

A Higher Level of Performance



Data Sheet

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## MiniWave Ultrasonic Level Series

Liquid Level Measurement



For more information, please visit >  
[www.hawkmeasure.com](http://www.hawkmeasure.com)

# Overview

## MiniWave Ultrasonic Level Series



### Overview

MiniWave is a compact, loop-powered ultrasonic level transmitter for continuous measurement of liquids. As a price leader, it does not compromise on good value; and provides effortless and intuitive operation. Easy and flexible mounting combined with high chemical compatibility and 12 metres (40ft) measuring range makes the MiniWave suitable in multiple applications in all industries.

### Principle of Operation

The MiniWave emits an ultrasonic pulse, which is reflected from the surface of the liquid being measured. The reflected signal is processed using specially developed software to enhance the correct signal and reject false echoes.

Adaptive sensitivity control allows the unit to dynamically adjust and improve the received echoes for the best possible measurement outcome.

### Function

The MiniWave is a non-intrusive level transmitter for measuring level of liquids.

### Primary Areas of Application

#### Liquid Level:

- River level
- Wet wells
- Inlet screens
- Tanks
- Sumps
- Pump stations
- Water towers
- Dams
- Basin levels
- Chemical storage

### Features

- 2 wire 4-20mA with HART
- Maximum range to 12 metres (40ft)
- Non-contact measurement
- Low cost per measuring point
- Auto compensation for steam and signal losses

### Model Type

- MWN1A - MiniWave with 2" NPT thread
- MWB1A - MiniWave with 2" BSPT thread

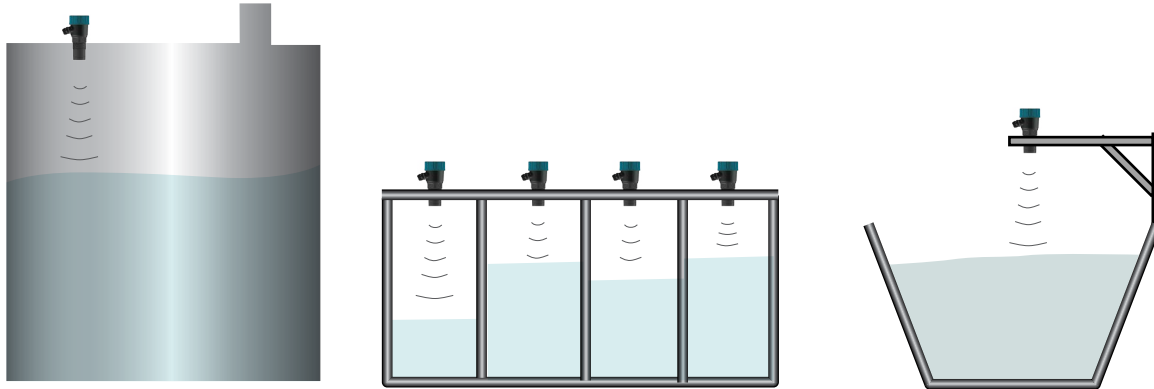
### Accessories

- FA2BB-4 - 2" ANSI Flange for BSPT threaded units
- FA2NB-4 - 2" ANSI Flange for NPT threaded units
- Hawklink-MiniUSB - PC connector for GoshawkII

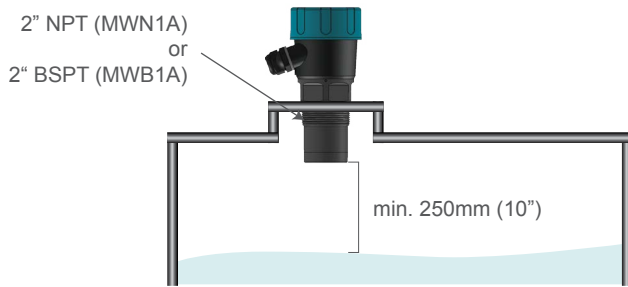
- Ingress protection class IP67, NEMA 4x
- Adaptive sensitivity control
- Volume linearization to tank shapes or 32 point table (requires PC connection with GoshawkII)
- Automatic temperature compensation.



