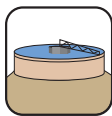




Features

- Measures and controls pH, ORP, and temperature
- Easy to set up and calibrate
- User-friendly menu with password protection to ensure security
- Five programmable relays: 2 for pH, 2 for ORP, and 1 for temperature
- Isolated and reversible 4-20 mA output for a single parameter

Applications



Ideal for water and wastewater pH monitoring and control.

Specifications

Range	pH: -2.00 to 16.00 pH ORP (absolute/relative): -2500 to 2500 mV / -3999 to 3999 mV Temp: 14 to 248°F (-10.0 to 120.0 °C)
Resolution	pH: 0.01 pH ORP (absolute/relative): 1 mV/1 mV Temp: 32.18°F (0.1 °C)
Accuracy	pH: ± 0.01 pH ± 1 LSD ORP (absolute/relative): ± 0.2 % of span / ± 0.2 % of span Temp: ± 32.18 °F (0.1 °C)
pH Temperature Compensation	Auto -10.0 to 120.0 °C
pH Buffer Recognition	4.00, 4.01, 6.86, 7.00, 9.18, 10.01
pH Buffer Temperature Range	0 to 60 °C
pH Electrode Offset Recognition	± 100 mV at pH 7.00 to 91.7 to +108.3 at pH 6.86
pH Electrode Slope Recognition	± 30% at pH 4.00, 4.01, 9.18, or 10.01
Input Impedance	>1013 ohms
Relays	Control Type: 5 ON/OFF controls Relay Output: 5A at 115 VAC or 2.5 A at 220 VAC, resistive load only

6309POT pH/ORP Analyzer and Controller

Instrument for Measuring and Controlling pH, ORP, and Temperature

Description

The 6309POT pH/ORP Analyzer and Controller is an easy to use instrument that measures, analyzes, and controls pH, ORP, and temperature.

Easy Set Up, Calibrations, and Display

You can set up the instrument and make calibrations via the 6309POT's user-friendly menu, which you can password protect to ensure security. You can also perform calibrations quickly and accurately with automatic buffer recognition of US or European buffer sets. The calibration values are stored in a nonvolatile memory. A large backlit screen displays pH, ORP, and temperature values or pH, DO, and temperature measurements, in addition to the current mA output and relay status.

Accurate Control and Recording

The 6309POT provides accurate on/off control via its five programmable relays. You can also use the instrument's 4-20 mA out-

put for proportional control. A standard RS-485 output allows for access via a compatible PC computer and allows you to link multiple units to a common control system.

Capable Operation

The 6309POT's built-in temperature and automatic temperature compensation (ATC) functions may be used with an ATC-type sensor or with a 10K ohm thermistor. At power up, the 6309POT performs self-diagnostics to ensure proper operation. You can display electrode efficiency to indicate when electrode maintenance is necessary. The 6309POT is housed in a watertight (IP65), DIN case and includes a terminal block that accommodates the tinned leads and spade lugs on industrial type pH and ORP electrodes.

Ordering & Options

pH/ORP Analyzer and Controller

Order No.	Description	Price
6309POT	pH/ORP Analyzer and Controller	

pH and ORP Electrodes¹

Order No.	Type	Price
WQ220-020	pH/ATC	
WQ620-020	ORP	

1) Electrodes are flat surface and self-cleaning and include 20' of cable with spade and tinned leads. A signal amplifier is required for sensor cable runs over 40 feet.

Accessories

Order No.	Description	Price
600B-Y ²	Adapter, BNC Connector to Spade Lugs and Tinned Leads	
WQ-T-010	1" FNPT PVC Flow Through T-Fitting	

2) Please note that a BNC to Y adapter is required to maintain the IP65 rating when using sensors with a BNC connector.

Please call us for calibration standards and enclosure options.

695pH pH Transmitter

Transmitter with Display

Features

- Accurate online pH measurements
- Isolated 4-20 mA output
- NEMA 4 enclosure
- Temperature compensation



Description

The 695pH Industrial pH Transmitter is a 2-wire 4-20 mA pH transmitter enclosed in a sealed NEMA-4 enclosure. The unit has a large LCD screen powered by 11 to 80 VDC. The transmitter's span has selectable pH values from 1 to 14 pH units via an internal dip switch. The unit uses BNC connections to link to a separately sold pH sensor (Order No. 600P). The unit also has tinned leads for a 3-K Balco ATC temperature probe (Order No. 693-3K) or simulation resistor. The 695pH is compatible with Global Water's GL500 Global Logger (see page 118) and PC300 Process Controller (see page 132).

Specifications

Range	0 to 14.00 pH
Resolution	0.01 pH
Accuracy	0.02 pH \pm 1 digit
Span	Any 1 to 14 pH unit, selectable with internal DIP switch
Temperature Compensation	Auto 0 to 100.0°C or manual using fixed resistor
Input Impedance	$>10^{12}$ ohms
Output	4 to 20 mA
Operating Temperature	-10 to 60°C
Connector	BNC
Power Source	11 to 80 VDC
Case Dimensions	4.92 x 2.95 x 3.94" (12.7 x 7.5 x 10.0 cm)

Ordering & Options

Order No.	Description	Price
695pH	Industrial pH Transmitter (sensor not included)	
600P	Industrial pH Transmitter Sensor (3' cable)	
693-3K	ATC Temperature Probe (6' cable, SS probe)	

392-392SBC Conductivity Transmitters

Industrial Conductivity Transmitters Available in Multiple Ranges

Description

The 392 Industrial Conductivity Transmitter and the 392SBC High Range Conductivity Transmitter are 4-wire 4-20 mA transmitters enclosed in 1/8 DIN aluminum panel mounted enclosures. Each unit has an isolated 4-20 mA output and a large LCD screen that is powered by 115/230 VAC. The instruments use 10k thermistors for automatic temperature compensation of values from 5 to 55°C. The transmitter connections are made with terminal blocks via spade lug connectors.

The 392 transmitter has a selectable conductivity value from 19.99 μ S/cm to 199.9 mS/cm via an internal dip switch and jumper settings. The 392SBC high range version displays up to 15.0mS and will only output up to 8.1mS or 30mA.

The 392 and 392SBC are compatible with Global Water's GL500 Global Logger (page 118) and PC300 (page 132).

Specifications

Accuracy	\pm 1% of span \pm 1 digit
Temperature Compensation	5 to 55°C \pm 2% per °C, 10k thermistor
Output	392: 4-20 mA (isolated); 4.0 mA = 0.00 mS/cm, 20 mA = 5.00 mS/cm 392SBC: 4-20mA / 4-30mA (isolated); 4.0 mA = 0.00 mS/cm (each 5/16 mS/cm thereafter = 1.0 mA up to 30 mA)
Load	450 ohms
Isolation to Ground	500 VDC
Input Impedance	$>10^{12}$ ohms
Operating Temperature	5 to 45°C
Power Source	115 to 230 VAC \pm 15%, 50/60Hz
Mounting	1/8 DIN aluminum case
Dimensions	3.75 x 2 x 6.75" (96 x 48 x 172 mm)
Weight	1.5 lbs (0.69 kg)

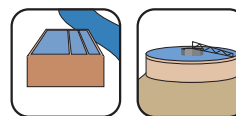
Order No.	Range	Resolution	Cell Constant
392	0 to 19.99 μ S/cm	0.01 μ S/cm	K=0.01
	0 to 199.9 μ S/cm	0.1 μ S/cm	K=1.0
	0 to 1999 μ S/cm	1.0 μ S/cm	K=1.0
	0 to 19.99 mS/cm	0.01 mS/cm	K=1.0
	0 to 199.9 mS/cm	0.1 mS/cm	K=10
392SBC High Range	0 to 5.0 mS/cm	0.01 mS/cm	K=1.0
	0 to 15.0 mS/cm	0.01 mS/cm	K=1.0



Features

- Online conductivity measurements
- Multiple measurement ranges
- Isolated 4-20 mA output
- Automatic temperature compensation
- 1/8 DIN mounting
- Adjustable zero
- High 50/60 Hz noise rejection

Applications



Ideal for industrial and commercial water and wastewater sites.

