

Foxboro® 875EC Series

Electrodeless Conductivity Analyzer



875EC Series Description

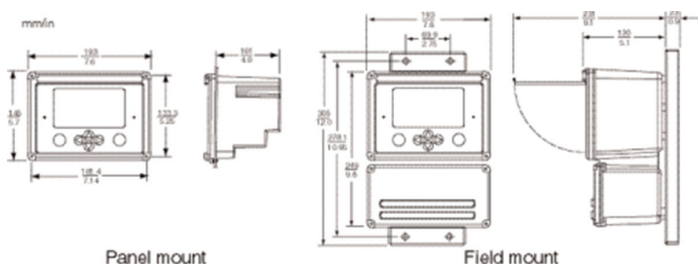
This microprocessor-based, line-powered intelligent analyzer, when used with Foxboro 871EC or 871FT sensors, provides high accuracy measurement for electrodeless conductivity. Functions include measurement display, dual analog outputs, dual relay contacts, and an RS-232 serial port for remote configuration. A human interface the user through intuitive, menu-driven configuration, calibration, status, and troubleshooting procedures.

The 875EC Analyzer is one member of a family of intelligent analyzers comprising pH/ORP, contacting conductivity and resistivity.

875 Series Analyzers were designed with a flexible electronics architecture to allow compatibility with existing and future digital protocols. Analyzers can be specified either with or without optional digital protocols, such as HART. In the future, as your needs change and/or new protocols evolve, you need only install an electronic module in the field to update your instrument to the desired communication platform. 875 Analyzers provide you with an insurance policy against obsolete liquid analytical equipment.

Features / Benefits

- Easy to use
- Conductivity or concentration measurement
- Flexible digital communication platform
- High sensitivity and wide rangeability
- RS-232 port and Windows-based configuration utility
- Customize and employ up to three applications
- Ease of sensor configuration
- Dual alarms and dual 4 to 20 mA outputs
- Chemical concentration control
- History log for up to 100 time and date stamped events
- Remote auto-service for sensor cleaning and calibration
- Mounting for either field or panel applications
- Sensor and analyzer diagnostics
- Secure data and calibrations



Panel mount

Field mount

875EC Series

Electrodeless Conductivity Analyzer



Specifications

Accuracy:	± 0.5% of full scale
Repeatability:	± 0.1% of full scale
Electromagnetic Compatibility:	Compliant with EMC Directive 89-336-EEC
Measurement Ranges:	uS/cm: from 0-50 through 0-5000 mS/cm: from 0-0.1 through 0-2000 mS/m: from 0-5 through 0-5000 S/m: from 0-0.1 through 0-2 % concentration: 0-25% NaCl; 0-35% H3PO4; 0-15% HCl; 99.5-93% H2SO4 (30°C, 50°C); 0-25% H2SO4; 42-18% oleum; 0-10% HNO3; 0-15% NaOH (25°C, 50°C); 0-20% NaOH (100°C); 0-6% KOH; 0-16% KCl; 0-8% CH3COOH; 90-99% HF (0°C); 0-30% HF (25°C)
Output Signals:	Dual 4 to 20 mA and single RS-232 standard. Optional digital communication port supports HART and future protocols.
Alarms:	Dual, adjustable 0 to 100% of full scale. Rated 5 amps noninductive, 24 V dc.
Temperature Compensations:	Absolute; dilute NaCl (25°C reference); 0-25% NaCl (25°C); 0-35% H3PO4 (25°C); 0-15% HCl (25°C); 0-25% H2SO4 (25°C); 99.5-93% H2SO4 (30°C, 50°C); 42-18% oleum (65°C); 0-10% oleum (65°C); 0-10% HNO3 (25°C); 0-15% NaOH (25°C, 50°C); 0-20% NaOH (100°C); 0-6% KOH (25°C); 0-16% KCl (20°C); 0-8% CH3COOH (25°C); 0-30% HF (25°C); 90-99% HF (0°C); Kraft Green Liquor (85°C); Kraft Black Liquor (160°C); linear; custom
Temperature Compensation Input & Measurement Ranges:	100Ω and 1000Ω RTD, -20 to +200°C; 100 KΩ thermistor, -20 to +120°C
Ambient Temperature Limits:	-10 to +65°C
Enclosure:	Panel mount version: Noryl plastic; NEMA 4X front panel, NEMA 1 rear module Field mount version: Epoxy painted aluminum; NEMA 4X, IEC IP65, CSA Enclosure
Sensor Cable Length, Maximum:	30.5 meters (100 feet)
Sensor Compatibility:	871EC and 871FT Series. A single sensor may be connected to the analyzer.
Sensor Diagnostics:	Liquid leakage, temperature device failure

Ordering Information

(please refer to product specifications for complete ordering instructions)

Construct your model code by selecting the attributes most appropriate for your application, Example: 875EC-A2F-A is an 875EC analyzer, 120 VAC power, field (pipe) mounting, FM certified, with a storm door option.

875CR = Intelligent Electrodeless Conductivity and Resistivity Analyzer

Supply Voltage	Mounting	Electrical Safety	Options
-A = 120 VAC	1 = Panel mounting	F = Factory Mutual nonincendive	-A = Storm door
-B = 220 VAC	2 = Field mounting, pipe	U = Underwriter's Labs, ordinary	-C = Digital HART and 4-20 mA
-C = 240 VAC	3 = Field mounting, surface		-F = Configurator utility
-J = 100 VAC			

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