

# ProCon® — C350 Series

## Conductivity Sensor Transmitter



**ICON**™ Corrosion-Free  
PROCESS CONTROLS Instrumentation Equipment



- ✓ Eliminate Costly Conductivity Module
- ✓ Direct to ProCon® Controller & RS485 Outputs
- ✓ Temperature Compensated
- ✓ High Accuracy
- ✓ Quick Response Time
- ✓ Factory Calibrated
- ✓ 2-Electrodes
- ✓ Conductivity | TDS | Salinity | Resistivity

### Tough but sensitive — High performance with industrial strength 316L stainless steel electrode

The ProCon® C350 series double electrode conductivity sensor transmitter has been proven to operate seamlessly in industrial applications up to 2,000µS/cm.

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

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

The 4-wire or RS485 output options simplify calibration and communication with remote displays and controllers.

Always ask for **ProCon® C350** by name to be sure you are getting a genuine **Icon Process Controls** product.

### Specifications

|                           |                                                    |
|---------------------------|----------------------------------------------------|
| Power Supply              | 9 – 36VDC                                          |
| Sensor Electrode Material | 316L Stainless Steel                               |
| Housing Material          | 316L Stainless Steel                               |
| IP Rating                 | IP68                                               |
| Measurement Range         | 0 – 20µS   0 – 200µS<br>0 – 2,000µS                |
| Accuracy                  | ±1% of Reading                                     |
| Pressure Resistance       | 80 Psi                                             |
| Temperature Compensation  | PT1000 (Std)                                       |
| Temperature Range         | 32 – 266°F   0 – 130°C                             |
| Calibration               | Factory Calibrated                                 |
| Connection Methods        | • 4-Wire (direct to ProCon® controller)<br>• RS485 |
| Cable Length              | Flying Lead: 5m cable<br>can be extended to 100m   |
| Installation Thread       | Sanitary Tri-Clamp                                 |



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

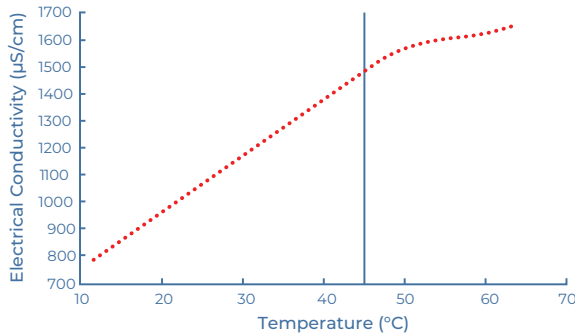
RS485 Direct Sensor Output

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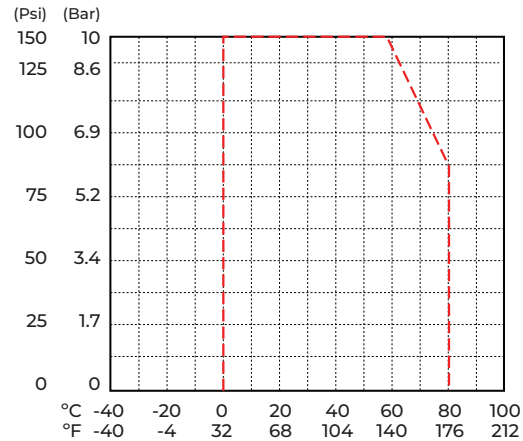
## Conductivity Sensor Transmitter



