



KINEXON MESH TAG

Cost-efficient, precise localization and motion sensing

The KINEXON Mesh Tag is the perfect sensor for indoor localization in industrial and logistics environments. By mounting or embedding the tag on the object, it enables precise and robust localization of all assets on the shop floor.

The Mesh Tag provides the basis for searching and finding objects, workflow monitoring, and process automation.

Due to its small size, low weight, robustness, long battery life, replaceable battery option and the low cost, the Mesh Tag meets all requirements for area-wide usage in industrial environments.

The Mesh Tag works best with the KINEXON platform, KINEXON OS: the open IIoT platform for real-time localization and analysis.

The Mesh Tag comes with an optionally available, providing permanent and non-permanent mounting options, for agile use cases.

USE CASES

Search & Find and optimized material handling of moving assets in industrial environments such as:

- Material & Goods
- Load Carrier (Barred box, pallet etc.)
- Manufactured products

Real-time location data is the enabler for improved process reliability and efficiency through process automation and optimization such as:

- Instant Search & Find
- Storage Automation
- Elimination of manual scanning
- Full transparency over material flow (cycle times, idle times etc.)
- Process Monitoring
- Process Mining

TAG HOLDER

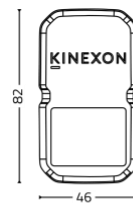
A tag holder for non-permanent attachment solutions to assets offers high flexibility. Tags can either be mounted directly to assets permanently using:

- Double-sided tape
- Zip tie

Or non-permanently with the tag holder, which itself can be mounted with:

- M4 screws
- Double-sided tape
- Zip-tie

DIMENSIONS [mm]



KEY FACTS

RF SPECIFICATIONS

Positioning Principle	Real Time Location System (RTLS), Radio-based, Ultra-wideband (UWB)
Frequency range	UWB (IEEE 802.15.4a): 4.25 – 4.75 GHz, 6.25 – 6.75 GHz BLE5 (IEEE 802.15): 2.4 GHz
Positioning Update Rate	Configurable, typically 1x/minute in motion, 1x/15min in standstill
Positioning Data	2D (x, y)
Positioning Accuracy	< 50 cm (depending progress on environment), MAE

PHYSICAL SPECIFICATIONS

Indicators	Status RGB LED
Accelerometer	3-axis, +/-2 g to +/-16 g
Battery	Internal replaceable Li primary battery (1200mAh)
Battery Lifetime	Up to 4 years (position update rate dependent)
Material	Luran 358N Styrene Acrylonitrile (SAN), Ultramid
Weight	35 g
Dimensions	82 x 46 x 12 mm
Mounting options	M4 screws, Velcro, zip tie, double side tape

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-20 °C to +55 °C incl. battery
Storage Temperature	-20 °C to +30 °C incl. battery
Protection Class	IP65
Regulatory Compliance	US: FCC Part 15 subpart C 15.250 (for indoor and outdoor use) European Union: ETSI EN 302065-1 (HF) ETSI EN 303883 (HF) ETSI TS 103361 (HF) Draft EN 301 489 - 1, -33 (EMC) EN 61000-4-2, -4-3, (EMC) EN 62479 (Human Exposure) 1999/519/EC (Human Exposure) ISED RSS-210. IEC/EN 62368-1- in progress