

# TWIG One Ex

## The Intrinsically Safe Lone Worker Alarm

TWIGOneEx is an intrinsically safe personal alarm device designed to protect lone workers in explosive hazardous areas. It is equipped with the essential lone worker protection functions, a powerful loudspeaker, preprogrammable device keys and a configurable user interface. The device functionalities can be extended with compatible TWIGPoint cloud services and TWIGshort range devices.



### Lone worker protection functions

- Automatic Mandown detection on tilt, non-motion and fall
- Device and server based Amber alert
- Distinct and tactile SOSkey for emergency situations
- 2-way hands-free voice calls
- SOScycle with preprogrammable phone numbers
- Tracking and locating indoors and outdoors
- Attendance monitoring with NFCtags
- 4 short cut dial keys



### Hybrid indoor / outdoor location

- Satellite positioning with 3-constellation GNSS
- TWIGPoint AGNSSservice for faster location fix
- Hybrid indoor location with TWIGSRD, Wi-Fi and Bluetooth Low Energy (BLE) beacons (SRD3 device option)
- TWIGPoint Netloc service for public space location (cellular network + public available Wi-Fi base stations)
- TWIGPoint Netloc service for on-site location (TWIGSRD beacons + on-site Wi-Fi base stations + BLE beacons)



### 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\*



### 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



### ATEX/IECEx approved

- II 2 GExib IIC T4 Gb
- II 2 D Exib IIIC T130°C Db
- Ta: -20°C...+60°C\*\*\*
- EESF20 ATEX045X / IECExEESF19.0020X



### Remote device management

- Saves time and money in customer support
- Firmware over the air (FOTA)
- Remote device configuration
- Access with TWIGPoint 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 Wi-Fi is available only with SRD3 option of latest device versions.

### Scalable for your needs

TWIG One Ex 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 TWIGOne Ex 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

In many buildings GNSS satellite signals are blocked and GNSS-computed location is not available at all.

The indoor location is possible with the device option SRD3 enabling the accurate indoor location by using signals from TWIG SRD beacons, Bluetooth Low Energy beacons or Wi-Fi base stations installed in the building.

### Attendance monitoring with NFC

The NFCReader of TWIGOne Ex 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 including link to web map.

### ATEX/IECEx compliance

TWIGOne Ex complies with ATEX standards 60079-0:2018/60079-11:2012 and IECEx standards 60079-0:2017/60079-11:2011.\*\*\*

# TWIG One Ex

## Technical Specification (TLP53EU)

### 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, TWIGSRD beacons, speed, heading and battery charge.

### Mechanics

- Dimensions: 102,1 mm x 48,9 mm x 24,6 mm
- Weight: 130 g
- Water and dust proof (IP67), shock resistant
- Firm grip with tactile silicone keypad

### Key telematics functions

- Manual alert through SOSkey
- 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
- 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, Wi-Fi\*, BLE\*, NFC\* antennas
- Speakerphone with 2 microphones
- Powerful vibrator

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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 TWIGEx USB cable of device type FME92EU.

### 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 %
- NOTE! Charging allowed only with TWIGEx charger of device type CME92EU (or with USB cable FME92EU).
- Operating temperature -20°C...+60°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

### TWIGPoint turn-key services

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

### Display and keys

- Alterable SOSkey 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

### Standard sales package

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

### Optional device features

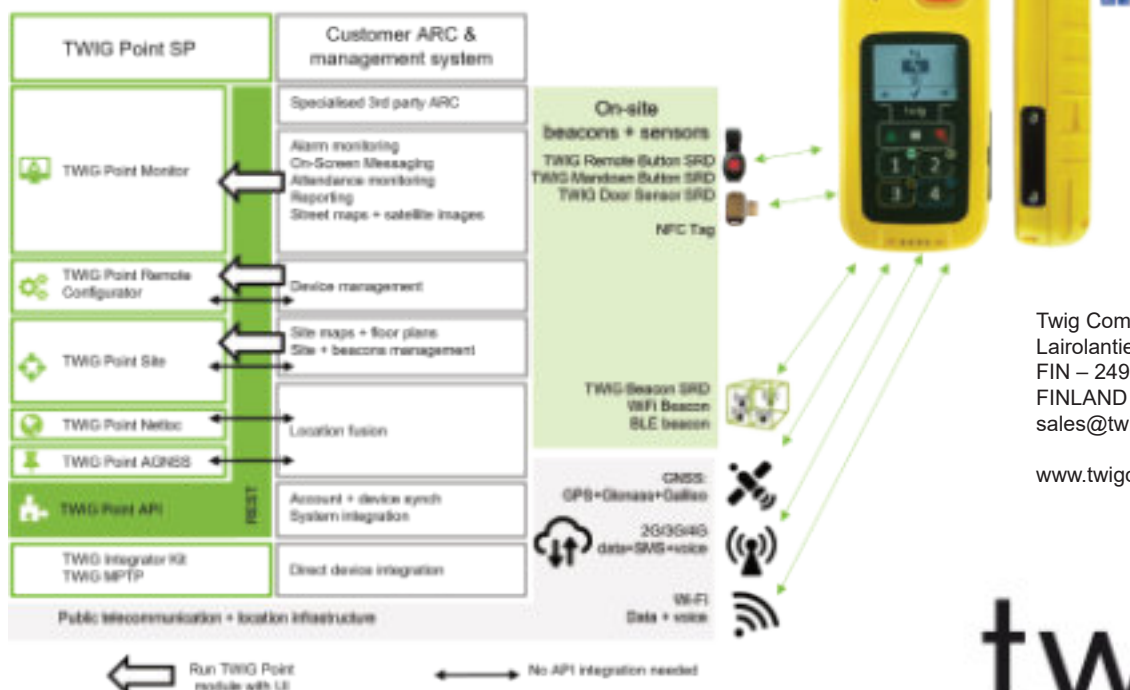
- 2G/3G/4G mobile network\*
- Wi-Fi only (without mobile network)\*
- SRD3\* for device compatibility with TWIG short range devices (SRD), VoIP calls and data transfer via Wi-Fi (only latest device versions of TLP53EU) and location and BLE beacons
- NFC\* Reader 13.56 MHz

### Accessories

- Charging and programming stations
- Alterable SOSkey colours
- Belt clip
- Ex carrying case
- Car charger
- TWIG Beacon Ex SRD\*
- Non-ATEX SRD devices:
- TWIG Beacon SRD\*
- TWIG Remote Button SRD\*
- TWIG Door Sensor SRD\*
- TWIG Mandown Button SRD\*

### Software and resources

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



Twig Com Ltd.  
Lairiolantie 14  
FIN - 24910 SALO  
FINLAND  
sales@twigcom.com

www.twigcom.com

twig