

FLOW
LEVEL
PRESSURE
ANALYTICAL
TEMPERATURE
INSTRUMENTATION
PASTEURIZATION CONTROLS

Electrodeless Conductivity Sensors

- NEMA 4X stainless steel sensor housing
- Electrodeless design eliminates polarization and electrode coating problems
- PFA Teflon®-coated probe operates at temperatures up to 392°F or 200°C
- Wide measuring range from 0-200 up to 0 - 2,000,000 microSiemens/cm
- NEMA 4X analyzer allows multiple measurements along with built-in concentration tables viewable via a clear back-lit LCD display
- 3-A compliant; Third party verified in accordance with standard 74-02

Anderson's Model HC1 Electrodeless Conductivity Sensors are rugged, nonfouling sensors designed for cleaning solutions with conductivity ranges from 0-200 up to 0-2,000,000 microSiemens/cm and temperature compensated over a range of 0° and 200°C. Because these sensors are electrodeless and PFA Teflon® coated. there is no instance of polarization, process coating or contamination. For greatest performance accuracy, the HC1 can be installed in a standard

2-1/2" x 2" or 3" x 2" short outlet reducing tee, or can be ordered with our 2" x 2" special Inductive Conductivity Sensor sanitary

Used in conjunction with our inductive conductivity sensors, the DA1 is Anderson's panel-mount, 1/4 DIN Electrodeless Conductivity Analyzer specifically designed for CIP systems within the dairy, fluid food, beverage and/or biopharmaceutical markets.

Alternatively, users may

specify Anderson's DA2 conductivity transmitter. With an operator interface identical to that of the Analyzer, the NEMA 4X enclosed transmitter may be panel, wall, pipe or integral sensor mounted.

Detailed specifications and ordering information can be found on the reverse. For more information, visit our website, or contact our Customer Service Department at 1-800-833-0081.



Specifications

Operational (HC1 Sensor)

Wetted Materials: Operating Temperature Range: Maximum Flow Rate:

Measuring Range:

Wiring Style:

PFA Teflon[®] (Complies with 3A) 14° to 392°F (-10° to 200°C) 10ft. (3m) per sec.

From 0-200 to 0-2,000,000 microSiemens/cm Pt 1000 RTD Temperature Compensator:

Sensor Cable: 5-conductor (plus two isolated shields) cable with Teflon®-coated jacket;

rated to 392°F (200°C); 20 ft. (6m) long 200 psi at 392°F Pressure Temperature Limits:

Mounting: 2" Tri-Clamp® process connection for mounting in: 2" x 2" special tee (73223-A0001)

2-1/2" x 2" short outlet reducing tee 3" x 2" short outlet reducing tee Sealed cable with Strain Relief, or

Sealed cable with male 1/2" NPT & Strain Relief

Operational (DA1 Analyzer and DA2 Transmitter)

Display: Two-line by 16 character LCD

Selectable Ranges uS/cm: 0-200.0 or 0-2000 Measurement: μS/cm: Conductivity:

0-2.000, 0-20.00, 0-200.0 or 0-2000 mS/cm:

0-2.000 S/cm: 0-99.99% or 0-200%

% Concentration: 0-9999 ppm -4 to 392°F (-20 to 200°C) Temperature:

0.00-20.00 mA or 4.00-20.00mA Analog Outputs:

-4 to 140°F (-20 to 60°C); 0-95% relative humidity, Ambient Conditions:

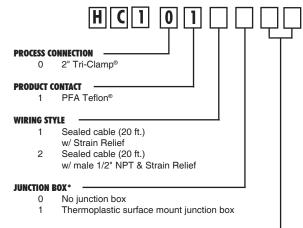
Automatic from 14.0° to 392°F (-10°C to 200°C), with Temperature Compensation:

selection for Pt 1000 Ohm RTD temperature element or manually fixed at a user selected temperature

All settings retained indefinitely in EEPROM Memory Backup (non-volatile):

How To Order

SENSOR



INTERCONNECT CABLE LENGTH**

- No junction box
- 25 ft. (additional cable) 05
- 10 50 ft. (additional cable) 75 ft. (additional cable) 15
- 20
- 100 ft. (additional cable) 25 125 ft. (additional cable)
- 30 150 ft. (additional cable)

ACCESSORIES

73223A0001 2" Inductive Conductivity Sensor Sanitary Tee

NOTES:

- Junction box required where interconnect distances of more than 20 ft. (6m) are required.
- This 6-conductor must be used to connect between the junction box and the receiver.

Performance (DA1 Analyzer)

± 0.5% of span Accuracy:

Sensitivity ± 0.2% of span per 24 hours, non-cumulative

Repeatability: ± 0.1% of span or better

Zero and span: less than 0.02% of span per °C Temperature Drift:

Mechanical (DA1 Analyzer)

1/4 DIN, polycarbonate with NEMA 4X (IP65) front panel;

hardware included for panel mounting 7.5"w X 7.5"h X 6.22"d (191mm X191mm X 158mm) fiberglass Wall Mount (optional):

reinforced polyester with mounting flange and NEMA 4X, (IP65)

Electrical (DA1 Analyzer)

90-130 VAC, 50/60 Hz (10 VA max.) or 190-260VAC, Operating Voltage:

50/60 Hz (10 VA max.)

Outputs (Relav): Two (2) electromechanical relays; SPDT (Form C) contacts; UL rated 5A 115/230 VAC, 5A @30 VDC resistive Outputs (Analog)

Two (2) isolated 0/4-20mA outputs; each with 0.004 mA (12 bit) resolution and capability to drive up to 600 Ohm loads

Performance (DA2 Transmitter)

Accuracy: ± 0.1% of span ± 0.05% of span Sensitivity: ± 0.05% of span Repeatability

Temperature Drift:

Zero and span: \pm 0.02% of span per °C 1-60 sec. to 90% of value upon step change (with sensor filter Response Time:

setting of zero)

Mechanical (DA2 Transmitter)

General: Polycarbonate; NEMA 4X (IP65) general purpose;

choice of panel or wall/pipe/integral mounting hardware 3.75"w X 3.75"h X 0.75"d (95mm X 95mm X 19mm) Panel Mount: Wall /Pipe/Integral: 3.75"w X 3.75"h X 2.32"d (95mm X95mm X 60mm)

Electrical (DA2 Transmitter)

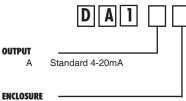
Operating Power (Class 2 Power Suply) 16-30 VDC Two-wire hookup: Three-wire hookup: 14-30 VDC Four-wire hookup 12-30 VDC

One (1) isolated 0/4-20mA output; with 0.004 ma (12 bit) Output (Analog)

NOTE: These typical performance specifications are:

- Based on 25°C with conductivity of 500 µS/cm and higher. Consult Anderson Instrument for applications in which conductivities are less than 500 µS/cm.
- Derated above 100°C to the maximum displayed temperature of 200°C. Consult Anderson Instrument for details.

ANALYZER



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NEMA 4X watertight fiberglass enclosure with liquid-tight connectors

ACCESSORIES

53433A0001 Fuse Kit - Includes two (2) replacement fuses and a bezel

TRANSMITTER MOUNTING STYLE Panel Mount Kit (includes gasket, retainer plate and four screws) Wall/pipe/integral mounting (for integral mounting, sensor Wiring Style option 2 required)

FIXED CHARACTER

Fixed Character

FORM AIC5022 © June 2003 Revised: August 2010 Supersedes: January 2009