HORIBA AdvancedTechno

For Ultra-Pure Water Control in Semiconductor and Liquid Crystal Processes

2-Channel Resistivity Meter

HE-960RW-GC

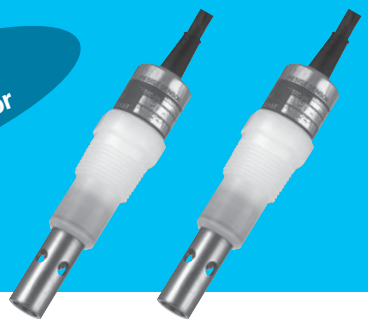
CE marking compliant

Simultaneous Measurement and Simultaneous Output of Resistivity in 2 Locations Employs Chemical-Resistant Sensor

The HE-960RW-GC is a 2-channel simultaneous-measurement, resistivity meter that can be connected with two sensors. High performance and high precision is maintained while simultaneously measurement and simultaneously output of the resistivity of different 2 locations is carried out in a single converter for overall cost efficient performance. The

2-Channel Simultaneous Measurement & Simultaneous Output

World's First A Chemical-resistant Glass Carbon Sensor



Features

●2-channel simultaneous measurement

With the HE-960RW-GC, two sensors can now be connected to a single converter. The converter employs 2 independent built-in circuits, allowing simultaneous measurement of resistivity at 2 different locations and the simultaneous display of the results for both Channel 1 and Channel 2 as well.

●High precision temperature compensation

The HE-960RW-GC is equipped with a function for inputting the deviation of the platinum temperature resistor (Pt1000Ω). By using the temperature-certified TRD or TRL Series sensors, which already have the deviation entered, an accuracy within ±0.2°C can be obtained in temperature measurement even without temperature calibration. Temperature calibration can also be performed by comparing with a normal reference thermometer.

●2-channel transmission outputs

Two transmission output systems are built into the HE-960RW-GC, allowing the desired data to be assigned from among the resistivity and temperature of each channel.

●Chemically resistant glass carbon sensor

Because the electrode material is 100% carbon, the HE-960RW-GC's sensor exhibits superior chemical resistance to various cleaning solutions, starting with hydrofluoric acid and hydrogen peroxide.

●Icon-based status display & security function

Instrument status on the HE-960RW-GC is indicated through an easy-to-understand icon display that eliminates operational errors. And, by setting a passcode, all key operation can be locked to prevent measurement errors caused by inadvertent operation.

●DC 24 V power source

●CE Marking compliant

The HE-960RW-GC is also an environmentally-friendly product that uses lead-free solder for mounting chips on the PCB.

