

FNC INC Analog Series



Features

- $\pm 60^\circ$ measuring range
- 4 - 20 mA 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

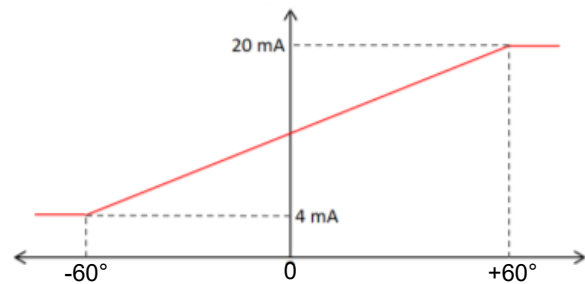
Technical data - electrical design

Voltage Supply	12VDC to 30VDC
Output options	4 - 20 mA analog output
Current consumption (no load)	25 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 12 bit
Accuracy at 25°C	1 - dimensional type $\pm 0.5^\circ$ 2 - dimensional type $\pm 1.0^\circ$
Temperature coefficient	0.01% / °C
Over Voltage Protection	Yes
Short Circuit Protector	Yes
	Yes
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +125°C

Technical data - mechanical design

Connection	M12, 5 pin connector
Measuring axes	X and Y, $\pm 85^\circ$

Pulse Diagram



Pin 5 and pin 3 are short-circuited once and then disconnected. Thus, the sensor recognizes its position as 0° . If the same process is repeated a second time, the sensor will be returned to its factory settings. The sensor position should be kept constant for about 4 seconds during the operations. It memorizes the 0° position, does not return to the factory settings in case of power failure.

Inclinometers

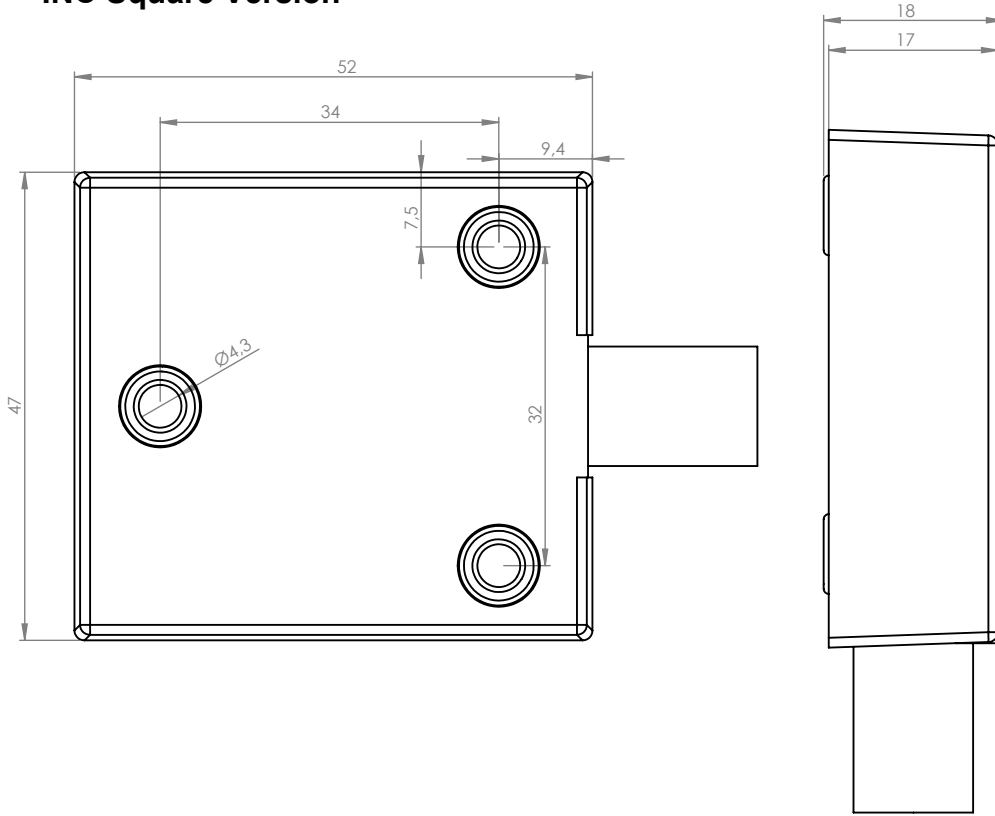
Cable / Connector Wiring, Part Number



FNC INC Analog Series

Mechanical Dimensions

INC Square Version

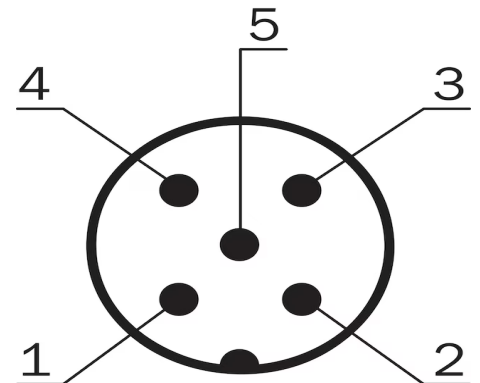


Connection

Function	Color
----------	-------

VCC	pin 1
OUT 2	pin 2
GND	pin 3
OUT X	pin 4
TEACH	pin 5

M1205



To enable zero-point adjustment, connect TEACH (Pin 5) to GND (Pin 3) for at least 1 s.

FNC INC Analog Series

LED Status

GREEN LED

In normal operation the Green LED is on

To preset (teach) connect the PRESET/TEACH pin to GND for 1 seconds.

While the pin is held low the Green LED blinks

After 1 s the device resets and stores the current position as zero

It then returns to normal operation using the new zero reference

RED LED

During normal operation the LED is off

If an overvoltage or a short circuit occurs the Red LED turns on

The device enters protection mode and disables the outputs

Encoder Part Number

