multiFLEX cooling controllers

The multiFLEX water treatment controller provides the latest in water treatment control technology. The built-in Ethernet port and a micro web server make this controller easy to set up and customize. The on-board data logging combined with both SUEZ InSight* software and/or Trackster 3 make the multiFLEX a powerful tool for documenting results, tracking performance and troubleshooting system upsets.

description and use

The multiFLEX cooling controller is available in either a 7 analog input/5 relay output or a 14 analog input/10 relay output version making it a great option for simple and complex applications.

Available configurations range from simple single tower conductivity, inhibitor and biocide control up to dual tower systems including pH and ORP control.

The controller becomes even more powerful when multiple controllers are put on a LAN so each controller can be accessed independently via a site designated static IP address. There’s no need for loading software on the LAN as each controller has a built-in Web Browser interface that makes accessing the controller as easy as assigning an IP address, plugging in the network cable and opening a browser (such as Windows Internet Explorer). Additionally, the Trackster Graphical User Interface (GUI) program can be used to display a live image of the tower system and provides full point and click control of all parameters.

MultiFLEX controllers have the ability to control two cooling tower systems using a single controller.

summary of features

Base Model

- All multiFLEX model controllers are built with an analog modem making them compatible with the SUEZ InSight monitoring and diagnostics software
- Conductivity electrode with ¾ inch PVC flow-through mounting tee
- Thermal Flow Switch
- Alarm Dry Contact Relay
- Blowdown control on conductivity setpoint or cycles based setpoint using conductivity or flow ratios
- Built-In Ethernet port with Micro Web Server
- Timer relay(s) are user programmable over 1, 7 or 28-day intervals, with pre-bleed and lockout
• Chemical feed control via relay output
  o Proportional to Make-up or blowdown flow via paddlewheel or contacting head water meters
  o Bleed then feed or Bleed & Feed
  o Percentage Time Base Feed
• Programmable Data Logger that logs:
  o min/max/avg. on all process variables.
  o On/Off times on control outputs
  o Water meter volumes
  o Status Input (Flow Switch) On/Off times.
  o Provides 600 data points for all I/O channels at user-programmed frequency.
• Prewired control receptacles for pumps/valves
• UL/CSA/CE rating.

Optional Features
(Contact Trevose equipment team for assistance)
• SUEZ InSight remote monitoring and diagnostics software for performance tracking
• pH and/or ORP relays, setpoint configured w/ built-in control algorithms [electrodes included]
• Dual Tower System control
• Corrosion Rate Monitoring in mpy
• Liquid Level Sensor input
• 4-20mA input and/or outputs for control or monitoring
• Panel Mounted option provides a pre-wired, pre-plumbed, turn-key system

**typical application**

MultiFLEX controllers are ideal for simple to complex applications where data logging and/or remote communications and conductivity based blowdown control are combined with chemical feed control of the following treatment programs:
• Inhibitor/dispersant alone
• Inhibitor/dispersant, non-oxidizing biocide, and antifoam/bio-dispersant
• Inhibitor/dispersant, oxidizing biocide, and non-oxidizing biocide / antifoam / bio-dispersant
• Inhibitor/Dispersant, acid / caustic, and non-oxidizing biocide / antifoam / bio-dispersant
ordering information

Base Controller Models

Level 1  Single Tower  –Thermal flow switch, 5 water meter inputs*, 5 Relay output with pre-wired receptacles for blowdown & inhibitor (and additional as noted), Local Alarm, Ethernet networking

2086702  Conductivity, additional pre-wired receptacles for 2-timers**
2086703  Conductivity + pH, additional pre-wired receptacles for 2-timers**, and 1-pH control
2086704  Conductivity + ORP, additional pre-wired receptacles 2-timer**, and 1-ORP control
2086705  Conductivity + pH + ORP, additional pre-wired receptacles for 1-timer**, and 1 each ORP/pH control

