

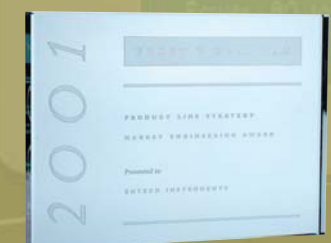
Alpha 2000 Series

Controllers & Transmitters



Corporate Profile

A leader in the field of electrochemical instrumentation, Eutech Instruments is a dynamic company rapidly positioning itself globally as a leading manufacturer of electrochemical instrumentation for water analysis. A pioneer in developing ASIC-based (Application Specific Integrated Circuit) instruments, Eutech Instruments has gained international awards and recognition for its achievements in sensor technology, software programming and product design. Underlying its strong commitment to Research & Development, is the constant drive by Eutech engineers to apply new, emerging technologies to the design and manufacture of advanced electrochemical instruments. Eutech offers a comprehensive range of laboratory and field instrumentation for water analysis and continuous online process instruments for monitoring and control of pH, Conductivity, Total Dissolved Solids (TDS), Turbidity, Temperature, Ion Concentration, Redox Potential (ORP) and Dissolved Oxygen (DO). Eutech's products are certified to comply with global standards for electromagnetic emission and interference. Eutech Instruments is dedicated to producing convenience products for water analysis.



“Having an extensive product line has won Eutech Instruments the renowned Frost & Sullivan Market Engineering Award 2001 for Best Product Line Strategy which credits Eutech for demonstrating the most insight into customer needs and product demands.”

ISO 9001
CERTIFIED

EUTECH INSTRUMENTS

Technology Made Easy ...

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Market Engineering Award Recipient

Product Line Strategy 2001

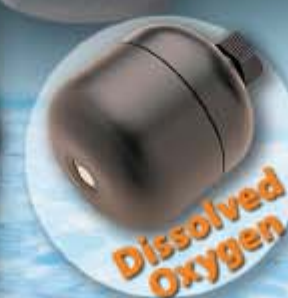
Member of:



CON 08X233408 1004 Rev 1



pH/ORP



Dissolved Oxygen



Conductivity

EUTECH INSTRUMENTS

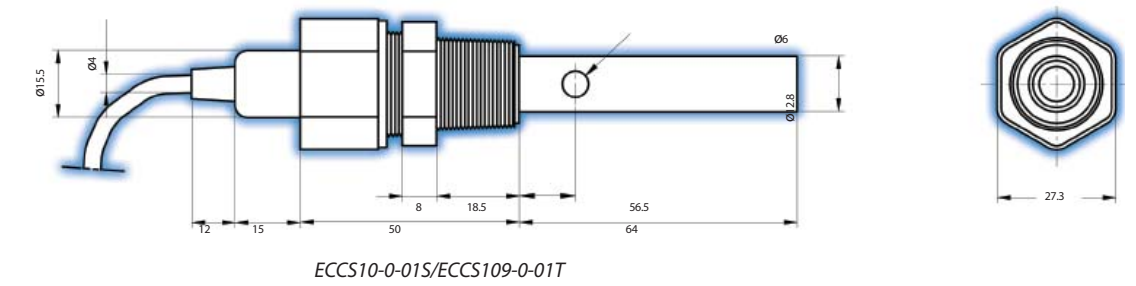
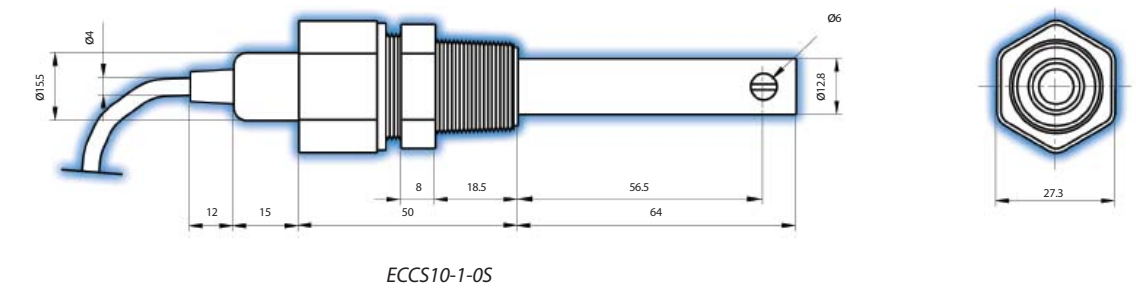
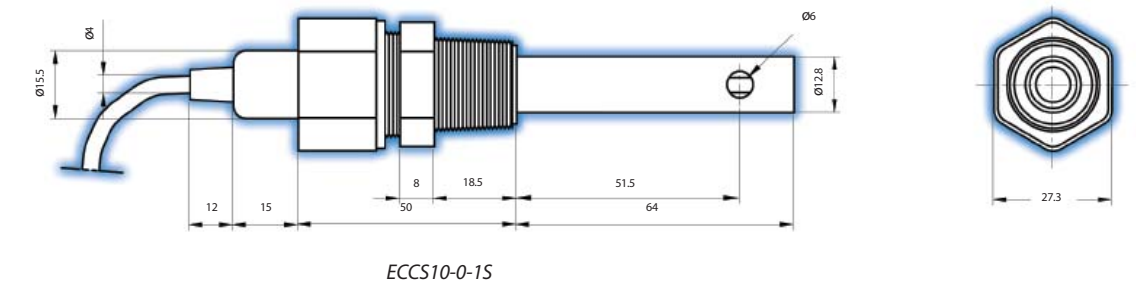
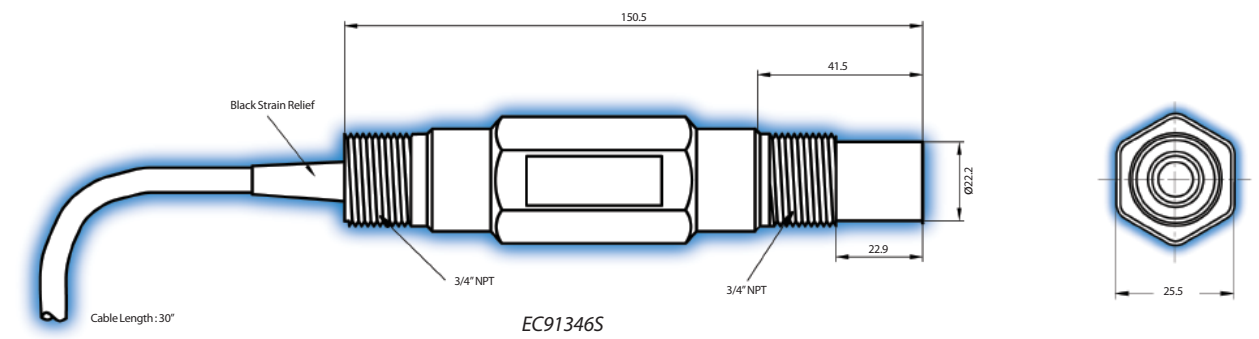
Technology Made Easy ...

