

1/4 DIN NEMA 4X Microprocessor-Based Conductivity Controllers



Shown Smaller Than Actual Size

Model CDCN-90A

\$842

- ✓ Dual Isolated Inputs
- ✓ Modular Field Installable Analog Output Cards
- ✓ Hi/Lo and Proportional Relay Control Modes for All Relays
- ✓ % Rejection Mode for Conductivity Probe Comparison
- ✓ Menu Driven Calibration, Setup and Operation

The new CDCN-90 is specifically designed to monitor and control conductivity levels of aqueous solutions. The compact 1/4 DIN enclosure is NEMA 4X/IP65 rated and ideal for installations with limited space. Modular output cards can be customized to meet your requirements and are field installable. Output options include 4 to 20/0 to 20 mA, 0 to 5/0 to 10 Vdc card, 2 relay card and dual proportional relay card. Relays can be separately configured to operate as HI or LO alarms or proportional relays can be set for pulse rates from 1 to 120 pulses per minute.

All functions are easily accessed and programmed from the front keypad. The two-line LCD features

a 4½ digit main display and eight character alphanumeric line that provides calibration, setup, and operation instructions. Standard displays include conductivity and relay status information. Display options include μ S, mS or ppm. In addition solution temperature can be quickly accessed with the touch of a button.

SPECIFICATIONS

Controller

Conductivity Range:
0.055 to 400,000 μ S

Resistivity Range: 10k ohm to 18.3m ohm
Isolation: 500 Vdc

Sensor Compatibility: CDCE-90 Series

Display: Upper, 4½ digit, 0.5" H; Lower 8 digit 0.3" H, 4 relay status annunciation

Display Accuracy: ±1% of reading
Output Accuracy: ±0.5% FS
Memory Backup: Non-volatile RAM
Temperature Compensation: Automatic Pt1000
Enclosure Material: ABS plastic
Rating: NEMA-4X/IP65 front
Power Requirements: 17 to 30 Vdc @ 0.5 A max. and or 90 to 132 Vac or 180 to 264 Vac (jumper selectable)
Noise Immunity: Meets IEC 801-2 level 3, IEC 801-3, level 2

Ambient Conditions
Operating Temperature: 0 to 55°C (32 to 131°F)
Relative Humidity: 95% max. non-condensing

Optional Output Cards
PHOR-90-R2 Dual Relay Card
Contacts: 2 SPDT output

Rating: 5 A @ 250 Vac or 30 Vdc maximum resistive load

PHOR-90-PC Dual Proportional Relay Card

Contacts: 2 SPST 5 A @ 250 Vac, 30 Vdc maximum resistive load (For use with 2 pulse frequency metering pumps. See pages H-3 to H-11 for details)

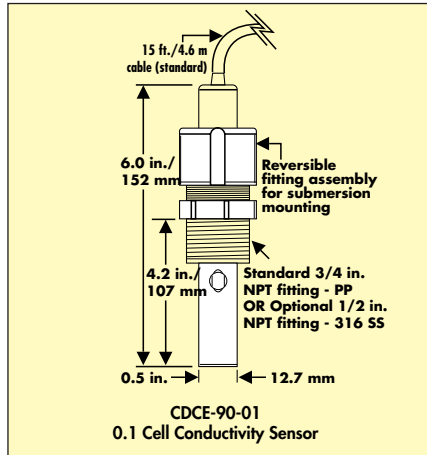
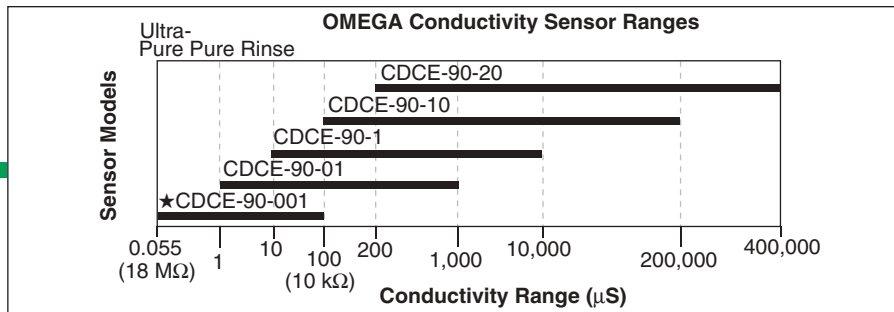
PHOR-90-MA-I 4 to 20/0 to 20 mA Output Card

