



alpha pH 1002



Product Features

- v Built-In Programmable Limit, Proportional (Pulse Length or Pulse Frequency) - ideal for precision process control applications
- v User-Customization through Advanced Setup Menu offers flexibility in matching the controller's functions to suit individual's specific requirement
- v Automatic Calibration with Auto-Buffer Recognition eliminates mistakes during calibration
- v Symmetrical Mode Operation eliminates electronic noise problems when used with solution ground
- v One-Point Online Calibration without shutting down the line
- v Hold Relay for use with float switches/flow switches and other controllers as a failsafe function
- v Two Level Password Protection prevents un authorized tampering with settings
- v 0 to 2000 Second Time Delay Adjustment on control and alarm delays
- v Galvanically Isolated Scaleable 0-20/4-20 mA Outputs for pH/ORP
- v Wash Contact Relay controls electrodes cleaning systems at desired duration and frequency
- v Choice of Glass or Antimony Electrode for general purpose or hydrofluoric acid applications
- v Adjustable Hysteresis (Dead Band) prevents rapid contact switching near set point
- v Non-Volatile Memory retains all stored parameters and calibration data even if power fails
- v Large Dual Display shows pH (or ORP) with temperature simultaneously - features clear multiple icons, set points, and status messages
- v Choice of Temperature Sensor Pt100/Pt1000 with 2-wire or 3-wire temperature input selection
- v Easy Installation and Wiring with detachable plug-in connectors

Applications



General: Useful for any batch or on-line type application that requires accurate pH or ORP control.

Water Purification/Treatment: Use for batch and on-line control of incoming process water, rinse water treatment, recirculating system and waste water treatment.

Industrial: Ideal for chemical processing, food processing, aquarium, pharmaceutical, hydroponics and waste control industries.

Regulatory: Hook to recorder to document data for regulatory compliance.

Specifications

Product Specification	Description
pH Range	-2.00 to 14.00 pH
Resolution & Accuracy	0.01 pH & ± 0.01 pH
mV Range	-1000 to 1000 mV / 0 to 100% (for -100 to 100 mV)
Resolution & Accuracy	1 mV / $\pm 0.1\%$ & ± 1 mV
Temperature Range	-9.9 to 125 °C
Resolution & Relative Accuracy	0.1 °C & ± 0.5 °C
Temperature Sensor	Pt 100/ Pt 1000 (jumper selectable)
Temperature Compensation	Auto / Manual (reference at 25 °C)
Set Point and Controller Functions	
Function (Switchable)	P/PI control (Pulse Length / Pulse Frequency); Limit Control; Off
Hysteresis	0.1 to 1 pH or 1 to 10.0% / 10 to 100 mV
Adjustable Period with Pulse Length Controller	0.5 to 20 seconds
Adjustable Period with Pulse Frequency Controller	60 to 120 pulses/min
Proportional Range	10 to 500%
Integral Action Time (IAT)	0 to 999.9 minutes
Pickup / Dropout Delay	0 to 2000 seconds
Switching pH Hysteresis	0.1 to 1 pH
Switching ORP Hysteresis	1 to 10.0% / 10 to 100 mV
Contact Outputs, Controller	2 potentialfree change-over contacts
Switching Voltage / Current	Max 250 VAC / Max 3A / Max 600VA



/ Power	
Alarm Functions	
Function (Switchable)	Launching or Pulse
Wash cycle	0.1 to 199.9 hrs
Wash direction	1 to 9999 s
Pickup Delay	0 to 2000 seconds
Switching Voltage / Current	Max 250 VAC / Max 3A / Max 600VA
/ Power	
Electrical Data and Connections	
Power requirement	100/ 2200CD (jumper selection)
Frequency	48 to 62Hz
EMC Specifications	Emissions: according to EN 50081-1 Susceptibility: according to EN 50082-1
Signal Output	0/4 to 20mA, galvanically isolated
Load	Max. 600 Ω
pH/ORP	BNC, screw terminals
Connection Terminal	Terminal blocks 5-pole/ 17-pole, removable
Main Fuse/ Fine Wire Fuse	Slow-blow 250 V/ 100 mA
Environmental Conditions	
Pollution Degree	II
Transient Overvoltage	II
Category	
Altitude	Up to 2000 m
Maximum Relative Humidity	80% up to 31 °C decreasing linearly to 50% at 40 °C
Power Supply	Mains supply voltage fluctuations not exceeding 10% of the nominal voltage
Ambient Temp. Operating Range	-10 to 50 °C
Mechanical Specifications	
Dimensions	175 x 96 x 96 mm
Weights	Max. 0.7kg
Material	ABS with polycarbonate
Insulation	IP 54/ IP 40