TWIG One

The Optimal Lone Worker Alarm for Industrial Use

TWIG One is a personal alarm device optimized for lone worker safety in noisy and hazardous industrial environments. The essential lone worker protection functions, powerful loudspeaker, robust design, preprogrammable device keys, configurable user interface, compatible accessories, scalable functions and easy integration with various monitoring systems make it a serious choice for the requirements of industry.

Lone worker protection functions

- Automatic ManDown detection on fall, tilt or impact
- Device and server based Amber alert
- Distinct and tactile SOS key for panic situations
- 2-way hands-free voice calls
- SOS cycle with 10 preprogrammable numbers
- Tracking and locating indoors and outdoors
- Attendance monitoring with NFC tags
- Short cut dial keys

Effective communication in emergency

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

Sustainable product life-cycle

- Backwards compatible with previous TWIG devices
- Improved device maintenance
- Engineered and manufactured fully in-house

Hybrid indoor / outdoor location

- Satellite positioning with 3-constellation GNSS
- TWIG Point AGNSS service for faster location fix
- Hybrid indoor location with TWIG SRD, Wi-Fi and Bluetooth Low Energy (BLE) beacons (SRD3 device option)
- TWIG Point Netloc service for public space location (cellular network + free Wi-Fi base stations)
- TWIG Point Netloc service for on-site location (TWIG SRD beacons + commercial Wi-Fi base stations + BLE beacons)

Robust and ergonomic

- User Interface with configurable menu and function keys
- Slim, light and user-friendly
- Easy to wear with belt clip
- Robust nano SIM card tray

Remote device management

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

Lone worker safety

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 One can trigger alert via Wi-Fi*. Data transfer via WiFi is available only with SRD3 option of latest device versions.

Scalable for your needs

TWIG One can be widely adjusted to specific needs by selecting only the needed options and functionalities and by configuring it for specific lone worker situations.

With remote configuration possibility TWIG One is fast to deploy and flexible to operate. It is also USB programmable, either manually or from file.

Configurable UI and keypad

The 4-digit keypad enables fast control of Amber alert and Mandown functions. Configurable menu key and function keys enlarge device deployment options.

Power for noisy environments

Integrated high-power speaker-phone boosts two-way voice communications. Powerful vibrating alarm and alarm tones help sensing pre-alarms and incoming communications.

Indoor positioning

Lack of satellite connection and the requested accuracy of indoor location require a different solution for indoor positioning.

With the SRD3 option the TWIG One can be located indoors with compatible TWIG SRD beacons, Bluetooth Low Energy beacons or Wi-Fi base stations installed in the building.

Attendance monitoring with NFC

The NFC Reader of TWIG One registers attendance by reading NFC tags.

Alarms monitoring and tracking

TWIG Integrator Kit resources enable integrating TWIG devices with alarm receiving centre (ARC).

Optionally the TWIG Point Monitor cloud service provides a turn-key solution for alarms monitoring and tracking.

Alarms and reports can also be received on smartphone as SMS with web map link.

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TWIG One
Technical Specification (TLP53EU)

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

Key telematics functions
- Manual alert through SOS key
- Mandown alarm* with 4 automatic alert triggers: device orientation, non-movement, impact and free fall
- 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)
- Interactive on-screen messages
- GNSS satellite positioning
- TWIG Beacon SRD / Wi-Fi / BLE location*
- Geofence

Key technical features
- GSM: 900/1800 MHz
- WCDMA: Bd.1 (2100MHz)/Bd.3 (1800MHz)/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, SRD*, GNSS, WiFi*, BLE*, NFC* antennas
- Speakerphone with 2 microphones
- Powerful vibrator

Mechanics
- Dimensions: 102,2 mm x 49,2 mm x 19,7 mm
- Weight: 89,5 g including battery
- Water and dust proof (IP67), shock resistant
- Firm grip with tactile silicone keypad

Display and keys
- Alterable SOS key colour
- LCD display with guiding symbols
- Preprogrammable function keys and menu key
- 4 numeric keys for Answer / Assistance call
- Dedicated keys for Amber alert and Mandown alarm functions

Provisioning and security
- Remote or local configuration
- Authorisation of remote and local access
- SSL/TLS secured server connection

Operating time and temperature
- Rechargeable 1350 mAh Li-ion battery
- Typical operating times, GNSS satellite positioning/ cellular data reporting**
- 9 days (1 report / hr)
- 5 days (1 report / 10 min)
- 33 hours (1 report / min)
- 10 hours (1 report / 5 sec)
- Up to 12 days (cellular network standby)
- Recharging time*** < 4 hrs for 95 %
- Operating temperature -20°C +50°C

Satellite positioning system
- High performance multi constellation GNSS receiver (GPS, Glonass and Galileo)
- 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