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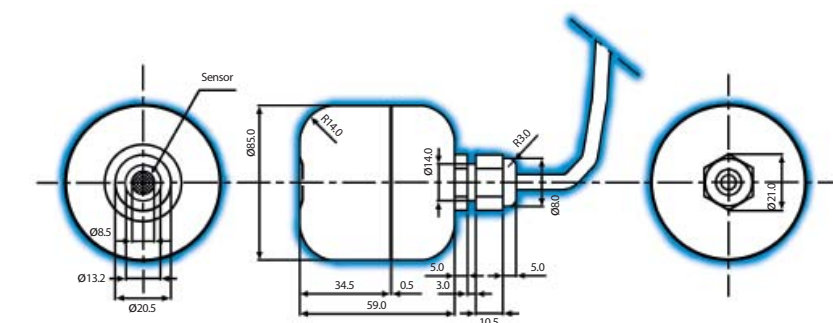
Conductivity Electrodes line diagrams






All measurements in mm





Dissolved Oxygen Electrodes line diagrams

All measurements in mm



Order Code:	Specifications:	
Conductivity Cells		
EC91346S		Conductivity range Up to 500 mS/cm Cell constant, k 0.3, 4-Cell Temperature sensor Pt 100, 3-wire Pressure rating 6 bar Material Ryton, SS 316 Thread 3/4" NPT Cable Integrated 7.6m, 8-wire double-shielded, open Dimension: Length (excludes cable) 150.5 mm Diameter (external) 22.2 mm Weight 650 g
ECCS10-0-01T		Conductivity range Up to 20 µS/cm Cell constant, k 0.01, 2-Cell Temperature sensor Pt 100, 3-wire Pressure rating 6 bar Material Titanium Thread 1/2" NPT Cable Integrated 7.5m, 6-wire double-shielded, open Dimension: Length (excludes cable) 168 mm Diameter (external) 12.8 mm Weight 595 g
ECCS10-0-01S		Conductivity range Up to 20 µS/cm Cell constant, k 0.01, 2-Cell Temperature sensor Pt 100, 3-wire Pressure rating 6 bar Material SS 316 Thread 1/2" NPT Cable Integrated 7.5m, 6-wire double-shielded, open Dimension: Length (excludes cable) 168 mm Diameter (external) 12.8 mm Weight 595 g
ECCS10-0-1S		Conductivity range 0.1 to 200 µS/cm Cell constant, k 0.1, 2-Cell Temperature sensor Pt 100, 3-wire Pressure rating 6 bar Material SS 316 Thread 1/2" NPT Cable Integrated 7.5m, 6-wire double-shielded, open Dimension: Length (excludes cable) 168 mm Diameter (external) 12.8 mm Weight 595 g
ECCS10-1-0S		Conductivity range Up to 100 mS/cm Cell constant, k 1.0, 2-Cell Temperature sensor Pt 100, 3-wire Pressure rating 6 bar Material SS 316 Thread 1/2" NPT Cable Integrated 7.5m 6-wire double-shielded, open Dimension: Length (excludes cable) 168 mm Diameter (external) 12.8 mm Weight 595 g

