



# Badge PRO

## DATASHEET

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**Connected Worker Solution**  
**Revision V2.2**  
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## Features

- Connected Worker safety and contact traceability system.
- Comfortable wearable device.
- Privacy guarantee, only the authorities can have access to trace information.
- Nordic Semiconductor nRF52840 chipset, low power consumption
- Rechargeable internal lithium battery.
- Integrated battery protection.
- 3 configurable buttons.
- 2 RGB LEDs. One for notifications and other for battery status.

## Main Specifications

<b>Connectivity</b>	BLE4/5, GPRS, NB-IoT, GPS
<b>Indoor distance accuracy</b>	≈4 m
<b>Battery</b>	700mAh rechargeable battery
<b>Charging interface</b>	Built-in USB C charger
<b>Working temperature</b>	-40°C - 70°C
<b>Size</b>	90 x 60 x 12 mm
<b>Weight</b>	72g
<b>IP rating</b>	IP67

## Positioning

<b>Indoor distance measurement range</b>	≈40 m
<b>Indoor distance precision</b>	≈4 m
<b>Protocol security</b>	Own secure protocol

## Sensors

<b>Accelerometer</b>	Motion detection, shock detection, auto-shutdown
<b>Pressure</b>	Height detection, indoor height location, under/over pressure alarm
<b>Temperature</b>	Under/over temperature alarm
<b>Battery sensor</b>	Low battery level alarm, Charge finished alarm

## Power

<b>Input power connector</b>	USB C
<b>Input voltage range</b>	5V DC with over-voltage protection
<b>Battery</b>	Lithium rechargeable battery
<b>Battery capacity</b>	700 mAh
<b>Full charge time</b>	3-4 hours

## Enclosure

<b>Material</b>	Main body: PC+ABS Buttons, caps & gaskets : TPU
<b>Size</b>	90 x 60 x 12 mm
<b>Weight</b>	72g
<b>Working temperature</b>	-40°C - 70°C
<b>IP rating</b>	IP67

# Connectivity

## Bluetooth

<b>Frequency</b>	2.4GHz
<b>Antenna</b>	Omnidirectional
<b>BLE version</b>	BLE 4.0 / BLE5.0
<b>Indoor distance measurement range</b>	<40 m
<b>Indoor distance accuracy</b>	>4 m (depending on anchor density)

## GNSS

<b>Frequency</b>	1559-1606.6MHz
<b>Antenna</b>	Omnidirectional
<b>Compatibility</b>	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS
<b>Outdoor distance accuracy</b>	>3 m

## Cellular

<b>GSM Bands</b>	850 / 900 / 1800 / 1900 MHz
<b>LTE Bands</b>	LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28 LTE-TDD: B39 (for Cat M1 only)
<b>Antenna</b>	Omnidirectional

## NFC

<b>Frequency</b>	13.56MHz
<b>Antenna</b>	34.39mm x 46.10mm



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