

Engineering Specification

Dual Input General Purpose pH/ORP Indicating Transmitter & Sensors
(Mettler-Toledo Thornton 200pH & MT-Series Sensor)

The pH/ORP indicating transmitter shall provide indication, alarm and output signals from two sensor probes for both pH and temperature, and/or for ORP (Oxidation-Reduction or redox Potential), as specified. Automatic pH temperature compensation shall be provided for the conventional Nernst electrode temperature effects. The transmitter shall have the options of setting in a manual temperature value and turning off the compensation, for special sensors or applications.

The transmitter shall operate from 90-130 or 180-250 VAC or 24 VDC 4-wire power, as specified. It shall provide an illuminated alphanumeric display, readable in direct sunlight or darkness, capable of displaying both channels simultaneously. It shall be provided with hardware for panel mounting or with optional kit for wall or pipe mounting, with NEMA 4X, IP65 rating, as specified. Connection to the sensor shall be via accessory cable with mating connector. The measuring circuit shall allow overall sensor-to-transmitter wiring distances up to 200 feet (61 m).

The indicating transmitter shall be provided with four alarm setpoints, assignable to two standard SPDT mechanical relays, plus optionally two additional solid state AC relays, as specified. Analog output signals shall consist of two isolated, powered 4-20 mA signals, assignable to any combination of pH, ORP and/or temperature measurements. A selectable RS232 or RS422 output shall also be provided. Instrument security shall include a user set security code and allow selection of function menus to be locked. The instrument shall be ISO9001 factory calibrated to NIST-traceable standards and be provided with a certificate of calibration.

The sensor shall have dual 3/4" or 1" NPT (as specified) process connections, top and bottom for submersion or insertion mounting. It shall have a no-maintenance reference element and Pt1000 RTD temperature compensator (ORP sensor has no compensator). pH Electrode signal connection shall be via sealed VP connector which mates with the cable/connector from the preamp.

The apparatus shall be Mettler-Toledo Thornton model 200pH Instrument and MT-series Sensor or approved equal.

For the most current product information visit:

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