Ordering & Options

Industrial Conductivity Transmitters

Order No.	Description	Price
392	Standard Range Transmitter (sensor not included)	
392SBC	High Range Transmitter (sensor not included)	

Industrial Conductivity Sensor

Order No.	Description	Price
392-123	392 Conductivity Sensor (0 to 300 mS, 5m cable, 1" NPT mounting)	
392-CC	392SBC Industrial Conductivity Sensor	Call Us

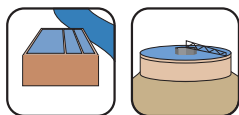
Please call us for calibration standards and enclosure options.



Features

- Simultaneous DO and temperature measurement and analysis
- Reversible and isolated 4 to 20mA output with adjustable bandwidth
- Membrane keypad with audio feedback
- Automatic temperature compensation
- 4-digit password security protection
- 1/4 DIN watertight, IP65 rated

Applications



Ideal for industrial and commercial water and wastewater sites.

Specifications

DO	Salinity Compensation: Manual 0.0 to 40.0 ppt Pressure Compensation: Manual 640 to 1100 mbar Temperature Compensation: Auto. -10.0 to 50.0 °C
Temperature	Thermistor, 10.00 k ohm at 25°C
4-20 mA Analog Output	Current Output Range: 4 to 20 mA (isolated), programmable span Current Output Scale: User programmable, linear or log Maximum Load: 500 ohm Accuracy: ± 0.02 mA Isolation Voltage: 500 VDC
Power Supply	115 VAC or 230 VAC at 50/60 HZ

Relays	Control Type: 5 ON/OFF controls Relay Output: 5 A at 115 VAC or 2.5 A at 220 VAC, resistive load only
Security	4-digit password
Audio Feedback	All touch keys
Communication	RS-485
Fuse	0.315 A/250 VAC at 50/60 Hz
Display	128 x 64 graphical LCD with backlight
Ambient Temp. Range	0 to 50 °C
Case	IP65, 1/4 DIN case, 148 mm depth
Weight	2lbs (950 g)

Parameter	Range	Resolution	Accuracy
DO (ppm)	0.00 to 40.00 ppm	0.01 ppm	± 0.2 % of span
DO (air saturated)	0.0 to 500.0%	0.1%	± 0.2 % of span
Temperature	- 10.0 to 120.0°C	0.1 °C	± 0.1 °C

6308DT Industrial DO Transmitter

Dissolved Oxygen and Temperature Transmitter and Controller

Description

The 6308DT Industrial Dissolved Oxygen Transmitter is a rugged microprocessor-based instrument assembled in a watertight, IP65, 1/4 DIN panel mount case. The DO transmitter is designed to provide accurate and stable readings for both laboratory and process control applications.

Capable Display and Functions

The unit simultaneously displays DO, temperature, relay status, and current output on a large backlit LCD graphic screen. The unit includes a variety of useful functions, including: 5 programmable relays, an isolated and reversible 4-20 mA analog output, and programmable offsets and spans. The transmitter's microprocessor also performs a self-diagnostic routine every time you turn on the unit, providing you with basic information about the unit's stability.

Easy Setup and Calibration

You can easily perform setup and calibration functions using the transmitter's user-friendly guided menu. The unit has a membrane keypad with tactile and audio feedback to improve durability and usability. The transmitter also provides password-protection to ensure that only the

right people have access to settings. The unit's microprocessor allows you to easily recalibrate the DO probe's parameters, and the transmitter only requires a single calibration, regardless of which dissolved oxygen units you use. The transmitter provides a one-point calibration in air, and the calibration data is then stored in the unit's memory for use on power up.

Accurate Measurements

The unit's sensor connections are standard terminal blocks for tinned leads. The unit uses a "polygraphic clark" membrane for its DO measurements and a precise thermistor for temperature, providing you with accurate readings. DO sensors and membrane kits are sold separately. You can select a DO sensor with a stainless steel body (LD-900-6-DO) or one with an epoxy body (ID-900-5-DO).

Datalogging and Control Capabilities

The transmitter includes a RS-485 interface, which will let you log all data with an IBM® PC/AT compatible computer. Multiple DO transmitters can be connected together so that you can gather data quickly and efficiently. The 6308DT is compatible with Global Water's GL500 Global Logger for data recording (page 118) and PC300 for controlling external devices (page 132).

