

# 1056 Portable Conductivity Validation Instrument

- LOOP-CALIBRATED TO N.I.S.T. TRACEABLE STANDARDS with a certificate of calibration
- INCLUDES STANDARD OPERATING PROCEDURE DOCUMENTATION
- EXCEEDS USP<sup>2</sup> accuracy requirements
- CONDUCTIVITY OR RESISTIVITY MEASUREMENT
- SELECTION OF RAW OR TEMPERATURE COMPENSATION
- ULTRAPURE WATER temperature compensation
- CATION TEMPERATURE COMPENSATION
- TWO (2) ISOLATED OUTPUTS configurable to process conductivity or temperature
- PORTABLE PROTECTIVE CASE WITH LOCK



## FEATURES AND APPLICATIONS

The Rosemount Analytical Portable Conductivity Validation Instrument is the ideal tool for documenting high purity water quality. This unit can be used as a standard to meet validation requirements by organizations such as the FDA<sup>1</sup> and USP<sup>2</sup> for pharmaceutical and biotechnology applications. This instrument comes loop-calibrated to NIST traceable standards, which makes it suitable for the pharmaceutical, semiconductor, and utility industries.

The portable conductivity validation instrument consists of a Rosemount Analytical Model 1056 Analyzer, and a Model 404-11-17 Stainless Steel flow-through cell with a 0.01/cm cell constant. It includes all the cabling and tubing necessary for easy connection to your water system. Available ranges for ultra-pure water include 0-50 $\mu$ S/cm for conductivity and 0-18.2 M $\Omega$  for resistivity.

## MAIN DISPLAY

The main display of the Model 1056 can be configured to continuously read in  $\mu$ S/cm or M $\Omega$ /cm and the temperature in  $^{\circ}$ C or  $^{\circ}$ F. Standard, High purity, Cation, or Raw temperature compensation are standard features and menu selectable on the Model 1056 Analyzer.

<sup>1</sup> U.S. Food and Drug Administration

<sup>2</sup> United States Pharmacopeial Convention, Inc.

## SPECIFICATIONS - Carrying Case

Rotationally molded black polyethylene with uniform sides and walls, and raised reinforced ribs. Heavy-duty tongue and groove valance, full width piano hinge, lid document pouch, spring-loaded padded steel handle, positive closing 1/4-turn drawbolt style latches and combination lock.

**Dimensions:** case outer dimensions

Wide 19" (48.3cm)

Depth 16" (40.6cm)

Height 12" (30.5cm)

**Weight:** case weight

Single sensor: 21lbs (9.5kg)

Dual sensor: 25lbs (11.3kg)

**Power Cord:**

Length 25' (7.62m)

Plug USA standard three-prong plug

Wires 3 @ 16AWG

**Tubing:** Tygon/FEP Teflon lined SE-200 tubing I.D. 3/8" (.95cm) O.D. 9/16" (11.43cm) 45psi (3.1bar) @ 70°F (21°C)

- Tygon<sup>®3</sup> SE-200 combines the optimal chemical resistance of FEP fluoropolymer and the clarity of Tygon tubing.
- Meets both food and medical use criteria.
- Greater purity than PVC, Polyethylene, or Polypropylene.
- Zero extractables.



## SPECIFICATIONS - 1056 Analyzer

**Enclosure:** Polycarbonate. NEMA 4X/CSA 4 (IP65).

**Conduit Openings:** Accepts 1/2" or PG13.5 conduit fittings

**Display:** Monochromatic graphic liquid crystal display. 128 x 96 pixel display resolution. Backlit. Active display area: 58 x 78mm (2.3 x 3.0 in.).