Level 2  Single Tower -Thermal flow switch, 11 water meter inputs**, 10 Relay output with pre-wired receptacles for blowdown an inhibitor (and additional as noted), Local Alarm, Ethernet networking

2086706  Conductivity, additional pre-wired receptacles for 4-timers**
2086707  Conductivity + ORP, additional pre-wired receptacles for 4-timers**, and 1-ORP control
2086708  Conductivity + PH, additional pre-wired receptacles for 4-timers**, and 1-pH control
2086709  Conductivity + pH +ORP, additional pre-wired receptacles for 4-timers**, 1 each ORP/pH control

Level 3  Dual Towers  –Dual thermal flow switch, 11 water meter inputs*, 10 Relay output with tower specific pre-wired receptacles for blowdown an inhibitor (and additional as noted), Local Alarm, Ethernet networking

2086710  Conductivity, additional pre-wired receptacles for 2-timers** for each tower
2086711  Conductivity + pH, additional pre-wired receptacles for 2-timers** and 1-pH control for each tower
2086712  Conductivity + ORP, additional pre-wired receptacles for 2-timers** and 1-ORP control for each tower
2086713  Conductivity + pH + ORP, additional pre-wired receptacles for 1-timer** and 1 each ORP/pH control for each tower

* Water meter signal Hall Effect Turbine/Paddlewheel or Contact Head Water Meter
* Timer relays can be site configured to perform as any other relay output (i.e. blowdown, make-up controlled). Timers offer expanded capability to control antifoams, biodispersants, and additional biocides

Factory Installed Options (to be ordered with controller)

2088028  Torroidal Sensor Option (order with controller to replace default electrode)
2088029  Make-up Conductivity & Temperature w/ preprogrammed cycles control maximum 1 per tower.
2065751  Corrosion rate input with sensor and tips – Carbon Steel
2065750  Corrosion rate input, sensor and tips- Copper
2065752  Corrosion rate input, sensor and tips- Admiralty
2088031  Single Analog Input (4-20 mA) Option
2088032  Single Analog Output on Conductivity (4-20 mA) Option
2088033  Single Analog Output on pH (4-20mA) Option
2088034  Single Analog Output on ORP (4-20 mA) Option
2088065  Single Analog Output on Corrosion Rate (4-20 mA) Option
controller diagram

Level 1 Enclosures

Level 2 & 3 Enclosures

spare parts

Sensors/Electrodes

2088027  Thermal flow switch/sensor
2086744  Contacting conductivity sensor
2086714  Toroidal conductivity sensor
2086745  Glass pH electrode with cable (blue)
2042153  Flat Face pH electrode
2086748  Standard ORP electrode with cable (red)
2030476  Flat Face ORP electrode
2086756  Corrosion rate sensor, no tips included
2086751  Admiralty replacement corrosion tips with o-rings (pair)
2086752  Copper/Nickel replacement corrosion tips with o-rings (pair)
2086753  Carbon Steel replacement corrosion tips with o-rings (pair)
2086754  Copper replacement corrosion tips with o-rings (pair)
2086755  Stainless Steel replacement corrosion tips with o-rings (pair)
Circuit Boards
2086761  Single analog output [4-20 ma] driver board
2086762  Dual analog output [4-20ma] driver board
2086763  Single pH/ORP input board
2086764  Dual pH/ORP input board
2086765  Dual analog input [4-20 ma] board
2086766  Conductivity & temperature board
2086767  Dual corrosion rate driver board
2086768  5-relay output board
2086769  10-relay output board
2086770  Micro controller module
2086771  Fuse kit, 10-relay fuses, 5-logic fuses

field upgrade kits
2086719  Addition of single conductivity (sensor and board included)
2086720  Single corrosion rate sensor
2086721  Single analog input [4-20 mA]
2086722  Single analog output [4-20 mA]
2086723  Dual analog output [4-20 mA]
2086724  Single ORP control
2086725  Dual ORP control
2086726  Single pH control
2086727  Dual pH control