





# 28 POINT WI-FI AND IP CONTROLLER.

Т 24VAC GNA 0 DO1 DO2 DO3 PWR 0 ERR 0 DO4 STS 0 DO5 TXRX 0 DO6 DO1 0 DO7 DO2 0 DO3 🌒 DO8 DO4 🌒 A01 COM DO5 0 AO2 DO6 🌒 COM AO3 D07 🌒 COM DO8 🌒 AO4 COM 

The EasyIO FW-28 extends the FW series with all the proven technology of the range and increases the product reach with a larger I/O capability. The award winning FW series deliver high performance BMS functionality, with flexibility in design and installation with the Wi-Fi and dual Ethernet port capability. Dependent on your requirement, the FW product range can be used within a high performance EasyIO total system solution and utilises our best performance and overall solution cost approach. Or simply implemented in isolation in an IoT based demand, with the onboard MQTT capability. The FW series opens up the design process for our Partners and permits a far more flexible approach to delivering the modern demands of our buildings. The FW product range is often seen as a Fan Coil Unit controller, but it is far more diverse and flexible than that. It should be considered within an overall system design as an integral part of your total solution.

The FW-28 can be programmed and live commissioned via free CPT Tools and an integrated HMTL5 dashboard. It has BACnet IP server/client, BACnet MSTP client (combination of BACnet MSTP client and BACnet IP client up to five devices total), newly introduced Modbus RTU support, to give us greater and increased functionality and two Ethernet ports for daisy chain connection wiring to the recommended standards. The FW series supports IT based standards and security protocols, and can be set up within a client's Wi-Fi network or set up as an isolated BMS Wi-Fi network as required. The FW-28 includes 12 UI (voltage and resistance), 4 AO (Voltage) and 8 DO with 24VAC Volt free contact relays. For floating control, the optional FR-02 module is available to add to the FW-28. The FW series products also feature Sox, TCom, P2P and BACnet communication protocols and MQTT.

RST () SVC ()







## **DETAILS:**

| Power Supply       | 24VAC +/- 5% or 24V DC +20%/-15% |
|--------------------|----------------------------------|
| Consumption        | 12VA                             |
| Current Rating     | 500mA at 24VAC/VDC               |
| Storage temp       | -20 to 85 oC (-4 to 185 oF)      |
| Operating temp     | 0 to 65 °C (32 to 150 °F)        |
| Operating humidity | 10% to 90% Relative humidity     |
|                    | non-condensing                   |
| Dimensions         | 230 x 104 x 44 mm (L x W x H)    |
| Material           | UL Approved                      |
| Weight             | 500g                             |
|                    |                                  |

## **CHARACTERISTICS:**

| Main Processor        | Qualcomm 560Mhz                        |
|-----------------------|--|
| Processor             | ARM Cortex 48 Mhz                      |
| Flash Memory          | 32MB                                   |
| RAM                   | 128MB                                  |
| Ethernet              | 2 x Ethernet Port                      |
| WLAN                  | Wi-Fi b/g/n                            |
| RS 485 Ports          | 1 x RS485                              |
| Real Time Clock (RTC) | Real Time Clock with min 5 days backup |
|                       | by superCAP                            |



## **INPUTS & OUTPUTS:**

| 16xUI, 12-Bit ADC with PGA                  |
|---|
| 4 modes:                                    |
| Resistance mode: 500 to 500K Ohm            |
| Voltage mode: 0-10V ( +/- 0.05V )           |
| Pulse count mode (max): 20 Pulse per sec at |
| 50% duty cycle (20Hz)                       |
| Digital: Voltage Free Contact               |
| 8 x DO (with LED Indicator)                 |
| Type: Relay Contacts, SPST NO, 48VA at 24V  |
| 4xAO, 12-Bit DAC                            |
| Voltage Mode : 0-10V DC,                    |
| Minimum Load Impedance 2,000 Ohm            |
|   |

### **COMMUNICATION:**

| Modbus Baud Rate | Speed: (9.6K, 19.2k, 38.4K, 57.6K),         |
|------------------|---|
|                  | Data Bits: 8, Parity: Odd, Even, None       |
| BACnet Baud Rate | Speed: (9.6K, 19.2k, 38.4K),                |
| Ethernet         | 10Base-T/ 100Base-T interface, half or full |
|                  | duplex                                      |
| WLAN             | Wi-Fi 802.11 b/g/n                          |



There are two optional Wi-Fi antenna's for the EasyIO FW-series. They can extend the Wi-Fi signal of an FW controller, if it's, for example, mounted inside a panel.

- EIO-FW-ANT-1 Single 3dBi antenna with cable and magnetic base
- EIO-FW-ANT-2 Double 3dBi antenna with cable and magnetic base





- Support Modbus , Bacnet , tcom and sox protocol
- Modbus RTU Master (5 devices)
- BACnet Client IP / MSTP (5 devices)
- BACnet IP server
- SQLite up to 6000 records
- Email
- Dashboard (Freeboard)
- Support Network Time Protocol (NTP) client
- Built in web server with SSL certificate support. HTML5 compatible.



EASYIO-FW-28





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