

Resistivity and Conductivity/TDS Controllers

Guaranteed results for your process

- Withstand temperatures to 212°F (100°C) and pressures to 100 psi!
- Feature a heavy-duty 10 amp relay
- IP65 (NEMA 4X) ABS enclosures

Resistivity Controller is perfect for ultrapure water applications. Precise temperature compensation matches pure water temperature coefficients—ensures accurate measurements over the entire range. Order resistivity cells separately below.



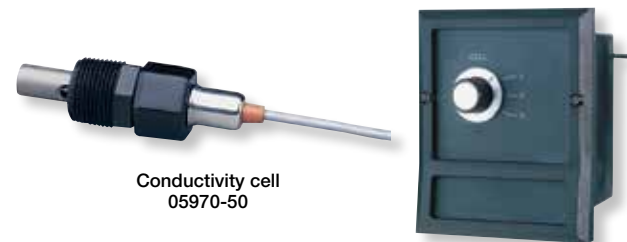
Resistivity controller 19010-02

Conductivity/TDS Controllers monitor and control all of your conductivity processes. Order conductivity cell separately below.



Description	Resistivity controller	Conductivity/TDS controllers		
Catalog number	GY-19010-02	GY-19010-16	GY-19010-18	GY-19010-20
Range	0 to 20 MΩ	0 to 20 μS	0 to 200 μS	0 to 2000 μS
Resolution	0.05% full-scale	0.05% full-scale		
Accuracy	±1% full scale	±1% full scale		
Temperature compensation	Dual thermistor	Automatic from 0 to 100°C, thermistor		
Output	Relay	SPDT, 10 A, 250 VAC or 30 VDC		
	Voltage	0 to 10 V at 5 mA max		
Power	115/230 VAC ±15%; 50/60 Hz standard, 24 VDC optional			
Price				

[GY-17090-30](#) NIST-traceable calibration with data for conductivity/resistivity controllers



Conductivity cell 05970-50

Optional Switchbox monitors up to three cells from the same controller. Controller relays only respond to the selected channel.

[GY-05970-82](#) Three-position switchbox

Cells have built-in thermistors for ATC and include 3/4" NPT(M) mounting bushings. Resistivity cells have cell constants of 0.05 cm⁻¹. Easily recalibrate your resistivity meter with the calibration cell substitute. Conductivity cell has a cell constant of 1.0 cm⁻¹. All cells measure 1/4" (3.2 cm) L x 1/2" (1.3 cm) dia and include 10-ft (3-m) cables.

[GY-05970-70](#) Resistivity cell for model 19010-02; polypropylene/316 SS

[GY-05970-72](#) Resistivity cell for model 19010-02; polypropylene/titanium

[GY-05970-74](#) Calibration cell substitute for model 19010-02; 20 MΩ

[GY-05970-50](#) Conductivity cell for models 19010-16 to -20; polypropylene/316 SS

Cole-Parmer® Toroidal Conductivity Transmitters

Consistent performance even in demanding conditions

- Loop-powered industrial transmitter and electrodeless conductivity sensor
- In-line or submersible threads for installation flexibility
- No metal wetted parts
- Built-in 100 Ω Pt RTD temperature compensation

The sensor requires an 11 to 24 VDC power supply and has a maximum draw of 600 Ω. Order the process meter below or refer to other process meters in this section. The isolated 4 to 20 mA output can be used for control applications or connected to a recorder. The sensor has temperature coefficient of 2.2%/°C.



Specifications

Cell length: 8" (20.3 cm)

Insertion depth: 3 1/2" (8.9 cm)

Cable: 10 ft (3 m) with tinned ends

Fitting: 1 1/2" NPT(M)

Maximum temperature:

104°F (40°C) for CPVC models;
122°F (50°C) for PVDF models

Maximum pressure: 43 psi at 77°F (3 bar at 25°C)

Body material	ATC element	Range (mS)	Catalog number	Price
CPVC	100 Ω Pt RTD	0 to 10	GY-19504-00	
		0 to 100	GY-19504-02	
		0 to 1000	GY-19504-04	
PVDF	100 Ω Pt RTD	0 to 10	GY-19504-10	
		0 to 100	GY-19504-12	
		0 to 1000	GY-19504-14	

[†]Higher temperature ranges are available.

[GY-94785-12](#) Process meter; 115 VAC, 4 to 20 mA relay

Oakton® Calibration Solutions

Save money while calibrating

- KCl, NaCl, and 442 conversions printed right on the bottle
- Temperature corrections at hand—printed right on the bottle

Include NIST-traceable calibration report supplied by the manufacturer. One 17-oz (500-mL) bottle.



Conductivity (μS)	Conductivity-to-TDS calibration values			Catalog number	Price
	ppm KCl	ppm NaCl	ppm 442		
23	11.6	10.7	14.74	GY-00653-23	
84	40.38	38.04	50.5	GY-00653-16	
447	226	215	300	GY-00653-47	
1413	745	702	1000	GY-00653-18	
1500	757	737	1050	GY-00653-15	
2070	1045	1041	1500	GY-00653-27	
2764	1382	1414	2062	GY-00653-20	
8974	5101	4487	7608	GY-00653-89	
12,880	7447	7230	11,367	GY-00606-10	
15,000	8759	8532	13,455	GY-00653-50	
80,000	52,168	48,384	79,688	GY-00653-32	