Response Time: 2.5 sec for 100%
Maximum Loop Resistance: 425 Ω

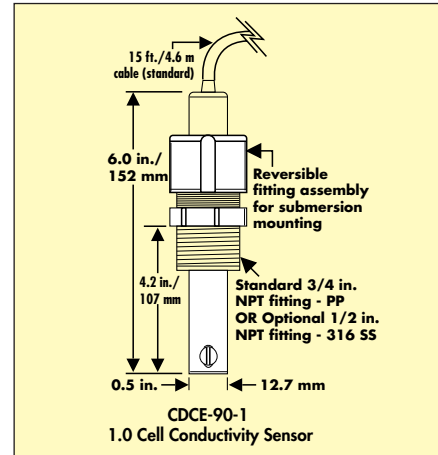
Isolation: 500 Vdc

PHOR-90-5V-I/PHOR-90-10V-I 0 to 5/0 to 10 Vdc Output Card

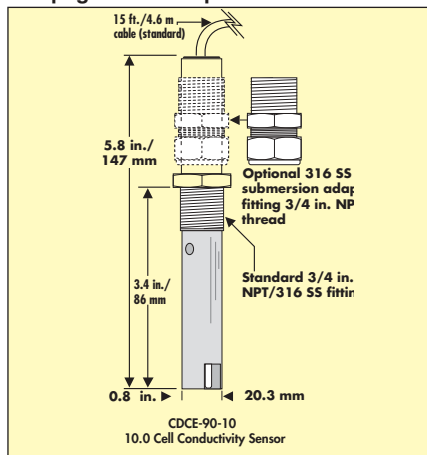
Response Time: 2.5 sec for 100%
Minimum Load Resistance: 1 kΩ
Isolation: 500 Vdc



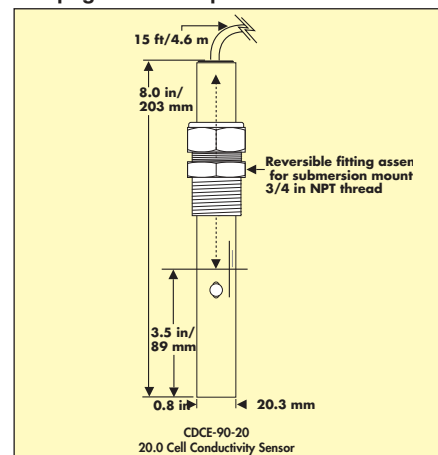
See page E-17 for specifications



See page E-17 for specifications



See page E-17 for specifications



See page E-17 for specifications

To Order (Specify Model Number)

MOST POPULAR MODELS HIGHLIGHTED!

Model No.	Price	Description
CDCN-90A	\$842	Conductivity controller
Plug-in Output Cards		
PHOR-90-R2	82	2-relay output card
PHOR-90-PC	82	Dual proportional relay card
PHOR-90-MA-I	131	4 to 20/0 to 20 mA output card
PHOR-90-5V-I	131	0 to 5 Vdc output card
PHOR-90-10V-I	131	0 to 10 Vdc output card
Conductivity Cells (See page E-17 for Specifications)		
CDCE-90-001	270	Conductivity cell K=0.01, Pt1000
CDCE-90-01	270	Conductivity cell K=0.1, Pt1000
CDCE-90-1	270	Conductivity cell K=1, Pt1000
CDCE-90-10	463	Conductivity cell K=10, Pt1000
CDCE-90-20	566	Conductivity cell K=20, Pt1000

Ordering Example: CDCN-90A, conductivity controller and CDCE-90-1, conductivity cell K=1, PT1000 ATC and PHOR-90-R2, dual relay output card, \$842 + 270 + 82 = \$1194. Each unit is supplied with complete operator's manual. Conductivity cells must be ordered separately.



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• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters