

Mettler-Toledo Thornton M300 Series

Engineering Specification EN-0113

The indicating transmitter shall be capable of measuring one channel of pH or ORP (Oxidation-Reduction or redox Potential), selected by the user on site. Measurements shall be made with indication, alarm and output signals available for the primary measurement and for temperature.

Instrument security shall be provided by user-set two level security codes. It shall have an illuminated display with space for custom names and readable in direct sunlight or darkness. Menus shall be available in English, French, German, Italian and Spanish.

The pH measurement shall be provided with on-line sensor diagnostics for glass membrane and reference junction/diaphragm resistance. pH temperature compensation shall include conventional Nernst electrode temperature compensation and adjustable solution temperature compensation for high purity water measurements, if selected.

Three-mode PID control capability shall be provided with selectable output types of pulse frequency, pulse length and analog for one or two reagents. It shall provide non-linear breakpoints for pH control and have continuous display of % output and auto/manual status.

The same model transmitter shall operate from 90-240 VAC and from 10-30 VDC, 4-wire power. It shall be provided in either a ¼ DIN case with hardware for NEMA 4X, IP65 sealed panel mounting, or in a ½ DIN NEMA 4X, IP65 case with optional kits for wall or pipe mounting. Connection to sensors shall be via supplied cables with connector at the sensors for convenient maintenance. The transmitter shall have plug-in terminals. The indicating transmitter shall be provided with 2 alarm set-points, assignable to 4 relays.

Two 0/4-20 mA output signals shall be assignable to any measurements. Output scaling shall be selectable as linear, bi-linear, logarithmic or auto-range (to provide high resolution at the low end of the range yet keep high measurements on-scale during upset, startup or calibration). A USB port shall also be provided for data acquisition and remote configuration.

The instrument shall be ISO9001 factory calibrated to NIST-traceable standards and be provided with a certificate of calibration.

The indicating transmitter and sensor(s) shall be Mettler-Toledo Thornton model M300 Instrument, with compatible pH and ORP sensors, as specified.



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