Order Code:	Specifications:	
Dissolved Oxygen Probes		
ECDODEN		Dissolved oxygen range 0.5 to 40 ppm Type Galvanic Flow rate 1 to 2 cm/s (dependent on temperature and O ₂ level) Response time 40 to 50 secs to attain 95% of actual reading Temperature sensor Pt 100 Pressure rating 6 bar Material Delrin housing Membrane Teflon Cable Integral 5m water-resistant, open Dimension: Length (excludes cable) 69.5 mm Diameter (external) 58.0 mm Weight 670 g
ECDOTPII		Dissolved oxygen range 0 to 10 ppm Type Galvanic Flow rate 1 to 2 cm/s (dependent on temperature and O ₂ level) Response time 40 to 50 secs to attain 95% of actual reading Temperature sensor Pt 100 Pressure rating 6 bar Material Delrin housing Membrane Teflon Cable Integral 5m water-resistant, open Dimension: Length (excludes cable) 69.5 mm Diameter (external) 58.0 mm Weight 670 g



alpha 2000 Series Introduction 2



alpha pH Controller 4



alpha Conductivity Controller 6



alpha Dissolved Oxygen 8



pH Electrodes 10



Conductivity Cells & Dissolved Oxygen Probes 12

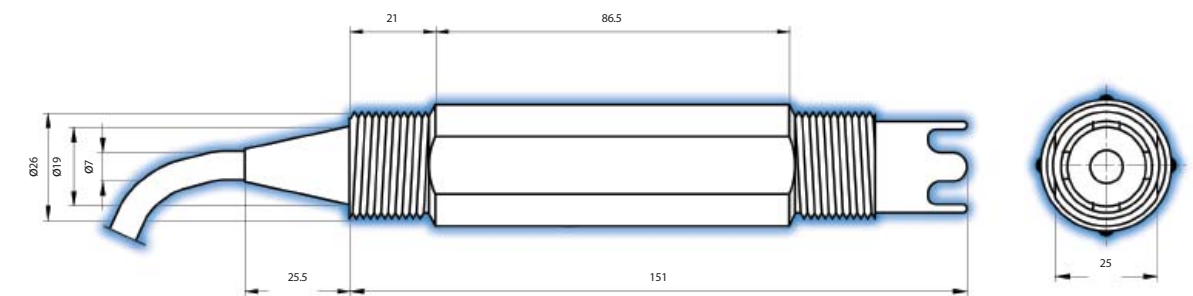
Warranty
Eutech Instruments warrants its controllers to be free from manufacturing defects for 12 months and electrodes for 6 months.

Order Code:	Specifications:		
ORP Electrodes			
ECHTAUTSO-05B		Sensor Reference Reference electrolyte Operating temperature Pressure tolerance Potential matching pin Material Thread Cable	Gold Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 80 °C 6 bars Platinum PPS (Ryton) 3/4" NPT Integral 5m low-noise semi-conductor screened BNC
		Connector Dimensions: Length (excludes cable) Diameter (external) Weight	151 mm 26 mm 500g
ECHTPPTSO-05B		Sensor Reference Reference electrolyte Operating temperature Pressure tolerance Potential matching pin Material Thread Cable	Platinum Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 80 °C 6 bars Platinum PPS (Ryton) 3/4" NPT Integral 5m low-noise semi-conductor screened BNC
		Connector Dimensions: Length (excludes cable) Diameter (external) Weight	151 mm 26 mm 500g






pH / ORP Electrode Selection Guide							
	EC-100GTSO-05B	EC-ARGTSO-05B	EC-ARHTSO-05B	EC-ARTSOHF-05B	EC-ARTSO-05B	EC-HTAUTSO-05B	EC-HTPPTSO-05B
Application							
pH measurement with Automatic Temperature Compensation	•						
pH measurements in 'noisy' environments, eg. Electroplating	•	•					
pH measurements in high temperature (110 °C and 9 bar)			•				
pH measurements in the presence of Hydrofluoric acid (HF)				•			
pH measurements	•	•	•	•	•		
ORP / REDOX measurements						•	•
ORP measurement in cyanide treatment						•	
ORP measurements in all other applications							•

