

TWIG Neo Ex

The compact and wearable ATEX lone worker alarm



Discover the TWIG Neo Ex, the most compact lone worker alarm for hazardous and explosive environments. Despite its compact size, the TWIG Neo Ex is equipped with a wide range of high-performance lone worker protection features, ensuring proactive monitoring, reliable communication, and instant emergency alerts. Designed to meet all your needs, it integrates seamlessly with existing monitoring systems and supports a wide range of communication protocols for reliable protection, wherever you are.

Lone worker safety functions

- Automatic Mandown detection on tilt, non-motion and fall
- Device and server based Amber alert
- Distinct and tactile SOS key for emergency situations
- 2-way hands-free voice calls
- SOS cycle with preprogrammable phone numbers
- Tracking and locating indoors and outdoors

Small and scalable

- User Interface with configurable menu and function keys
- Compact, light and user-friendly
- Multiple wearing options
- Robust nano SIM card tray

ATEX and IECEx Certified for Hazardous Areas

- II 2 G Ex ib IIC T4 Gb
- II 2 D Ex ib IIIB T130 °C Db
- Operating Temperature Range: -20°C...+50°C****
- EESF 24 ATEX 022X / IECEx EESF 24.0016X

Effective communication in emergency

- 2G/3G/4G
- Interactive on-screen messages
- Preprogrammed one-touch status messages
- One-touch voice calls
- VoIP calls and data transfer via Wi-Fi*

Hybrid indoor / outdoor location

- Satellite positioning with 4-constellation GNSS
- TWIG Point AGNSS service for faster location fix
- Hybrid location with cellular network + public available Wi-Fi base stations
- Hybrid location with on site Wi-Fi base stations + BLE beacons

Remote device management

- Saves time and money in customer support
- Firmware over the air (FOTA)
- Remote device configuration
- Access with TWIG Point SP web account

Reliable safety for workers

Duty of care requires employers to give lone workers means to alert help. Depending on risk assessment, a dedicated alarm device may be required. An automatic ManDown alarm is sent when device user falls or is not moving. When entering a risky situation, enhanced monitoring can be requested with Amber alert. In absence of mobile network connection, TWIG Neo Ex can trigger alert via Wi-Fi*.

Wear as you go

The TWIG Neo Ex offers a variety of wearing options to suit different work environments and preferences. Workers can wear the device with a belt clip, lanyard, bracelet, or carbine hook, ensuring comfort and convenience throughout their tasks. This flexibility allows the device to integrate seamlessly into daily routines, providing reliable protection without getting in the way.

Indoor location in hazardous areas

In many hazardous environments, traditional GPS signals can be blocked or weakened, particularly inside buildings, underground facilities, or large industrial complexes.

When satellite signals are unavailable, TWIG Neo Ex utilizes a hybrid location system that combines Bluetooth Low Energy (BLE) beacons and Wi-Fi to deliver precise indoor location tracking.

This technology is particularly crucial in high-risk environments where workers may need to be located quickly, such as inside large warehouses, power plants, or complex industrial sites. By installing BLE beacons or leveraging existing Wi-Fi networks, companies can ensure continuous monitoring of their lone workers, even in areas where GNSS tracking fails.

Alarms monitoring and tracking

The TWIG Neo Ex provides robust real-time alarms monitoring and tracking, ensuring quick response to emergencies. Integrating seamlessly with multiple alarm receiving centers (ARC) via the TWIG Integrator Kit, it sends instant alerts and location data to designated response teams.

For companies without a dedicated system, the TWIG Point cloud service offers a complete turnkey solution, enabling real-time tracking and alarm management through a web-based interface. Additionally, SMS alerts with links to web maps can be sent to mobile devices, allowing quick access to the worker's exact location.

ATEX/IECEx compliance

TWIG Neo Ex complies with ATEX standards EN IEC 60079-0:2018+A11:2024, IEC 60079-0:2017 and IEC 60079-11:2023.

TWIG Neo Ex

Technical Specification (TLP57EU)

Compatibility and communication

- Communicates with all systems using MPTP (Mobile Phone Telematics Protocol) both SMS and GPRS (IP).
- Tracking and alert messages include information on satellite positioning, speed, heading and battery charge.

Mechanics

- Dimensions: 63,5 mm x 45,5 mm x 22,8 mm
- Weight: 76 g
- Water and dust proof (IP67), shock resistant
- Firm grip with tactile silicone keypad

Key telematics functions

- Manual alert through SOS key
- Mandown alarm with 4 automatic alert triggers: device orientation, non-motion, free fall and impact
- Two-way voice over 4G/3G/GSM/Wi-Fi with speaker
- VoIP calls and data transfer via Wi-Fi* (VoIP calls via 3rd party application, support only 2.4 GHz Wi-Fi network)
- Device and user status messages
- Interactive on-screen messages
- GNSS satellite positioning
- Wi-Fi / BLE based location*
- Geofence

Supported frequency bands

- GSM/GPRS/EDGE: 900/1800 MHz
- WCDMA: Bd.1 (2100MHz) / Bd.5 (850MHz) / Bd.8 (900MHz)
- LTE-FDD: Bd.1 (2100MHz) / Bd.3 (1800MHz) / Bd.5 (850MHz) / Bd.7 (2600MHz) / Bd.8 (900MHz) / Bd.20 (800MHz) / Bd.28 (700MHz)
- LTE-TDD: Bd.38 (2600MHz) / Bd.40 (2300MHz)
- Built-in GSM, GNSS, WiFi*, BLE* antennas

ATEX/IECEX approved

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Provisioning and security

- Remote or local configuration
- Authorisation of remote and local access
- SSL/TLS secured server connection
- NOTE! Programming allowed only with TWIG Ex USB cable of device type FME92EU.

