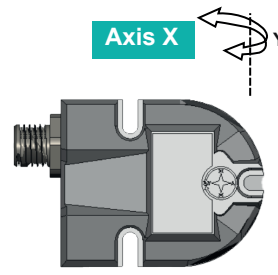
1 Axis (360°)



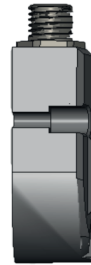
2 Axis (±90°)



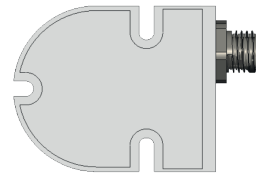
Sensor Orientation



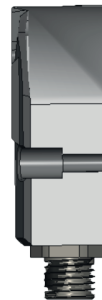
0°



90°



180°



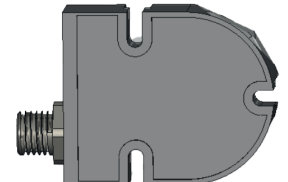
270°



0°



90°



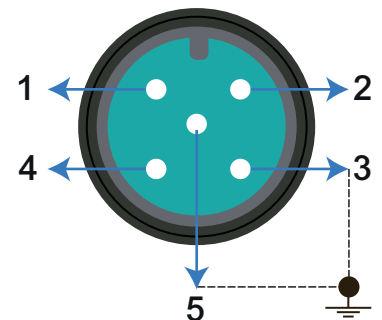
180°



270°

Zero offset setting

Pins 5 and 3 are short-circuited for 4 seconds, causing the sensor to detect its position as 0°. The connection between the pins is then disconnected. The device stores the 0° position in memory during this time and does not revert to factory settings in the event of a power failure.