pH/ORP Electrodes line diagrams

All measurements in mm



Electrodes/Cells/Probes

Order Code:	Specifications:	
pH Electrodes		
<p>EC100GTSO-05B</p> 	<p>pH range Reference Reference electrolyte Operating temperature Pressure tolerance Temperature sensor Potential matching pin Material Thread Cable Connector Dimensions: Length (excludes cable) Diameter (external) Weight</p>	<p>0 to 14 Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 80 °C 6 bars Pt 100 Platinum PPS (Ryton) ¾" NPT Integral 5m low-noise semi-conductor screened BNC 151 mm 26 mm 650 g</p>
<p>ECARGTSO-05B</p> 	<p>pH range Reference Reference electrolyte Operating temperature Pressure tolerance Temperature sensor Potential matching pin Material Thread Cable Connector Dimensions: Length (excludes cable) Diameter (external) Weight</p>	<p>0 to 14 Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 80 °C 6 bars N.A. Platinum PPS (Ryton) ¾" NPT Integral 5m low-noise semi-conductor screened BNC 151 mm 26 mm 430 g</p>
<p>ECARHTTSO-05B</p> 	<p>pH range Reference Reference electrolyte Operating temperature Pressure tolerance Temperature sensor Potential matching pin Material Thread Cable Connector Dimensions: Length (excludes cable) Diameter (external) Weight</p>	<p>0 to 14 Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 110 °C, high temperature 9 bars N.A. N.A. PPS (Ryton) ¾" NPT Integral 5m low-noise semi-conductor screened BNC 151 mm 26 mm 430g</p>
<p>ECARTSOHF-05B</p> 	<p>pH range Reference Reference electrolyte Operating temperature Pressure tolerance Temperature sensor Potential matching pin Material Thread Cable Connector Dimensions: Length (excludes cable) Diameter (external) Weight</p>	<p>0 to 14, HF resistant Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 80 °C 6 bars N.A. N.A. PPS (Ryton) ¾" NPT Integral 5m low-noise semi-conductor screened BNC 151 mm 26 mm 430g</p>
<p>ECARTSO-05B</p> 	<p>pH range Reference Reference electrolyte Operating temperature Pressure tolerance Temperature sensor Potential matching pin Material Thread Cable Connector Dimensions: Length (excludes cable) Diameter (external) Weight</p>	<p>0 to 14 Annular Teflon, double junction Saturated KCl, polymerized gel 0 to 80 °C 6 bars N.A. N.A. PPS (Ryton) ¾" NPT Integral 5m low-noise semi-conductor screened BNC 151 mm 26 mm 430 g</p>

Alpha 2000 Series Introduction

pH / ORP / Conductivity / Dissolved Oxygen

Pipe Mount

Panel Mount

Wall Mount

1/4 DIN Panel



Rated to IP 65 (Nema 4X), the rugged weather-proof casing simplifies installation outdoors or indoors.

Direct access to calibration sequence (password controlled) and sensor status

Access setup mode (password controlled) via menu layout for all controller settings and configuration.

Advanced Switch Mode Power Supply (SMPS) auto-detects power supply input from 80 to 250 V, AC or DC for regulated stable operation.

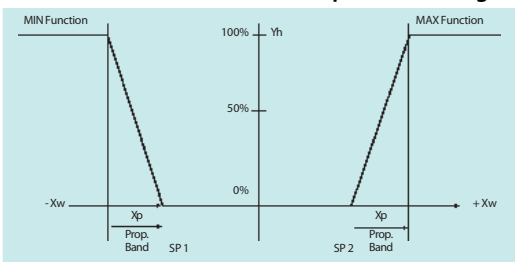


Back-lit LCD for brighter and clearer display; programmable contrast and illumination duration

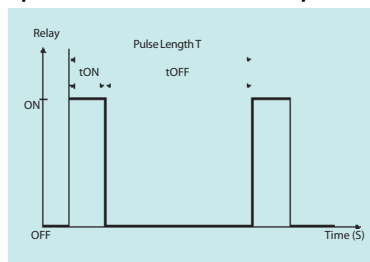
Bi-colour LEDs indicate relay status and mode of operation.

Manual control of relays (password control) for quick check of electrical connections to pumps and valves.

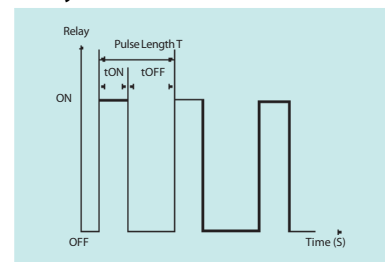
Proportional integral, Proportional or limit control, operation of relays



Control characteristic of controller as proportional controller

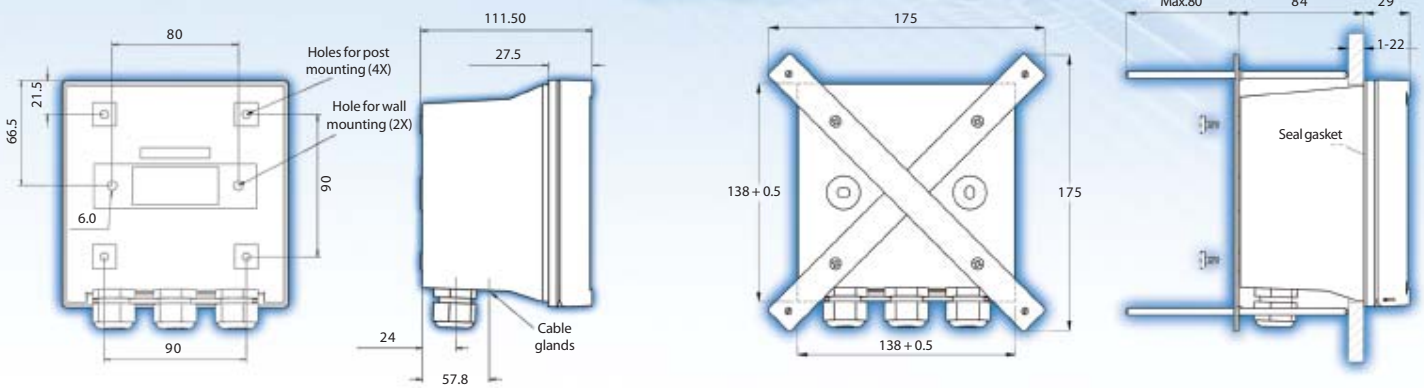


Controller signal of pulse length control



Controller signal of pulse frequency control

Dissolved Oxygen



Wall Mount Drawing (All measurements in mm)

Automatic Temperature Compensation with 2 or 3 wire Pt 1000 or Pt 100 temperature sensors. 3-wire system minimizes errors from the temperature sensor and cables. View temperature values in degree Celsius or degree Fahrenheit. Manual Temperature Compensation offers independent input of process and calibration temperatures.

