DAYTECH SONIC-3000 Series Datasheet

Intelligent Ultrasonic Level Transmitters



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: 1-4
- 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.
- 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
- Non-contact level or distance measurement
- Water and oil or corrosive liquids
- Tank level monitoring
- Pond or dam level monitoring
- Agricultural and Irrigation systems
- Water and Wastewater treatment

Description

The DAYTECH SONIC-3000 Series Intelligent Ultrasonic Level Transmitter is designed for reliable, simple and economic performance. The ultrasonic sensors are ideal for liquid level measurement applications. The series is widely used in pond, dam, well or tank level measurement for wastewater treatment, potable water treatment, pumping stations, irrigation, process and environmental applications with proven performance.

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.

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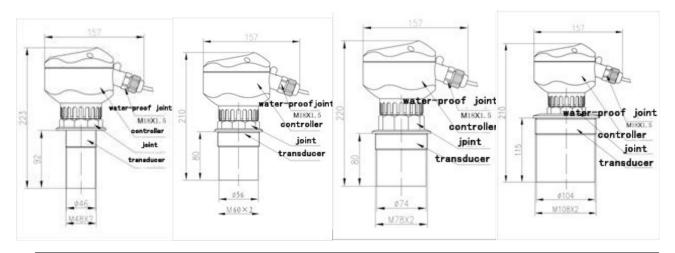


Display and Set Up

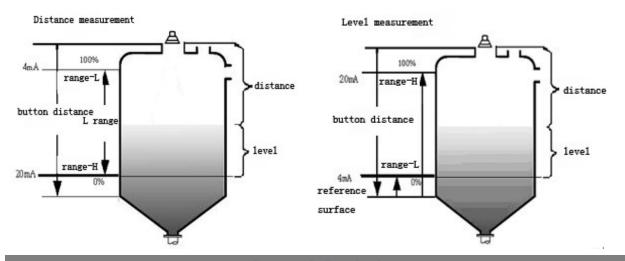


- Simple set up by programming using push buttons.
- Tuning parameters are intuitive and easy to use, including analogue output scaling, distance or level measurement, ultrasonic pulse damping, sample speed, sensitivity and threshold. Simply follow the manual.
- Digital display shows the Level or Distance.
- Display shows status of the optional 4 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.

Dimensions



Distance or Level Measurement Example



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Technical Specifications

Parameter	Value				Notes
Measurement Range	0-5m, 0-10m, 0-15m, 0-20m, 0-30m				
Operating Pressure	Process: 2 Bar				
	Display Unit: atmospheric pressure				
Blind Zone	0.25m to 0.5m				
Accuracy	Optional ±0.5%F.S, ±0.25%F.S				
Resolution	Greater of 3mm or 0.1%F.S.				
Ambient Conditions	Temperature: -10° C ~60° C				
	Humidity: ≤90%RH				
Process Temperature	- 20° C ~80°C				
Automatic temperature	-10° C ~60° C				
compensation					
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.				
	Options: Optional corrosion resistant probe				
Wires	Two-wire	Three		Four-wire	
Output Signal	4-20mA	0/1-5Vdc	0-10Vdc	4-20mA	
Power Supply	12VDC or	12VDC or	12VDC or	12VDC or	
230VAC/24VDC supply or	24VDC	24VDC	24VDC	24VDC or	
12VDC supply for solar or				230VAC	
battery applications					
Load resistance	750Ω 250Ω				
Load current	120mA				
Relay /Alarm Output:	Optional 1-4 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				
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