



## FX-8500-C Compound Loop Controller

The Foxcroft FX-8500-C Compound-Loop Controller can provide unattended automation for chlorine residual application or virtually any other variable process. The FX-8500-C provides the vital link between chlorine analyzer, flowmeter, and chlorine control device in a "closed-loop" chlorine residual control environment.

It allows instantaneous chlorine feed changes based on flowrate changes, and overall, time-compensated changes based on residual feed back from the chlorine analyzer.

The time compensation reflects the process time interval between chlorine injection and downstream chlorine residual sampling by the residual analyzer. This minimizes overshoot of the desired set-point.

Manual tuning of data parameters is easily done via the built-in keypad and display. Under certain conditions, the

Autotune feature can perform self-tuning of data parameters.

Unit has programmable reverse or forward control mode (into output summator) for Chlorine or Sulfur Dioxide control systems. Optional setups can provide the same type of control for flow, level, temperature, and many other variables.

### PRODUCT FEATURES

- Provides accurate setpoint control of chlorine residuals or other variable process.
- Chlorine control applications include fresh water, wastewater, and food processing.
- Can provide setpoint control of virtually any other variable process such as: temperature or flow
- Accepts two 4-20mA inputs (typically process flowrate & chlorine residual level).
- 3 control modes: Flow, Residual, or Both
- 4-20mA output to control chlorine gas pacing valve, metering pump, or other control device.
- 2 line display shows process variable or setpoint and output.
- Easy to understand setup prompts and menus (5 different languages)
- Non-volatile memory maintains all preset data.
- Auto/Manual output control.



**FX-8500 Compound Loop Controller**

**SPECIFICATIONS**

**GENERAL**

<b>Configuration:</b>	Via keypad and easily under standable prompts with lockout feature. (English, Spanish, German, French, & Italian)
<b>Control Algorithm:</b>	PID-A/ Proportional Band
<b>Tuning:</b>	Manual or Automatic
<b>Engineering Units:</b>	Programmable (typically set to match chlorine analyzer range)
<b>Process Time Interval:</b>	(reset) can be set from 0.02 to 50 minutes (however, best system operation is usually achieved between 1 and 10 minutes of total process time, from injection of chlorine to sample)
<b>Setpoint:</b>	1 or 2, selectable and limitable within input range of chlorine analyzer
<b>Input Filtering:</b>	0 to 120 seconds plus fuzzy logic filtering mode
<b>Proportional Band:</b>	0.1 to 1000% (determines how "tight" and responsive the control is) Adjustable output control ratio of residual control vs. flow control (factory set for 50/50).
<b>Other Settings:</b>	Many other programmable settings and options too numerous to list, are available on request.
<b>Selector Switch:</b>	Flow Control Only, Residual Control Only, Flow and Residual Control Only

**ELECTRICAL**

<b>Flow Signal Input:</b>	4-20mADC, 220 Ohms Impedance
<b>Residual Signal Input:</b>	4-20mADC, 220 Ohms Impedance
<b>Control Output Signal:</b>	Powered 4-20mADC into 750 Ohms maximum
<b>Power Requirements:</b>	120/ 220 Volts AC, 50/60 Hz.

**MECHANICAL**

<b>Instrument Mounting:</b>	Wall Mount
<b>Electronics Enclosure:</b>	NEMA 4X
<b>Overall Dimensions:</b>	12" high x 9" wide x 7" deep (approx. plus mounting tabs)

**Distributed By:**



PO Box 39  
 2101 Creek Road  
 Glen Moore, PA 19343  
 (610) 942-2888  
 (800) 874-0590  
 fax: (610) 942-2769  
 www.foxcroft.com