# DAYTECH SONIC-4000 Series Datasheet

## Tough Ultrasonic Level Transmitters

**DAYTECH**

## Features

- Accuracy of ±0.25 F.S.
- Resolution greater of 3mm or 0.1% F.S.
- Ranges from 0-5m to 0-30m
- Small dead zone (blind zone) 0.25m to 0.6m
- Output types: 4-20mA, 0-5V, 1-5V, RS485
- Optional Programmable Relay Outputs: 1-2
- Power Supply: 2 wire loop powered 24VDC, 3 wire and 4 wire 230VAC, 24VDC or 12VDC. For mains, DC power supply, battery or solar supply.
- Built in advanced digital LCD display.
- Key pad programmable, with simple setup parameters.
- Robust, reliable and easy to operate. Tough powder coated cast aluminium, UV resistant and built to withstand harsh conditions.
- Intelligent signal processing and automatic temperature compensation.
- Process Temp range from -20 to 80°C.
- Process connection: 2Bar, M60 OR 2"BSP (enquire for other options).
- IP66, ABS plastic Housing.
- Over current and overvoltage protection.
- CE Certification

## Applications

- Liquid Level measurement
- Water, oil or corrosive liquids
- Can be factory tuned for solids measurement
- Bulk solids, grain, animal feed, pellets, plastics
- Non-contact level or distance measurement
- Tank or silo level monitoring
- Pond or dam level monitoring
- Process industries and mining
- Water and Wastewater treatment, irrigation, agriculture
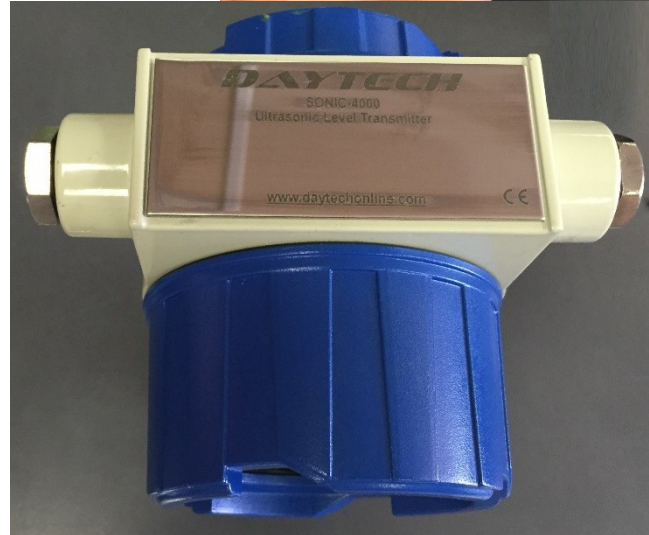
## Description

The DAYTECH SONIC-4000 Series Tough Ultrasonic Level Transmitter is designed for reliable, simple and robust performance. The ultrasonic sensors are ideal for liquids or solids level measurement applications. The series is widely used in pond, dam, well or tank level measurement for water treatment, pumping stations, irrigation, process and environmental applications with proven performance. The transmitter can be factory tuned for measuring bulk solids, presenting a robust solution for silo, hopper or bin level measurement applications.

Standard features include advanced LCD display, automatic temperature compensation, over current and over voltage protection, small blind zone, level or distance measurement.
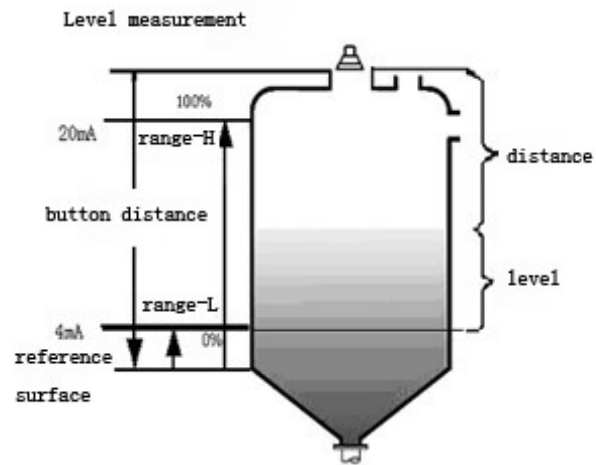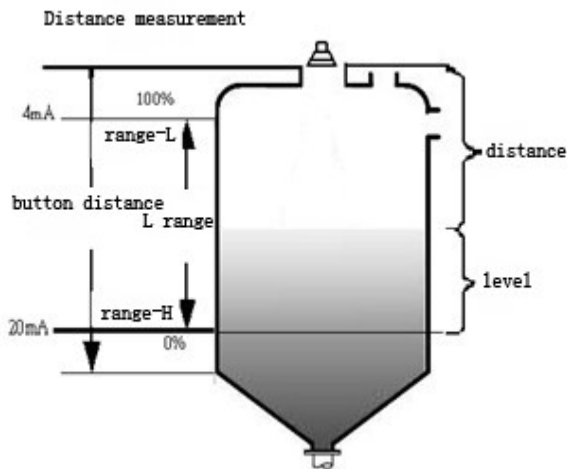
These ultrasonic level sensors have advanced features, however they are remarkably simple to setup and operate. With its intuitive user interface, your level sensing application will be reliably up and running in no time.

