

875CR Series

Contacting Conductivity and Resistivity Analyzer



Description

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

The 875CR Analyzer is one member of a family of intelligent analyzers comprising pH/ORP and electrodeless conductivity.

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.

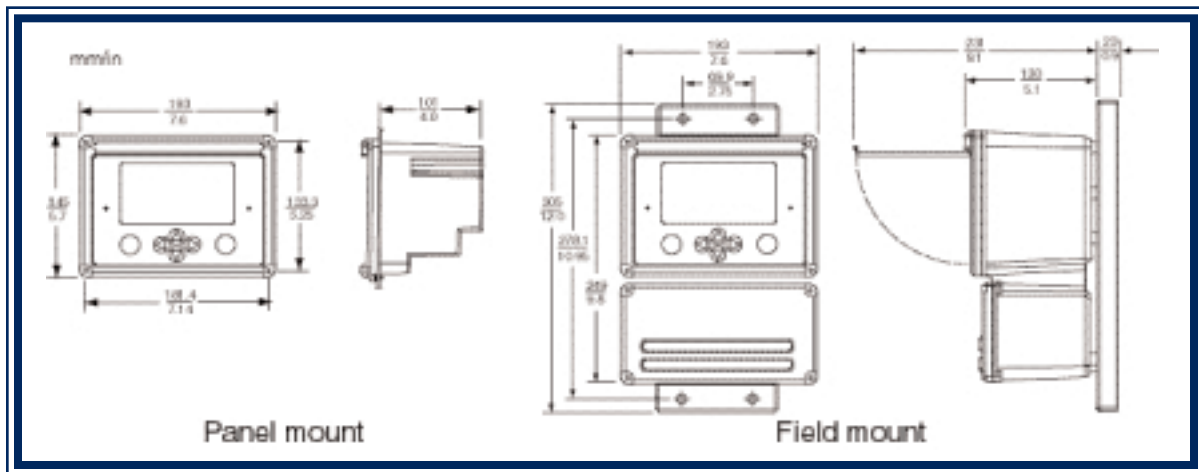
Features/Benefits

- Easy to use
- Dual sensor input
- RS-232 port and Windows-based configuration utility
- High accuracy and wide rangeability
- Flexible digital communication platform
- Dual alarms and dual 4 to 20 mA outputs
- USP23/24 compliant for pharmaceutical applications
- Single unit for either contacting conductivity or resistivity
- Compatible with Foxboro 871CR and 871CC sensors
- Mounting for either field or panel applications
- History log for up to 100 time and date stamped events
- Sensor and analyzer diagnostics
- Secure data and calibrations

Invensys®

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875CR Communicator™ Series Contacting Conductivity and Resistivity Analyzer



Specifications

Accuracy and Repeatability:	+/- 0.1% of full scale
Electromagnetic Compatibility:	Compliant with EMC Directive 89-336-EEC
Measurement Ranges:	<p>For 0.1 cm⁻¹ cell factor sensors: multiple ranges in units of MΩ*cm, KΩ*cm, uS/cm, mS/cm and mS/m. Most sensitive ranges are 0 to 1 uS/cm and 0 to 20 MΩ*cm. Widest range is 0 to 200 uS/cm (0 to 0.2 mS/cm).</p> <p>For 10.0 cm⁻¹ cell factor sensors: multiple ranges in units of uS/cm, mS/cm, mS/m, S/m, % concentration and KΩ*cm. Most sensitive range is 0 to 100 uS/cm (0 to 0.1 mS/cm). Widest range is 0 to 20 mS/cm.</p>
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:	<p>Resistivity: ultrapure water, USP23/24, custom, absolute</p> <p>Conductivity: dilute salt, phosphoric acid, acetic acid, USP23/24, ammonia, morphaline, cation, linear, custom, absolute</p>
Temperature Compensation Input and 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:	<p>Panel mount version: Noryl plastic; NEMA 4X front panel, NEMA 1 rear module</p> <p>Field mount version: Epoxy painted aluminum; NEMA 4X, IEC IP65, CSA Enclosure 4X</p>
Sensor Cable Length, Maximum:	30.5 meters (100 feet)
Sensor Compatibility:	871CR and 871CC Series
Sensor Diagnostics:	Liquid leakage, temperature device failure
Sensor Inputs:	One or two

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: 875CR-A2F-A is an 875CR analyzer, 120 VAC power, field (pipe) mounting, FM certified, with a storm door option.

875CR = Intelligent Contacting 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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 Bulletin K54-18B 0409030 6/04