HORIBA AdvancedTechno

For Semiconductor Chemical Rinsing Process

Carbon Sensor Resistivity Meter
HE-960R-GC

CE marking compliant

Applicable to Single-Bath Cleaning systems Glass Carbon Sensor offers superior Resistance to Chemicals

The HE-960R-GC is resistivity meter to use glass carbon for its sensor.
A glass carbon sensor is not contaminated by metal elution and is chemically resistant to such wet cleaning solutions as hydrofluoric acid and hydrogen peroxide. This is especially effective for resistivity measurement in the rinse process of single-bath cleaning systems and it enables high quality control in the cleaning process.

Features

●Superior chemical resistance

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

●Free form metal contamination

With the HE-960R-GC, there is no more worry of the metal contamination that was unavoidable with conventional metal electrodes. The carbon surface of its sensor is specially processed so that particle elution is extremely minuscule.

●High-speed response

Due to its specially processed carbon surface, the response of the HE-960R-GC's sensor between chemical solutions and ultra-pure water is equivalent to conventional products.

●Selectable temperature compensation function

The HE-960R-GC offers selection of the desired setting between "Pure Water" and "Ultra-Pure Water + Impurities", allowing the implementation of temperature compensation that is most appropriate to the measured liquid.

●Icon-based status display & security function

Instrument status on the HE-960R-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

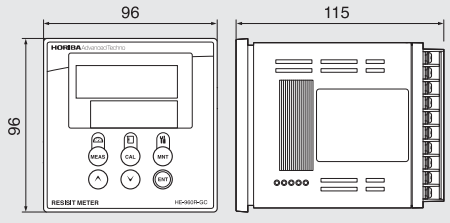
The HE-960R-GC is also an environmentally-friendly product that uses lead-free solder for mounting chips on the PCB.

Specifications

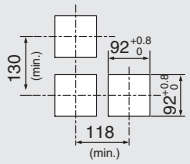
Model	HE-960R-GC					
Measurement method	2-electrode method					
Sensor input	1-channel					
Cell constant	Approx.0.1/cm					
Temperature sensor specifications	Platinum resistance 1000Ω /0°C					
Measuring range	Measurement unit	kΩ・m	0 to 2.00	0 to 20.00	0 to 200.0	0 to 1000※
		MΩ・cm	0 to 0.200	0 to 2.00	0 to 20.00	0 to 100.0※
	※ : Measurable without temperature compensation					
	Temperature : 0°C to 100°C (Select your desired decimal point from 0, 1, and 2 digits)					
Repeatability	Within ±0.5% of the full scale (in equivalent input)					
Linearity	Within ±0.5% of the full scale(in equivalent input)					
Transmission output	4 to 20mA DC : input/output isolated type Maximum load resistance : 900Ω Transmission output range : Freely selectable within the measurement range					
Contact output	Outputs : 2 points Alarm contact output (R1,R2) Contact type : relay contact, SPDT Contact rating : 240V AC 3A and 30V DC, 3A(resistance load) Contact function : selectable from upper/lower limit operation (ON/OFF control), alarm, and maintenance.					
Calibration function	Specific resistance : Based on the specified compensation coefficient for the cell constant (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 (Short-circuit and disconnection of the temperature sensor) ・Out of the measurement range ・Converter error					
Temperature compensation	・Based on the temperature characteristics of extra deionized water (reference temperature : 25°C) ・Based on the reference temperature and user-defined temperature coefficient (reference temperature:5°C to 95°C)					
Temperature compensation range	0°C to 100°C					
Ultra-pure water Specific resistance selection	Measurement unit	MΩ・cm	18.23(standard), 18.18, 18.24	Select from options Shown on the Left.		
		kΩ・m	182.3(standard), 181.8, 182.4			
Clipping function	When the measured value is above the upper limit of the measurement range derived from the specified specific resistance, 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	24V DC 5W(max)					
Protective structure	Panel: IP65, Rear case: IP20, Terminal: IP00 (Indoor-use panel installation type)					
Mass	Approx. 500g					
Conforming standards	CE Marking, FCC Part15					
Compatible sensor	ERF–series specific resistance GC(Glass carbon) sensor, cell constant 0.1/cm					

External dimensions Unit: mm (in)

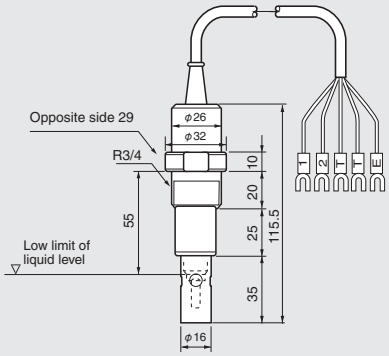
■Converter HE-960R-GC



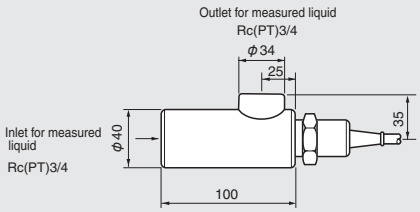
Panel Cut Size



■Carbon Sensor ERF-01-L-GC2



■Flow Type Holder EFA-30 Series



■Carbon Sensor

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

■Flow type holder

Model	EFA-30P
Liquid end materials	PVDF
Liquid temperature range	0 to 100?
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

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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