





### **Specifications**

Power Supply	9 – 36VDC
Sensor Electrode Material	Titanium
Housing Material	PP
IP Rating	IP68
Measurement Range	0-100µS   0-1,000µS 0-10,000µS   0-200,000µS
Accuracy	±1% of Reading
Pressure Resistance	150 Psi
Temperature Compensation	PT1000 (Std)
Temperature Range	14 – 176°F   -10 – 80°C
Calibration	Factory Calibrated
Connection Methods	<ul><li>4-20mA 2 wire</li><li>4-wire (direct to ProCon® controller)</li><li>4-20mA + RS485</li></ul>
Cable Length (w/o J-Box)	M12: 5m cable can be extended to 100m
Installation Thread	NPT <sup>3</sup> / <sub>4</sub> "

- Eliminate Costly Conductivity Module
- Oirect 4-20mA & RS485 Outputs
- Temperature Compensated
- High Accuracy
- Factory Calibrated
- 2-Electrodes
- **⊘** Conductivity | TDS | Salinity | Resistivity
- Optional Local Display c/w High/Low Alarm Set-points

# Tough but sensitive — High performance with industrial strength titanium alloy electrode

The ProCon® C650 series double electrode conductivity sensor has been proven to operate seamlessly in industrial applications up to 200,000µS/cm.

Industrial environments can be harsh, featuring corrosive substances and fluctuating temperatures. The ProCon® C650 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 sensor transmitters come pre-calibrated and can be configured with or without a junction box. The C650 also features the convenience and safety of the M12 quick connection with no additional conductivity module required.

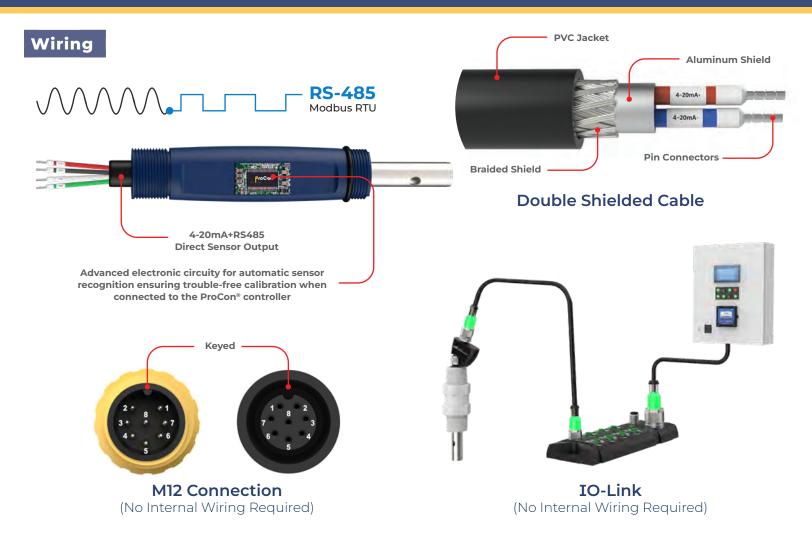
The ProCon® C650 series double electrode conductivity sensor transmitter has been proven to operate seamlessly in industrial applications up to 200,000µS/cm.

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









### **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.

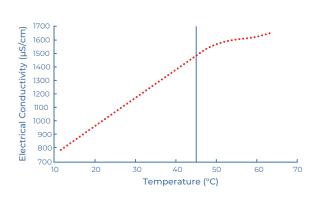
The standard cable length for most sensors is 5m (15 ft). However, cables can be supplied as any continuous size up to 100m.



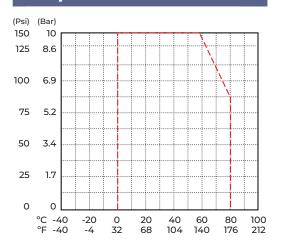




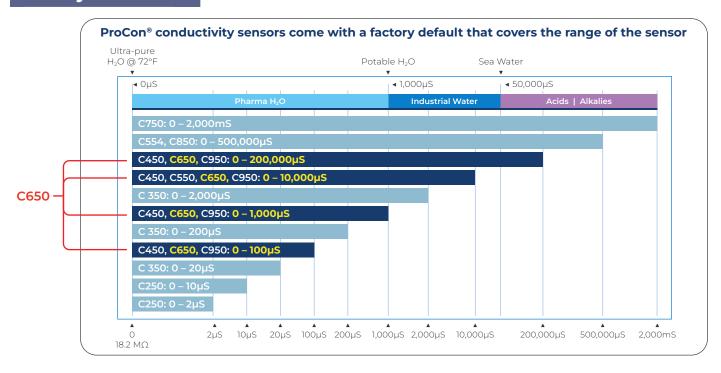
#### **Temperature Effects**



#### Temperature vs. Pressure



#### **Factory Calibrated**



#### **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, <b>C650,</b> C950	0 – 100μS		
Cell 0.1	C350	0 – 200µS		
Cell 0.1	C450, <b>C650,</b> C950	0 – 1,000µS		
Cell 0.1	C350	0 – 2,000µS		
Cell 1.0	C450, C550, <b>C650,</b> C950	0 – 10,000µS		
Cell 10	C450, <b>C650,</b> C950	0 – 200,000µS		
Cell 0.4	C554, C850	0 - 500,000µS		
Toroidal	C750	0 – 2,000mS		

