# Technical Specification - RASOR





A connected worker device for use as part of the Reactec Analytics Platform

### **Features and Benefits**

The RASOR is a connected worker device for acquiring & integrating worker safety data and providing real-time monitoring and location data.

The RASOR connects with other Bluetooth-enabled devices, such as HAVwear, to collect health risk information from different members of the workforce. This information is visible in real-time from an online platform.

In addition to this connected worker functionality, RASOR provides support to lone workers by providing features such as check in functions, fall detection and panic mode.



## **Technical Performance**

#### **Temperature Range**

Operating:  $-10^{\circ}$ C to  $+40^{\circ}$ C. Charge:  $0^{\circ}$ C to  $+40^{\circ}$ C. Storage:  $-20^{\circ}$ C to  $+50^{\circ}$ C.

#### Memory

At least 12 hours of location data and 582 exposure vibration data records from up to 256 operators, plus additional third-party sensor data.

#### **Communications**

RFID communication (13.56MHz).
Bluetooth low energy communication 4.2

GSM-900 and GSM-1800 mobile data communications Global Navigation Satellite System (GNSS) receiver with GPS L1 band,

## Galileo E1 band, Glonass L1 band, Beidou B1 band, QZSS L1 band

#### Sensors

3-Axis accelerometer, 3-Axis Gyroscope, Barometric Pressure Sensor, Temperature Sensor

#### **Battery**

Internal 2000mAh lithium ion rechargeable battery

## **OLED Colour Display Screen Size**

36mm x 29mm, 160 x 128 pixels

#### **Charge Time**

Charge time from full discharge to full charge = 2 % hours. After a typical day of use the time to full charge is 1 hour.

#### **Battery Life**

Max battery life is 24 hours.

#### **Storage**

Store in a cool dry place away from direct sunlight. For long periods of inactivity, the device includes an Off functionality. It is recommended that the device is charged before long-term storage

#### **Standards**

EMC & Radio: EN 55032, EN 55035, EN 301 489-1, EN 301 489-3, EN 301 489-17, EN 301 489-52, EN 300 330, EN 300 328, EN 301 511, EN 301 489-19, EN 301 511, EN 301 908-1, EN 301 908-13, EN 301 413, EN 6231

EN 60529 / IEC 529. Ingress protection to IP67.

Safety: EN62368-1

#### **Dimensions**

62mm x 92mm x 15mm

Weight 120g

For more information call: 0131 221 0930 or email: sales@reactec.com

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# **RASOR**

## **System components**

#### **RASOR Device**

A connected worker device capturing safety and environmental health data from integrated and remote BLE enabled sensors while also supporting lone worker applications with live location and man down applications. Live sensor data, position and lone worker status is sent over GSM communication to the Analytics platform.

An automated man down detection is provided using data from onboard accelerometer, gyroscope and pressure sensors. Data from these sensors is processed by an algorithm to detect a sequence of acceleration, velocity, impact and orientation changes consistent with a fall event, followed by a period of immobility. Use of the optional belt clip is recommended for man down applications.

Man down, panic mode and check in functions are dependent upon mobile (GSM) signal availability.



The dual charger provides charge management to the RASOR device and up to two mounted HAVwear modules. It also enables 2G connectivity for the HAVwear modules through a docked RASOR device.

It also allows the RASOR device to operate in a stationary mode to gather data from nearby workers.

Dimensions: 180mm x 180mm x 50mm

Weight: 300g • IP Rating: IP20

Operating Temperature Range: 0°C to +40°C Storage Temperature Range: -10°C to +50°C

Mains adaptor

Power: 12VDC, Max 1A

**Standards** 

EMC: EN55032, EN55024 and EN55035

Safety: EN62368-1

#### **HAVWEAR** device

The RASOR may be used in conjunction with REACTEC HAVwear devices in addition to third party sensors. For further information on HAVwear refer to the following link https://documents.reactecanalyticsplatform.com/Documents/HAVWEARDataSheet

#### **Reactec Analytics**

The Reactec Analytics software is a cloud-based application to view and analyse HAV exposure reports, RASOR location data and live information on operator status.









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