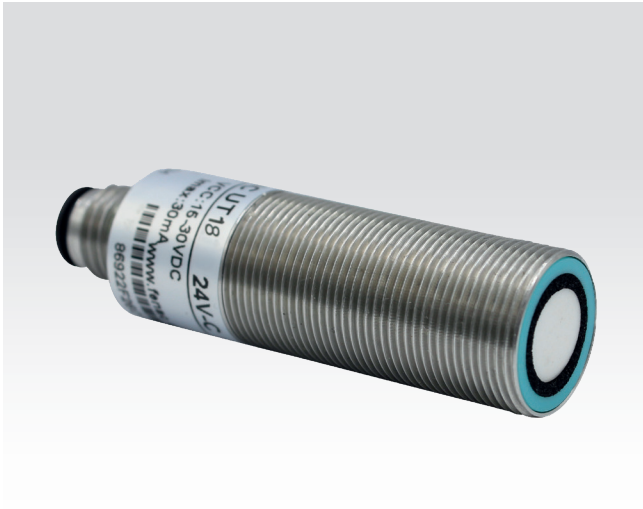


FNC UTS 18 Series



General Data

Scanning range : 80 ... 1000 mm

Hysteresis typ.: %2

Accuracy: ± 1.5 mm

Temperature drift: < 4 %

Response time: < 100 ms

Release time: < 100 ms

Sonic frequency: 200 kHz

Output indicator: Yellow Led

Power on indicator: Green Led

Teach indicator: Blue Led

Electrical Data

Voltage supply: 10...30VDC

Current consumption: <30mA

Output circuit: Push-pull

Output Current: 100 mA

Voltage drop : <3V

Short circuit protection: Yes

Reverse polarity protection: Yes

Features

- 8–100 cm Range
- 200 kHz Frequency
- Configurable Logic Output
- Integrated Teach-In Function
- Focused Acoustic Beam
- High Precision & Repeatability
- Cross-Talk Immunity
- Industrial-Grade Design

Industrial Applications

- Solar Panel Cleaning Systems
- Conveyor Belt Material Detection
- Liquid or Solid Level Monitoring in Small Tanks
- Automated Packaging and Box Height Control
- Vehicle Detection in Low-Ceiling Parking Slots
- Diameter or Loop Control in Roll Unwinding
- Object Counting on Industrial Production Lines
- Robotic AGV/AMR Proximity and Stop Sensing