**Daytech Pty Ltd**

Measurement and Control Technology for the Process and Environmental Industries.

www.daytech.io

sales@daytech.io

# DAYTECH SONIC-4000 Series Datasheet
## Tough Ultrasonic Level Transmitters

**DAYTECH**

## Display and Set Up

- Simple installation, 4 wire with 24VDC, 4-20ma. Optionally up to 2 programmable relay outputs.
- Simple set up by programming using push buttons.
- Tuning parameters are intuitive and easy to use, including analogue output scaling, distance or level measurement, ultrasonic pulse damping, sample speed, sensitivity and threshold. Simply follow the manual.
- Digital display shows the Level or Distance.
- Display shows status of the optional 2 relay outputs.
- Display shows the status of the sonic signal.
- User can scroll through the sensor status readings, Distance/Level, 4-20mA.
- Can be password protected for locking the configuration.



## Distance or Level Measurement Example



Distance measurement

Level measurement

**Daytech Pty Ltd**

Measurement and Control Technology for the Process and Environmental Industries.

www.daytech.io

sales@daytech.io

# DAYTECH SONIC-4000 Series Datasheet
## Tough Ultrasonic Level Transmitters

**DAYTECH**

## Technical Specifications

| Parameter | Value | | | | Notes |
|---|---|---|---|---|---|
| Measurement Range | 0-5m, 0-10m, 0-15m, 0-20m, 0-30m | | | | |
| Operating Pressure | Process: 2 Bar<br>Display Unit: atmospheric pressure | | | | |
| Blind Zone | 0.25m to 0.6m | | | | |
| Accuracy | Optional ±0.5%F.S, ±0.25%F.S | | | | |
| Resolution | Greater of 3mm or 0.1%F.S. | | | | |
| Ambient Conditions | Temperature: -10℃~60℃<br>Humidity: ≤90%RH | | | | |
| Process Temperature | - 20℃~80℃ | | | | |
| Automatic temperature compensation | -10℃~60℃ | | | | |
| LCD Display | Level measurement, distance measurement, transmission value, ambient temperature, echo state, alarm display, algorithm selection. | | | | |
| IP Rating | IP66 | | | | |
| Media Compatibility | Medium compatible with ABS plastic, refer chemical compatibility chart. Non-corrosive gases.<br>Options: Optional corrosion resistant probe | | | | |
| Wires | Two-wire | Three -wire | | Four-wire | |
| Output Signal | 4-20mA | 0/1-5Vdc | 0-10Vdc | 4-20mA | |
| Power Supply 230VAC/24VDC supply or 12VDC supply for solar or battery applications | 12VDC or 24VDC | 12VDC or 24VDC | 12VDC or 24VDC | 12VDC or 24VDC or 230VAC | |
| Load resistance | 750Ω | | | 250Ω | |
| Load current | 120mA | | | | |
| Relay /Alarm Output: | Optional 1-2 of AC 250V/ 8A; DC 30V/ 5A; State programmable (optional for 4 wire only). | | | | |
| Communication | RS232 / RS485 Communications (optional) | | | | |
| Electrical Connection | 2 x M20 IP66 glands for cable connection | | | | |
| Process Connection | 2Bar, M60 OR 2"BSP (enquire for other options) | | | | |
| Compliance Certification | CE, complies with AUS/NZ standards | | | | |
| IP Rating | IP66 | | | | |
| Beam Angle | 5 degrees for 0-5m and 0-10m<br>3 degrees for 0-15m, 0-20m, 0-30m | | | | |

## Selection Guide

Please contact our sales and engineering team for application assistance at sales@daytech.io