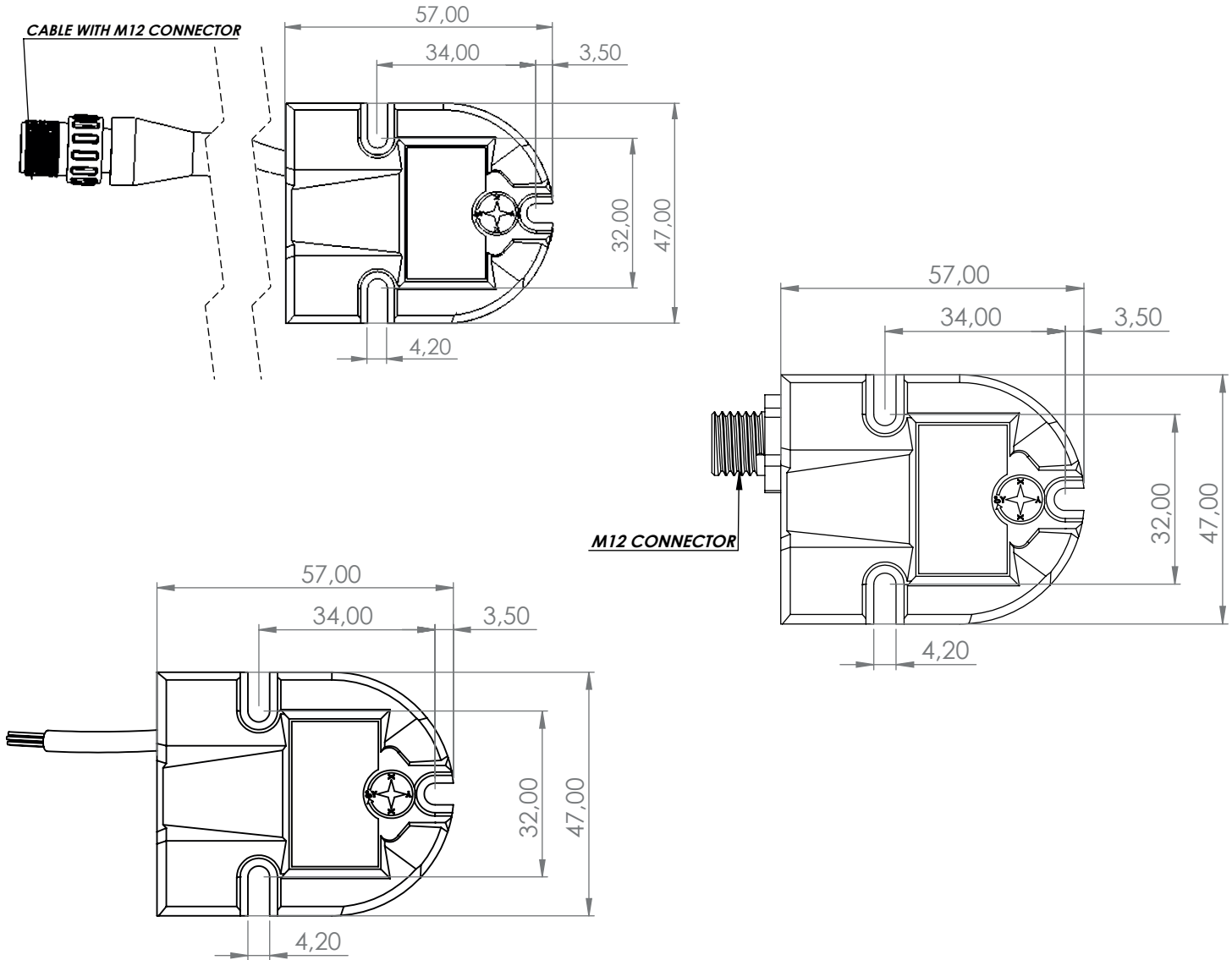


Inclinometers

Cable / Connector Wiring, Part Number

FNC INA 47 Series Analog Inclinometer

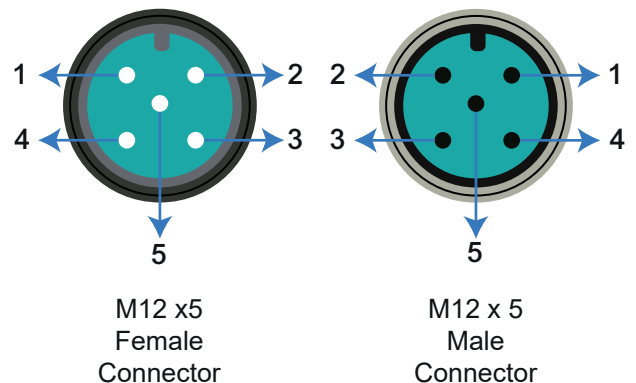
Mechanical Dimensions



Connection

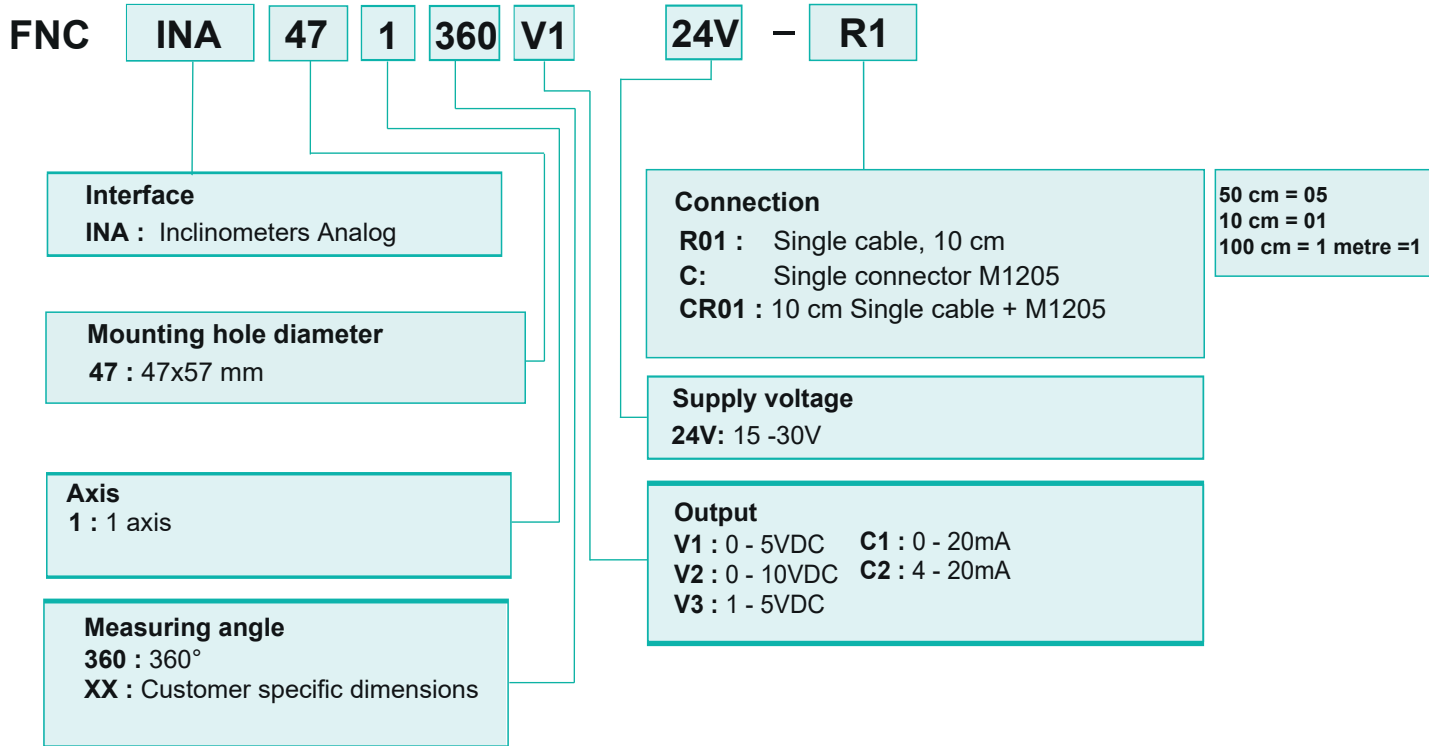
Pin	Color Pre-wired models only	Function
1	 Brown	+VDC
2	 Yellow	Analog OUT Y
3	 White	0V GND
4	 Green	Analog OUT X
5	 Gray	Reference / TEACH

M1205



FNC INA 47 Series Analog Inclinometer

FNC INA 47 1 Axis Part Number



FNC INA 47 2 Axis Part Number

