



Epoxy Body Conductivity Sensors

INSTRUCTION MANUAL

Type: C150, C150 TC, C200, C200 TC

EN 02-05

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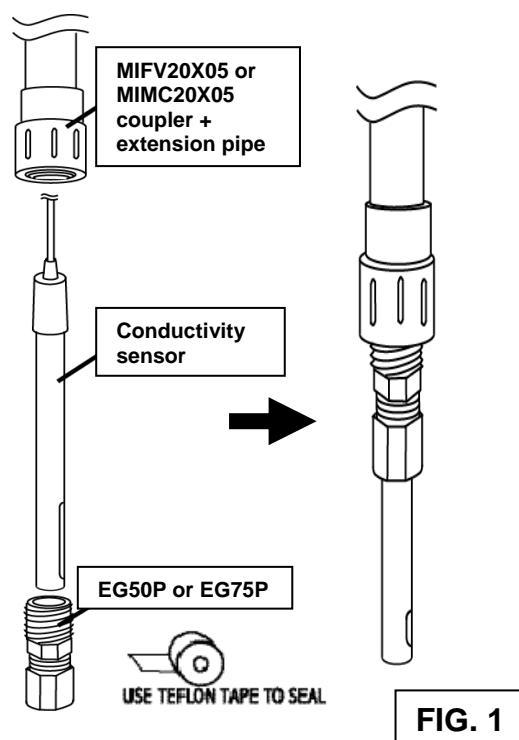
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1. Mechanical Installation

1.1. Submersion Installation

The C150 or C200 electrode can be submersion mounted in a tank for conductivity measurement using gland and nut fitting EG50P (1/2") or EG75P (3/4"). The EG50P or EG75P must first be inverted so the nut is pointed downward. Loosen the nut by turning clockwise (remember that fitting is inverted!). Slip electrode through hole in nut until desired depth is reached. Tighten nut (hand-tight) by turning counter-clockwise. Refer to FIG. 1.

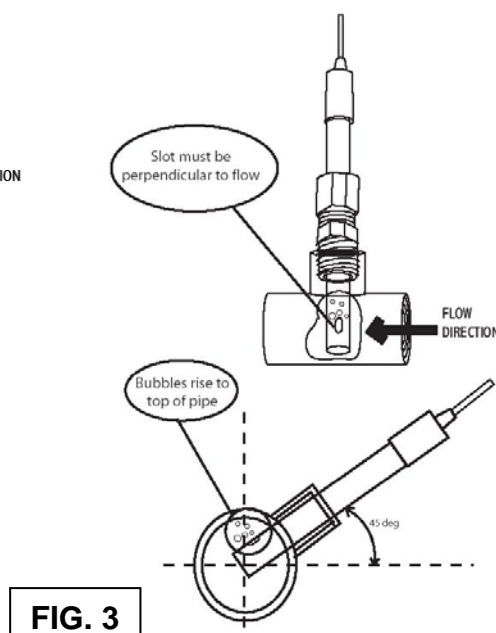
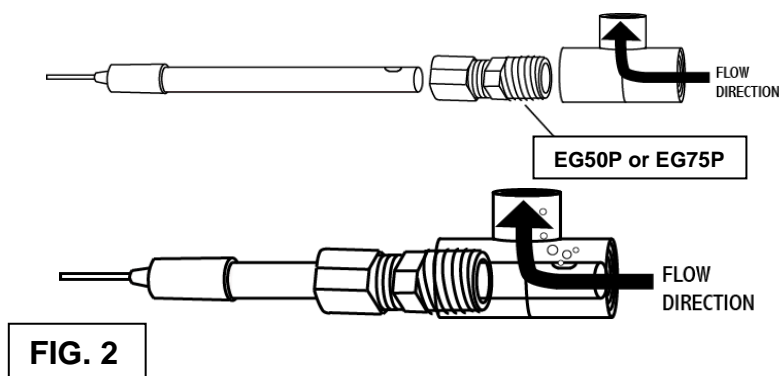
ELECTRODE REMOVAL: simply reverse installation procedure.



