

FG-32

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
- ✤ 16 x UI
- 8 x DO/LED for Status
- 8 x UO (200mA sink for Switching Relays)
- Remote Flash Upgrades
- HTML5 Web Server on Board!



The new FG series of Open Automation Controllers from EasyIO 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-32
Description	EasyIO-FG32 Sedona series: 32 I/O Controller
Name	FG32 DDC

Device Specifications

MechanicalDimensions9.2 in x 4.9 in x 1.7 in (233 mm x 124 mm x 44 mm)MaterialUL Approved PlasticWeight700gElectricalPower Supply24V AC +/- 5% or 24V DC +20%/-15%ConsumptionTBCCurrent Rating1 A at 24VAC/VDCOperating Temp32 to 150 Deg-F (0 to 65 Deg-C)Storage Temp-4 to 150 Deg-F (-20 to 65 Deg-C)Operating Humidity10% to 95% relative humidity non-condensing HumidityInputs & OutputsUC: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximus sinking current: 200mAUI: 5 modes: Digital mode, input mode, input range: 0-20mA; Voltage mode, input mage: 0-10V; Current mode, input range: 500-500Kohm; Voltage mode, input mage: 0-10V; Current mode, input range: 0-20mA;	-		
Weight700gElectricalPower Supply24V AC +/- 5% or 24V DC +20%/-15%ConsumptionTBCCurrent Rating1A at 24VAC/VDCOperating Temp32 to 150 Deg-F (0 to 65 Deg-C)Storage Temp-4 to 150 Deg-F (-20 to 65 Deg-C)Operating Humidity10% to 95% relative humidity non-condensing Humidity non-condensingInputs & OutputsU0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maxim sinking current: 200mAUI: 5 modes: Digital wode, voltage free contact input, Resistance mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;	Mechanical	Dimensions	9.2 in x 4.9 in x 1.7 in (233 mm x 124 mm x 44 mm)
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 Mumidity 10% to 95% relative humidity non-condensing Inputs & Outputs U0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; U1: 5 modes: Digital mode, maximus sinking current: 200mA U1: 5 modes: Digital mode, input range: 0-10V; Current mode, input range: 500-500Kohm;		Material	UL Approved Plastic
ConsumptionTBCCurrent Rating1A at 24VAC/VDCOperating Temp32 to 150 Deg-F (0 to 65 Deg-C)Storage Temp-4 to 150 Deg-F (-20 to 65 Deg-C)Operating Humidity10% to 95% relative humidity non-condensing HumidityInputs & OutputsU0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximum sinking current: 200mAU1: 5 modes: Digital mode, input range: 0-10V; Current mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;		Weight	700g
Current Rating1A at 24VAC/VDCOperating Temp32 to 150 Deg-F (0 to 65 Deg-C)Storage Temp-4 to 150 Deg-F (-20 to 65 Deg-C)Operating Humidity10% to 95% relative humidity non-condensing HumidityInputs & OutputsU0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximum sinking current: 200mAUI: 5 modes: Digital mode, input range: 0-10V; Current mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;	Electrical	Power Supply	24V AC +/- 5% or 24V DC +20%/-15%
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 Humidity Inputs & Outputs U0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximum sinking current: 200mA UI: 5 modes: Digital mode, voltage free contact input, Resistance mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;		Consumption	TBC
Storage Temp -4 to 150 Deg-F (-20 to 65 Deg-C) Operating Humidity 10% to 95% relative humidity non-condensing Inputs & Outputs U0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximum sinking current: 200mA UI: 5 modes: Digital mode, voltage free contact input, Resistance mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;		Current Rating	1A at 24VAC/VDC
Operating Humidity10% to 95% relative humidity non-condensing HumidityInputs & OutputsUO: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximum sinking current: 200mAUI: 5 modes: Digital mode, voltage free contact input, Resistance mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;		Operating Temp	32 to 150 Deg-F (0 to 65 Deg-C)
Humidity Humidity Inputs & Outputs U0: 3 modes. Voltage mode, output range: 0-10V; Current mode, output range: 0-20mA; Digital mode, maximum sinking current: 200mA UI: 5 modes: Digital mode, voltage free contact input, Resistance mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;		Storage Temp	-4 to 150 Deg-F (-20 to 65 Deg-C)
Digital mode, maximum sinking current: 200mA UI: 5 modes: Digital mode, voltage free contact input, Resistance mode, input range: 500-500Kohm; Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;		1 0	10% to 95% relative humidity non-condensing
Voltage mode, input range: 0-10V; Current mode, input range: 0-20mA;	Inputs & Outputs		
Pulse count mode, maximum pulse frequency: 20Hz		Voltage mode, input	range: 0-10V; Current mode, input range: 0-20mA;
DO: Relay output with contact rating 1A 30VDC		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



All specifications subject to change without notice or liability to provide changes to prior purchasers. Information and specifications published here are current as of the date of publication of this document. EasylO Holdings, reserves the right to change or modify specifications without prior notice. The latest product specifications can be found by contacting our corporate headquarters, Singapore. Products or features contained herein may be covered by one or more U.S. or foreign patents. All brands and product names are trademarks or registered trademarks of their respective owners. Copyright © 2013 all rights reserved, EasylO Holdings.