Mechanical Data

Design: Cylindrical threaded

Housing material. Stainless steel

Width / diameter: 18 mm

Height / length: 63.55 mm

Connection types: Connector M12 5 pin

Ambient Conditions

Operating temperature: -25 ... +85 °C

Storage temperature: -40 ... +100 °C

Protection class: IP 67

Protection class (connection): IP 67

Adjustable Parameters

LED status

Indicators Output

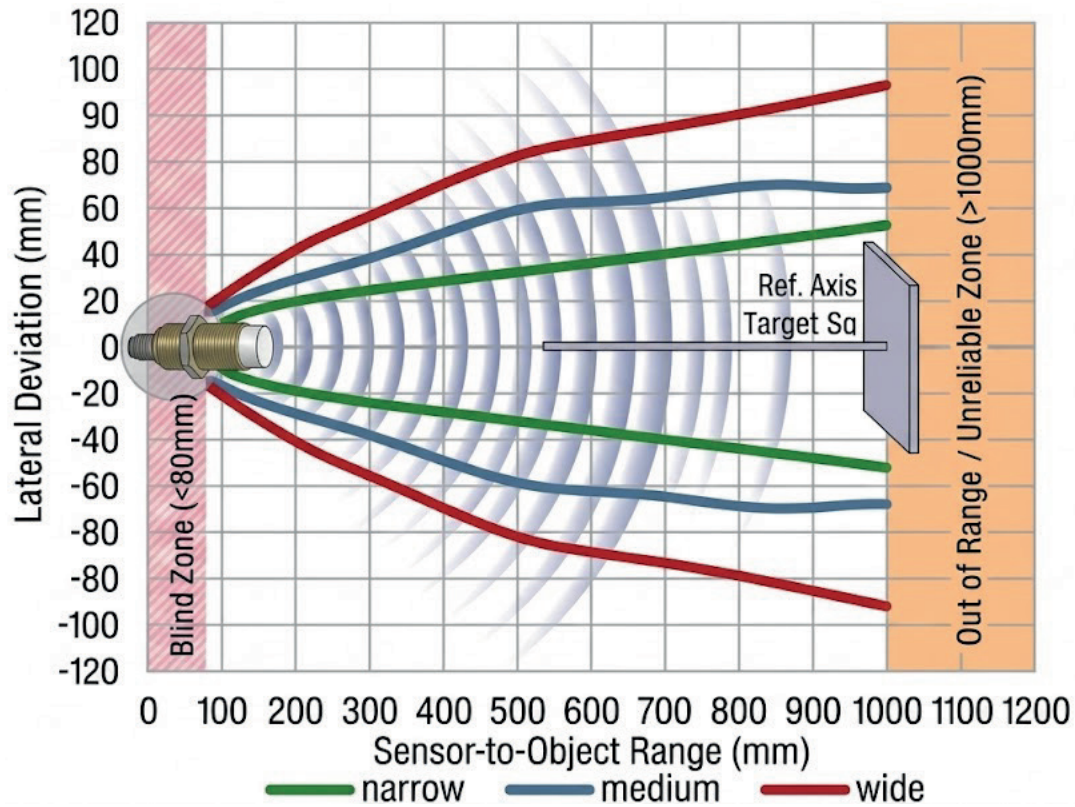
Switch Output

Ultrasonic Sensor

Performance & Target Characteristics

FNC UTS 18 Series

Sonic Cone Profile



Product testing was conducted using a standard 60x60 mm metal target.

Material-Specific Performance & Target Characteristics

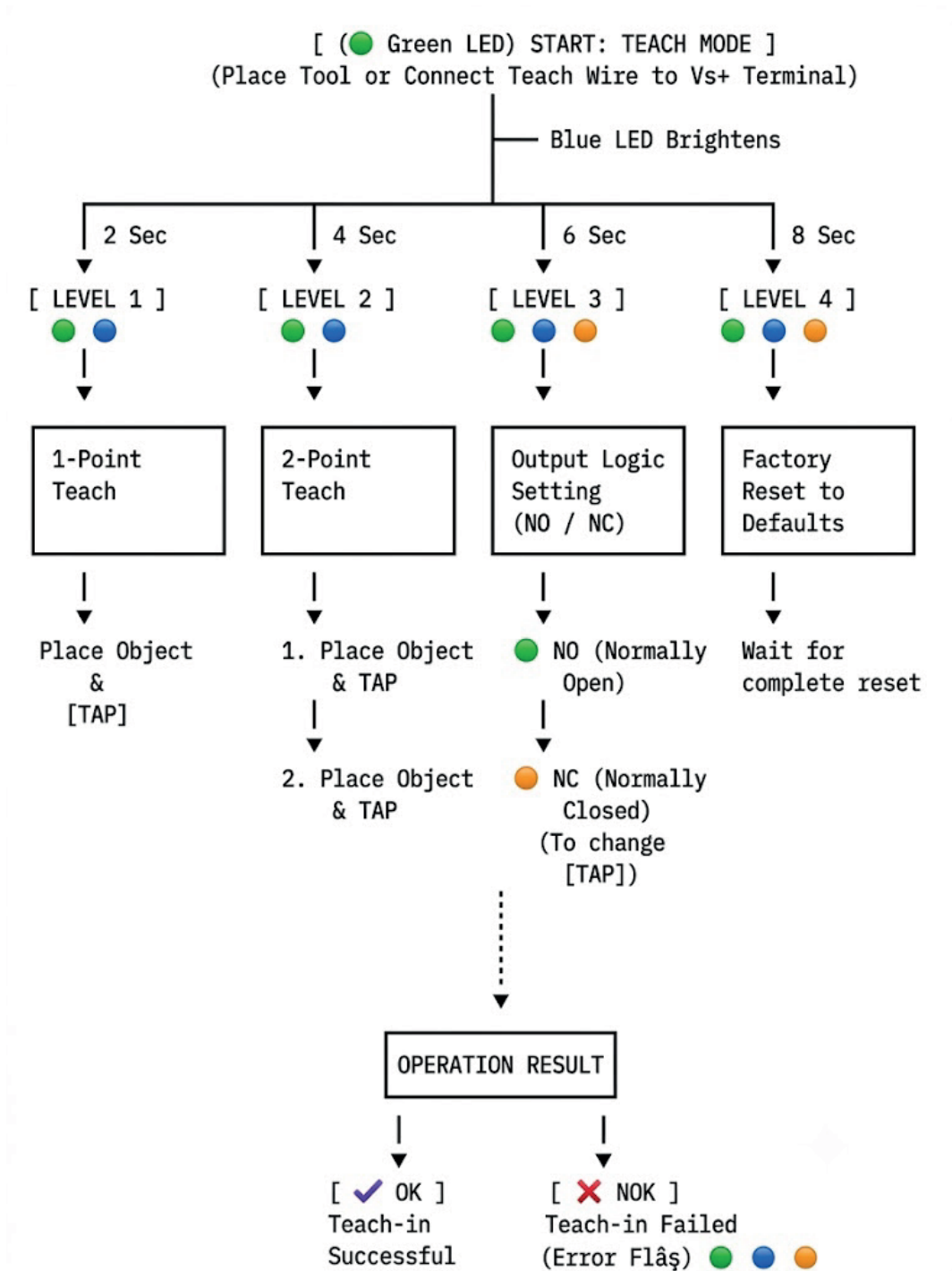
Testing was performed using standard flat targets of 14x14 mm, 10x10 mm, and 6x6 mm across multiple material profiles. The table below specifies the maximum measurement variance (deviation) recorded for each target material within the operational range:

Target Material	Target Size Options	Max. Measurement Variance
Metal	14x14 mm / 10x10 mm / 6x6 mm	±1 mm
Liquid	14x14 mm / 10x10 mm / 6x6 mm	±1.5 mm
Fabric	14x14 mm / 10x10 mm / 6x6 mm	±2 mm
Glass	14x14 mm / 10x10 mm / 6x6 mm	±2 mm
Plastic	14x14 mm / 10x10 mm / 6x6 mm	±1.5 mm

Note: Performance metrics are valid under stable ambient conditions. For non-reflective or highly porous materials (e.g., thick fabrics), utilizing the larger target size configuration is recommended to maintain optimal signal amplitude

FNC UTS 18 Series

Teach-In Mode Configuration



Ultrasonic Sensor

Teach-In Mode Configuration

FNC UTS 18 Series

Teach-In Mode Configuration

Duration / Level	Operation	LED Status	Target / Description
Level 1 (2 Sec)	1-Point Teach	(1Green, 1Blue (2hz)) 	Place the object in front of the sensor and TAP (touch briefly). Provides quick, single-point teaching.
Level 2 (4 Sec)	2-Point Teach	(1 Green, 1 Blue (4 hz)) 	1st Position: Place the object at Point A and TAP. 2nd Position: Place the object at Point B and TAP. Determines the scanning range (window mode).
Level 3 (6 Sec)	Output Logic Selection	(1Green, 1 Blue, 1 Yellow) 	Green: Output 1 - NO Yellow: Output 1 - NC TAP to change the mode.
Level 4 (8 Sec)	Factory Reset	(1 Green, 1 Yellow,) 	Resets the device to its default settings. To reset, remove the tool/object and wait without performing any action.