Liquid ground (potential matching pin) for symmetrical operations (pH / ORP controllers only)

Independent Relay A and B allows combination of 'Hi' and 'Lo' settings.

Wash relay allows automatic, periodical cleaning of sensors – used in conjunction with 'Wash' program

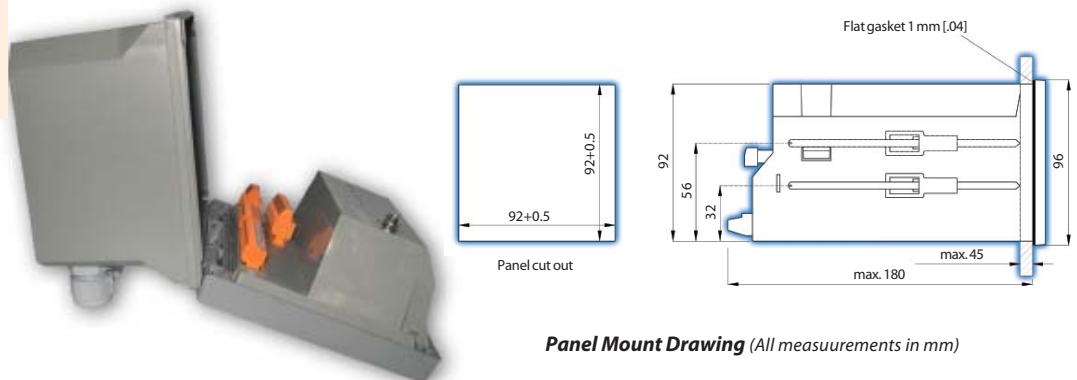
'Single-Pole-Double-Throw' Alarm relay for fail-safe operations. When power supply to the controller is broken, the alarm relay activates.

Useful 12VDC output from the controller powers peripheral wash mechanism, preamplifiers, etc.

'HOLD' terminals allow for pH/ORP Master-slave operations (pH analyzer controls ORP analyzer only under controlled pH values)

Dual 4-20 mA scaleable outputs for measured parameter and temperature. Unique 'Out-of-range' current setting at 22 mA differentiates normal readings from 'Out-of-range' values.

Detachable connectors for easier wiring.



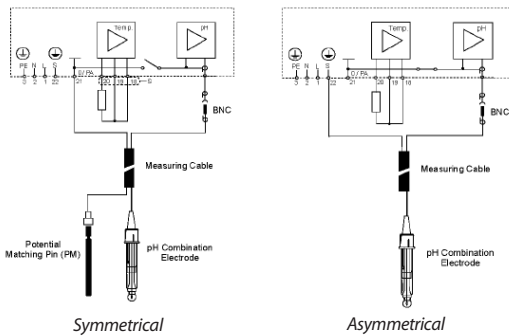
Panel Mount Drawing (All measurements in mm)

Alpha pH 2000 pH/ORP

Controller/Transmitter

pH/ORP, two-in-one Controller (software selectable) for pH or ORP measurement modes.

Special Symmetrical configuration mode to facilitate operating in environments with electrical interference. Custom pH or ORP sensors are available with the potential matching pin for Symmetrical mode measurements.



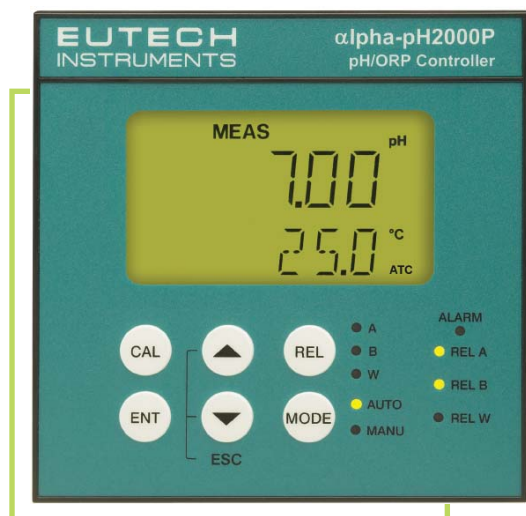
In the ORP mode, the alpha pH 2000 is able to measure in mV or as % concentration, with independent calibration modes. All parameters can be operated in the asymmetrical or symmetrical mode.

With a pH and ORP controller side-by-side, controllers can be operated in a master-slave operation where pH and ORP must be measured and controlled simultaneously, e.g. electroplating or swimming pool applications. Under this setup, pH is always maintained and controlled as a first priority. Only when pH readings are within set limits, will the ORP controller be allowed to operate the pumps.

pH calibration is quick and easy with push-buttons. Calibration buffer sets include US, NIST and DIN standards. Electrode condition is updated and displayed after each calibration.

