# EASYIO FS-20 CONTROLLER

EasyIO

20 POINT SERVER CLASS IP CONTROLLER
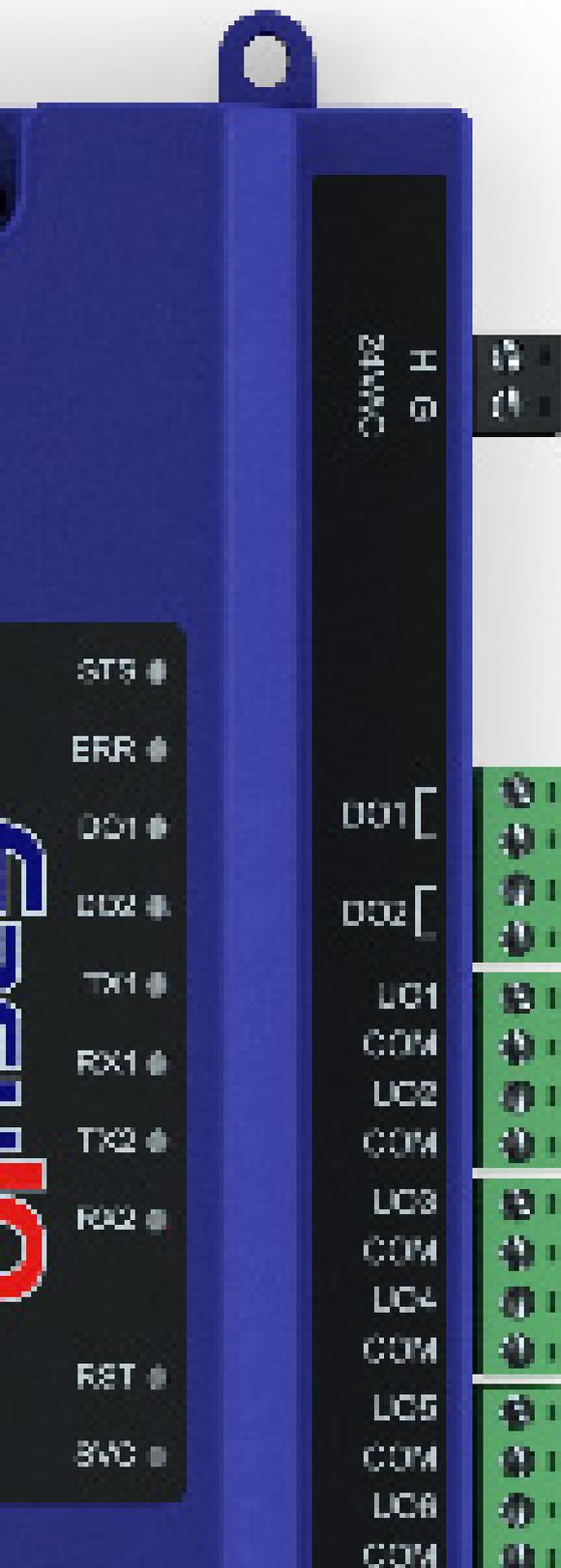
The FS-20 is a high performance server class controller with a 1.2 GHz quad core processor, 512 MB RAM and 8GB flash memory, powerful capabilities with HTML5 graphics and multifunctional adapter widgets. The built-in VPN client/ server allows for secure remote connectivity, in line with your clients corporate policy, it is a unique feature for BMS controllers. The FS-20 supports IT standards, such as IPv6, 802.1x, MQTT and REST API.

