

MODEL 653 pH/ORP TRANSMITTER
Specification

Physical Data	
<i>PROPERTY</i>	<i>CHARACTERISTIC</i>
Display	Four and one half LCD digits, 1.5 cm (0.6 in) displays for pH <i>or</i> ORP, temperature, error codes, prompts and diagnostic information
Display Ranges	pH: 0 pH to 14 pH units ORP: - 2,000 mV to 2,000 mV Temperature: -5 °C to 105 °C (23 °F to 221 °F)
Keypad	8 pushbutton entry keys
Enclosure	½ DIN aluminum panel mount
Case Dimensions	144 mm × 144 mm × 132 mm (5.7 in × 5.7 in × 5.5 in)
Weight	1.4 kg (3.0 lb)
Shipping Weight	1.8 kg (4.0 lb)
Shipping Dimensions	46 cm × 30 cm × 23 cm (18 in × 12 in × 9 in)
Environmental Data	
<i>PROPERTY</i>	<i>CHARACTERISTIC</i>
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: 80 % maximum; non-condensing
Enclosure Ratings	IP65 (Nema 4X) when installed in panel. RFI / EMI resistant.
Electrical Ratings	24 VDC (min. 16 VDC, max. 40 VDC); lift off voltage 16 VDC; 4 to 20 mA.
Electrical Requirements	16 VDC to 40 VDC, 24 VDC nominal. Quality ground required for microprocessor.

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Accuracy	pH: ± 0.5 % of measured range ORP: ± 0.5 % of measured range Temperature: ± 0.3 °C	
Precision	pH: ± 1 digit (0.01 pH) ORP: ± 1 digit (1.0 mV) Temperature: ± 1 digit (0.1 °C)	
Response Time	90% within 5 s (default), function of flow and temperature. Damping adjustment: 0 s to 40 s	
Temperature Compensation	Automatic 1000 Ω RTD Auto: -5 °C to 105 °C (23 °F to 221 °F) Manual: -5 °C to 105 °C (23 °F to 221 °F)	
Output	One continuous, programmable 4 mA to 20 mA output; isolated, max. load 500 Ω. Convertible to 1 VDC to 5 VDC.	