For applications where Hydrofluoric (HF) acid is present, either Antimony or HF-resistant glass electrodes must be used.

When Antimony electrodes are used, select 'Antimony' electrode option from controller menu, to download relevant Antimony electrode data.



Specifications

Alpha pH 2000		
pH range		- 2.00 to 16.00
Accuracy		± 0.01 pH
Resolution		0.01 pH
Temperature		-10.0 to + 125.0 °C (14.0 to 257.0 °F)
Resolution		0.1 °C / °F
Relative Accuracy		± 0.5 °C (± 1.0 °F)
Temperature Sensor		Pt100 /Pt1000 (jumper selectable); 2 or 3 wire
Temperature Compensation		Auto / manual (reference at 25 °C)
Set-point and Controller Functions		
Function (switchable)		P/PI control (pulse length/pulse frequency); limit control
Integral time		0 to 999.9 minutes
Adjustable period with pulse length controller		0.5 to 20 sec.
Adjustable period with pulse frequency controller		60 to 120 pulses/min
Pickup / Dropout delay		0 to 2000 seconds
Wash cycle		0.1 to 199.9 hours
Wash duration		1 to 1999 seconds
Switching pH hysteresis		0 to 10 % of full scale
Contact outputs, controller		1 SPDT, 3 SPST relays
Switching voltage / current / power		Max. 250 VAC / Max 3A / Max 600VA
Alarm Functions		
Function (switchable)		Latching / pulse
Pickup delay		0 to 2000 seconds
Switching voltage / current / power		Max. 250 VAC / Max 3A / Max 600VA
Display		
LCD		UV coat, backlit 14 segments display with symbols for status information
Backlight		On/Off selectable with four level of brightness control
Electromagnetic Compliance (EMC) Specifications		
Emitted Interference		According to EN 50081-1
Immunity to Interference		According to EN 50082-1
Environmental Conditions		
Ambient temperature operating range		0 to 40 °C
Maximum Relative humidity		80% up to 31 °C decreasing linearly to 50% at 40 °C
Power Supply		
Input		80 to 250 VAC/DC 50/60 Hz Approx. 10VA
Main Fuse		250 mA anti-surge, S504 BUSSMANN
Pollution Degree		2
Transient Overvoltage category		II
Electrical Data and Connections		
Signal Output		Two 0/4 to 20 mA outputs for pH and temperature, galvanically isolated
Load		Max. 600 W
pH input		BNC (10 ¹² impedance); Asymmetrical / Symmetrical
Connection terminal (Wall mount)		3-pin, 8-pin, 9-pin and 13-pin terminal, detachable blocks
Connection terminal (Panel mount)		3-pin, 9-pin and 19-pin terminal, detachable blocks
Mechanical Specifications		
Dimensions (W x H x D)	Wall Mount	144 x 144 x 110 mm
	Panel Mount	96 x 96 x 175 mm
Weight	Wall Mount	745g (unit) / 1100g (Packed)
	Panel Mount	550g (unit) / 950g (Packed)
Environmental Rating	Wall Mount	IP 65 (NEMA 4X)
	Panel Mount	IP54 (front panel)

Ordering Information

Alpha pH 2000 pH/ORP Controller/Transmitter – Wall mount	ECPHCTP2000W
Alpha pH 2000 pH/ORP Controller/Transmitter – Panel mount	ECPHCTP2000P

Alpha CON 2000 Conductivity

Controller/Transmitter

Seven ranges in a single controller allows the controller to be used in a wide variety of applications. Maximum measurement range is 1000 mS/cm. Accuracy of $\pm 1\%$ is achievable for most ranges, while $\pm 2\%$ for measurements above 500 mS/cm.

4- or 2-cell electrode system can be used with a input of cell constants, from 0.005 to 9.999.

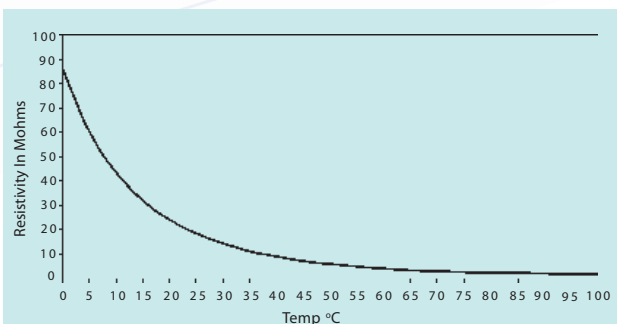
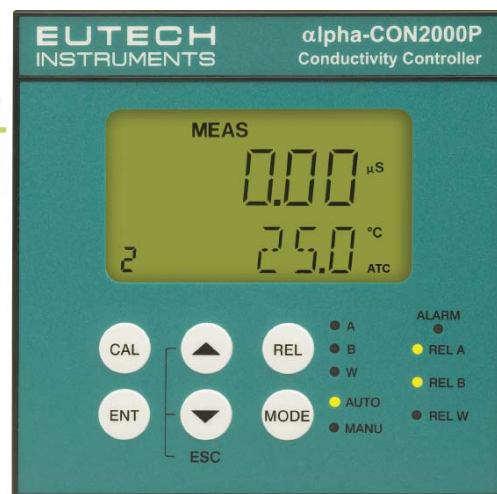
New 4-cell electrode system eliminates polarizing effects ensuring more accurate measurements in highly conductive samples.

