

MODEL DCU-11 Self-Contained Ultrasonic Level Sensor

General Description

The Model DCU-11 Ultrasonic Level Sensor is a highly accurate distance sensor used to measure water level. Units with maximum measurement ranges of 35 ft. and 50 ft. are available. The self-contained feature eliminates the necessity for an external controller. The 4-20 mA and trip point outputs of the Model DCU-11 are programmable to anywhere within the sensing range.

The unit is contained in rugged PVC housing which is environmentally sealed and enables the sensor to provide reliable performance in harsh environments for extended periods of time.

A keypad is mounted on the back of the sensor and is opened for initial setup. The keypad is then sealed with an O-ring fitted cap to preserve the NEMA-4 rating while the sensor is in operation.

The Model DCU-11 is microprocessor controlled to enable total programmability and signal filtering capabilities. The AutoSense software provides automatic filtering of unwanted echoes received back from the perimeters of the ultrasonic beam pattern. This software also provides automatic adjustment of the sensitivity of the sensor. Temperature compensation is achieved by use of an internal thermistor which preserves the sensor accuracy over a wide range of temperatures.

Features

- Simple to use
- Low cost installation
- High accuracy
- Microprocessor controlled
- Self-contained rugged housing
- Low power
- 2 Adjustable solid state relay outputs
- 4-20 mA output
- Seven trip point configurations plus 27 programmable modes



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Specifications

Supply voltage:	12 to 30 Vdc
Operating temperature:.....	-30 to 60 °C
Outputs:.....	4 to 20
	2 solid state form A relays
	200 mA max.
Resolution:.....	0.1 in. (2.54 mm)
Accuracy:.....	0.25% of range with no temperature gradient
Total current drain:	180 mA max. at 24 Vdc
Sample rate:	1 to 8 Hz
Beam pattern:	9 degrees off axis
Diameter:	3.5 in. (89 mm)
Length:.....	13 in. (330 mm)
Cable:	6 ft. (1.8 m), 10 conductor 22 AWG with shield PVC jacketed with MS Connector
Weight:	8 lbs.
Shipping weight:	10 lbs.

Ordering Information

DCU-11	Ultrasonic Sensor
	Specify range: 1.5 to 35 ft. or 2 to 50 ft. range.
DCU-11-C	Additional Cable, per foot