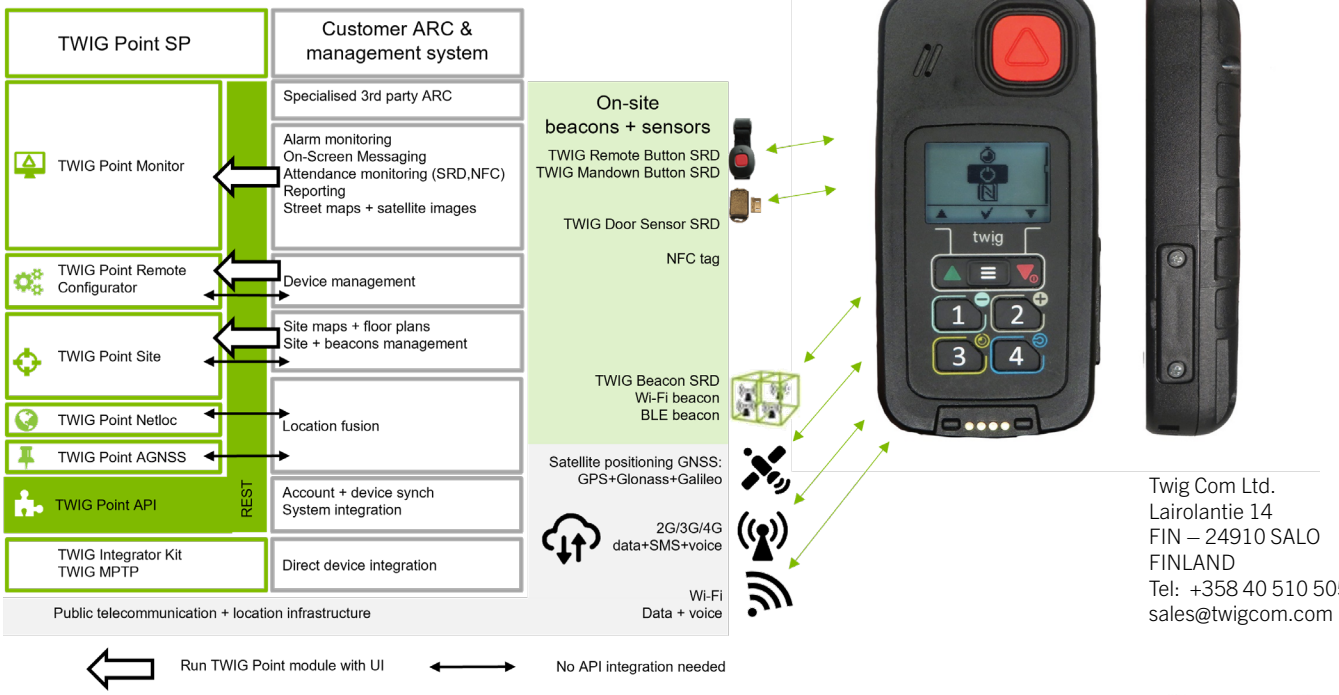
Software and resources
- TWIG Configurator PC app
- TWIG FirmwareLoader PC app
- TWIG Integrator Kit for ARC integration

TWIG Point turn-key services
- TWIG Point Remote Configurator for device settings management over the air
- TWIG Point Netloc service for public space location (cellular + Wi-Fi) and for on-site location (TWIG SRD + Wi-Fi + BLE)
- TWIG Point AGNSS for faster GNSS location (free of charge)
- TWIG Point Monitor for alarms monitoring and tracking
- TWIG Point Site for site planning and management

Standard sales package
- TWIG One personal alarm device with integral battery
- Charger with adapter of choice (EU/UK/AU)

Optional device features
- 2G/3G/4G mobile network*
- Wi-Fi only (without mobile network)*
- 2G only (TLP50EU)*
- GNSS satellite positioning*
- Mandown alarm*
- SRD3* for device compatibility with TWIG short range devices (SRD), VoIP calls and data transfer via Wi-Fi (only latest device versions of TLP53EU) and location and BLE beacons
- NFC* Reader 13.56 MHz

Accessories
- Charging and programming stations
- Alterable SOS key colour, DIY kit
- Belt clip
- Carrying case
- Car charger
- TWIG Beacon SRD*
- TWIG Remote Button SRD*
- TWIG Door Sensor SRD*
- TWIG Mandown Button SRD*



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Product images are indicative only. Twig Com reserves right to change all information without prior notice. Communication is only possible within mobile network coverage. *Optional device feature. VoIP calls via TWIG Point from device to device or to VoIP Client. VoIP calls to normal phone numbers via 3rd party services. **Operating times may vary substantially depending on environment. ***Charging only above 0°C and below +45°C. TWIG is a registered trade mark of Twig Com Ltd. More information: www.twigcom.com