

## FC30 WEB – DDC Field Controller



The FCx WEB range of DDC field controllers offers unrivaled economic flexibility, scalability, power and openness in the building controls environment.

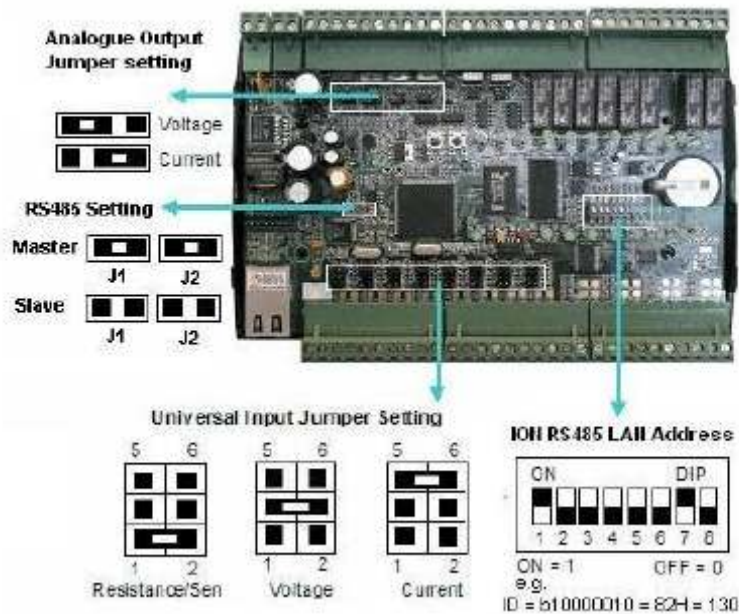
With 30 universal input/output points, Ethernet connectivity, WEB Server programming, configuration, monitoring and control with a standard browser, this gives the FCx WEB range true network openness. When used with the SuperVZR, BACnet and Modbus real time interfacing is very simple to third party BMS sub-systems such as Fire, Access and Lighting control systems providing state-of-the integrated BMS (iBMS).

The SuperVZR can also acts as the main server database and HMI to give peer to peer communication of Alarm, Trending, Control and Logging of all points on the DDC network system(s).

### FEATURES

- **Multiple Input/Output Type** – 8 Digital Inputs, 8 Analogue Input for current, voltage, resistance and temperature sensor, 8 Digital Outputs (relay), 4 Analogue Output (current and voltage), and two isolated Open Collector outputs (with PWM control) for high speed switching.
- **Web Browser Configuration** - Built-in Web server enables configuration with popular web browser over an Ethernet connection. I/O status can be monitored over the Internet connection.
- **Ethernet Local Area Network (LAN) Coms.** - can therefore utilise existing building network for retrofit upgrade.
- **Bridging Function** -RS485 sub-network LAN capability.
- **Robust System Operation** - built-in High accuracy Real Time clock with backup battery. Software and hardware watchdog timer are provided for high reliability operation.
- **Programmable/Standalone Functionality**- can be configured to operate as standalone device. Over 40 types of programmable functions are available, typically thermostat, PID, scheduler, conversion, timer, utilities, totaliser etc.
- **High-Speed Data Rates** - Multiple serial communications (RS485) speed selection from 9.6kbps to 115.2kbps. Supports Ethernet 10Base-T/100Base-T interface, half or full duplex.

## HARDWARE JUMPERS



## FUNCTION MODULES

### Input/Output

- 1) Digital Input
- 2) Digital Output
- 3) PWM Control (Open Collector Output)
- 4) Analogue Input
- 5) Analogue Output
- 6) Digital & Analogue Internal Register
- 7) Multi-state
- 8) Fan Control
- 9) Digital State Latch
- 10) Digital State Timer
- 11) Digital State Counter

### Loop/Process

- 12) Thermostat
- 13) Loop Control (PID)
- 14) Drive
- 15) Selection
- 16) Flow Detect
- 17) Momentary Start/Stop
- 18) Totaliser
- 19) Analogue Limit
- 20) Set Point Adjust
- 21) Digital Alarm
- 22) Analogue Alarm

### Conversion

- 23) Digital to Analogue
- 24) Analogue to Digital
- 25) Analogue to Percentage
- 26) Percentage to Analogue

### Schedule

- 27) Holiday
- 28) Scheduler
- 29) Optimum Start/Stop

### Timer/Sequencer

- 30) Sequencer
- 31) Timer Function

### Utilities

- 32) Logic
- 33) Counter
- 34) Mathematic
- 35) Digital Gate
- 36) Analogue Gate
- 37) Sample & Hold
- 38) Mixed Air Volume

### Others

- 39) Coil Output Register Binding
- 40) Holding Register Binding

## SPECIFICATION

### Electrical

Power Supply: 24VAC, 3.6VA max, or 20 ~ 34VDC  
Consumption: 150mA max @ 24VDC  
Operating Temperature: 32° to 150° F (0° to 65° C)  
Storage Temperature: -4° to 150° F (-20° to 65° C)  
Operating Humidity: 10% to 95% relative humidity non-condensing

### Communication

#### Physical Interface 1 (Port 1):

- EIA-485 (BUS A,B) Two-wire
- Half Duplex
- Baud Rate Speed: (9.6K, **19.2k**, 38.4K, 115.2K bit/s)
- Data Bit: (**8 bits**)
- Parity: (None, **Even**, Odd)
- Application Protocol: ION LAN
- Multi-drop Capability: Yes, Slave (hardware ID setting)

#### Physical Interface 2 (Port 2):

- Ethernet 10/100 Base-T
- Ethernet Support: IP,TCP,UDP,ICMP,IGMP,FTP,HTTP
- Application Support: ION LAN IP/Ethernet

### Mechanical:

- Dimension: 187mm x 110mm x 47mm
- Material: UL94 ABS
- Weight: 400g

### Input/Output Configuration

#### Universal Input:

- 8 Channels
- Voltage: 0 - 10V (+/-0.005V) , 0 - 5V (+/- 0.003V)
- Current: 4 - 20mA (+/-0.01mA) , 0 - 20mA (+/-0.01mA)
- Resistance: 0 - 30K (+/-10 Ohm), 0 - 10K (+/-5 Ohm), 0 - 1.5K (+/-1 Ohm)
- Thermistor: 10K, 10K Shunt, 1K Balco, 1K Platinum : All (+/-0.01°C)

#### Digital Input:

- 8 Channels
- Type: Voltage Free
- Limit: +5V at 500Ohm Resistance maximum

#### Digital Output:

- 8 Channels
- Type: Relay Contacts, SPST NO, 48VA at 24VAC, Pilot Duty

#### Transistor Output:

- 2 Channels
- Type: Open Collector Output, Isolation 3.75KV
- Max Rating: 1A, 60V

#### Analogue Output

- 4 Channels (12 bits resolution)
- Type: Current: 0 - 20mA, 4 - 20mA (up to 800 Ohm load), Voltage: 0 - 10V