### Temperature Effects

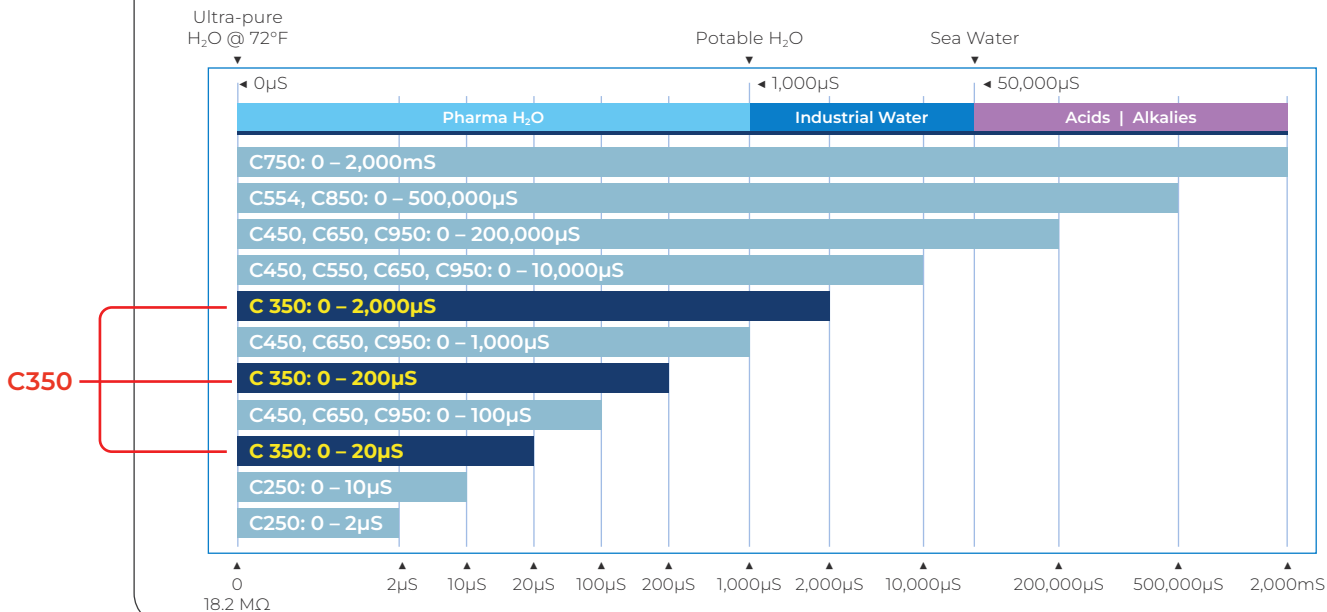


### Temperature vs. Pressure



### 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           |
| <b>Cell 0.1</b> | <b>C350</b>            | <b>0 – 20µS</b>    |
| Cell 0.01       | C450, C650, C950       | 0 – 100µS          |
| <b>Cell 0.1</b> | <b>C350</b>            | <b>0 – 200µS</b>   |
| Cell 0.1        | C450, C650, C950       | 0 – 1,000µS        |
| <b>Cell 0.1</b> | <b>C350</b>            | <b>0 – 2,000µS</b> |
| 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

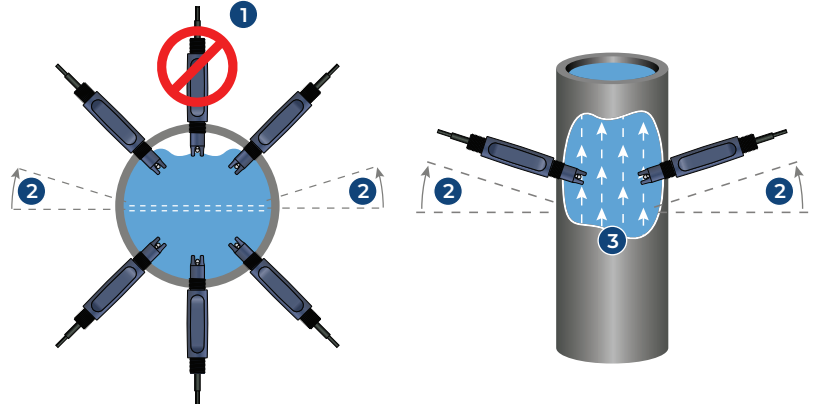
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## In-line Mounting

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)



## Model Selection

C350 — Sanitary Conductivity Sensor

| Part Number    | Size | Material | Output                       | Cell Constant | Range     | Connection  |
|----------------|------|----------|------------------------------|---------------|-----------|-------------|
| C350-E-D-1-F-A | 1"   | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-20μS    | Flying Lead |
| C350-H-D-1-F-A | 1"   | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-200μS   | Flying Lead |
| C350-K-D-1-F-A | 1"   | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-2,000μS | Flying Lead |
| C350-E-S-1-F-A | 1"   | 316L SS  | RS485                        | 0.1           | 0-20μS    | Flying Lead |
| C350-H-S-1-F-A | 1"   | 316L SS  | RS485                        | 0.1           | 0-200μS   | Flying Lead |
| C350-K-S-1-F-A | 1"   | 316L SS  | RS485                        | 0.1           | 0-2,000μS | Flying Lead |
| C350-E-D-1-F-B | 1.5" | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-20μS    | Flying Lead |
| C350-H-D-1-F-B | 1.5" | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-200μS   | Flying Lead |
| C350-K-D-1-F-B | 1.5" | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-2,000μS | Flying Lead |
| C350-E-S-1-F-B | 1.5" | 316L SS  | RS485                        | 0.1           | 0-20μS    | Flying Lead |
| C350-H-S-1-F-B | 1.5" | 316L SS  | RS485                        | 0.1           | 0-200μS   | Flying Lead |
| C350-K-S-1-F-B | 1.5" | 316L SS  | RS485                        | 0.1           | 0-2,000μS | Flying Lead |
| C350-E-D-1-F-C | 2"   | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-20μS    | Flying Lead |
| C350-H-D-1-F-C | 2"   | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-200μS   | Flying Lead |
| C350-K-D-1-F-C | 2"   | 316L SS  | 4-wire (for ProCon® display) | 0.1           | 0-2,000μS | Flying Lead |
| C350-E-S-1-F-C | 2"   | 316L SS  | RS485                        | 0.1           | 0-20μS    | Flying Lead |
| C350-H-S-1-F-C | 2"   | 316L SS  | RS485                        | 0.1           | 0-200μS   | Flying Lead |
| C350-K-S-1-F-C | 2"   | 316L SS  | RS485                        | 0.1           | 0-2,000μS | Flying Lead |



by

