Thermo Scientific Alpha COND 1000 Conductivity Controller/Transmitter:

Conductivity:

The Alpha COND 1000 features up to ten selectable conductivity ranges and corresponding cell constant K values, easily configured through a six-button keypad. Adjustable temperature co-efficient and ultrapure water compensation option allow measurements in broad-range applications, from ultrapure water to high-conductivity samples.

- ±1% full scale accuracy across ten different Conductivity ranges
- Adjustable temperature coefficient from 0.0 to 10.0% for higher accuracy
- Pure water compensation option corrects non-linearity of pure water temperature correction curves in ultrapure water applications
- Option of Auto or Manual Temperature Compensation. Three-wire system compensates for cable-length resistance errors
- Meter displays electrode information after each successful calibration. Previous calibration data is retained in the event of unsuccessful calibrations
- Line adjustment feature corrects long cable resistance errors – an important feature useful in applications involving high conductivity measurements
- Galvanically-isolated, scaleable 0/4 to 20 mA output for high-quality output on peripheral devices

±1 % full scale accuracy across ten conductivity ranges – even in pure water applications

Specification Information

Conductivity Controller/Transmitter	Alpha COND 1000	
Order Code	TSCONCTP1001	TSCONCTP1002
Part No.	01X216017	01X216018
Conductivity:		
Range:	... to 1.999 µS/cm ; ... to 19.99 µS/cm ; ... to 199.9 µS/cm ; ... to 1999 µS/cm ; ... to 5000 µS/cm ; ... to 19.99 mS/cm ; ... to 199.9 mS/cm	
Resolution:	0.001 µS/cm ; 0.01 µS/cm ; 0.1 µS/cm ; 1 µS/cm ; 5 µS/cm ; 0.01 mS/cm ; 0.1 mS/cm	
Accuracy:	±1 % full scale reading	
Cell constant:	0.01 ; 0.1 ; 1 ; 10	
Temperature:		
Range:	-9.9 to 125 °C	
Resolution:	0.1 °C	
Accuracy:	±0.5 °C	
Sensor:	Pt100 / Pt1000 (jumper selectable)	
Compensation:	Auto/manual (normalized at 25 °C)	
Coefficient:	Ultrapure water or linear 0.00 to 10.00 %	
Set point & controller functions:		
Set point 1 (SP1) / set point 2 (SP2):	... to 1.999 µS/cm or ... to 19.99 µS/cm or ... to 199.9 µS/cm or ... to 5000 µS/cm or ... to 19.99 mS/cm or ... to 199.9 mS/cm	
Switching Conductivity hysteresis:	0 to 10 % of full scale	
Function (switchable):	P control (pulse length/pulse frequency); 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	
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 Conductivity, galvanically isolated	
Hold function switch:	To freeze output current and deactivate control relays	
Load:	Max. 600 Ω	
Conductivity input:	2-pin terminal	
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
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)	