### **Typical Applications**

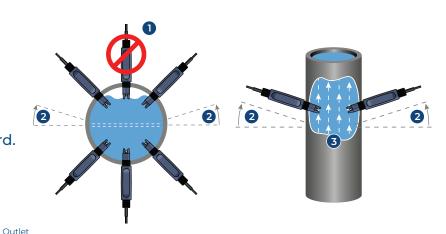
- High Purity Water
- Water Treatment
- Pharmaceutical
- Food and Beverage
- Interface Detection
- Operation
- Chemical Plants
- Aquariums
- Agricultural Industries

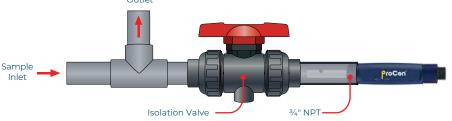




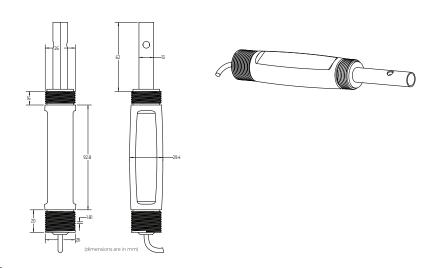
### **In-line Mounting**

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





#### **Dimension**



### **Model Selection**

C650 — Titanium Conductivity Sensor							
Part Number	Material	Output	<b>Cell Constant</b>	Range	Connection		
C650-G-D-1-M	PP, Titanium	4-wire (for ProCon® Display)	0.01	0-100µS	M12		
C650-J-D-1-M	PP, Titanium	4-wire (for ProCon® Display)	0.1	0-1,000µS	M12		
C650-M-D-1-M	PP, Titanium	4-wire (for ProCon® Display)	1	0-10,000µS	M12		
C650-P-D-1-M	PP, Titanium	4-wire (for ProCon® Display)	10	0-200,000µS	M12		
C650-G-M-1-M	PP, Titanium	4-20mA (2-wire, std)	0.01	0-100µS	M12		
C650-J-M-1-M	PP, Titanium	4-20mA (2-wire, std)	0.1	0-1,000µS	M12		
C650-M-M-1-M	PP, Titanium	4-20mA (2-wire, std)	1	0-10,000µS	M12		
C650-P-M-1-M	PP, Titanium	4-20mA (2-wire, std)	10	0-200,000µS	M12		
C650-G-S-1-M	PP, Titanium	RS485 + 4-20mA	0.01	0-100µS	M12		
C650-J-S-1-M	PP, Titanium	RS485 + 4-20mA	0.1	0-1,000µS	M12		
C650-M-S-1-M	PP, Titanium	RS485 + 4-20mA	1	0-10,000µS	M12		
C650-P-S-1-M	PP, Titanium	RS485 + 4-20mA	10	0-200,000µS	M12		

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





## 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



True Union Tee Fitting					
Part Number	Material	Size	Seal	Thread	Connection
TUPA-PV-5	PVC	1/2"	FPM (std)   EPDM	3/4" NPT	Socket   NPT
TUPA-PP-5	PP	1/2"	FPM (std)   EPDM	3/4" NPT	Butt   NPT
TUPA-PF-5	PVDF	1/2"	FPM (std)   EPDM	3/4" NPT	Butt  NPT
TUPA-PV-7	PVC	3/4"	FPM (std)   EPDM	3/4" NPT	Socket   NPT
TUPA-PP-7	PP	3/4"	FPM (std)   EPDM	3/4" NPT	Butt   NPT
TUPA-PF-7	PVDF	3/4"	FPM (std)   EPDM	3/4" NPT	Butt  NPT
TUPA-PV-1	PVC	1"	FPM (std)   EPDM	3/4" NPT	Socket   NPT
TUPA-PP-1	PP	1"	FPM (std)   EPDM	3/4" NPT	Butt   NPT
TUPA-PF-1	PVDF	1"	FPM (std)   EPDM	3/4" NPT	Butt  NPT
TUPA-PV-15	PVC	1 1/2"	FPM (std)   EPDM	3/4" NPT	Socket   NPT
TUPA-PP-15	PP	1 1/2"	FPM (std)   EPDM	3/4" NPT	Butt   NPT
TUPA-PF-15	PVDF	1 1/2"	FPM (std)   EPDM	3/4" NPT	Butt  NPT
TUPA-PV-2	PVC	2"	FPM (std)   EPDM	3/4" NPT	Socket   NPT
TUPA-PP-2	PP	2"	FPM (std)   EPDM	3/4" NPT	Butt   NPT
TUPA-PF-2	PVDF	2"	FPM (std)   EPDM	3/4" NPT	Butt  NPT





