

C554 Conductivity Sensor



- ✓ Eliminate Costly Conductivity Module
- ✓ Direct 4-20mA & RS485 Outputs
- ✓ Temperature Compensated
- ✓ High Accuracy
- ✓ 3/4" NPT Connection
- ✓ Factory Calibrated
- ✓ 4-Electrodes
- ✓ Conductivity | TDS | Salinity | Resistivity
- ✓ Optional Local Display c/w High/Low Alarm Set-points

Four graphite + PPMA electrodes in one tough sensor — High performance with industrial strength

The ProCon® C554 series quadruple electrode conductivity sensor has been proven to operate seamlessly in industrial applications up to 500,000µS/cm.

Measuring specific conductivity of aqueous solutions is becoming increasingly important for determining impurities in water.

The ProCon® line of analytical sensors have been designed for difficult industrial applications and to outperform even in extreme conditions.

The 2-wire 4-20mA, 4-wire or 4-20mA + RS485 output options simplify calibration and communication with remote displays and controllers.

Specifications

Power Supply	9 – 36VDC
Sensor Electrode Material	Graphite + PPMA
Housing Material	PP
IP Rating	IP68
Measurement Range	0 – 500,000µS
Accuracy	±1% of Reading
Pressure Resistance	100 Psi
Temperature Compensation	PT1000 (Std) PT100
Temperature Range	14 – 176°F -10 – 80°C
Calibration	Factory Calibrated
Connection Methods	<ul style="list-style-type: none"> • 4-20mA 2 wire • 4-Wire (direct to ProCon® controller) • 4-20mA + RS485
Cable Length (w/o J-Box)	Flying Lead: 5m cable can be extended to 100m
Installation Thread	NPT 3/4"

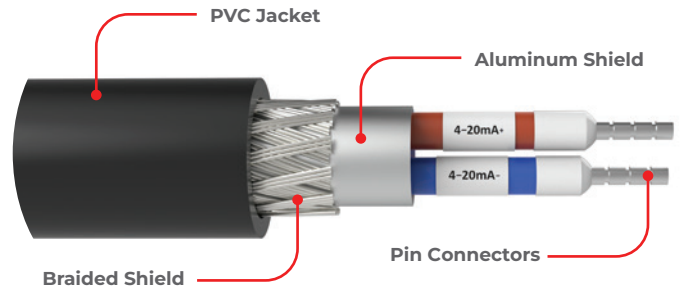


M12 Quick Connection

C554 Conductivity Sensor



Wiring

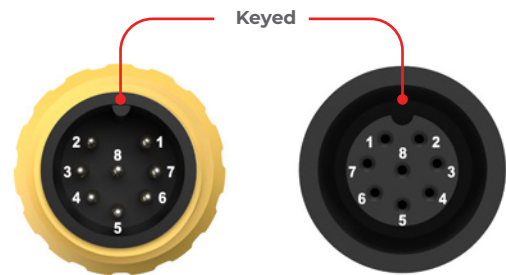


Double Shielded Cable



4-20mA+RS485
Direct Sensor Output

Advanced electronic circuitry for automatic sensor recognition ensuring trouble-free calibration when connected to the ProCon® controller



M12 Connection (No Internal Wiring Required)

Cable Options

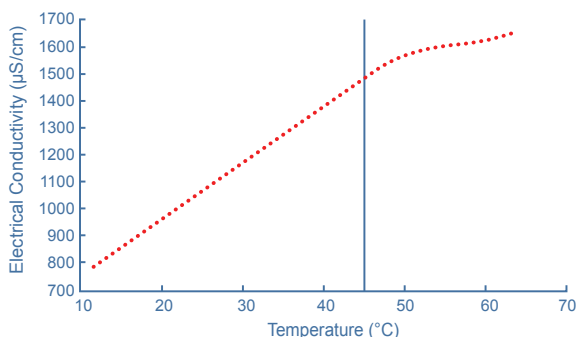
The ProCon® series offer complete flexibility of cabling options throughout the range. All cables are shielded against spurious EMI and are potted inside the sensor ensuring environmental protection.

The standard cable length for most sensors is 5m (15 ft). However, cables can be supplied as any continuous size up to 100m.

