

ProCon® — C250 Series

Conductivity Sensor Transmitter



ICON™ Corrosion-Free
PROCESS CONTROLS Instrumentation Equipment



- ✓ **Ultrapure H₂O Range down to 2µS**
- ✓ **Eliminate Costly Conductivity Module**
- ✓ **Direct 4-20mA & RS485 Outputs**
- ✓ **Temperature Compensated**
- ✓ **High Accuracy**
- ✓ **Factory Calibrated**
- ✓ **2-Electrodes**
- ✓ **Conductivity | TDS | Salinity | Resistivity**

Tough but sensitive — High performance with industrial strength titanium electrode

The ProCon® C250 series double electrode conductivity sensor transmitter has been proven to operate seamlessly in industrial ultra-high purity H₂O applications.

Industrial environments can be harsh, featuring corrosive substances and fluctuating temperatures. The ProCon® C250 series conductivity sensor transmitter is built with durability in mind. Constructed from rugged materials such as titanium, corrosion-resistant plastics and double shielded cable, this robust build ensures longevity and reliability. Pair it with a ProCon® conductivity controller (featuring SimplCal®) for a truly seamless experience.

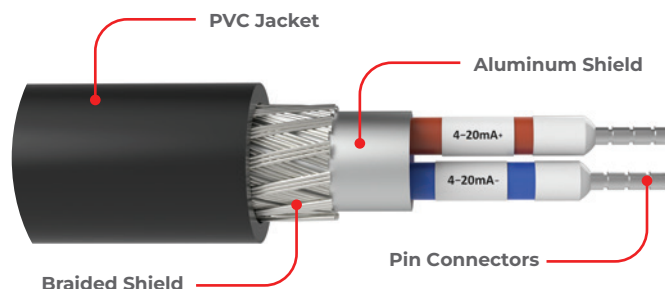
The ProCon® line of analytical sensor transmitters have been designed for difficult industrial applications and to outperform even in extreme conditions.

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

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.

Specifications

Power Supply	9 – 36VDC
Sensor Electrode Material	Titanium Alloy
Housing Material	PP
IP Rating	IP68
Measurement Range	0 – 2µS 0 – 10µS
Accuracy	±1% of Reading
Pressure Resistance	150 Psi
Temperature Compensation	PT1000 (Std)
Temperature Range	32 – 176°F 0 – 80°C
Calibration	Factory Calibrated
Connection Methods	• 4-20mA 2 wire • 4-Wire (direct to ProCon® controller) • 4-20mA + RS485
Cable Length	M12: 5m cable can be extended to 100m
Installation Thread	NPT 3/4"