Specifications

Model	HE-960RW-GC
Measuring method	Electrode method (2-electrode method)
Sensor input	2-channel (Simultaneous Measurement)
Cell constant	0.1/cm
Temperature compensation element	Platinum resistance 1000Ω / 0°C
Measuring range	Resistivity : 0 to 2.00, 0 to 20.00, 0 to 100.0 ※ MΩ・cm (0 to 20.00, 0 to 200.00, 0 to 1000 ※ kΩ・m)
	Temperature : 0 to 100°C
Repeatability	Within ±0.5% of the full scale (in equivalent input)
Linearity	Within ±0.5% of the full scale (in equivalent input)
Transmission output	Number of outputs : 2 4mA to 20mA DC/0mA to 20mA DC : input/output isolated type Maximum load resistance : 900Ω Transmission output range : Freely selectable within the measurement range However, repeatability and linearity will remain accurate to the separately set measuring range. (Negative terminals of each transmission output channel are connected inside and thus have the same electric potential.)
Contact output	Number of output : 4 points Alarm contact output (R1,R2,R3,R4) Contact type : relay contact, R1, R2, R3 : SPST R4 : SPDT Contact rating : 240V AC 3A and 30V DC, 3A(resistance load) Contact function : selectable from upper/lower limit action (ON/OFF control), delay, and hysteresis Output contents : selectable from the selected measurement, anomaly alarm, and maintenance. (However, R1 and R2, R3 and R4 share the COMMON contacts respectively.)
Communication output	RS-485 input/output
Calibration function	Resistivity : input of cell constant correction coefficient (parameter input) Temperature : Calibrated by comparing with the reference thermometer
Transmission output hold feature	Selectable from the Previous value hold and the Optional value hold. (However, only the previous value hold is available in the maintenance mode.)
Self-diagnosis function	・Sensor diagnosis error (short-circuit and disconnection of the temperature sensor) ・Out of the measurement range ・Converter error
Temperature compensation	・Based on the temperature characteristics of ultra-pure water (reference temperature:25°C) ・Based on the reference temperature and user-defined temperature coefficient (reference temperature : 5 to 95°C, temperature coefficient : ±5%/°C) ・No temperature compensation
Temperature compensation range	0 to 100°C
Ultra-pure water specific resistance selection	Selectable from 18.23 (standard), 18.18, 18.24MΩ・cm (Selectable from 182.3, 181.8, 182.4kΩ・m)
Clipping function	When the measured value is above the upper limit of the measurement range derived from the specified specific resisitance, the specified resistance is used as the measured value.
Ambient environment	Temperature: -5°C to 45°C, Relative humidity: 20% to 85%(without dew condensation)
Power supply	Rated voltage 24V DC, 10W(max)
Protective structure	Panel: IP65, Rear case: IP20, Terminal: IP00 (Indoor-use panel installation type)
External dimensions	96(W)×96(H)×115(D)mm, Case depth : approx.105mm (when panel-mounted)
Weight	Approx.550g
Conforming standards	CE marking, FCC Part15
Compatible sensors	ERF-series specific resistance GC(Glass carbon)sensor, cell constant 0.1/cm

※ Measurement for the range of 0 to 100.0MΩ・cm(1000kΩ・m)is measurable without temperature coefficient.

■Carbon Sensor

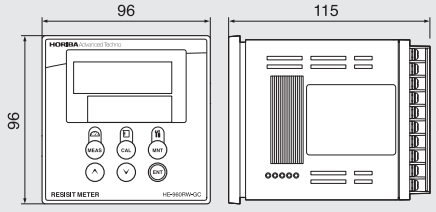
■Flow type holder

Model		ERF-01-L-GC2	
Cell constant		0.1/cm approx.	
Liquid temperature range		0 to 80°C	
Liquid pressure range		0 to 0.05MPa	
Liquid end materials	Electrode	Glass Carbon	
	Body	PVDF	PFA
	Seal	Perfluor rubber	
Cable length		10 m (Standard)	
Installation		Threaded diameter : R(PT)3/4	
Combined holder		Flow type EFA-30 series	

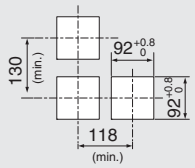
Model	EFA-30P
Liquid end materials	PVDF
Liquid temperature range	0 to 100°C
Liquid pressure range	0 to 0.1MPa
Liquid flow rate	0 to 10L/min
Connected pipe diameter	Inlet: Rc(PT)3/4, Outlet: Rc(PT)3/4

External dimensions Unit: mm (in)

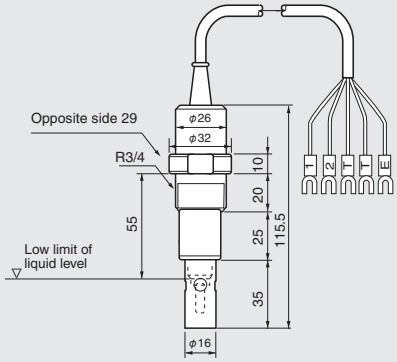
■Converter HE-960RW-GC



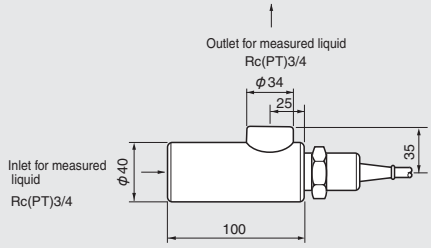
Panel Cut Size



■Carbon Sensor



■Flow Type Holder EFA-30 Series



Please read the operation manual before using this product to assure safe and proper handling of the product.

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http://www.horiba-adt.jp/index_e.htm

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