C700 | C720 Series Controller
Conductivity, TDS, Resistivity, Salinity

Industrial Analytical Equipment

ICON PROCESS CONTROLS

Corrosion-Free Instrumentation Equipment

ProCon®

◄ **C720 Dual Display**

SimplConnect™
Cable Grip Connectors

No tools required

Cable Grip Wire Connector Combo
(no internal wiring required)

- ✓ **Large color LCD display**
- ✓ **Intelligent menu operation**
- ✓ **Data recording / curve display / data upload function**
- ✓ **Multiple automatic SimplCal® calibration**
- ✓ **Double high resistance measurement mode, stable and reliable**
- ✓ **Manual and automatic temperature compensation**
- ✓ **Three (3) relays**
- ✓ **High & low alarm and hysteresis control**
- ✓ **4-20mA & RS485 outputs**
- ✓ **Multi-parameter display — simultaneously shows conductivity and temperature**
- ✓ **Password protection**

High Performance Industrial Controller Analyzer

The ProCon® C700/C720 series is an extremely robust industrial conductivity controller analyzer.

The modular design is both easy to install and operate providing first measurement values in under one minute.

The C700/C720 is packed with all the extra features included. No need to pay extra for relays, 4-20mA or RS485 outputs.
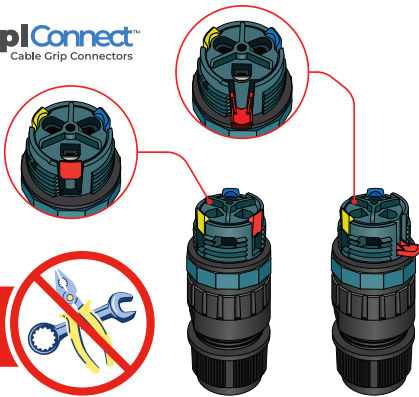
The SimplCal® feature makes calibrating your sensor easier and quicker than ever before.

The cost-saving quick and simple setup is done through our user-friendly step-by-step on-screen menu.
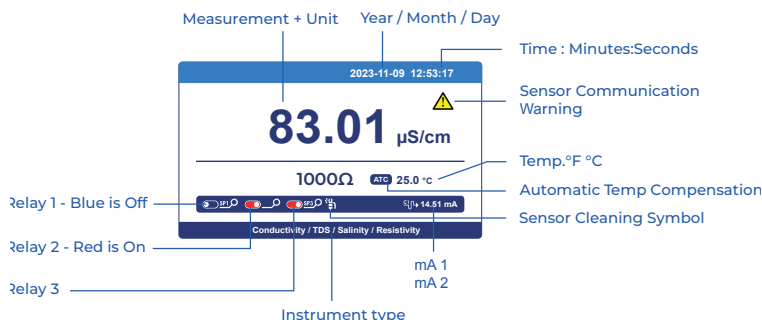
Active display of red alarm alert provides notification of out-of-bounds sensor readings and indication for sensor cleaning, recalibration or replacement.

Enclosure

The C700/C720 is packaged in a rugged polycarbonate enclosure making it ideally suited for heavy-duty applications (including outdoor). A mounting kit is included for wall mounting.

Measurement + Unit **Year / Month / Day**
Time : Minutes:Seconds
2023-11-09 12:53:17
Sensor Communication Warning
83.01 µS/cm
1000Ω ATC 25.0 °C
Temp.°F °C
Automatic Temp Compensation
Relay 1 - Blue is Off
Sensor Cleaning Symbol
Relay 2 - Red is On
14.51 mA
Conductivity / TDS / Salinity / Resistivity
Relay 3
mA 1
mA 2
Instrument type

C700 | C720 Series Controller
Conductivity, TDS, Resistivity, Salinity

Industrial Analytical Equipment

ICON PROCESS CONTROLS™ Corrosion-Free Instrumentation Equipment
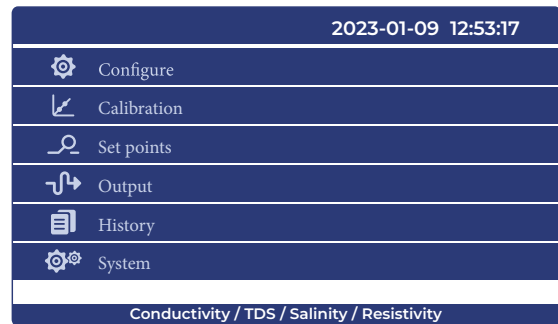
Display Descriptions

ProCon®

Check all electrical connections before use. The instrument will display as shown in the figure below after the power is turned on.
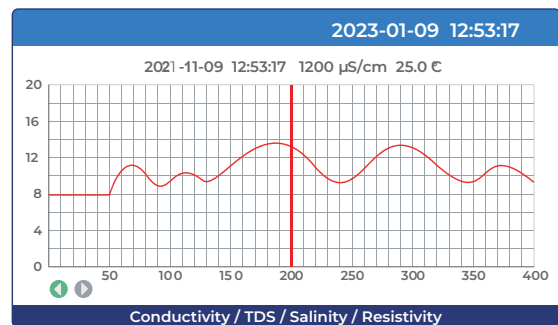
Measurement + Unit

Year / Month / Day

Time : Minutes:Seconds

2023-11-09 12:53:17

83.01 µS/cm

Sensor Communication Warning

1000Ω   ATC 25.0 °C

Temp.°F °C

Automatic Temp Compensation

Relay 1 - Blue is Off

SP1   SP3   14.51 mA

Conductivity / TDS / Salinity / Resistivity

Sensor Cleaning Symbol

Relay 2 - Red is On

mA 1
mA 2

Relay 3

Instrument type

Measurement Mode

2023-01-09 12:53:17

83.01 µS/cm

ATC 25.0 °C

SP1   SP3   14.51 mA

Conductivity / TDS / Salinity / Resistivity

Programming Mode

2023-01-09 12:53:17

⚙ Configure

📈 Calibration

🔎 Set points

⌁↦ Output

📄 History

⚙ System

Conductivity / TDS / Salinity / Resistivity

Calibration Mode
Note: New Sensors are Factory Calibrated

2023-01-09 12:53:17

Point 2

Voltage:-5 mV

1413 µS/cm Calibrating

Conductivity / TDS / Salinity / Resistivity

Data Logging Trend Chart

2023-01-09 12:53:17

2021 -11-09 12:53:17 1200 µS/cm 25.0 ℃

20
16
12
8
4
0
50 100 150 200 250 300 350 400

Conductivity / TDS / Salinity / Resistivity

Industrial Analytical Equipment

ICON PROCESS CONTROLS™

Corrosion-Free Instrumentation Equipment

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Technical Specifications

Measuring Range	0 – 500mS/cm
Resolution	0.1µS/cm	0.01mS/cm
Intrinsic Error	±0.5% F.S
Resistivity	0 – 18.25MΩ/cm
Resolution	0.01KΩ/cm	0.01MΩ/cm
TDS	0 – 250g/L
Resolution	0.01mg/L	0.01g/L
Salinity	0 – 700ppt
Resolution	0.01ppm	0.01ppt
Working Temperature	32 – 302°F	0 – 150°C
Temperature Compensation	Automatic or Manual
Output2	Two (2) 4–20mA	20–4mA	0–20mA
Communication	RS485 MODBUS RTU
Relay Control Contact	5A 240VAC	5A – 28VDC
Power Supply	9 – 36VDC (std)	85 – 265VAC	Power Consumption 3W
Environmental Temperature	14 – 140°F	-10 – 60°C
Relative Humidity	≤ 90%
Enclosure Rating	IP66	NEMA 4X
Weight	0.7kg
Dimensions	235 × 185 × 120mm
Installation methods	Wall Mount
Other functions	Data record & Curve display
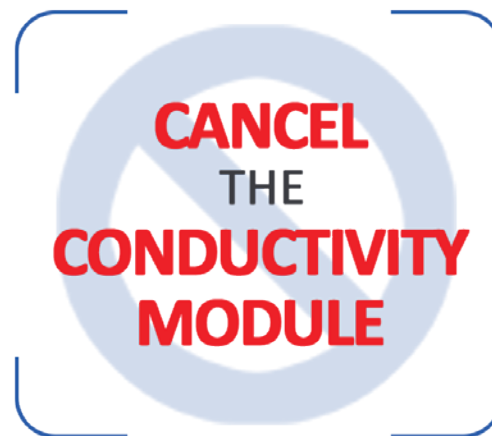
CANCEL THE CONDUCTIVITY MODULE