Operating time

- Rechargeable 840 mAh Li-ion battery
- Typical operating times, GNSS satellite positioning/cellular data reporting**
- 1 day (1 report / 10 min)
- 13 hours (1 report / min)
- 6 hours (1 report / 5 sec)
- Up to 7 days (cellular network standby)
- Recharging time*** < 3 hrs for 95 %
- NOTE! Charging allowed only with TWIG Ex charger of device type CME92EU or with multi-device charging station of device type CTX50EX.

Operating temperature

- Temperature range -20°C ...+50°C****

Satellite positioning system

- High performance multi constellation GNSS receiver (GPS, Glonass, Galileo and Beidou)
- Time to first fix: warm start < 10 s; cold start < 35 s
- Configurable opt-out and roaming block
- Extended ephemeris on-board generation
- Motion based GNSS control

TWIG Point cloud services

- Device settings management over the air
- Hybrid location service for public space location (cellular + Wi-Fi) and for on-site location (Wi-Fi + BLE)
- AGNSS for faster GNSS location
- Alarms monitoring and tracking
- Site planning and management

Display and keys

- Alterable SOS key colour
- LCD display with guiding symbols
- Preprogrammable function keys and menu key

Standard sales package

- TWIG Neo Ex personal alarm device including integral battery, GNSS satellite positioning and mandown alarm functions
- TWIG Ex USB cable of device type FME92EU and TWIG charger with adapter of choice (AU/EU/UK)
- User and safety documents

Optional device features

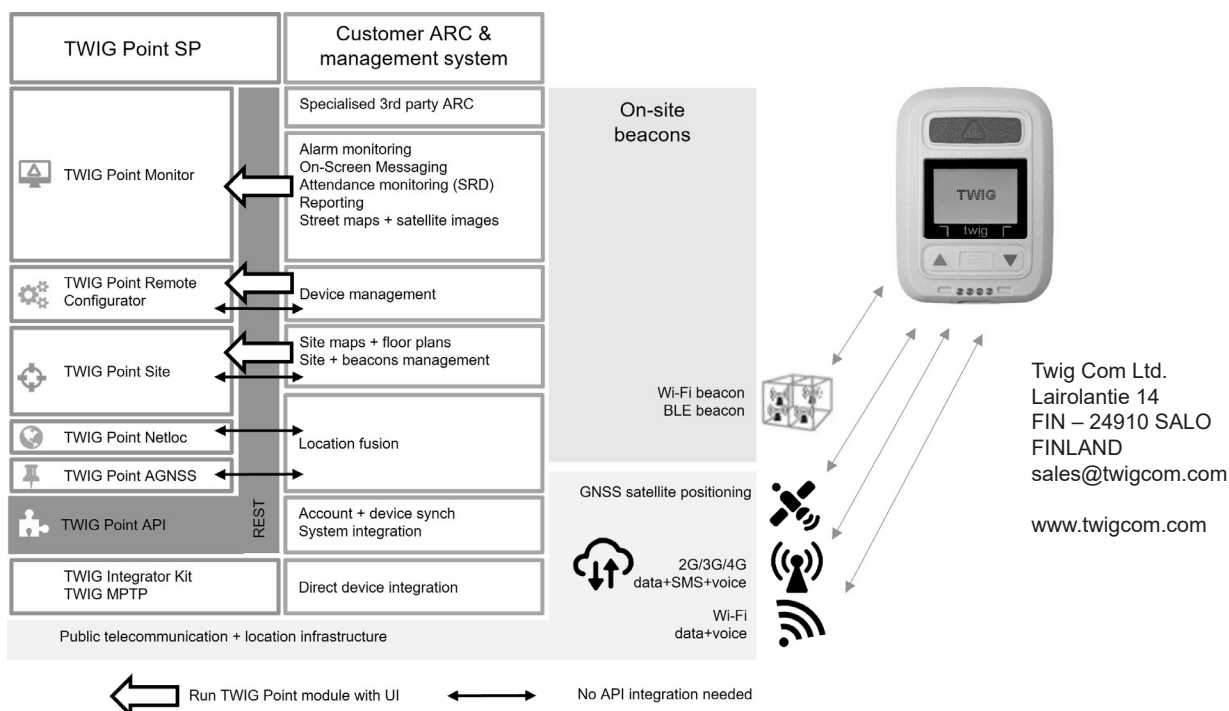
- 2G/3G/4G mobile network*
- Wi-Fi only (without mobile network)*
- Wi-Fi and BLE compatibility*

Accessories

- Charging and programming stations
- Alterable SOS key colours
- Belt clip
- Lanyard
- Bracelet
- Carbine hook
- Car charger

Software and resources

- TWIG Configurator PC app
- TWIG FirmwareLoader PC app, FOTA
- TWIG Integrator Kit for ARC integration



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