The cell constant corresponding to the cell connected to the controller can be input independently during calibration.

Status of the cell is updated and displayed after every calibration and can be viewed at anytime.

Temperature Coefficients can be set for more precise temperature compensation. Select from 0.0% to 10.0%.

In addition, for 0 to 2.000 $\mu\text{S}/\text{cm}$ range, select 'Pure water' compensation graph to correct for the non-linearity of pure water temperature correction curves.



Resistivity Of Pure Water

Specifications

Alpha CON 2000		
Measuring range No	Conductivity Measuring range	Resolution
1	... to 2.000 $\mu\text{S}/\text{cm}$	0.001 $\mu\text{S}/\text{cm}$
2	... to 20.00 $\mu\text{S}/\text{cm}$	0.01 $\mu\text{S}/\text{cm}$
3	... to 200.0 $\mu\text{S}/\text{cm}$	0.1 $\mu\text{S}/\text{cm}$
4	... to 2000 $\mu\text{S}/\text{cm}$	1 $\mu\text{S}/\text{cm}$
5	... to 20.00 mS/cm	0.01 mS/cm
6	... to 200.0 mS/cm	0.1 mS/cm
7	... to 1000 mS/cm	1 mS/cm
Relative accuracy	$\pm 1\%$ of full scale reading ($\pm 2\%$ $>500 \text{ mS}/\text{cm}$)	
Temperature range	-10.0 to + 125.0 $^{\circ}\text{C}$ (14.0 to 257.0 $^{\circ}\text{F}$)	
Resolution	0.1 $^{\circ}\text{C}$ / $^{\circ}\text{F}$	
Relative Accuracy	$\pm 0.5 \text{ }^{\circ}\text{C}$ ($\pm 1.0 \text{ }^{\circ}\text{F}$)	
Sensor	Pt100 / Pt1000 (jumper selectable); 2 or 3 wire	
Temperature Compensation	Auto / manual (normalized at 25 $^{\circ}\text{C}$)	
Set-point and Controller Functions		
Function (switchable)	P/PI control (pulse length/pulse frequency); limit control	
Integral time	0 to 999.9 minutes	
Adjustable period with pulse length controller	0.5 to 20 sec.	
Adjustable period with pulse frequency controller	60 to 120 pulses/min	
Pickup / Dropout delay	0 to 2000 seconds	
Wash cycle	0.1 to 199.9 hours	
Wash duration	1 to 1999 seconds	
Switching conductivity hysteresis	0 to 10 % of full scale	
Contact outputs, controller	1 SPDT, 3 SPST relays	
Switching voltage / current / power	Max. 250 VAC / Max 3A / Max 600VA	
Alarm Functions		
Function (switchable)	Latching / pulse	
Pickup delay	0 to 2000 seconds	
Switching voltage / current / power	Max. 250 VAC / Max 3A / Max 600VA	
Display		
LCD	UV coat, backlit 14 segments display with symbols for status information	
Backlight	On/Off selectable with four level of brightness control	
Electromagnetic Compliance (EMC) Specifications		
Emitted Interference	According to EN 50081-1	
Immunity to Interference	According to EN 50082-1	
Environmental Conditions		
Ambient temperature operating range	0 to 40 $^{\circ}\text{C}$	
Maximum Relative humidity	80% up to 31 $^{\circ}\text{C}$ decreasing linearly to 50% at 40 $^{\circ}\text{C}$	
Power Supply		
Input	80 to 250 VAC/DC 50/60 Hz Approx. 10VA	
Main Fuse	250 mA anti-surge, S504 BUSSMANN	
Pollution Degree	2	
Transient Overvoltage category	II	
Electrical Data and Connections		
Signal Output	Two 0/4 to 20 mA outputs for conductivity and temperature, galvanically isolated	
Load	Max. 600 W	
Conductivity input	Screw terminal	
Connection terminal (Wall mount)	5-pin, 8-pin, 9-pin and 13-pin terminal, detachable blocks	
Connection terminal (Panel mount)	5-pin, 9-pin and 19-pin terminal, detachable blocks	
Mechanical Specifications		
Dimensions (W x H x D)	Wall Mount	144 x 144 x 110 mm
	Panel Mount	96 x 96 x 175 mm
Weight	Wall Mount	745g (unit) / 1100g (Packed)
	Panel Mount	550g (unit) / 950g (Packed)
Environmental Rating	Wall Mount	IP 65 (NEMA 4X)
	Panel Mount	IP54 (front panel)

Ordering Information

Alpha CON 2000 Conductivity Controller/Transmitter – Wall mount	ECCONCTP2000W
Alpha CON 2000 Conductivity Controller/Transmitter – Panel mount	ECCONCTP2000P

Alpha DO 2000 Dissolved Oxygen Controller/Transmitter

Incorporating the superior Galvanic oxygen probe, operating the alpha DO 2000 controller is immediate.

