



U Series

Web-Enabled Ultrasonic Sensors



U4468 Series Ultrasonic Sensors are web enabled for monitoring both local and remote tank locations.

Madison Company's U4468 Series of Web-enabled ultrasonic sensors are ideal for monitoring both local and remote tank locations. The non-contact measurements that can be obtained from the U4468 Series are level, presence/absence, volume and distance. Each individual sensor model is designed for a specific range (span).

The Internet connection from any computer will provide access to a secure site – after you enter your sensor's IP address set-up, measurements will begin to be logged in real time. You can program the website to send you an E-mail, text message or both, as well as set two relays for pump control and/or alarm.


Sensor parameters and settings can be changed via the sensor's internal Web page and the unique IP address. This affordable remote tank monitoring set-up provides, essentially, maintenance-free service.

Applications

This loop-powered 4-20 mA output ultrasonic sensor was specifically designed for measuring volume and flow of liquids. The U44xx series of ultrasonic sensors provide a non-contact method of detecting level, presence/absence, volume, proximity and distance measurements. With this versatility, these ultrasonic sensors are ideal for a variety of applications. Some examples are:

- Car wash vehicle position and spray arm locations
- Vessel level of liquid or solid media
- River, stream or irrigation canal flow and level
- Waste water effluent gate for discharge rate monitoring
- Process control applications for liquids

Features

- Detect ranges from 1 foot to 15 feet (model dependent)
- Housing – Polycarbonate blend with 2" or 3" NPT; wetted material is PVDF
- Programmability – Ethernet connections to World Wide Web to secure host server (ideal for remote monitoring); AutoSense software for hassle-free set up
- Approvals – Class I, Div 2, Groups A B C & D;  (pending)
- Works on liquids and solids
- Calculates level or volume of vessel's contents
- Storage of readings to a secure, private database
- Remote monitoring and control and/or alarm features

U4468 Specifications

Electrical:

Operating Voltage – 48 VDC POE; Sensor is powered over Ethernet cable – requires POE injector or switch

Output – Ethernet TCP/IP to internal Web page;
(2) isolated solid state relays (130 mA maximum)

Total Current Draw – 40 mA @ 48 VDC

Maximum Power Rating – 2.0 W

Electrical Connection – RJ-45 port; terminal blocks for relay connections

Operational:

Accuracy – $\pm 0.25\%$ of detectable range with no temperature gradient

Resolution – 0.1" (2.5mm)

Beam Angle – 9° off-axis at full signal strength and sensitivity settings

Frequency – U4468-1 and -3 are 69 kHz; U4468-2 is 43 kHz

Temperature Compensation – Yes, internal

Calibration – User-programmable

Range – 1 to 25 feet (305mm to 7620mm) for U4468-1

1.5 to 40 feet (457mm to 12192mm) for U4468-2

4" to 180" (102mm to 4572mm) for U4468-3

Response Time – User-programmable


Sampling Rate – User-programmable, 1 to 12 Hz

Environmental:

Operating Temperature Range – -40°C to 60°C (-40°F to 140°F)

Pressure – 30 psi maximum (2 BAR)

Installation Category – Class 1, Div. II, Groups A, B, C & D

Approvals – IP65,  (pending), IS
US

Mechanical:

Computer Interface – Windows XP

Enclosure – Polycarbonate/PBT blend; Transducer is ceramic with PVDF housing

Mounting – 2" NPT for U4468-1 and U4468-3; 3" NPT for U4468-2

Optional Features:

7 ft. orange crossover (P/N 136282)

7 ft. blue cable (P/N 136284-0007)

7 ft. red cable (P/N 136283-0007)

25 ft. blue cable (P/N 136284-0025)

25 ft. red cable (P/N 136283-0025)

POE power supply, 48V, 0.42 A & cable (P/N 136281-0001)

Safety Barrier:

Recommended Stahl part number 9001/51-280-091-141

All specifications are subject to change without notice.



Sensor solutions for today and the future™



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