

ONE CONTROLLER
ONE FAMILY OF SENSORS

- ▲ *Simple*
- ▲ *Powerful*
- ▲ *Affordable*

50 Series
Plug & Play
Instruments

The 50-Series Universal Controller

One Controller for a Family of Plug & Play Sensors

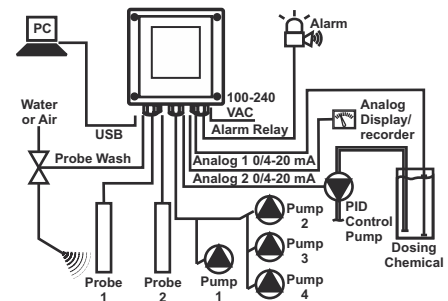
The Chemitec Series 50 controller combines Plug & Play ease of use with support for multiple parameters. The controller simultaneously supports two separate measurement parameters from two separate sensors. Parameters supported include pH/ORP, turbidity, suspended solids and optical dissolved oxygen. Each parameter is supportable alone or in combination.

Benefits

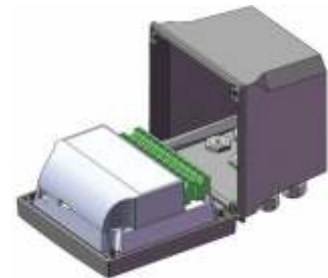
- ▲ Eliminates the need for multiple dedicated controllers
- ▲ Supports 1 or 2 sensors, reducing equipment costs
- ▲ Supports addition of a second sensor at a later time
- ▲ Plug & Play operation with all Chemitec digital sensors

Features

- ▲ Up to two simultaneous digital measurements for turbidity, solids, pH/ORP, differential pH/ORP or optical D.O.
- ▲ Measures Temperature using the PT100/PT1000 probe
- ▲ Quick-Access Function Keys:
 - CAL Function Key accesses the calibration menu
 - GRAPH Function Key for direct access to graphs
 - USB Function Key for data download to USB
 - MODE Function Key for self-recognition of probes
- ▲ Backlit 128x128 LCD Graphic display
- ▲ Datalogger graphically displays tables and trends
- ▲ PID adjustment
- ▲ Serial output RS485 MOD BUS RTU
 - Real-time data communication
 - Data software downloadable to PC or to USB
- ▲ Graphical User Interface
 - Two simultaneous values, numeric, plus bar-graph and temperature. Scrolling analog outputs. Display of digital output state, data storage, washing cycle, alarms



Fully-configured Series 50 Controller



Easily Accessible Terminal Box



Simple Data Download to USB



Modbus Realtime Data Display

50 Series plug & play Sensors

Chemitec
world class water monitoring series 50

The 50-Series Family Offers Ease of Use

Use one or two sensors, alone or together in any combination

**Low
Maintenance
Optical D.O.**

Optical Dissolved Oxygen



**Optical DO Probe
Model S423 C OPT**

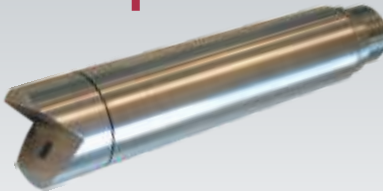


**Optical DO Probe
Model S423 C OPT PVC**

Chemitec's Model S423 Dissolved Oxygen & Temperature probe uses optical luminescence to provide accurate Dissolved Oxygen measurement in a durable, low-maintenance design. Available in either 316 stainless steel or PVC. Features selectable measuring ranges and sixty-second response time.

**Accurate
and Durable
Suspended Solids
and Turbidity
Sensors**

Suspended Solids & Turbidity



**Suspended Solids sensor
Model S461-S**

Tailored to the needs of wastewater treatment, Chemitec's suspended solids sensors are optimized to 0...30 g/L (normal sludge). Constructed with durable stainless and epoxy windows. Accurate to ± 2 percent of full scale.

