

A Higher Level of Performance



Data Sheet

MiniWave

Ultrasonic Level Series

Liquid Level Measurement



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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

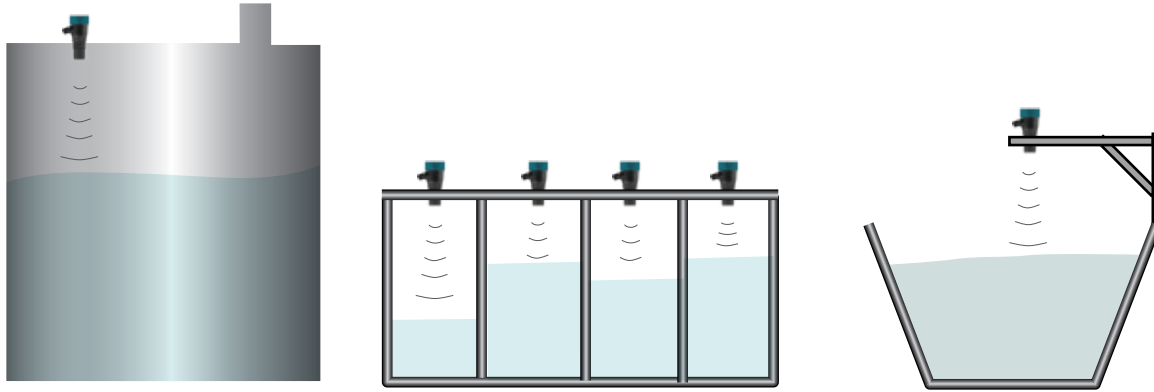
Accessories

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

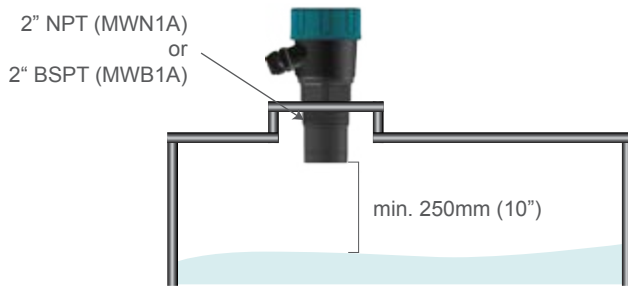
- Ingress protection class IP67, NEMA 4x
- Adaptive sensitivity control
- Volume linearization to tank shapes or 32 point table (requires PC connection with GoshawkII)
- Automatic temperature compensation.



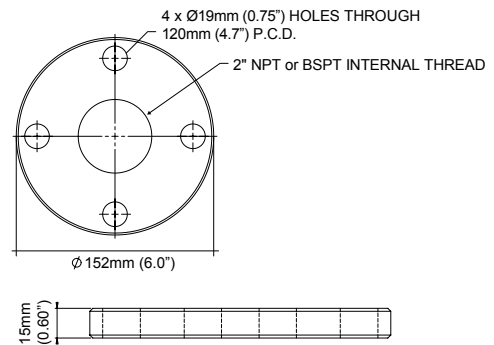
Liquid Level Measurement



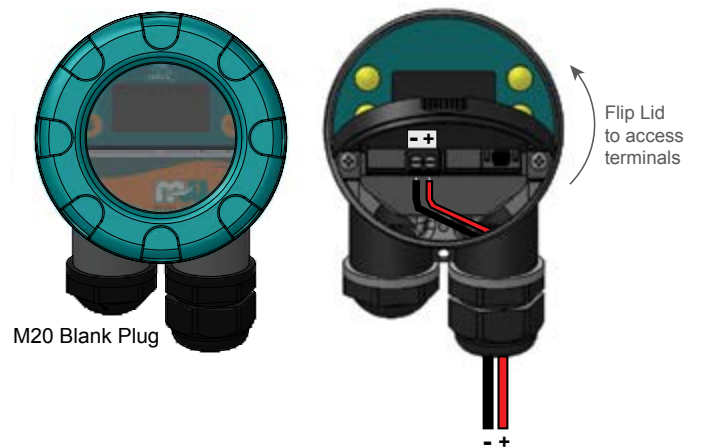
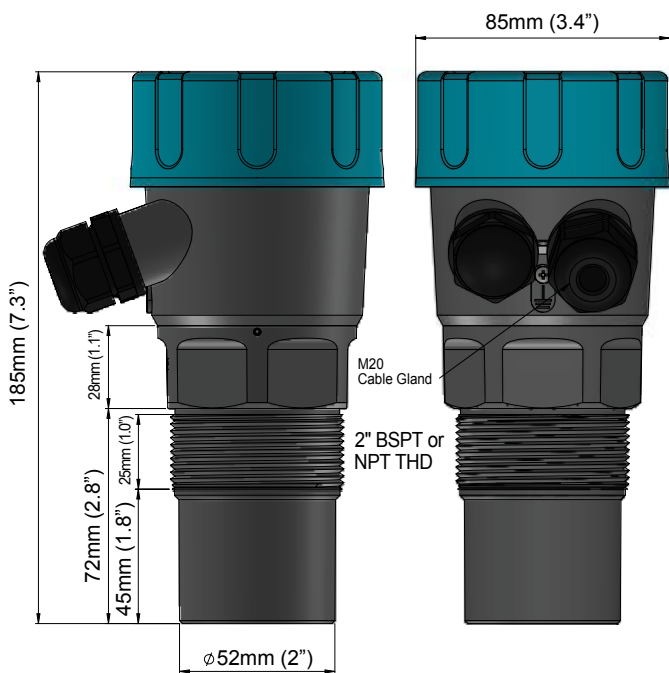
Mounting



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

- HART (Generic - Universal Commands only)
- GoshawkII via HART. Full command list.

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

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Additional product warranty and application guarantees upon request.

Technical data subject to change without notice.

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