SNAP pH/ORP Input Module

Features

- Two differential inputs per module
- 250 V common mode operation
- Channel-to-channel isolation
- 10% over/underrange; out-of-range indication
- Rugged packaging
- Powered by a single 5 VDC supply
- Factory calibrated; no user adjustments necessary

SNAP-pH/ORP

Description

The SNAP-pH/ORP module provides two isolated channels of high-impedance voltage input, either -1.00 to +1.00 volts or -0.50 to +0.50 volts.

The module is ideal for differential voltage measurements and is used with pH or oxidation reduction potential (ORP) probes for monitoring bodies of water such as holding tanks, swimming pools, and cooling towers.

Input connections for the SNAP-pH/ORP are made through standard BNC connectors conveniently located on the top of the module. The two channels are isolated from each other; they do not share any field connection.

Supported Opto 22 Systems

As part of the SNAP PAC System, the SNAP-pH/ORP module snaps into Opto 22 SNAP PAC mounting racks and works with all SNAP PAC brains and rack-mounted controllers. SNAP-pH/ORP modules can be used in PAC Control strategies and can also be configured using PAC Manager.

Notes for legacy products. The SNAP-pH/ORP also works with SNAP Ultimate and SNAP Ethernet brains (firmware version 5.1 or newer required) and with serial B3000 brains. The module can also be mounted on a SNAP M-series or B-series rack. For more information, see Opto 22 form #1693, *Legacy and Current Product Comparison and Compatibility Charts*.

Part Numbers

Part	Description
SNAP-pH/ORP	Isolated two-channel high impedance -1.00 V to +1.00 V or -0.50 V to +0.50 V analog input module

Specifications:

Input Range	-1.00 V to +1.00 V for ORP probes -0.50 V to +0.50 V for pH probes
Resolution	40 µV when configured -1.00 V to +1.00 V 20 µV when configured -0.50 V to +0.50 V
Data Freshness (Maximum)	126 ms (63 ms per channel) when configured -1.00 V to +1.00 V 251 ms (125.5 ms per channel) when configured -0.50 V to +0.50 V
Input Filtering	-3 dB @ 2.4 Hz
DC Common Mode Rejection	>-120 dB
AC Common Mode Rejection	>-120 dB at 60 Hz
Maximum Survivable Input	±100 VDC or peak AC
Maximum Operating Common Mode Voltage	250 VDC or peak AC
Accuracy (% full scale)	0.05% when configured -1.00 V to +1.00 V 0.05% when configured -0.50 V to +0.50 V
Gain Temperature Coefficient	30 PPM/°C
Offset Temperature Coefficient	15 PPM/°C
Power Requirements	5 VDC (±0.15) at 170 mA
Input Resistance (Differential)	>10 Tera Ohms (each channel)
Ambient Temperature: Operating Storage	 0 to 70 °C -25 to 85 °C