Ordering & Options

Order No.	Power Requirements	Price
6308DT	DO Transmitter (sensor not included)	
LD-900-6-DO	Sensor with Stainless Steel Body (3/4 NPT mount on front, 10' cable, membrane sold separately)	
ID-900-5-DO	Sensor with Epoxy Body (3/4 NPT mount on front and back, 10' cable, membrane sold separately)	
LD-900-3-DO	Membrane Kit	

Please call us for calibration standards and enclosure options.

3671 ORP Controller

Controller for Monitoring and Controlling ORP

Description

Global Water's 3671 ORP Controller is a high performance instrument for measuring and controlling ORP. The 3671KB is a complete ORP Controller Kit, including a controller, pH/reference electrode, and a Pt-100 ATC probe. We also offer the stand-alone controller (Order No. 3671), with the reference electrode and ATC probe sold separately.

Capable Features

The 3671 ORP Controller features dual SPDT Hi/Lo relays, manual set points, and calibration potentiometers set into the front of the panel. In addition, the 3671 includes an internal ORP select switch, automatic temperature compensation from 0 to 100°C, and set points that cover the entire ORP sensor span.

Solid Design

The controller uses an all solid design to achieve low power consumption and re-

duced internal heating. The unit is heat cycled 100 hours before shipment.

Accurate Output and Display

The ORP controller features a voltage output for use with a data recorder such as Global Water's GL500 Global Logger. The controller also has a large, 0.56" display that uses a high efficiency bright red LED for easy reading.

Easy Installation

The 3671 is housed in a 1/8 DIN panel mount controller box that fits into standard panel cutouts. The controller requires a Pt-100 ATC probe or a simulation resistor for temperature compensation. The 3671KB Kit includes the ATC sensor and a pH/Ref electrode. Other sensors are sold separately (see Ordering & Options below). The sensor can easily be connected to the controller's BNC input and spade lug screw type connector block.

Specifications

Controller Range	pH: 0 to 14.0 Temp: 0 to 100 °C mV: -1990 to +1990
Controller Resolution	pH: 0.1 Temp: 1 °C mV: 10
Controller Accuracy	pH (± digit): 0.1 (relative) when standardized within 2 pH Temp (± digit): 1 mV (± digit): +0.1 %
Input Impedance	>1012 ohms
Temperature Compensation	Auto 0.0 to 100.0°C
Recorder Output (Full Range)	pH: 1400 mV Temp: 1000 mV mV: + 1990mV
Dual Point ON/OFF Control	pH or ORP with internal select switch
Dead Band	± 0.1 pH for each set point
Relay Output	8 Amp at 115 VAC, 4 Amp at 230 VAC
Readout	0.56" high efficiency red LED display
Power Source	115 VAC, 230 VAC + 15% 50/60 Hz

Dimensions	3.75 x 2 x 6.75" (96 x 48 x 172mm)
Weight	1.5 lbs (0.69 kg)

Ordering & Options

ORP Controller and Kit

Order No.	Description	Price
3671KB ¹	ORP Controller Kit	
3671 ²	ORP Controller	

- 1) Kit includes ORP controller, pH/Ref Electrode, and ATC probe.
- 2) pH/reference electrode and ATC probe sold separately.

Accessories

Order No.	Description	Price
600E-ORP	ORP Electrode (epoxy with BNC connector)	
600P	pH/Ref Electrode (epoxy with BNC connector)	
3671A	ATC Phono Plug	
WQ620-020 Series	ORP Electrodes, 20ft cable	

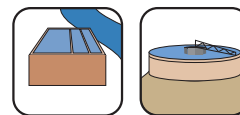
Please call us for calibration standards and enclosure options.



Features

- High performance ORP control
- Automatic temperature compensation 0-100° C
- Set points on front panel
- Large bright red LED screen
- Easy to install

Applications



Ideal for controlling ORP in process water and wastewater applications.

“Water is sometimes sharp and sometimes strong, sometimes acid and sometimes bitter, sometimes sweet and sometimes thick or thin, sometimes it is seen bringing hurt or pestilence, sometime health-giving, sometimes poisonous.”