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Keypad Descriptions

1. Enter Calibration Mode
2. Check Calibration Status
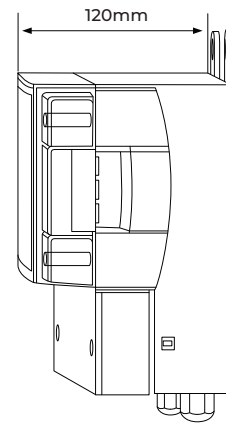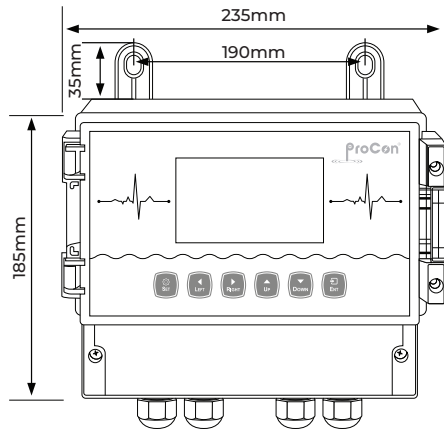
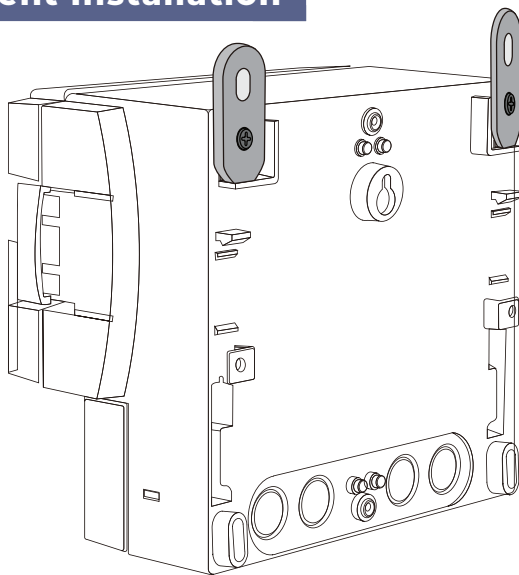Cursor Down / Info

Confirm Selections

MENU   CAL   ESC   INFO   TREND   ENT

Main Menu   Return to Previous Menu   Cursor Right / Display Trend Chart
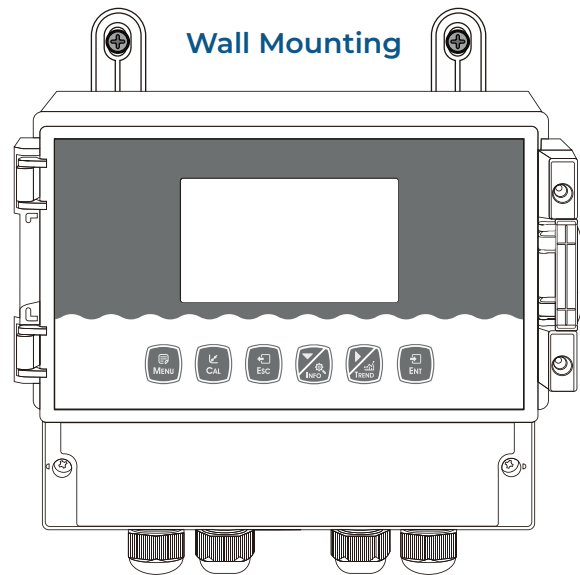
Dimensions