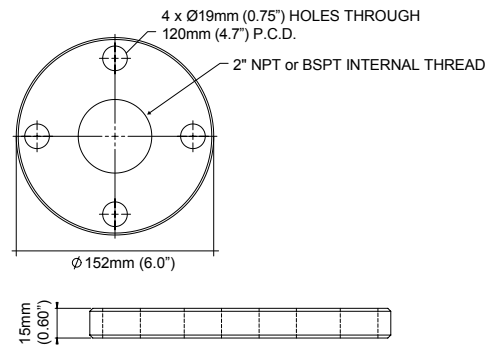
### Liquid Level Measurement



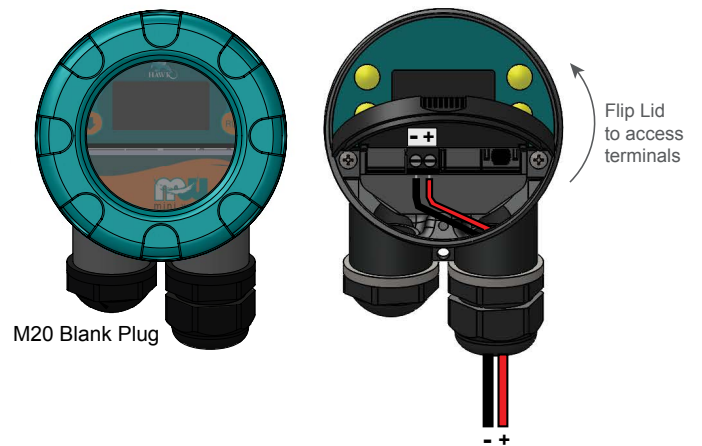
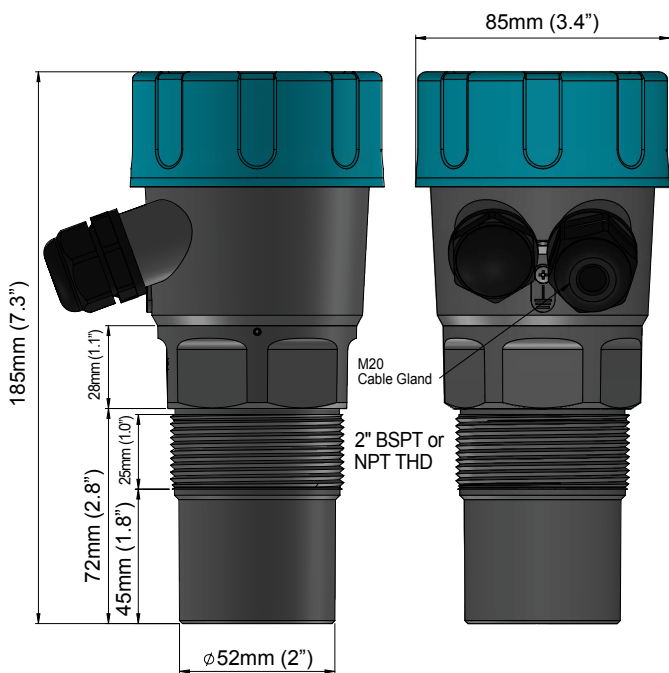
### Mounting



### Flange (optional)



### Dimensions



# Specifications

MiniWave Ultrasonic Level Series



## Frequency

- 50 kHz

## Operating Voltage

- 7 - 28VDC at the terminal (residual ripple no greater than 100mV)

## Power Consumption

- 500mW @ 24VDC

## Analog Output

- 4-20mA modulating output module with HART  
(Recommended 250 Ohm @ 24VDC)

## Analog Resolution

- 14 bits

## Communications

- 4-20mA with HART

## Blanking Distance

- 250 mm (10 inch)

## Maximum Range

- 12 metres (40ft)

## Resolution

- 1 mm (0.04")

## Electronic Accuracy

- +/- 0.25% of maximum range

## Operating Temperature

- -40°C to 60°C

## Maximum Operating Pressure

- -0.5 to 3 bar (0 - 44 PSI)

## Automatic Temperature Compensation

- Yes

## Beam Angle

- 7°

## Materials

- Transducer: PVDF
- Housing: Powder coated aluminium

## Display

- 4 line graphic display

## Keypad

- 4 keys = CAL, RUN, UP, DOWN

## Memory

- >10 years data retention

## Enclosure Sealing

- IP67

## Cable Entries

- M20 cable glands

## Mounting

- 2" BSPT Thread
- 2" NPT Thread

## Typical Weight

- 1kg (2.2 pounds)

## Volume

- Pre-set common vessel shapes
- 32 point programmable linearization table
- Requires PC connection with GoshawkII software

## Hawk Measurement Systems (Head Office)

15 - 17 Maurice Court  
Nunawading VIC 3131, AUSTRALIA

Phone: +61 3 9873 4750

Fax: +61 3 9873 4538

info@hawk.com.au

For more information and global representatives: [www.hawkmeasure.com](http://www.hawkmeasure.com)

Additional product warranty and application guarantees upon request.  
Technical data subject to change without notice.

## Hawk Measurement

96 Glenn Street  
Lawrence, MA 01843, USA

Phone: +1 888 HAWKLEVEL (1-888-429-5538)

Phone: +1 978 304 3000

Fax: +1 978 304 1462

info@hawkmeasure.com

Represented by:

**TILLQUIST**

Hugo Tillquist AB  
Box 1120  
164 22 Kista

Tel: 08 594 632 00  
Fax: 08 751 36 95  
info@tillquist.com