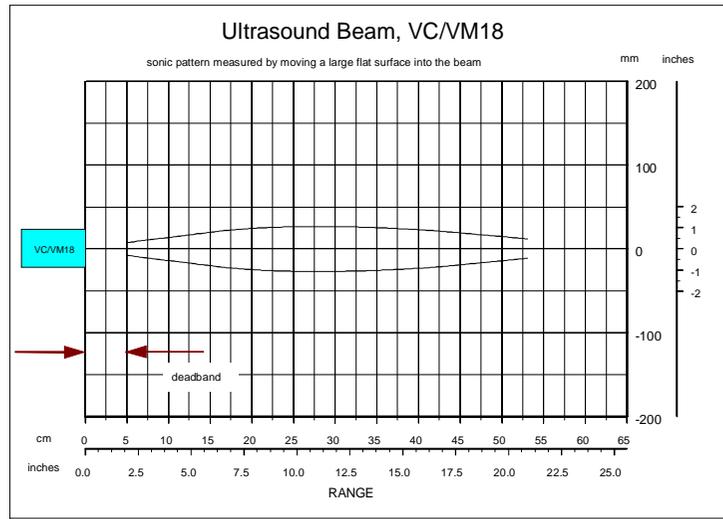


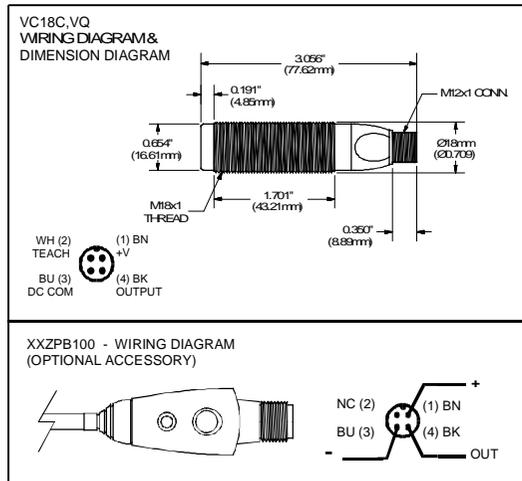
Beam Plot



Mounting / Alignment

Mount the sensor such that the surface of the object to be detected is approximately centered within the sensor's sensing field. Mount the sensor firmly to avoid vibration. The sensor face should be parallel to the liquid or material surface and free of air currents.

Wiring Connections and Dimensions, Connector Model



Accessories

- Model XXZPB100 Inline Pushbutton Switch (for teaching window)
- Model AC228 Right-Angle Bracket
- Model AC441AUS North America Configurator Kit: Cables, AC441A, & Superprox+ SW
- Model AC441A2 U.K. Configurator Kit: Cables, AC441A, & Superprox+ SW
- Model AC441A3 Europe Configurator Kit: Cables, AC441A, & Superprox+ SW
- Model AC441A4 Australia/N Zealand Configurator Kit: Cables, AC441A, & Superprox+ SW
- Model AC441A5 South African Configurator Kit: Cables, AC441A, & Superprox+ SW

Sensing State Indicator LED's (Operation Mode)

- Off: Sensor is not powered
- Amber Only: Object is within span limits
- Green Only: Object is not within span limits

Output Indicator LED

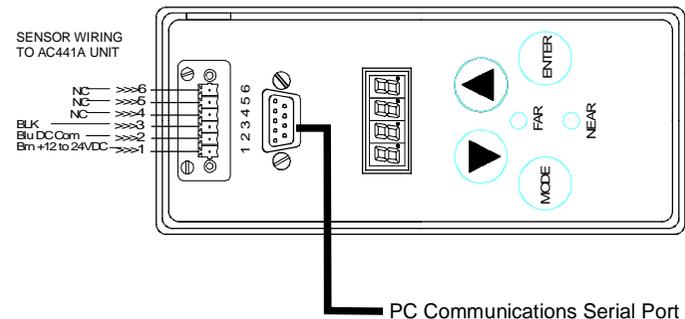
- Orange: Intensity varies directly with output magnitude

Teach Sensing Window

The following procedure details teaching the limits with the XXZPB100 remote pushbutton. To teach the limits, press and hold the pushbutton. The LED fast flashes amber and then after 3 seconds (factory default time), the LED slowly flashes green indicating the sensor is in teach mode. Release the pushbutton, and the LED continues slowly flashing green indicating the sensor is waiting for the first limit. Place a target at either the near or far limit, then press and release the pushbutton. While the pushbutton is pressed with a target present, the LED turns amber indicating a valid echo is being detected. After the first limit is successfully taught, the LED slowly flashes amber indicating the sensor is waiting for the second limit. Place a target at the second limit and press and release the pushbutton. While the pushbutton is pressed with a target present, the LED turns amber indicating a valid echo is being detected. After the second limit is taught, the two limits are saved in non-volatile memory and the LED then fast flashes green for 3 seconds to indicate the limits were successfully saved. The limits can be set in either order. The limits can be preset by using the Superprox+ Software and the AC441A Handheld configurator.

If not using the optional pushbutton, the process is similar. The White teach wire (Pin 2) can be grounded to the Blue DC return wire (Pin 3) to simulate the pushing of the button. All LED indications and the teach sequence are identical to the above detailed process.