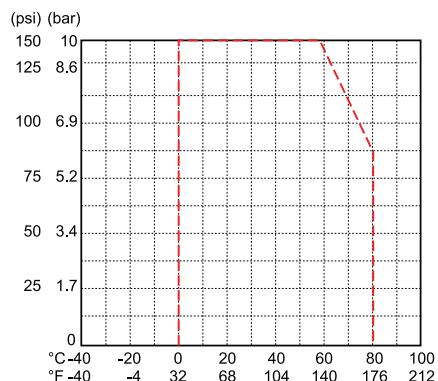


IO-Link (No Internal Wiring Required)

Temperature Effects

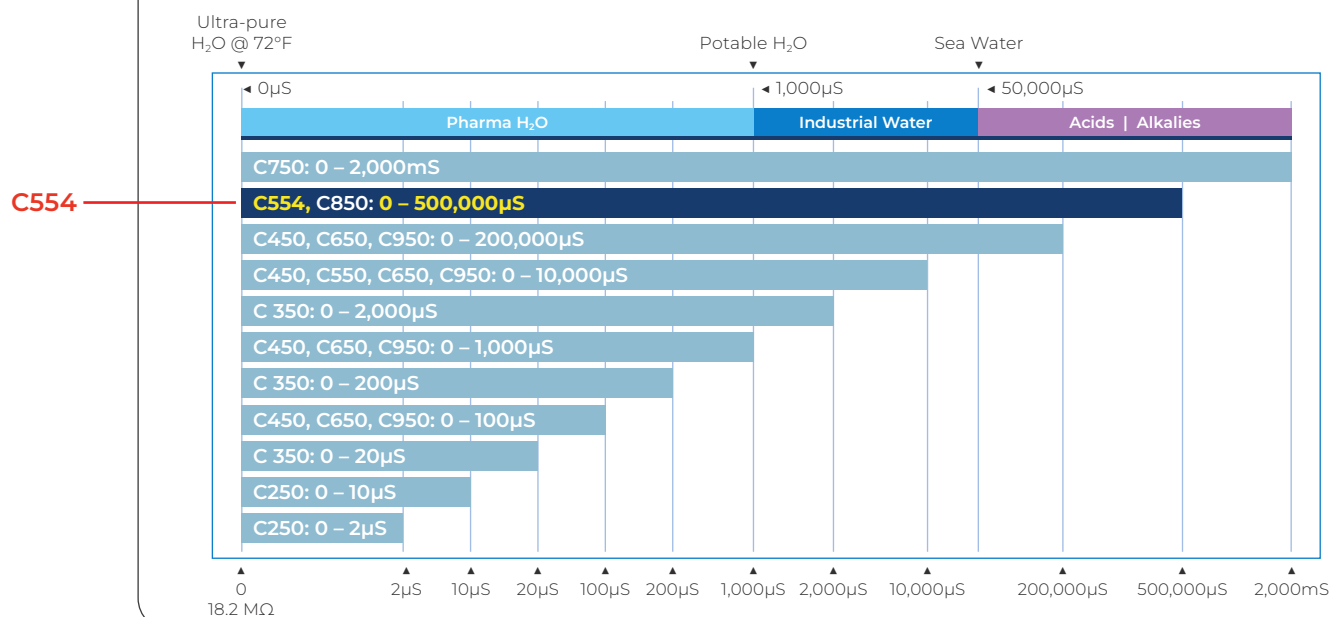


Temperature vs. Pressure



Factory Calibrated

ProCon® conductivity sensors come with a factory default that covers the range of the sensor