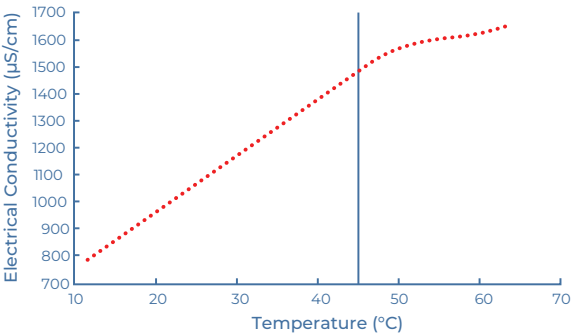
Double Shielded Cable

ProCon® — C250 Series

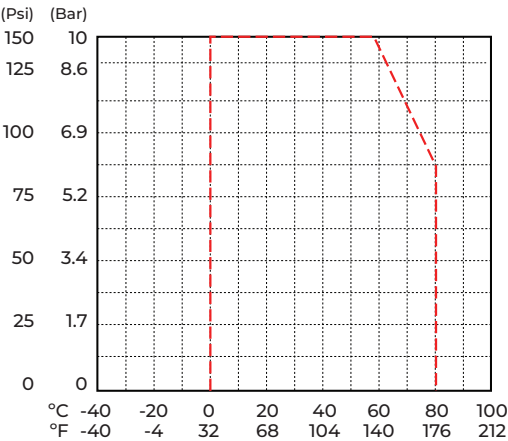
Conductivity Sensor Transmitter



Temperature Effects

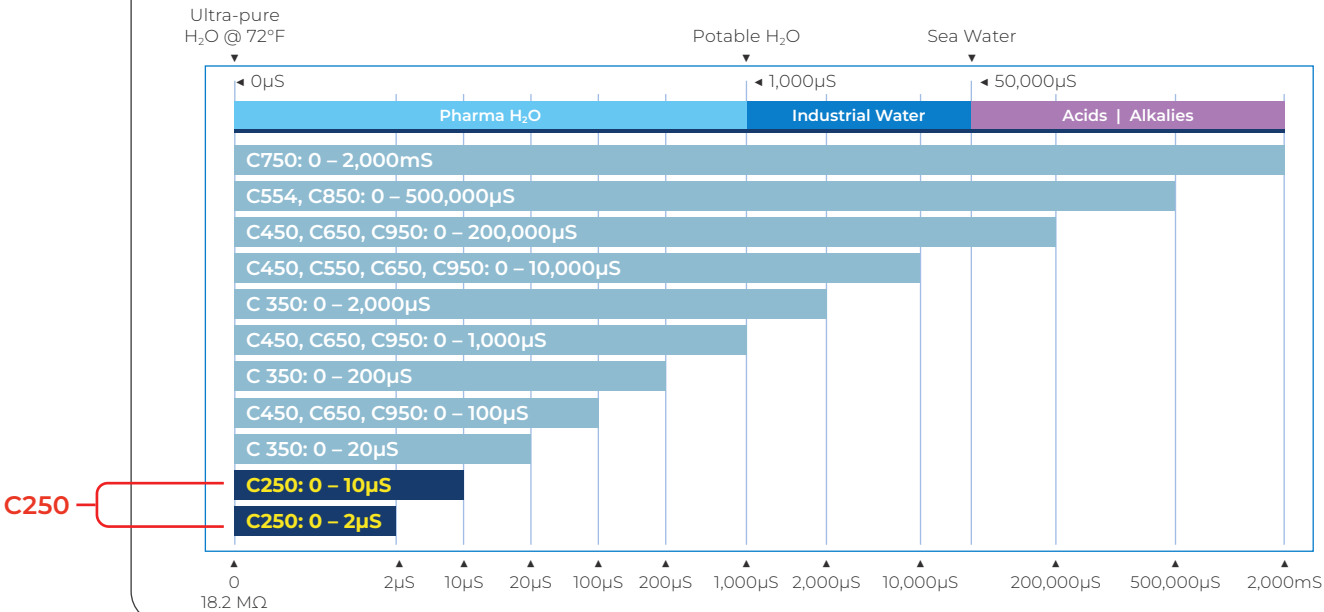


Temperature vs. Pressure



Factory Calibrated

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



Industrial GP Purpose

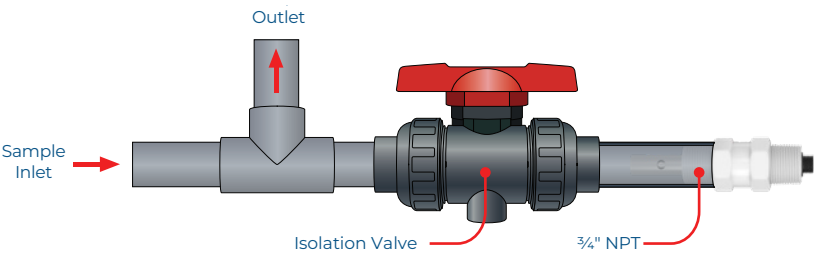
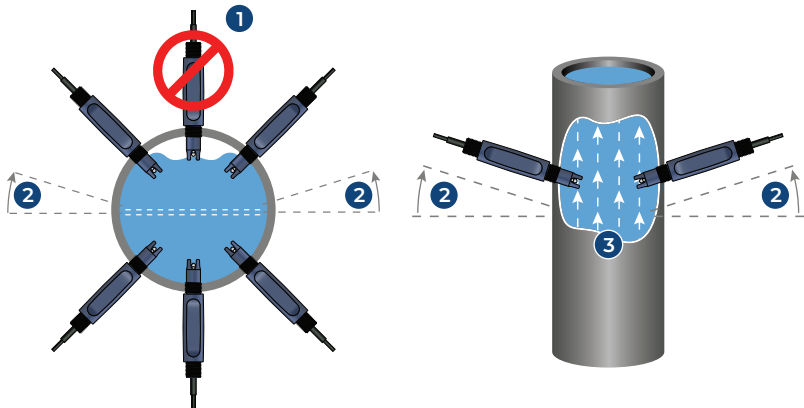
Cell	Models	Range
Cell 0.01	C250	0 – 2µS
Cell 0.01	C250	0 – 10µS
Cell 0.1	C350	0 – 20µS
Cell 0.01	C450, C650, C950	0 – 100µS
Cell 0.1	C350	0 – 200µS
Cell 0.1	C450, C650, C950	0 – 1,000µS
Cell 0.1	C350	0 – 2,000µS
Cell 1.0	C450, C550, C650, C950	0 – 10,000µS
Cell 10	C450, C650, C950	0 – 200,000µS
Cell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