– Leonardo da Vinci



TB500 Series Online Turbidimeters

Online Meters for Continuously Measuring Turbidity

Features

- Meets USEPA method 180.1 and ISO 7027
- Range of 0 - 1000 NTU
- Simple, one-piece design
- Ultrasonic auto cleaning system, EPA accepted
- Easy to clean and calibrate
- Convenient reusable primary calibration standards

Specifications

Range	0 to 1000 NTU
Measurement Principle	Nephelometry (90 degrees)
Accuracy	2% of reading or ± 0.02 below 40 NTU, 5% of reading above 40 NTU
Resolution	0.0001 selectable
Response Time	Adjustable (5 to 500 seconds) (0 to 1000 NTU)
Input Pressure	1 to 200 psi (built in regulator set at 15 psi)
Standard Outputs	4-20 mA galvanic isolated or RS-485
RS-485 Protocols	Modbus
Light Source	White Light: 7 year life Infrared Light (850nm LED): 10 year life
User Alarms	2 high/low alarms
Alarm Contacts	Form C 250 VAC 2A
Display	Multiline Custom Backlight LCD
Built-In Diagnostics	Yes
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Operating Temperature	32° to 122°F (0° to 50°C)
Wetted Surfaces	Nylon, Borosilicate Glass, Silicon, Polypropylene, Stainless Steel
Enclosure	Designed to meet NEMA 4X, IP66
Outdoor Installation	32°F to 122°F (0°C to 50°C)
Certifications	USEPA, ISO 7027, CE Approved, ETL Listed to UL 3111-1 and ETL Certified to CSA 22.2 No. 1010-1-92
Shipping Weight	5.5 lbs (2.5 kg)
Dimensions	14 x 12 x 12" (35 x 30 x 30 cm)

Description

The TB500 Series Online Turbidimeters are specifically designed for the continuous measurement of turbidity in filtered water, raw water, final wastewater effluent, and many industrial applications. Two models are available: the TB502, which provides reliable and economical turbidity monitoring with a range of 0 to 1,000 NTUs; and the TB504 model, which feature an EPA accepted ultrasonic cleaning system that keeps the optical chamber clean in raw and finished water applications. The TB504 has a versatile range of 0 to 1,000 NTUs.

Choice of Light Sources

We offer the TB500 turbidimeters in two different light source versions to meet the needs of different measuring standards. The White Light (WL) versions are recommended for use in reporting results under US EPA (US standard) jurisdiction. These versions use an advanced krypton-filled white light technology that has a lamp life expectancy up to 7 years. The Infrared (IR) versions feature a long life infrared light source, which is recommended for use in reporting results under ISO 7027 (European standard) jurisdiction. Infrared light is also recommended for monitoring final wastewater effluent and

industrial solutions where color is present in the sample stream.

Easy Calibration

You can calibrate the TB500 series meters with primary standards using sealed glass cuvettes, in a method similar to laboratory procedures. This dry method of calibration is fast and clean, and the sealed primary standards are reusable. An on-screen menu guides you through the calibration procedure quickly and easily: simply place the cuvette into the measuring chamber and verify the reading— just like a laboratory meter.

Advanced Design

The TB500's advanced optical design provides consistent readings. The optical chamber has been designed to eliminate air in the sample while simultaneously creating a vortex cleaning action throughout the chamber. The low-volume sample chamber (30 ml) reduces calibration costs and provides quick response times.

A compact, one-piece, NEMA 4X enclosure is suitable for outdoor installation (within temperature limitations) and allows for simple mounting. The TB500's intuitive

Ordering & Options

Turbidimeters

Order No.	Range (NTU)	Light	Method	Autoclean	Price
TB502-WL	0 to 1,000	White	USEPA	No	
TB502-IR	0 to 1,000	Infrared	ISO 7027	No	
TB504-WL	0 to 1,000	White	USEPA	Yes	
TB504-IR	0 to 1,000	Infrared	ISO 7027	Yes	

Calibration Kits

Order No.	Description	Price
TB500-CAL	Primary Calibration Kit for TB502 & 504	

Replacement Parts

Order No.	Description	Price
TB502-CUV	Flow Thru Cuvette for TB502	
TB500-UCUV	Flow Thru Cuvette for TB504	
TB500-DR	Desiccant Refill, all models	
CS100	4-20 mA Current Signal Splitter, see page 128	

TB500 Series Online Turbidimeters

user interface features security code settings to prevent unauthorized tampering. A built-in diagnostic menu assists in troubleshooting.

