



## Wiring of AST-DO-UNIVERSAL Galvanic Dissolved Oxygen (DO) Sensors for Inline, Immersion, Submersible & Sanitary Installation Schemes to ASTI 3TX-DO & 3TX-DO-X Dissolved Oxygen (DO) Transmitters

### AST-DO-UNIVERSAL DISSOLVED OXYGEN SENSOR WITHOUT PREAMPLIFIER

ASTI Cable Color Coding	Instrument Terminal Value	3TX-DO Terminal Number
Red	(-) mV Signal Anode	1
Clear	(+) mV Signal Cathode	2
N/A	No Connection	3
Black	Pt100 / Pt1000	4
Black	Pt100 / Pt1000	5

### AST-DO-UNIVERSAL DISSOLVED OXYGEN SENSOR WITH PREAMPLIFIER

ASTI Cable Color Coding	Instrument Terminal Value	3TX-DO-X Terminal Number
Green	+5V Power (Green)	1
White	Dissolved Oxygen Sensor <i>mV Signal</i>	2
Black	-5V Power (Black)	3
Yellow	TC (Yellow)	4
Blue & Red	TC (Blue) & Common (Red)	5

**Note 1:** Depending upon the TC ordered it may be necessary to change the parameter 03 from Pt100 (default) to Pt1000 (selectable). The wiring is identical whether Pt100/Pt1000 are used.

**Note 2:** Mating galvanic dissolved oxygen sensor connected to the 3TX-DO transmitter must have internal temperature compensation. The temperature procured from the Pt100/Pt1000 element is only used for measurement of temperature, calibration of the sensor dry in air to 100% saturation condition and computation of the percent (%) saturation from DO ppm values.

**Note 3:** For the AST-DO-UNIVERSAL dissolved oxygen sensors with integral preamplifier for use with the 3TX-DO-X transmitters the cable can be bridged across any ordinary suitable terminal strip in a NEMA 4X enclosure and proper sealing cable glands (max 330 feet). The AST-DO-UNIVERSAL dissolved oxygen (DO) sensors without an integral preamplifiers must be connected directly to 3TX-DO transmitter input terminals (max 15 meters / 50 feet cable).