Typical Applications

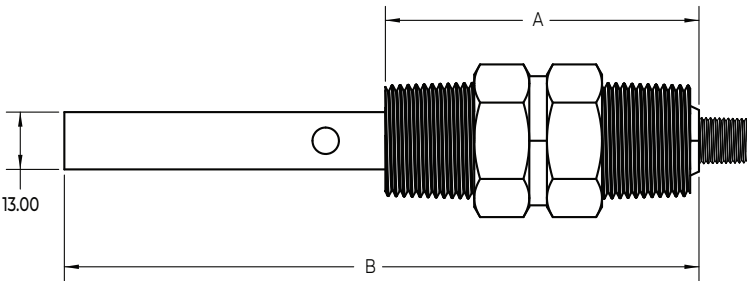
- ✓ High Purity Water
- ✓ Water Treatment
- ✓ Pharmaceutical
- ✓ Food and Beverage
- ✓ Interface Detection
- ✓ Desalination
- ✓ Chemical Plants
- ✓ Aquariums
- ✓ Agricultural Industries

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



Cell Class	M12		Flying Lead	
	A(mm)	B (mm)	A(mm)	B (mm)
Cell 0.01	78	151	67.8	140.8

Model Selection

C250 — High Purity Conductivity Sensor					
Part Number	Material	Output	Cell Constant	Range	Connection
C250-A-D-1-M	Titanium Alloy	4-wire (for ProCon® display)	0.01	0-2µS	M12
C250-D-D-1-M	Titanium Alloy	4-wire (for ProCon® display)	0.01	0-10µS	M12
C250-A-M-1-M	Titanium Alloy	2-wire 4-20mA	0.01	0-2µS	M12
C250-D-M-1-M	Titanium Alloy	2-wire 4-20mA	0.01	0-10µS	M12
C250-A-S-1-M	Titanium Alloy	RS485 + 4-20mA	0.01	0-2µS	M12
C250-D-S-1-M	Titanium Alloy	RS485 + 4-20mA	0.01	0-10µS	M12
C450-M-M-1-M	Titanium Alloy	4-20mA (2-wire, std)	1	0-10,000µS	M12
C450-P-M-1-M	Titanium Alloy	4-20mA (2-wire, std)	10	0-200,000µS	M12
C450-G-S-1-M	Titanium Alloy	RS485 + 4-20mA	0.01	0-100µS	M12
C450-J-S-1-M	Titanium Alloy	RS485 + 4-20mA	0.1	0-1,000µS	M12
C450-M-S-1-M	Titanium Alloy	RS485 + 4-20mA	1	0-10,000µS	M12
C450-P-S-1-M	Titanium Alloy	RS485 + 4-20mA	10	0-200,000µS	M12

Last digit: "M" for M12 Connection (std), "F" Flying Lead - consult factory
Consult factory for custom ranges

ProCon® — C250 Series

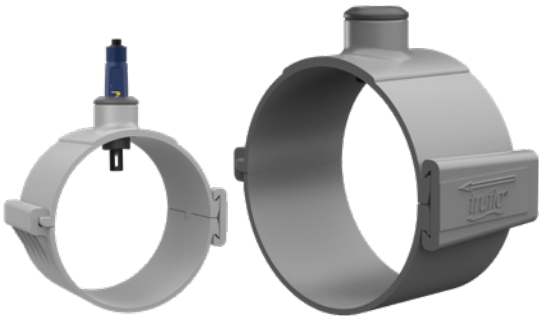
Conductivity Sensor Transmitter



ICON™ Corrosion-Free
PROCESS CONTROLS Instrumentation Equipment

Fittings

Easy Install Clamp On Pipe Saddles					
Part Number	Material	Size	Seal	Thread	Connection
PSA-2	PVC	2"	FPM	3/4" NPT	PVC
PSA-3	PVC	3"	FPM	3/4" NPT	PVC
PSA-4	PVC	4"	FPM	3/4" NPT	PVC
PSA-6	PVC	6"	FPM	3/4" NPT	PVC
PSA-8	PVC	8"	FPM	3/4" NPT	PVC



by



Phone: 905.469.9283 • Sales: sales@iconprocon.com • Support: support@iconprocon.com