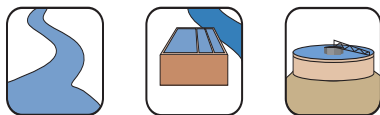
Versatile Outputs

The TB500 includes an isolated 4-20 mA current output that may be used for chart or data recording, remote monitoring, PLCs, or SCADA systems. Two user-settable alarm relays may be connected to an autodialer or local alarm to notify you before dangerously high turbidity levels occur. Also included is an RS-485 digital output that may be interfaced with a Modbus system to link multiple units or to integrate the TB500 into your existing network.

What's in the Box

Each TB500 turbidimeter is shipped fully calibrated and includes desiccant, an inline pressure regulator, a universal 100-250 volt power supply, and an operator's manual. The TB502 models also include a spare measuring cuvette with a light shield.

Applications



Ideal for continuous measurement of turbidity in filtered water, raw water, final wastewater effluent, and industrial applications.

You may also like . . .

GL500 Datalogger

Add recording capabilities to the TB500.

Page 118

AD200 Voice Alarm Autodialer

Receive turbidity alarm notifications.

Page 138

CL500 Chlorine Analyzer

Online Meter for Free or Total Chlorine Measurements



Description

The CL500 Free/Total Chlorine Analyzer is an accurate and reliable instrument for continuous online free or total chlorine residual measurement. The CL500 uses the reliable and economical, colorimetric DPD (N,N-diethyl-p-phenylenediamine) chemistry, proven to be the most accurate method for measuring free or total residual chlorine. With no troublesome mixing or pump components to wear out, the CL500 provides reliable operations with minimal maintenance.

The CL500's user selectable sample settings conserves reagents by allowing you to set the cycle time from 90 seconds up to 10 minutes. The low volume reagent and sample chamber saves on reagent costs and decreases water consumption. A removable sample cuvette allows for simple cleaning and maintenance, and the viewable sample chamber provides a clear view of the sample cuvette while the instrument is sampling.

The CL500 provides a programmable 4-20 mA output signal that may be used with one of our chart recorders for reporting purposes or to control a chemical feed system. There are also two user-selectable

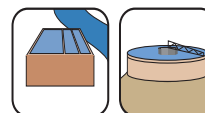
Features

- Proven colorimetric DPD chemistry
- Reliable, low maintenance design
- Range of 0 to 10 ppm
- EPA accepted method

Hi/Low limit relays that can trigger one of our AD200 autodialers (page 138) or a local alarm system. The unit's compact and corrosion-resistant NEMA 4X (IP66) enclosure allows for a simple installation.

The CL500 comes with an inline pressure regulator, replacement tubing/cuvette kit (one year supply), a power supply, and an owners manual. Please note that reagents must be purchased separately.

Applications



Ideal for monitoring and controlling the residual in water and wastewater treatment plants.

Specifications

Range	0 to 10 mg/l
Cycle Time	User selectable, 90 seconds to 10 minutes
Resolution	0.01 mg/l
Accuracy	± 5% or 0.03 mg/l of Cl ₂ , whichever is greater
Method	USEPA accepted DPD method of analysis
Standard outputs	4-20 mA and RS-485 with Modbus
User Alarms	2 user selectable alarms (form C 240VAC 2A)
Operating Temperature	5° to 40°C (41° to 104°F)
Input Pressure	1 to 200psi
Display	Backlit LCD
Enclosure	ABS Plastic, NEMA 4X, IP66
Power	100 to 240 Volt auto switchable 47 to 63hz
Certifications	CE, UL, CSA, (ETL, ETLc)
Shipping Weight	8 lbs (3.6 kg)
Shipping Dimensions	16 x 16 x 10" (41 x 41 x 26cm)

Ordering & Options

Chlorine Analyzer

Order No.	Description	Price
CL500	Free/Total Chlorine Analyzer	

Reagents & Replacement Parts

Order No.	Description	Price
09947-G	Reagent Set for Free Chlorine (30 Day)	
09948-G	Reagent Set for Total Chlorine (30 Day)	
09935-G	Reagent Set for Free Chlorine (60 Day)	
09936-G	Reagent Set for Total Chlorine (60 Day)	
09939-G	Replacement Tubing/Cell Kit	
CL500-ZCK-120	Zero Calibration Kit, 120 V	
CL500-ZCK-240	Zero Calibration Kit, 240 V	