

Specifications

General

Configurability: Modular (completely field-commissionable)

No. of Input Channels: 2, 4, or 6

Compatible Sensors: See System Overview

Input Signal Types:

- Digital (S³L): Serial ASCII, TTL level 9600 bps
- Frequency: 0 to 1500 Hz
- Accuracy: 0.5% of reading

Measurement Types:

Flow, pH, ORP, Conductivity/Resistivity, Pressure, Temperature, Level, or 3rd party devices with a 4 to 20 mA output

Derived Measurements:

Sum, difference, ratio, % recovery, % reject, % passage, power (BTU)

No. of Relays Supported:

Available: 2, 4, 6 or 8 (8 dry-contact or 4 solid state and 4 dry-contact)

No. of Analog Outputs:

Available in pairs: 2 or 4 (active and/or passive 4 to 20 mA; and/or 0 to 5/10 VDC)

Enclosure and Display

- Enclosure Rating: NEMA 4X/IP65 (front face only)
- Case Material: PBT
- Panel Gasket: Silicone Sponge
- Window: Self-healing polyurethane-coated polycarbonate
- Keypad: 4-buttons, highly tactile and audible injection-molded silicone rubber seal

Display:

- Alphanumeric 2 x 16 back-lit LCD or Vacuum Fluorescent (VF) versions
- Update Rate: 1 second
- Accuracy: Sensor dependent
- VF Brightness: 4 intensity levels
- LCD Contrast: 4 settings
- Languages Available: English, French, Spanish, German Italian and Portuguese

Display Ranges (see sensor specifications for actual measurement limits):

- pH: -2.00 to 15.00 pH
- pH Temp.: -40 °C to 150 °C (-40 °F to 302 °F)
- ORP: -9999 to +9999 mV
- Flow Rate: 0.0000 to 999999 units per second, minute, hour or day
- Totalizer: 0.00 to 99999999 units
- Conductivity: 0.0000 to 999999 µS, mS, PPM & PPB (TDS), kΩ, MΩ
- Conductivity Temperature: -99.9 °C to 250 °C (-148 °F to 482 °F)
- Temperature: -99.9 °C to 999.9 °C (-148 °F to 999.9 °F)
- Pressure: -99.99 to 9999 psi, kPa, bar

Display Ranges (continued)

- Level: -99999 to 99999 m, cm, ft, in., %
- Volume: -99999 to 999999 m³, ft³, in³, cm³, gal, L, kg, lb, %
- Other (4 to 20 mA): -99999 to 999999 user selectable units

Environmental

Ambient Operating Temperature:

- Back-lit LCD: -10 °C to 55 °C (14 °F to 131 °F)
- VF Display: -10 °C to 50 °C (14 °F to 122 °F)

Storage Temp.:

-15 °C to 80 °C (5 °F to 176 °F)

Relative Humidity:

0 to 95%, non-condensing

Maximum Altitude:

- 2,000 m (6,560 ft)
- 4,000 m (13,123 ft); use only DC power supply and, if applicable, solid state relays to maintain UL safety standard up to this altitude.

Electrical

Power Requirements (AC or DC via Power Modules)

- Universal AC: 100 to 240 VAC ±10%, regulated 50-60 Hz, 24 VA max.
- DC: 12 to 24 VDC, ±10%, regulated recommended, 7 Watts max.

Output Power to Sensors:

5 VDC up to 40 mA total

Terminal type:

Screw-clamp, removable via plug-in modules.

Analog Outputs (via I/O Modules and

Output Modules) All analog outputs are freely assignable to any channel.

4 to 20 mA Output:

Endpoints are adjustable and reversible:

- Minimum default 4.0 mA; user adjustable from 3.8 to 5.0 mA
- Maximum default 20.00 mA; user adjustable from 19.0 to 21.0 mA

Test Mode:

Produces an adjustable 4 to 20 mA signal for functional verification of each output circuit

Isolation: Up to 48 VAC/DC

Error Condition:

22.1 mA (default state when output source not configured)

Update Rate: 100 ms

Accuracy:

±32 µA over entire operating temperature range

Dimensions