**Ambient Temperature and Humidity:** 0 to 55°C, (32 to 131°F) RH 5 to 95% (non-condensing)

**Storage Temperature Effect:** -20 to 60°C (-4 to 140°F)

**Power:** Ordering Code -01: 115/230 VAC ±15%, 50/60 Hz. 10W min. power input

**RFI/EMI:** EN-61326

**LVD:** EN-61010-1



**Input:** One or two isolated sensor inputs

**Outputs:** Two 4-20 mA or 0-20 mA isolated current outputs. Fully scalable. Max Load: 550 Ohm.

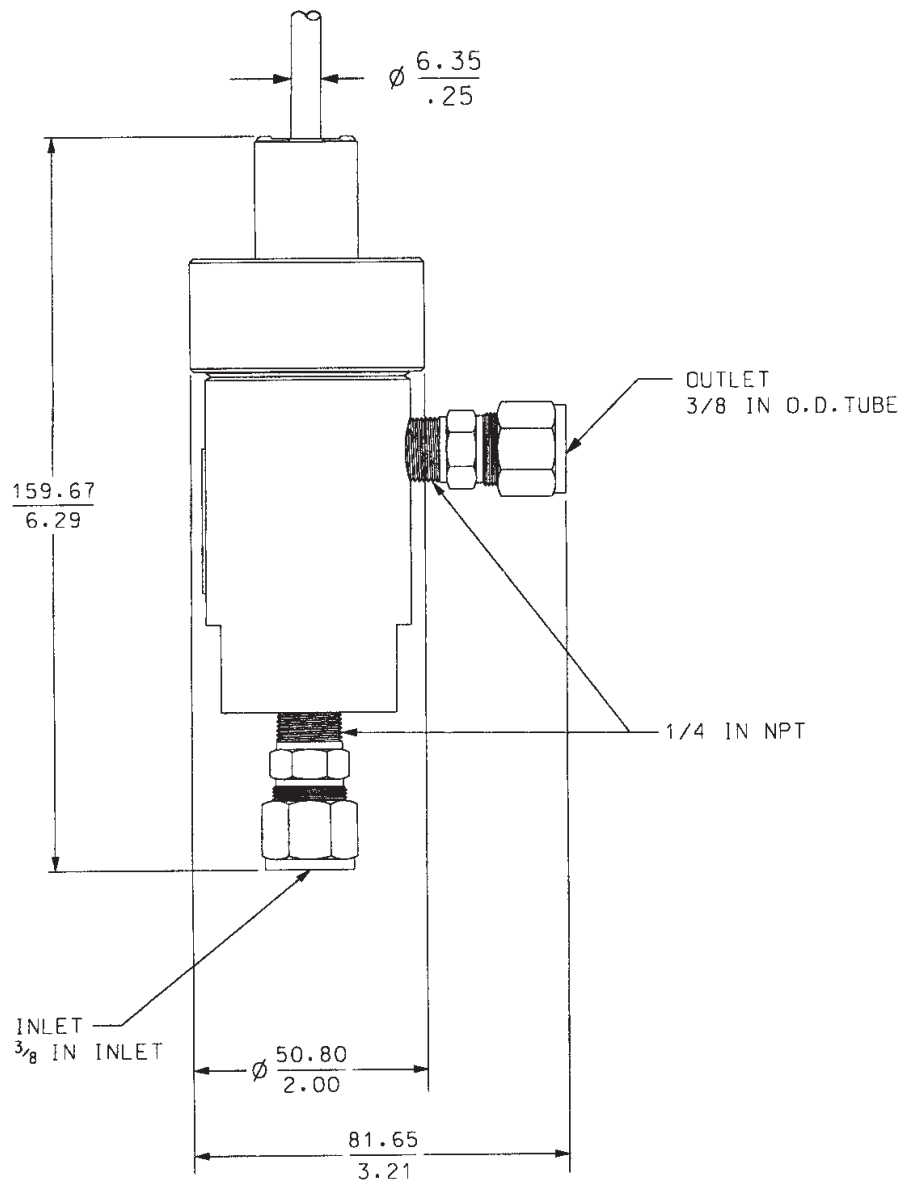
**Current Output Accuracy:** ±0.05 mA @25 °C

**Terminal Connections Rating:** Power connector (3-leads): 24-12 AWG wire size. Signal board terminal blocks: 26-16 AWG wire size. Current output connectors (2-leads): 24-16 AWG wire size

<sup>3</sup>Tygon is a registered trademark of Saint-Gobain Performance Plastics Corporation.



Cell Constant	0.01µS/cm	0.1µS/cm	1.0µS/cm	10µS/cm	100µS/cm	1000µS/cm	10mS/cm	100mS/cm	1000mS/cm
0.01	0.01µS/cm to 200µS/cm					200µS/cm to 6000µS/cm			
0.1	0.1µS/cm to 2000µS/cm					2000µS/cm to 60mS/cm			
1.0	1.0µS/cm to 20mS/cm					20mS/cm to 600mS/cm			



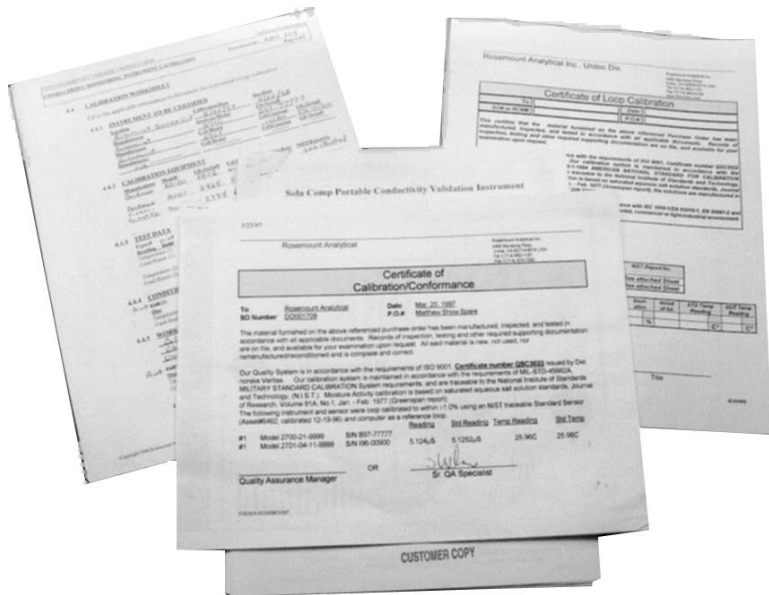
**Model 404-11-17**

The Conductivity Validation Unit uses a standard 404-11-17 flow cell, removes the standard fittings and replaces them with a 1/4" NPT 3/8" Barb fitting P/N 9510078

## ORDERING INFORMATION

The **Portable Conductivity Validation Instrument** includes a Model 1056 Dual Intelligent Analyzer and a Model 404-11-17 Flow Cell. These units are housed in a portable, protective case. All necessary cabling and tubing is provided.

MODEL	DESCRIPTION
CVU-01	Portable Conductivity Validation Unit
404-11-17	0.01/cm SS Sensor used in CVU-01 and CVU-02
404-12-17	0.1/cm SS Sensor used in CVU-02 only
1056-01-20-38-AN	CVU-01
1056-01-20-30-AN	CVU-02
9200306	Teflon Lined Tygon tubing 3/8" I.D.



### Standard Operating Procedure & Certificate of Calibration



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