



# LevelSense.™

Ultra-rugged tank and bin level measurement with optional GPS\*\* position and movement monitoring.

LevelSense.™ / LevelSenseGPS.™ is a compact industrial-grade IoT device designed for remotely monitoring the level of different types of fluids and solids (e.g. water and waste) in tanks, bins and silos. The device can also detect and report a range of other asset states including GPS location\*\*, 3-axis orientation and temperature.

Rated to IP68 standard, LevelSense.™ is fully protected from the ingress of dust, sand and water, and is built to deliver years of reliable service in a wide range of indoor and outdoor operating environments.

Through the global Sigfox wireless network, the device connects to the PiP Services platform which, using complex algorithms, combines raw data from multiple on-board level sensors to generate accurate level measurements.

The Sigfox downlink capability can be used to remotely reconfigure a range of settings in the device firmware, including sensor trigger thresholds and transmit profiles, allowing battery life to be optimised.

The PiP API Service provides users with secure real-time access to their processed sensor data, device health information and the capability to send downlink messages to reconfigure devices.

LevelSense.™ / LevelSenseGPS.™ is easy to install using the supplied form-cut adhesive foam pads, and a simple mobile-based installer tool enables rapid activation of the device on the PiP Service platform and Sigfox network.



Actual Dimensions 70 mm x 80 mm x 21 mm (LxWxH)




# LevelSense.™

# Specifications

## KEY FEATURES

- › LEVEL / DISTANCE MEASUREMENT
- › TILT SENSING CAPABILITY
- › GPS LOCATION
- › TAMPER / ORIENTATION DETECTION
- › TEMPERATURE MEASUREMENT
- › EXPECTED BATTERY LIFE 3-5 YEARS\*
- › LOW POWER NETWORK / LPWAN CONNECTIVITY
- › NEAR REAL-TIME DATA ANALYTICS
- › MOBILE / WEB REPORTING
- › SIGFOX CERTIFIED CLASS 0 FOR SIGFOX ZONE RC4

 IEC 61010-1:2010  
AS 61010.1:2013



\*May vary depending on device configuration and operating environment. See technical specifications for more details.

\*\*GPS functionality only available on LevelSenseGPS.™

## PRODUCT DESCRIPTION

<b>Product Model Numbers</b>	PIPLS02SIG01 (RC1) PIPLS01SIG01 (RC1 GPS) PIPLS02SIG04 (RC4) PIPLS01SIG04 (RC4 GPS)
<b>Product Dimensions</b>	70 mm x 80 mm x 21 mm (LxWxH)
<b>Weight</b>	137g
<b>Colour</b>	Black
<b>Enclosure Material</b>	Polyamide
<b>Mounting</b>	3M™ VHB™ Tape 4991
<b>Protection</b>	IP68
<b>Sensor Compatibility</b>	Water (static), solids, waste and most other materials
<b>Operating Temperature</b>	-10° C to +65° C
<b>IoT Network</b>	Sigfox Zone RC4 or RC1
<b>Power Supply</b>	Lithium battery (Li-SOCI2)
<b>Battery Life</b>	3- 5 years*

## PERFORMANCE

<b>Detection Method:</b>	
Ultra Sonic	5.5m
Optical	up to 1.8m
<b>Level Measurement Range</b>	2cm up to 2m depending on application
<b>Level Sensor Accuracy</b>	+/- 2cm
<b>GPS Accuracy</b>	+/-2m in clear line of site 4+ satellites**
<b>Temperature Sensor</b>	+/- 1° C
<b>Tilt Sensor Accuracy</b>	+/- 1 deg

## OPTIONAL EQUIPMENT

<b>Mounting Accessory</b>	Range of mounting brackets
<b>Spares</b>	3M™ VHB™ Tape 4991

## SHIPPING SPECIFICATIONS

<b>Storage Conditions</b>	-20° C to +75° C
<b>Shipping Volumes Available</b>	10, 100, 500 and 1000 devices
<b>Warranty</b>	12 month warranty (see PiP IoT T&Cs)
<b>Origin</b>	Manufactured and assembled in New Zealand