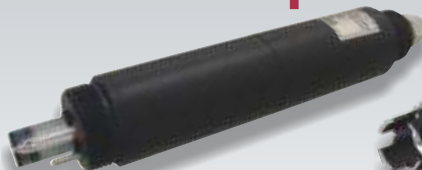


**Turbidity sensor
Model S461-T**

This immersion-style turbidity sensor utilizes 90° scattered light in accordance with ISO 7027 / EN 27027 880nm pulsed light method. Multiple measuring ranges: 0-4, 0-40, 0-400, 0-4000 NTU. Accurate to ± 2 percent of full scale.

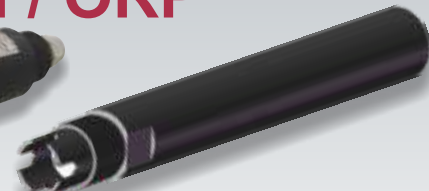
**Your Choice of
Differential or
Conventional
pH/ORP
Measurement**

pH / ORP



**pH-ORP Differential Electrode
Model S401-S406 Diff**

Differential pH/ORP offers accuracy, reliability and long sensor life. Built-in temperature compensation and replaceable salt bridge. RS485 interface. Measuring range 0.00 to 14.00 pH. Response time: 5 sec. for 90% of value.



**pH-ORP Digital Electrode
Model S401-S406 Dig**

Conventional pH/ORP provides accurate, reliable measurement in aggressive applications where frequent replacement may be necessary. Measuring range 0.00 to 14.00 pH. Response time: 5 sec. for 90% of value.

SOFTWARE FEATURES AND FUNCTIONS

Data storage	Internal Flash 4Mbit Memory (~16,000 records) Records interval: 01:00 to 99:99 min Type: Circular (F.I.F.O.) or Filling Displays stored data in tabular and graphic form, with indication of max, min and average values of the selected period. Zoom function
PID Control	Functions: P – PI – PID. Controls analog or digital output. Proportional range: 0 to 500% Integral and Derivative Time: 0:00 to 5:00 min
Three Analog Outputs	Output 1 & 2 programmable for first & second measurement or PID control Output 3 programmable for the first or the second measurement or temperature or measurement average (for same parameter) Output limits user programmable between measuring ranges.
Two Digital Outputs for each measurement	Set Point ON – OFF : working range setting (Hysteresis / direction) and pause/working time setting: 000 to 999 Seconds PID Control (Set point 1): Pulse Frequency or Duty Cycle
Alarm digital output	Reporting: Instrument failure, min/max, set point delay, hold time (live check). Delay time: 00:00 to 59:99 mm:ss at minimum steps of 15 sec Hold time: 00:00 to 99:99 hh:mm Set Point disabling (in case of alarm): Enable / Disable
Digital output for electrode washing or temperature set point	Programmable delay time Frequency: 00:00 to 24:00 hh:mm minimum delay time: 15 min During the washing phase, all digital and analog outputs are frozen
Digital input	Disable dosing or activate wash cycle
RS485 Serial output	Set-up and real-time data acquisition from remote or stored data using dedicated SW. MODBUS RTU communication protocol

HARDWARE FEATURES

Display	LCD graphic backlit Display STN 128x128, Visible Area: 70x70mm
Keypad	5 button membrane
Analog Outputs	0 / 4.00 to 20.00 mA Galvanic separation: 1KV Optoisolator Maximum load 500 Ohm Second Alarm output: NAMUR 2.4 mA (with 4/20mA Range)
Digital Outputs	Switching Relays (normally open contact) Max resistive load 3A at 230VAC
Digital Input	Two 3-wire - linkable to inductive sensor
Serial Output	RS485: 1200 to 38400 Baud programmable, MOD BUS RTU Protocol
Operating conditions	Operating temperature 0 to 50°C, Storage and transport -25 to 65°C Humidity 10-95% (non-condensing)
Power Supply/ Electrical protections	90 to 260VAC/DC 50-60Hz – (Optional 24VAC/DC) – Transformer isolation 4KV – Power Consumption < 6W – Electrical Protection: EMI / RFI CEI-EN55011 – 05/99



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