Industrial GP Purpose

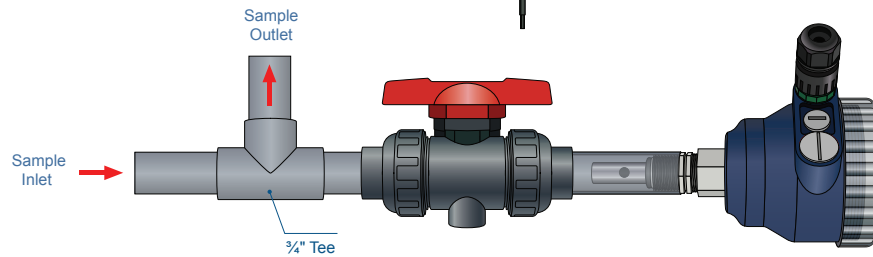
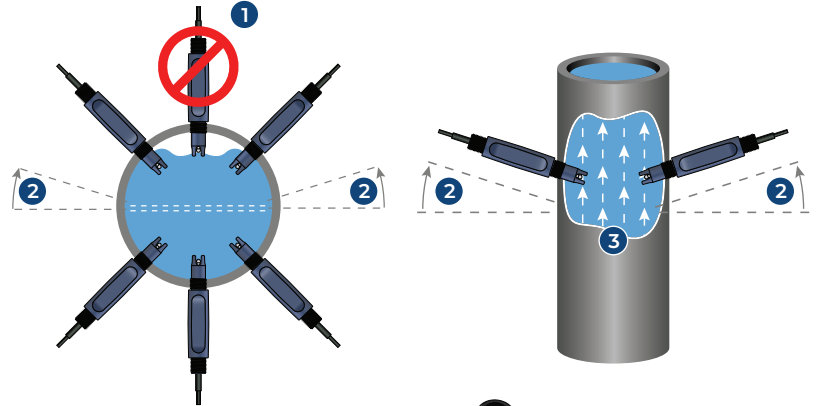
Cell	Models	Range
Cell 0.1	C250	0 - 2µS
Cell 0.1	C250	0 - 10µS
Cell 0.1	C350	0 - 20µS
Cell 0.01	C450, C650, C950	0 - 100µS
Cell 0.1	C350	0 - 200µS
Cell 0.1	C450, C650, C950	0 - 1,000µS
Cell 0.1	C350	0 - 2,000µS
Cell 1.0	C450, C550, C650, C950	0 - 10,000µS
Cell 10	C450, C650, C950	0 - 200,000µS
Cell 0.4	C554, C850	0 - 500,000µS
Toroidal	C750	0 - 2,000mS

Typical Applications

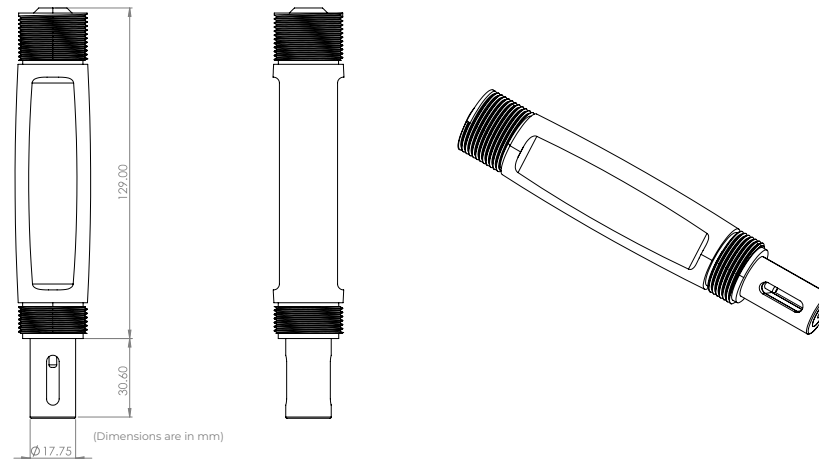
- ✓ High Purity Water
- ✓ Water Treatment
- ✓ Pharmaceutical
- ✓ Food and Beverage
- ✓ Interface Detection
- ✓ Desalination
- ✓ Chemical Plants
- ✓ Aquariums
- ✓ Agricultural Industries

In-line Mounting

1. If air is present, avoid vertical installation (okay if pipe is full).
2. Optimum installation 15° above horizontal.
3. Process liquid should flow upward. (for downward flow ensure backpressure is present in order to avoid air within pipe)



Dimension



Model Selection

C554 - R - M - 1 - M

Cell Constant	Output	Electrode	Connection
R: 0.4, 0 – 500,000 μ S	M: 4-20mA (2-wire) D: 4-wire (for ProCon [®] display) S: RS485 + 4-20mA	1: PT1000 (std) 2: PT100	M: M12 B: Blind (J-Box with M12) F: Flying Lead