With the Galvanic probe, there is no start-up or 'warm-up' time. The probe only takes 40 to 50 seconds to attain 95% of actual readings.

Unlike Clark cells where the probe needs to be polarised to 700~800 mV, in the Galvanic probe, the anode and cathode already carry a electrochemical potential of 800 mV.

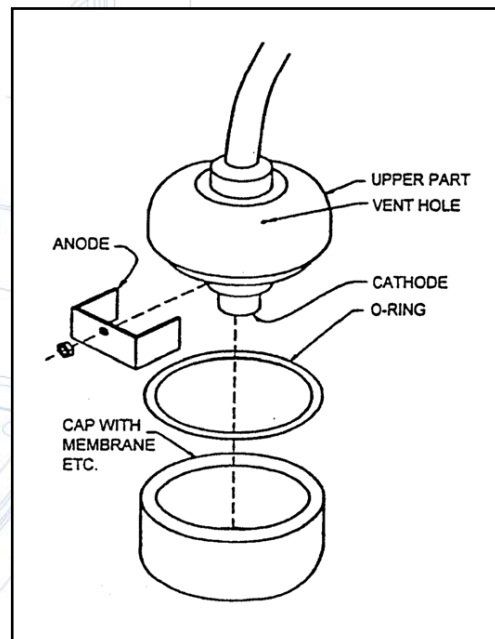
Calibration is quick and easy using the atmospheric air as the calibration media for 100% air saturation.

Zero drift is avoided as H₂O is recreated within the probe, thus preventing any change to the pH of the electrolyte. Thus, the electrolyte is recycled within the probe and extends the useful life.

Rugged Galvanic probe for process applications requires minimal maintenance. Frequency between membrane and electrolyte changes is significantly lower than traditional Clark cell systems.

View measured values in mg/l or % air saturation, selectable from the menu-options.

Barometric pressure, Salinity and Temperature compensation is very important for Dissolved Oxygen (D.O.) measurements. A Pt 100 sensor is incorporated in the D.O. probe, allowing for continuous automatic temperature compensation. Input Barometric pressure and Salinity compensation into the controller and all D.O. measurements will be correctly compensated.



Galvanic probe (construction)

Specifications

Alpha DO 2000	
Dissolved Oxygen measuring range	0.00 to 25.00 mg/l or 0.0 to 300.0% Saturation
Relative accuracy	± 1.5 % of full scale reading for both ranges
Resolution	0.01 mg/l or 0.1 %
Temperature	-10.0 to + 125.0 °C (14.0 to 257.0 °F)
Resolution	0.1 °C / °F
Relative Accuracy	± 0.5 °C (± 1.0 °F)
Sensor	Pt100 /Pt1000 (jumper selectable); 2 or 3 wire
Temperature Compensation	Auto / manual
Pressure Compensation	K.Pas / mmHg (Manual setting and automatic correction)
Salinity Compensation	0.0 to 50.0 ppt (Manual setting and automatic correction)
Set-point and Controller Functions	
Function (switchable)	P/PI control (pulse length/pulse frequency); limit control
Integral time	0 to 999.9 minutes
Adjustable period with pulse length controller	0.5 to 20 sec.
Adjustable period with pulse frequency controller	60 to 120 pulses/min
Pickup / Dropout delay	0 to 2000 seconds
Wash cycle	0.1 to 199.9 hours
Wash duration	1 to 1999 seconds
Switching Dissolved oxygen hysteresis	0 to 10 % of full scale
Contact outputs, controller	1 SPDT, 3 SPST relays
Switching voltage / current / power	Max. 250 VAC / Max 3A / Max 600VA
Alarm Functions	
Function (switchable)	Latching / pulse
Pickup delay	0 to 2000 seconds
Switching voltage / current / power	Max. 250 VAC / Max 3A / Max 600VA
Display	
LCD	UV coat, backlit 14 segments display with symbols for status information
Backlight	On/Off selectable with four level of brightness control
Electromagnetic Compliance (EMC) Specifications	
Emitted Interference	According to EN 50081-1
Immunity to Interference	According to EN 50082-1
Environmental Conditions	
Ambient temperature operating range	0 to 40 °C
Maximum Relative humidity	80% up to 31°C decreasing linearly to 50% at 40°C
Power Supply	
Input	80 to 250 VAC/DC 50/60 Hz Approx. 10VA
Main Fuse	250 mA anti-surge, S504 BUSSMANN
Pollution Degree	2
Transient Overvoltage category	II
Electrical Data and Connections	
Signal Output	Two 0/4 to 20 mA outputs for Dissolved Oxygen and temperature, galvanically isolated.
Load	Max. 600 Ω
Dissolved Oxygen input	Screw terminal
Connection terminal	5-pin, 8-pin, 9-pin and 13-pin terminal, detachable blocks
Mechanical Specifications	
Dimensions (W x H x D)	Wall Mount 144 x 144 x 111.5 mm
Weight	Wall Mount 745g (unit) / 1100g (Packed)
Environmental Rating	Wall Mount IP 65 (NEMA 4X)

Ordering Information

Alpha DO 2000 Dissolved Oxygen Controller/Transmitter – Wall mount

ECDOCTP2000W