

MODEL 455 CONDUCTIVITY ANALYZER
Specification

Physical Data	
PROPERTY	CHARACTERISTIC
Display	Four and one half LCD digits, 1.5 cm (0.6 in) displays for conductivity, temperature, error codes, prompts and diagnostic information <i>(back-lit display optional)</i>
Display Ranges	Conductivity: 0 μ S/cm to 1 μ S/cm, 0 μ S/cm to 1,000 μ S/cm, and 0 mS/cm to 1,000 mS/cm Temperature: -10.0 °C to 210 °C (14.0 °F to 410 °F)
Keypad	8 pushbutton entry keys
LED's	2 alarms (A and B), 1 auto, 1 error
Case Dimensions	12.0 cm (H) \times 20.0 cm (W) \times 7.5 cm (D) (4.7 in (H) \times 7.9 in (W) \times 3.0 in (D))
Weight	1.1 kg (2.5 lb)
Shipping Weight	2.3 kg (5.0 lb)
Shipping Dimensions	30 cm \times 23 cm \times 23 cm (12 in \times 9 in \times 9 in)
Environmental Data	
PROPERTY	CHARACTERISTIC
Temperature	Operational: 5.0 °C to 45 °C (41.0 °F to 113 °F) Storage: -10.0 °C to 55 °C (14.0 °F to 131 °F) Relative Humidity: 95 % maximum; non-condensing
Environment Ratings	Housing: IP65 (Nema 4X) Pollution Degree: 2 Installation Category: II
Electrical Ratings	115/230 VAC, 0.25 A, 50/60 Hz
Electrical Requirements	115/230 VAC \pm 10 %, 50 W

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Operational Data		
<i>PROPERTY</i>	<i>CHARACTERISTIC</i>	
Accuracy	Conductivity: ± 0.2 % of measured range Temperature: ± 0.1 °C	
Precision	Conductivity: ± 0.1 % or 2 digits, whichever is greater. Temperature: ± 1 digit (0.1 °C)	
Response Time	90% within 5 s (default), function of flow and temperature. Damping adjustment: 3 s to 99 s	
Temperature Compensation	Automatic 1000 Ω RTD Auto: -10.0 °C to 210 °C (14.0 °F to 410 °F) Manual: -10.0 °C to 210 °C (14.0 °F to 410 °F)	
	<i>Compensation Type</i>	<i>Function</i>
	Linear	Default Adjustable
	None	USP 23
	High Purity	Selectable
	% Concentration	Selectable
		<i>Characteristic</i>
		2 % per °C 0.1 % to 5.0 % per °C
		<645>
		Neutral, acidic, basic, ASTM D1125 or latest.
		NaOH, H ₂ SO ₄ , HCl or NaCl.
Cell Constant Range	0.001/cm to 100.0/cm	
Auto-Range Multipliers	Cell constant $\times 100$, $\times 1000$, $\times 10,000$, or $\times 100,000$	
Security	3 access-level security; partial and/or all settings may be protected via 3 and/or 4 digit security code.	
Alarms	Two independent, assignable, programmable, configurable, failsafe NO/NC or auto-range BCD alarm relays; SPDT, Form C, rated 10 A 115 V/5 A 230 V; 5 position BCD contact closure.	
Controls	Single PID (optional); standard, pump pulser or time proportional.	
Outputs	Two continuous, assignable, programmable 4 mA to 20 mA, or 0 mA to 20 mA outputs; isolated, max. load 600; Convertible from 1 VDC to 5 VDC or 0 VDC to 5 VDC.	
Communication	Via RS485 bidirectional serial data port; require IC Net™ 2000 software.	