FLOW
LEVEL
PRESSURE
ANALYTICAL
TEMPERATURE
INSTRUMENTATION
PASTEURIZATION CONTROLS

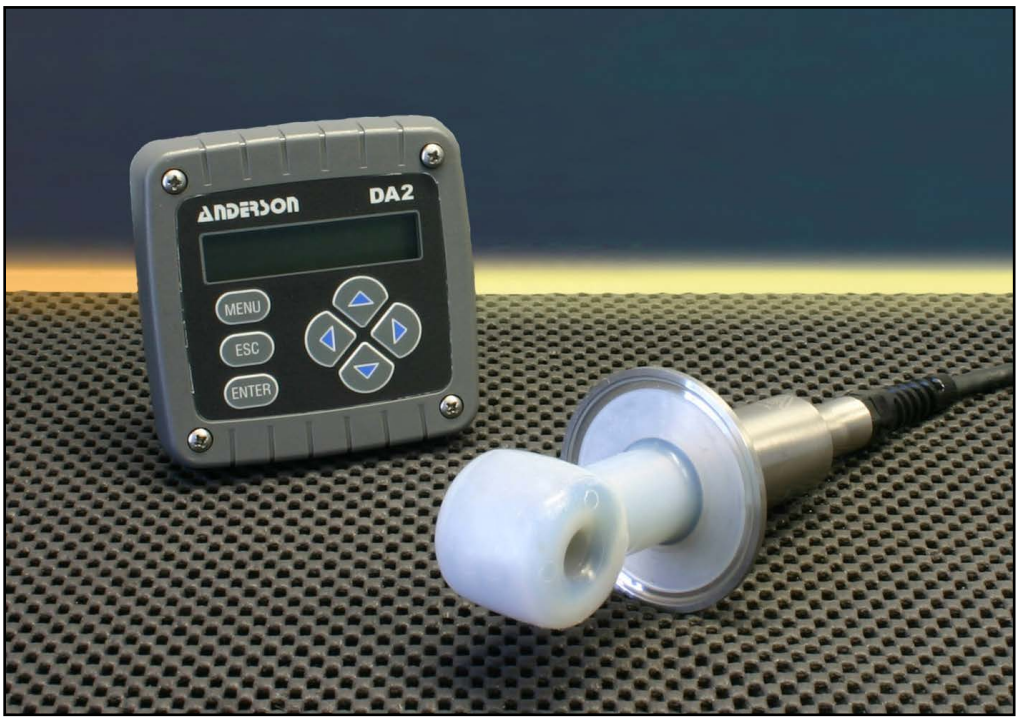
Electrodeless Conductivity Sensors

- *NEMA 4X stainless steel sensor housing*
- *Electrodeless design eliminates polarization and electrode coating problems*
- *Probe operates at temperatures up to 347°F or 175°C*
- *Wide measuring range from 0-200 up to 0 - 2,000,000 microSiemens/cm*
- *Analyzer allows multiple measurements along with built-in concentration tables viewable via a clear back-lit LCD display*
- *3-A compliant*

Anderson's Model HC1 Electrodeless Conductivity Sensors are rugged, non-fouling 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 175°C. Because these sensors are electrodeless, 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 tee.

Used in conjunction with our inductive conductivity sensor, the DA2 transmitter is specifically designed for CIP systems within the dairy, fluid food, beverage and/or biopharmaceutical markets. This loop powered transmitter has an operator interface that offers 2 lines to display conductivity, % concentration, total dissolved solids, temperature and a range selectable 4-20mA output. The NEMA 4X 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.



ANDERSON INSTRUMENT CO., INC • 156 AURIESVILLE RD. • FULTONVILLE, NY 12072 • USA • 800-833-0081 • FAX 518-922-8997
ANDERSON INSTRUMENT CO. LP • 400 BRITANNIA RD. EAST, UNIT 1 • MISSISSAUGA, ONTARIO L4Z 1X9 • CANADA • 905-603-4358• FAX 905-568-1652
NEGELE MESSTECHNIK GmbH • RAIFFEISENWEG 7 • D-87743 EGG A. D. GÜNZ • GERMANY • +49 (0) 8333/9204-0 • FAX +49 (0) 8333/9204-49

Specifications

Operational (HC1 Sensor)

Wetted Materials:	PVDF (complies with 3-A) or PFA Teflon® (complies with 3-A)
Operating Temperature Range:	14° to 347°F (-10° to 175°C)
Maximum Flow Rate:	10ft. (3m) per sec.
Measuring Range:	From 0-200 to 0-2,000,000 microSiemens/cm
Temperature Compensator:	Pt 1000 RTD
Sensor Cable:	5-conductor (plus two isolated shields) cable with Teflon®-coated jacket; rated to 347°F (175°C); 20 ft. (6m) long
Pressure Temperature Limits:	200 psi at 347°F
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
Wiring Style:	Sealed cable with Strain Relief, or Sealed cable with male 1/2" NPT & Strain Relief

Operational DA2 Transmitter

Display:	Two-line by 16 character LCD	
Measurement:	Selectable Ranges	
Conductivity:	µS/cm:	0-200.0 or 0-2000
	mS/cm:	0-2.000, 0-20.00, 0-200.0 or 0-2000
	S/cm:	0-2.000
% Concentration:	0-99.99% or 0-200%	
TDS:	0-9999 ppm	
Temperature:	-4 to 347°F (-20 to 175°C)	
Analog Outputs:	0.00-20.00 mA or 4.00-20.00mA	
Ambient Conditions:	-4 to 140°F (-20 to 60°C); 0-95% relative humidity, non-condensing	
Temperature Compensation:	**Automatic** from 14.0° to 347°F (-10°C to 175°C), with selection for Pt 1000 Ohm RTD temperature element or **manually** fixed at a user selected temperature	
Memory Backup (non-volatile):	All settings retained indefinitely in EEPROM	

Performance (DA2 Transmitter)

Accuracy:	± 0.1% of span
Sensitivity:	± 0.05% of span
Repeatability:	± 0.05% of span
Temperature Drift:	Zero and span: ± 0.02% of span per °C
Response Time:	1-60 sec. to 90% of value upon step change (with sensor filter setting of zero)

Mechanical (DA2 Transmitter)

General:	Polycarbonate; NEMA 4X (IP65) general purpose; choice of panel or wall/pipe/integral mounting hardware
Panel Mount:	3.75"w X 3.75"h X 0.75"d (95mm X 95mm X 19mm)
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)	
Two-wire hookup:	16-30 VDC
Three-wire hookup:	14-30 VDC
Four-wire hookup	12-30 VDC
Output (Analog)	One (1) isolated 0/4-20mA output; with 0.004 ma (12 bit) resolution

NOTE: These typical performance specifications are:

1 *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.*

2 *Derated above 100°C to the maximum displayed temperature of 175°C. Consult Anderson Instrument for details.*

How To Order

SENSOR

H C 1 0 ☐ ☐ ☐ ☐ ☐

PROCESS CONNECTION
- 0 2" Tri-Clamp®

PRODUCT CONTACT
- 0 PVDF
- 1 PFA Teflon®

WIRING STYLE
- 1 Sealed cable (20 ft.) w/ Strain Relief
- 2 Sealed cable (20 ft.) w/ male 1/2" NPT & Strain Relief

JUNCTION BOX*
- 0 No junction box
- 1 Thermoplastic surface mount junction box

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

TRANSMITTER

D A 2 ☐ ☐ A

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

FIXED CHARACTER
- A Fixed Character

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.*

FORM AIC5022

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