

# FG-20

#### DDC Energy Controller, Internet and Cloud Ready

- ARM 9 S3C2410 200MHz Main Processor
- M3 Cortex Processor for the I/O
- 16 Mbyte NOR Flash
- 64 Mbyte SDRAM
- SD Card Reader for Histories and Graphics
- ✤ 1 x 10/100 Ethernet Port
- 1 x Mini USB
- 2 x RS485
- RTC

- SuperCap Apps Safety Backup
- 24V AC/DC Power
- Hardware Security ID
- ✤ 12 x UI
- 2 x DO/LED for Status
- 6 x UO (200mA sink for Switching Relays)
- Remote Flash Upgrades
- HTML5 Web Server on Board!



The new FG series of Open Automation Controllers from EasylO are the new range of Internet ready Field Controllers. They comprise of combined Area Controller capabilities and features, as well built in I/O, and huge data logging capacity, all packaged as the future solution for the Internet of things, in Energy and Building Facility Control. The Controller also supports multi concurrent protocols and services such as BACnet, Modbus, TCOM, Web Services, and both Server and Client services.

This new range complies with the 'Internet of Things' by interfacing directly to Cloud Services, without an additional Gateway, or Server. To power the application, The FG has a dual ARM processor engine, and also a built-in Web Server.

The FG series change the way that we will deploy Building Automation, especially in multiple Facilities and locations, whereby, a starter package can be deployed quickly, and cost effectively, without any additional hardware or middleware. We see this range of FG Controllers allowing us and the industry to extend their reach deeper and wider into all kinds of Energy Performance Solutions. Ranging from Retail Stores, Schools, and Residential, Smart Grid and so on.

Another exciting feature, is the openness, and its web friendly tools to enable 3rd Party Tools to be deployed in addition to the Workbench that we are all familiar with today. This platform will meet the needs of simple controls requirements and complex HVAC plants, such as Chiller Sequencing and Roof Top Control. Truly a welcome change!

Graphics will also be served from the FG Engine, nicely embedded in the Linux OS. To compliment this there will be third party Graphics Tools that will be used to design and implement Graphic Screens, the content being stored in the built-in micro SD Card slot (up to 16GB).

#### Features

- Power! TWO ARM processors
- Memory/Storage SD Card and massive history storage
- Supports BACnet, TCOM, Modbus and Web Services
- Fills a Gap in the market, between an Area Controller and the EasyIO 30P controller
- Html5 Graphics! IPAD friendly



### **Specifications**

- ARM 9 S3C2410 200MHz Main Processor
- M3 Cortex Processor for the I/O
- 16 Mbyte NOR Flash
- 64 Mbyte SDRAM
- SD Card Reader
- 1 x 10/100 Ethernet Port

- 1 x Mini USB
- ✤ 2 x RS485
- RTC
- SuperCap Apps Backup
- 24V AC/DC Power
- Hardware Security ID

#### **Device Info**

Model	EasyIO-FG-20	
Description	EasyIO-FG20 Sedona series: 20 I/O Controller	
Name	FG20 DDC	

#### **Device Specifications**

Mechanical	Dimensions	9.2 in x 4.9 in x 1.7 in (233 mm x 124 mm x 44 mm)
	Material	UL Approved Plastic
	Weight	700g
Electrical	Power Supply	24V AC +/- 5% or 24V DC +20%/-15%
	Consumption	TBC
	Current Rating	1A at 24VAC/VDC
	Operating Temp	32 to 150 Deg-F (0 to 65 Deg-C)
	Storage Temp	-4 to 150 Deg-F (-20 to 65 Deg-C)
	Operating Humidity	10% to 95% relative humidity non-condensing
Inputs & Outputs		e mode, output range: 0-10V; Current mode, output range: 0-20mA; um sinking current: 200mA
	Voltage mode, input	mode, voltage free contact input, Resistance mode, input range: 500-500Kohm; range: 0-10V; Current mode, input range: 0-20mA; aximum pulse frequency: 20Hz
	DO: Relay output wit	th contact rating 1A 30VDC

#### Communication

Physical Interface 1 & 2 (Port 1 & 2)	EIA-485 (BUS A, B) Two-wire, Half Duplex
Modbus Baud Rate	Speed: (9.6K, 19.2k, 38.4K, 57.6K, 115.2K bit/s), Data Bit: (8 bits), Parity: (None, Even, Odd)
Bacnet Baud Rate	Speed: (9.6K, 19.2k, 38.4K, 76.8K), Data Bit: (8 bits), Parity: (None)
Ethernet Support	IP, TCP, UDP, ICMP, HTTP, FTP
Application Support	Sox and TCOM driver

## EasyIO Holdings Pte Ltd www.EasyIO.com



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