

## IMPORTANT INFORMATION

- The vent tube opening must be kept in a clean and dry environment. Run the level transmitter cable all the way to the control panel. Ensure proper sealing of conduits as to prevent gases and moisture from entering the control panel. Do not terminate in the wet well, even in a junction box.
- Do NOT bend cable to a radius smaller than 1.5 inches (38mm) to avoid kinking the vent tube.
- Do NOT press against the transmitter diaphragm.
- Do NOT support sensor by the cable.
- Do NOT splice cable.

## SPECIFICATIONS

- Measuring Range: 0-100 inWC (0-3.63 PSI)
- Accuracy: 2% Full Scale
- Operating Temp: 32-122°F (0-50°C)
- Output Signal: 4-20mA, loop powered
- Excitation Voltage: 8-32 VDC reverse polarity protected
- IP Rating: IP 68 for permanent submersion
- Wetted Materials:
  - Sensor Housing: PVC, 2.00" diameter x 5.35" length (51mm x 136mm)
  - Diaphragm: VITON®, 1.25" diameter (32mm)
  - Cable: TPE, 22 AWG - 2 wire shielded with vent tube, 0.24" diameter (6mm)
  - Hose Clamp: 18-8 stainless steel

*Viton® is a trademark of E. I. DuPont de Nemours and Company Corporation*

### Analog Input Scaling

mA	% Full Scale	Inches (mm)
20	100	100 (2450)
16	75	75 (1905)
12	50	50 (1270)
8	25	25 (635)
4	0	0 (0)

# CS 4-20mA Submersible Level Transmitter

U.S. Patent Number 8,336,385

## Installation Instructions



## APPLICATIONS

Continuous level measurement in sewage and effluent lift stations, stormwater pump stations, non-potable water systems, tanks, wet wells, and reservoirs.

### ⚠ WARNING



### ELECTRICAL SHOCK HAZARD

Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.

### ⚠ WARNING



### EXPLOSION OR FIRE HAZARD

Do not use with flammable liquids. Install in accordance with ANSI/NFPA 70. Suitable for usage with intrinsically safe circuit extensions as defined by UL 698A.

Failure to follow these precautions could result in serious injury or death. Replace product immediately if cable becomes damaged or severed. This product must be installed in accordance with National Electric Code, ANSI/NFPA 70 so as to prevent moisture from entering or accumulating within boxes, conduit bodies, fittings, or cable. Keep these instructions after installation.

## CSI CONTROLS® TWO-YEAR LIMITED WARRANTY

Two-Year Limited Warranty.  
For complete terms and conditions, please visit:  
[www.csicontrols.com](http://www.csicontrols.com).

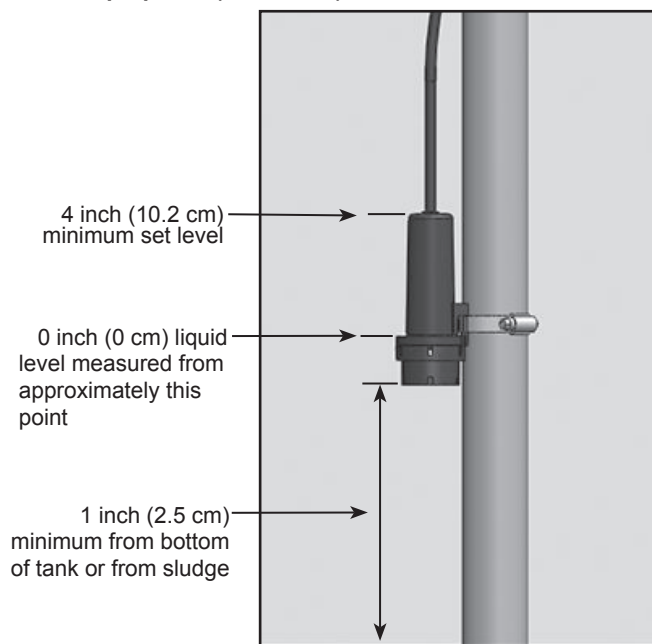


# CSI Controls™

Phone: 800-746-6287  
E-mail: [Techsupport@sjeinc.com](mailto:Techsupport@sjeinc.com)  
[www.csicontrols.com](http://www.csicontrols.com)

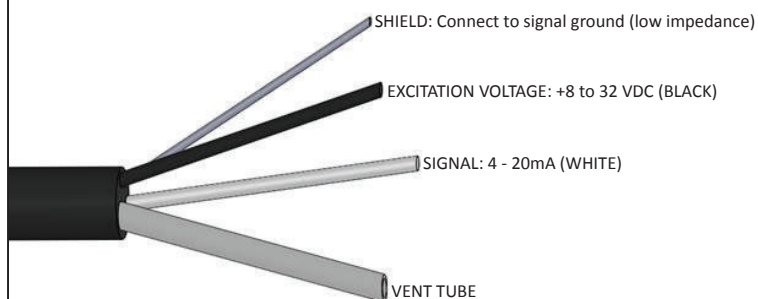
# 1 Determine the submergence depth and operating level ranges.

**⚠ WARNING:** To prevent erroneous measurements, do not allow the sensor diaphragm to come into contact with solid objects or sludge. Do not use level measurements less than 4" (10.2 cm) for control or alarm purposes (dead band).



# 3 Terminate transmitter cable in the control panel, connect wires to proper terminals as shown on the control panel schematic.

**Caution:** If the level transmitter wires are not connected properly, the 4-20mA signal output will not be correct. Level transmitter and float cables need to run in separate conduit from pump and power cables.

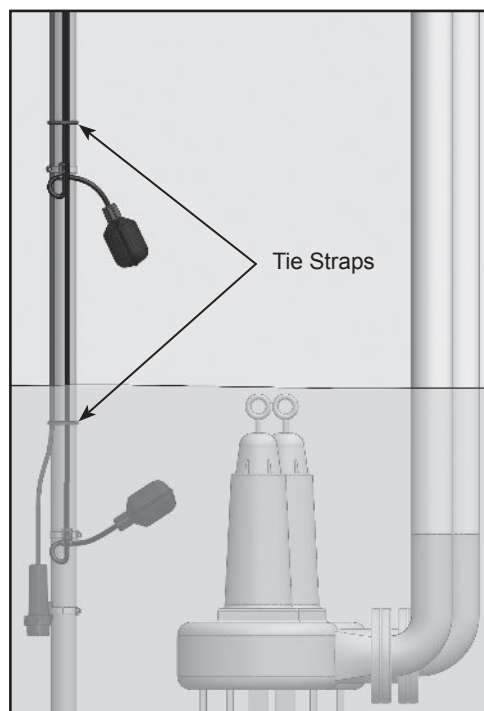


# 2 Position transmitter at appropriate location on pipe and secure sensor using provided hose clamp.

**Caution:** Do not overtighten clamp or tie straps.

**⚠ WARNING:** DO NOT support transmitter by the cable.

**⚠ WARNING:** DO NOT kink or place cable under hose clamp. Doing so may cause sensor to fail.



# 4 Functionally test the level measurement and ensure proper operation of the system by filling the tank.