AC441A Handheld Configurator



General Specifications

Power Supply:

Supply: +15 to 24 VDC ($\pm 10\%$) @ 40 mA max (including output load)
 Protection: ESD and reverse-polarity

Analog Output:

Voltage: 4 - 20 mA
 Minimum Load Resistance: 10 - 350 ohms
 Protection: ESD and short circuit

Pushbutton Input:

Active voltage level: < 1.0 volt
 Inactive voltage level: > 2.5 volts
 Activation On/Off time: > 25 ms (3 seconds to arm for limit setup)

Response Time:

Default from factory: 60 ms to 95% of full value

Loss-Echo Time:

Default from factory: 250 milliseconds

Loss-Echo State:

Default from factory: 4 mA

Operating Temperature:

-30°C to 70°C (-22°F to 158°F)

Sensing: [T_A=20°C (68°F)] -Large Flat Target

Range: 50.8 mm (2.00 in.) to 508.0 mm (20.00 in.)
 Maximum plane-reflector angle: $\pm 5^\circ$
 Sonic Cone Angle: See beam plot
 Window-edge accuracy: ± 1.27 mm (0.050 in.) @ constant temperature
 Minimum object size Rod: 2.5 mm (0.098 in) at 254.0 mm (10.00 in.) range, 0° tilt
 Factory Set sensing window: 50.8 mm (2.00 in.) to 508.0 mm (20.00 in.)
 Temperature Compensation: Default from factory: Temperature Compensation Enabled
 See Sensor Dimension section
Sensor Dimensions:
Sensor Connector Cable: XZCPVB1141L2 Straight, 4-cond, Shielded, PVC, 2 m (6.6 ft.)
 XZCPVB1241L2 Rt. Angle, 4-cond, Shielded, PVC, 2 m (6.6 ft.)

Sensor Materials:

Housing: PBT
 Transducer face: Epoxy
 Cable: Non-toxic PVC jacket
 LED: Nylon

Sensor Ratings and Approvals:

NEMA 4X (Indoor Use Only) 5, 12, 12K, 13, and IP67
 Installation/Overvoltage Category: II
 This Product is UL Listed if powered by a Class II Power Supply
 and protected by a 2.0A Max UL Listed Fuse

CE CE Mark Compliant: Declaration of conformity available upon request.

LIMITATIONS AND EXCLUSION OF WARRANTIES

All goods purchased from Schneider Electric USA shall be free from defects in materials, design and workmanship under normal conditions of use for one year from the date of shipment. THIS WARRANTY IS THE SOLE WARRANTY AND IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. THE LIABILITY OF THE COMPANY TO ANY PURCHASER SHALL BE LIMITED EXCLUSIVELY TO THE COST OF REPLACEMENT OR REPAIR OF DEFECTIVE PARTS, AND SHALL NOT INCLUDE LIABILITY FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER, WHETHER FORESEEN OR UNFORESEEN, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST SALES, OR INJURY TO PERSONS OR PROPERTY.

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HYDE PARK™

VC18CQ

Ultrasonic Analog Output Sensor

4-20 mA Analog Output, 18 mm Barrel with Quick Connect
Maximum Far Limit Distance: 508.0 mm (20.00 in.) from Sensor Face
Reconfigurable Sensor, Sensor Shipped in Default Autoslope Mode
4 mA set at Near Limit, 20 mA at Far Limit



OPERATOR INSTRUCTIONS

This self-contained ultrasonic sensor provides an analog output signal that is proportional to the object position relative to the teachable analog span limits. Objects that are transparent, opaque, plastic, glass, metal, liquid, or solid can be detected within the sensing range. An amber and a green LED indicate sensing state, and an orange LED indicates the magnitude of the output. This sensor is configured by connecting it to an AC441A unit and running Superprox+ software.

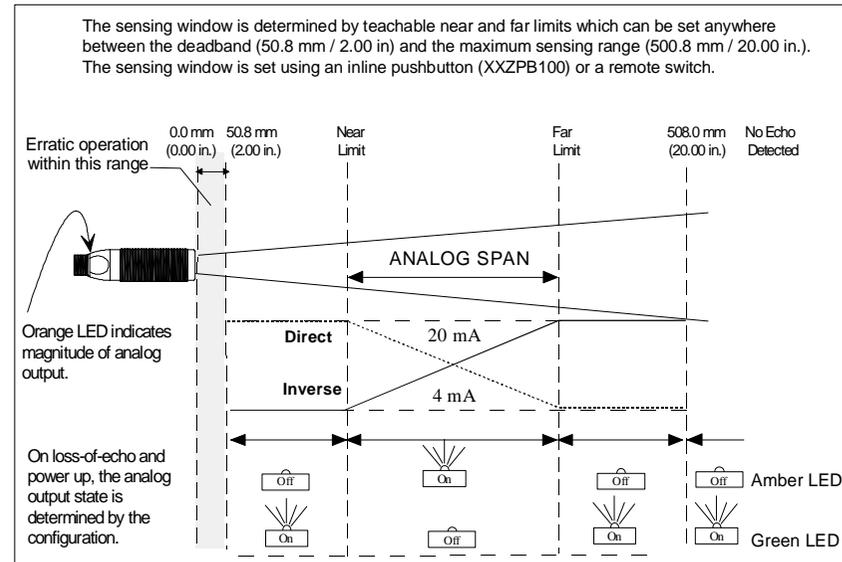


Figure 1

Literature and application engineering assistance are provided by Telemecanique Sensors and its authorized distributors to aid the customer in selecting the product for an application. The customer is responsible for determining the suitability of the product in the application.

WARNING

UNINTENDED OPERATION

Do not use this product to detect objects within the deadband.

Failure to follow this instruction can result in death, serious injury or equipment damage.