1.2. In-Line Installation

Mounting in-line is also possible using EG50P or EG75P fittings. For in-line mounting it is suggested that the sensor be mounted through the side of the tee as shown in FIG. 2. The sensor must also be mounted such that the opening/slot in the body is pointed upward so as to allow any air bubbles to rise out of the sensor and escape with the flow.

The sensor can be mounted also in vertical position but it is kindly recommended to position the slot perpendicular to flow and to install the sensor at 45° angle as shown in FIG. 3.



2. Electrical Installation

2.1. Installation for electrodes without Temperature Sensor included

The C150 or C200 do not include temperature sensors. Each is supplied with 2 connections (RED AND BLACK) and optional ground. Refer to FIG. 4. Please follow instructions of controller or transmitter for proper wiring.

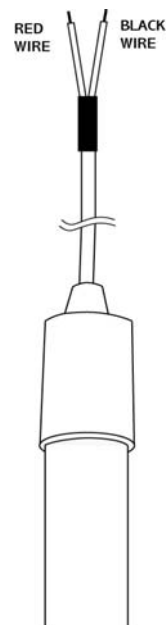


FIG. 4

2.2. Installation for electrodes with Temperature Sensor included

Electrodes with part number C150 TC or C200 TC include a temperature sensor to provide a temperature signal so that the conductivity instrument can perform temperature compensation (correct conductivity value to 25C or 20C depending on instrument manufacturer). The temperature wires are GREEN and WHITE. See FIG. 5 for wiring details. These temperature wires can be connected to the instrument's temperature input in any order since the output is a resistant signal (Ohms). Please note that some meters require a 3 or 4 wire temperature signal input. In these cases, place a jumper wire (for 3-wire type) or 2 jumper wires (4-wire type) from the original lead to open temperature inputs. Please refer to meter's manual for details.

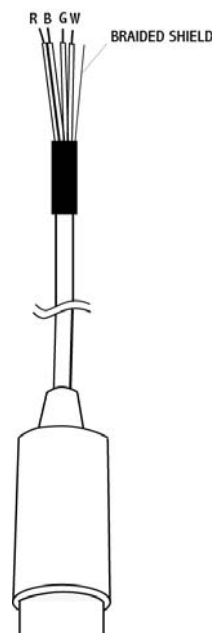


FIG. 5

3. Calibration Procedure

Calibrate sensor according to meter/controller instructions using known certified conductivity standards. Contact FLS for a complete selection of calibration standards. Be sure and calibrate in large beaker or bucket stirring sample with electrode. Avoid bubbles as much as possible as bubbles cause erroneous readings.

4. Care and Cleaning

C150 and C150 TC electrodes have a graphite measuring surface. Clean surfaces with gentle detergent or 5% HCl in cup or beaker. Do not sand or abrade the graphite surface as abrasion changes the surface area and will cause erroneous readings.

C200 and C200 TC electrodes have a platinum black coated platinum measuring surface. DO NOT TOUCH PLATINUM BLACK SURFACE SINCE IT WILL REMOVE PLATINUM BLACK COATING, WHICH CANNOT BE REPLACED. Clean with 5%HCl or detergent.

5. Ordering Data

Epoxy Body Conductivity Sensors

Part No.	Description	Cell Constant*	Connection
C150	Graphite Conductivity Sensor	1,0 Cell	0.75 mt. Cable
C150 TC	Graphite Conductivity Sensor with Temperature Sensor included	1,0 Cell	0.75 mt. Cable
C200	Platinum Conductivity Sensor	1,0 Cell	0.75 mt. Cable
C200 TC	Platinum Conductivity Sensor with Temperature Sensor included	1,0 Cell	0.75 mt. Cable

* All other cell constants (0,01 – 0,1 and 10) available on request.



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