19th October 2020

# twig™

To whom it concerns:

**Declaration of Conformity to BS8484:2016, Section 5, by the following products ("TWIG Device"):**
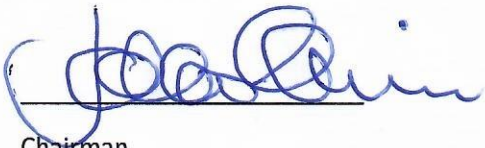
TWIG One TLP50EU
TWIG One Ex TLP50EU
TWIG One TLP51EU
TWIG One Ex TLP51EU
TWIG Neo TLP52 EU
TWIG SOSCard TUP93EU
TWIG Embody TUP91EU
TWIG Protector TUP92EU
TWIG Protector Ex TUP92EU
TWIG Protector Easy TUP92EU
TWIG Protector Pro TUP92EU
TWIG Protector Pro Ex TUP92EU

This is to certify that the TWIG Device is compliant with the requirements of Section 5 of BS8484:2016, when integrated with and used in context of a compliant lone worker service.

In support of this certification we attach the following documents:

Appendix A – Twig Protector Compliance to Section 5, BS8484:2016

Jukka Nieminen

Chairman

Twig Com Ltd

**Appendix A**

**Compliance to Section 5, BS8484:2016 of the following products ("TWIG Device"):**

TWIG One TLP50EU
TWIG One Ex TLP50EU
TWIG One TLP51EU
TWIG One Ex TLP51EU
TWIG Neo TLP52 EU
TWIG SOSCard TUP93EU
TWIG Embody TUP91EU
TWIG Protector TUP92EU
TWIG Protector Ex TUP92EU
TWIG Protector Easy TUP92EU
TWIG Protector Pro TUP92EU
TWIG Protector Pro Ex TUP92EU

TWIG Device is compliant with the requirements of Section 5 of BS8484:2016, when integrated with and used in context of a compliant lone worker service (LWS), provided by a competent LWS supplier.

TWIG devices are configurable to a wide variety of applications and use cases, and it is critical that the right settings are deployed by the LWS supplier.

Some device functions are dependant on an appropriate option being installed to the device.

**5 Lone worker device (LWD) or Lone worker application (LWA)**

**5.1 Essential Functionality**

   a) **Position & LWD identity**

The TWIG Device will transmit its Satellite (GNSS) location and/or hybrid indoor location on event and if configured at a predefined frequency with time and date of when the location was aquired. LWD identity is via call line identification (CLI) if locations are received by SMS or by using the devices IMEI if locations are received using GPRS.

   b) **Audio Facility**

The TWIG Device is fitted with a high quality microphone and speaker/earpiece enabling the controller to listen and monitor the situation via the alarm handling platform used in the Alarm Receiving Centre (ARC) with two-way communication. This is activated during a red alert or by dialling into the TWIG Device via an authorised number.

   c) **Signal Strength Indicator and Battery Indicator**

The TWIG Device utilises an on-screen signal strength meter and battery indicator.

### d) Battery life

The TWIG Device utilises a high-quality rechargeable battery, the capacity of which varies according to device type and form. Battery life is substantially affected by the device configuration, e.g. how often the device location is determined and transmitted to central station. TWIG Device battery life in typical usage scenarios is specified in the device data sheet. Battery life is stipulated in the contract between LWS supplier and customer to meet the customer's anticipated usage.

### e) Low Battery Warning

The TWIG Device can give a vibration or audible alert to notify the user that the battery is running low. The low battery warning is also displayed on the device screen and transmitted to the ARC.

### f) Pre-activation Message

One of the four available speed dials can be allocated to the Amber Alert facility at the ARC. On device types without the four dials, a menu function sends the pre-activation message.

### g) Activation Message

The dedicated Red Alert button provides this function.

### h) Audio Connection to the ARC

Once a lone worker has activated a red alert, an audio channel will be opened to the ARC for monitoring purposes. If connection of the call to the ARC fails then the TWIG Device can re-try to establish the call. The number of retry times is defined in the device configuration and can either be set to 1-250 times. The Protector has the ability to receive an incoming SMS initiated by the controller which will cause the Protector to vibrate. This feature can be used to acknowledge the call has been not only established but that a controller has joined the call.

### i) Location Request by ARC

The ARC operator can remotely access the TWIG Device to request a GPS and/or hybrid indoor location of the device to be determined and transmitted to ARC. This location request is authenticated and available to an authorised central station only. Any remote access can be protected with authorisation procedure with white list of allowed numbers

### j) Remote Access by Controller

The TWIG Device has a discreet dial-in facility that allows access to open a voice call by the controller provided the call comes from an authorised number.

### k) Accidental Activation

To allow for reduced accidental activation the dedicated Red Alert button on the TWIG Device can be configured so that it need to be pressed and held for between 1 – 5 seconds which is configurable. Alternatively, a double-press can be configured.

## 5.2 Environmental Risk

### a) Man-down Facility

TWIG Device can send incapacitation activation message to ARC on lone worker's behalf when certain indications are present. These indications include loss of acceptable device attitude, non-motion, free fall and impact. The trigger levels and indication combinations are configurable to meet specific customer needs.

### b) Pre-alert

TWIG device provides audible/visual/vibration pre-alert to user when incapacitation alarm is activated, so that the lone worker can cancel the activation.

### c) Connection Indication

The TWIG device has the ability to receive an incoming SMS initiated by the controller which will cause the device to vibrate. This feature can be used to acknowledge the call has been not only established but that a controller has joined the call.

## 5.3 People Risk

### a) Form, Function and Usability

There is a range of TWIG devices with different forms and wearing options to suit most tasks carried out by the lone worker. TWIG Device functionality and usability can be to a large extent tailored by configurations and device options to match the task.

### b) Discrete Activation

TWIG Device can be configured to raise an activation call and message discretely, without audible or visual evidence to other persons. The TWIG Device has a dedicated red alert button, which has a raised profile. This allows a lone worker to find it quickly and easily without the need to look at the keypad. This allows discrete activation.

### c) Discrete Connection Indication

The TWIG device has the ability to receive an incoming SMS initiated by the controller which will cause the device to vibrate. This feature can be used to acknowledge the call has been not only established but that a controller has joined the call.

## 5.4 Additional Functionality

### a) Two-Way Communication

TWIG Device uses duplex two-way voice communication, enabling the lone worker to hear operator comments.

### b) Timer Alert / Amber Alert

TWIG Device supports comprehensive ARC-based timer operations, where upon expiry of the timer an activation is presented to the operator also in case communication is lost between device and central station.

### c) Geo-fence

TWIG Device supports a range of geo-fence rules, including entry and exit. Upon activation, the indication can be configured to be sent to the lone worker, or to the manager, or to the ARC.

### d) Battery Capacity and Signal Strength Monitoring

TWIG device can be configured to provide the ARC with updates of battery capacity. ARC can request mobile network signal strength information from the TWIG device.

## 5.5 Communication Network

TWIG devices have been used and tested with several communication networks, including O2, Vodafone and Orange networks in the UK. Final selection is left to customer preference, network coverage and reception.