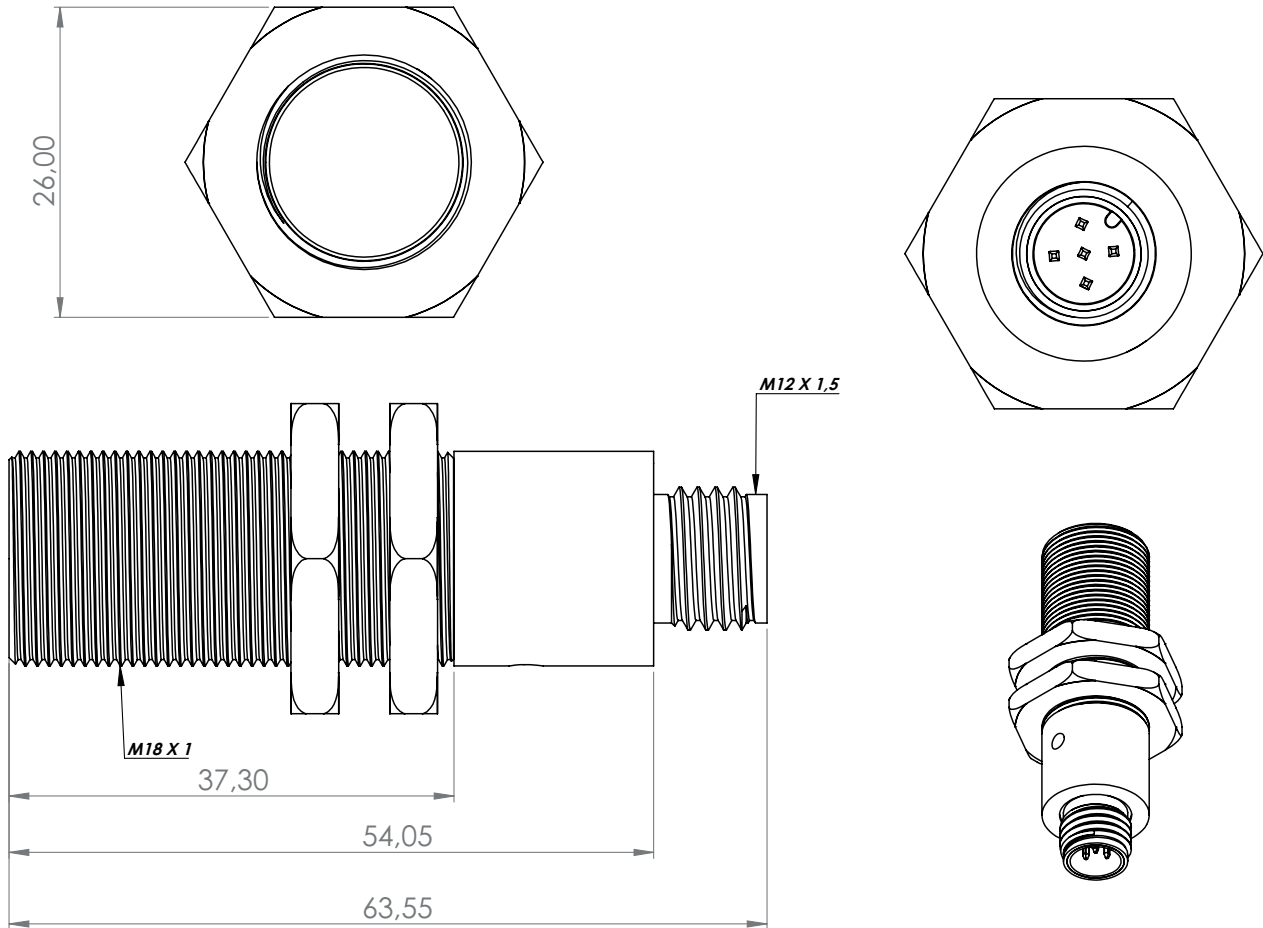
- Place Tool as shown right or connect teachin wire to Vs+.
- Blue LED is getting brighter if tool/teach-in is recognized properly.
- Remove after n sec for desired level.
- TAP is a short touch of the tool as shown to the right.

Ultrasonic Sensor

Cable / Connector Wiring, Mechanical Dimensions

FNC UTS 18 Series

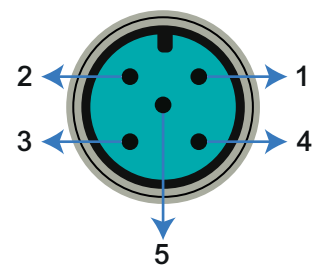
Mechanical Dimensions



Connection

Pin	Color Pre-wired models only	Function
1	 Brown	+VDC
2		N.C
3	 White	0V GND
4	 Green	Push-Pull Out
5	 Yellow	Teach in

M1205 Male Connector



FNC UTS 18 Series

FNC UTS 18 Part Number

