Thermo Scientific Alpha pH 800 & pH 1000 pH/ORP Controller/Transmitter:

pH/ORP:

The Alpha pH 800 and pH 1000 controllers/transmitters combines consistent performance and sophisticated control functions with user-friendly features. Meters come with seven preset buffer values for quick, accurate auto-calibration; electrode offset function allows direct reading corrections without needing to remove electrode from the control system. Alarm delay and individual set-point hystereses in limit control mode prevent chattering, false alarms, and uncecessary down time.

For finer control, Alpha pH 1000 offers proportional pulse length control and proportional pulse frequency control, in addition to basic limit control.

- 2-in-1 controllers/transmitters can be configured to measure either pH or OPR (mV or %)
- Auto-calibration with choice of NIST or USA buffer selection. Electrode slope and offset is displayed after each successful calibration
- Symmetrical mode option for clear, uninterrupted pH readings in electronically noisy environment
- Antimony mode option for use with antimony electrodes in applications that involves corrosive Hydrofluoric Acid
- Option of Auto or Manual Temperature Compensation. Three-wire system compensates for cable-length resistance errors
- Galvanically-isolated, scaleable 0/4 to 20 mA output for high-quality output on peripheral devices
- Alpha pH 1000 limit/proportional controller also offer two additional features: wash function for scheduled electrode wash, and alarm relay function to alert when measurement crosses the set points

Symmetrical operation mode option for accurate measurements, even in electronically noisy environments

Specification Information

pH/ORP Controller/Transmitter	Alpha pH 1000		Alpha pH 800	
Order Code	TSCTP1001	TSCTP1002	TSCTP0801	TSCTP0802
Part No.	01X208616	01X208617	01X252309	01X252310
pH:				
Range:	-2.00 to 16.00 pH			
Resolution:	0.01 pH			
Accuracy:	±0.01 pH			
ORP:				
Range:	-1000 to 1000 mV / 0 to 100.0 %		-1000 to 1000 mV	
Resolution:	1 mV / 0.1 %		1 mV	
Accuracy:	±1 mV / ±0.2 %		±1 mV	
Temperature:				
Range:	-9.9 to 125.0 °C			
Resolution:	0.1 °C			
Accuracy:	±0.5 °C			
Sensor:	Pt100 / Pt1000 (jumper selectable); 2 or 3 wire			
Compensation:	Auto/manual			
Set point & controller functions:				
Set point 1 (SP1) / set point 2 (SP2):	0.00 to 14.00 pH or -1000 to 1000 mV or 0 to 100 %		-2.00 to 16.00 pH or -1000 to 1000 mV	
Switching pH hysteresis:	0.1 to 1 pH			
Switching ORP hysteresis:	10 to 100 mV / 1 to 10.0 %		10 to 100 mV	
Function (switchable):	P control (pulse length/pulse frequency); limit control		Limit control	
Adjustable period with pulse length controller:	0.5 to 20 sec		–	
Adjustable period with pulse frequency controller:	60 to 120 pulse/min		–	
Pickup/dropout delay:	0 to 2000 sec			
Contact outputs:	3 SPDT relays		2 SPDT relays	
Switching voltage/current/power:	Max. 250 VAC / max. 3 A / max. 600 VA			
Alarm functions:				
Function (switchable):	Steady or fleet (pulse)		–	
Wash cycle:	0.1 to 199.9 hr		–	
Wash duration:	1 to 1999 sec		–	
Pickup delay:	0 to 2000 sec		–	
Switching voltage/current/power:	Max. 250 VAC / max. 3 A / max. 600 VA		–	
Electrical data & connections:				
Transmitter function:	0/4 to 20 mA scalable outputs for pH/ORP, galvanically isolated			
Hold function switch:	To freeze output current and deactivate control relays			
Load:	Max. 600 Ω		Max. 500 Ω	
pH/ORP input:	BNC (10^{12} impedance); asymmetrical/symmetrical			
Connection terminal:	5-pole, 17-pole terminal, detachable blocks			
Display:				
LCD:	7 segments display with symbols for status information			
Power supply:				
Input:	110 VAC (jumper selectable) ; 48 to 62 Hz ; max. 7 VA	220 VAC (jumper selectable) ; 48 to 62 Hz ; max. 7 VA	110 VAC (jumper selectable) ; 48 to 62 Hz ; max. 0.75 VA	220 VAC (jumper selectable) ; 48 to 62 Hz ; max. 0.75 VA
Main fuse:	Slow-blow 250 V / 100 mA			
Pollution degree:	2			
Transient overvoltage category:	II			
EMC specifications:				
Emitted interference:	According to EN 50081-1			
Immunity to interference:	According to EN 50082-1			
Environmental conditions:				
Operating temperature range:	-10 to 50 °C			
Max. relative humidity:	80 % up to 31 °C decreasing linearly to 50 % at 40 °C			
Mechanical specifications:				
Dimensions (WxHxD):	96 x 96 x 175 mm			
Weight:	700 g (unit) / 800 g (packed)			
Ingress protection:	IP54 (front panel)			