235mm
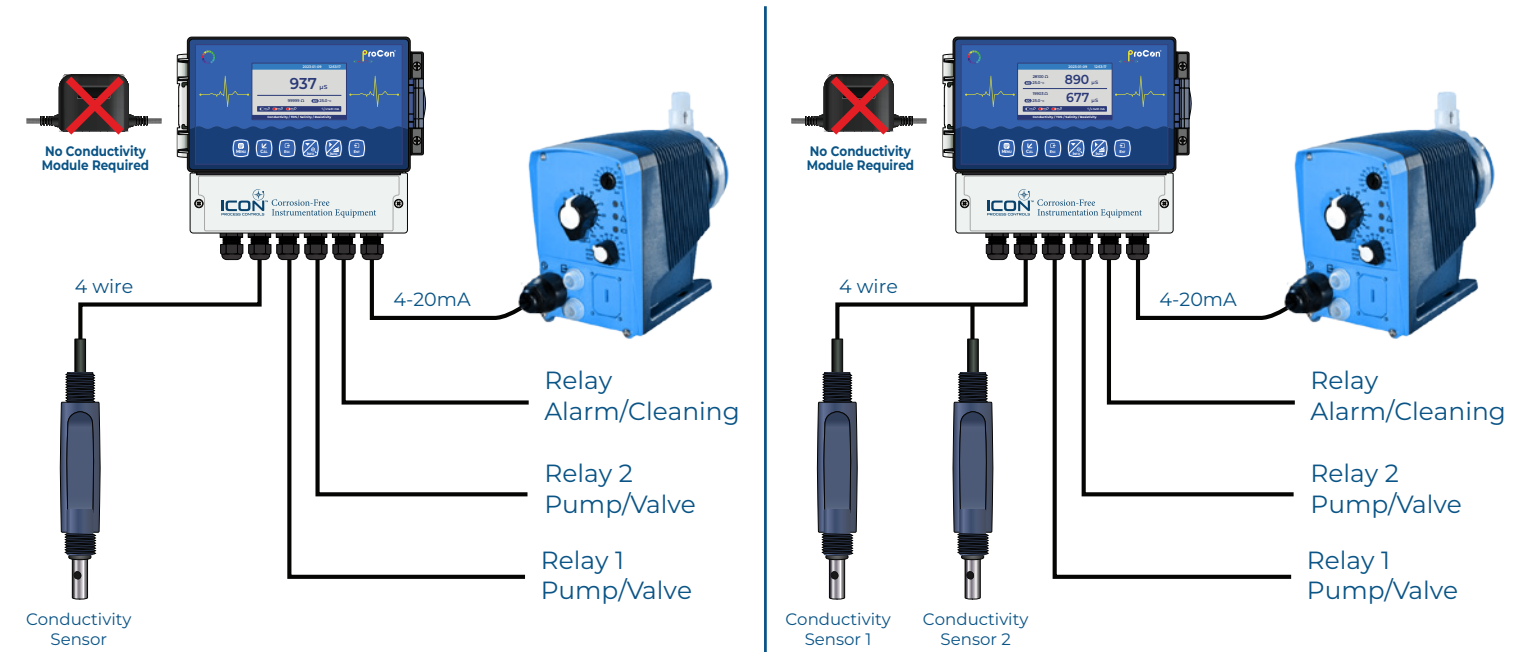190mm
35mm
185mm
120mm

Instrument Installation

Wall Mounting

1. Cable (Recommended stripping length for cables is at least 90mm)
2. Cable ties
3. Waterproof cable glands

Typical Application

ProCon

No Conductivity Module Required

4 wire

4-20mA

Relay Alarm/Cleaning

Relay 2 Pump/Valve

Relay 1 Pump/Valve

Conductivity Sensor

No Conductivity Module Required

4 wire

4-20mA

Relay Alarm/Cleaning

Relay 2 Pump/Valve

Relay 1 Pump/Valve

Conductivity Sensor 1

Conductivity Sensor 2

Model Selection

C700 — Conductivity Controller (Single Data Trending, NEMA 4X)					
Part Number	**Power**	**Output**	**Power Cord**	**Display 1**	**Display 2**
C700-4-D-N-C-0	24VDC	4-20mA + 3 Relays	No	Conductivity	Single Display
C700-4-D-Y-C-0	24VDC	4-20mA + 3 Relays	Yes	Conductivity	Single Display

Communication: RS-485 RTU Modbus

C720 — Conductivity Controller (Dual Data Trending, NEMA 4X)					
Part Number	**Power**	**Output**	**Power Cord**	**Display 1**	**Display 2**
C720-4-D-N-C-P	24VDC	4-20mA + 3 Relays	No	Conductivity	pH/ORP
C720-4-D-Y-C-P	24VDC	4-20mA + 3 Relays	Yes	Conductivity	pH/ORP
C720-4-D-N-C-C	24VDC	4-20mA + 3 Relays	No	Conductivity	Conductivity
C720-4-D-Y-C-C	24VDC	4-20mA + 3 Relays	Yes	Conductivity	Conductivity

Communication: RS-485 RTU Modbus