The FS-20 has incomparable industry performance, allows for flexible design, and is a natural extention on the already successful FS series controllers permitting secure integration at a BMS and IoT level. The FS-20 is freely and live programmable via the EasyIO CPT Tools and supports all BMS protocols such as BACnet, Modbus, Sox, TCom and can be integrated to leading head ends and enterprise

THE DIMENSIONS
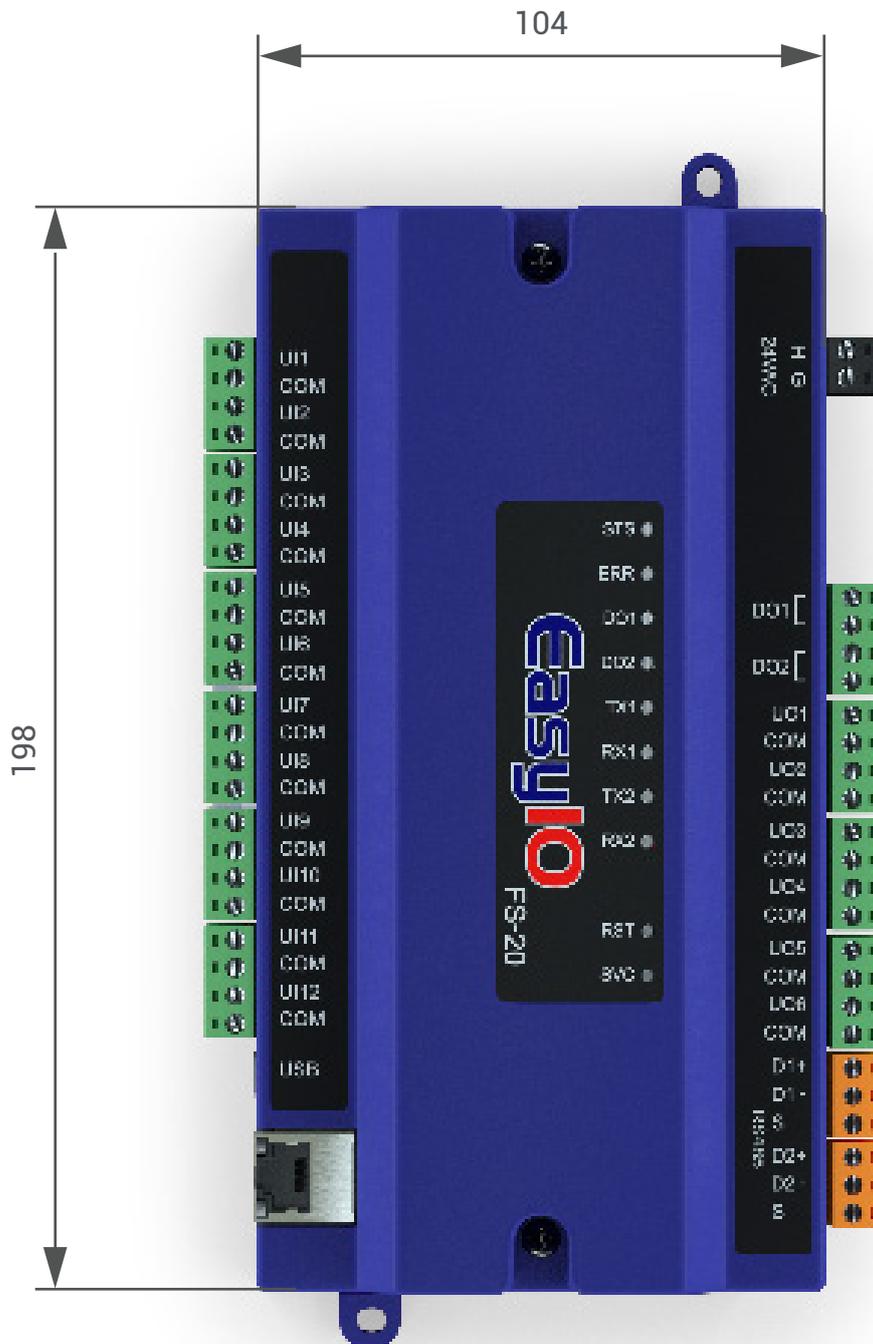
THE SPECIFICATIONS

DETAILS:

Power Supply	24V AC +/- 5% or 24V DC +20%/-15%
Consumption	18VA
Current Rating	750mA at 24VAC/VDC
Operating temp	0 to 65 °C (32 to 150 °F)
Storage temp	-20 to 65 °C (-4 to 150 °F)
Operating humidity	10% to 70% relative humidity non-condensing
Dimensions	198 x 104 x 44 mm (8,5 x 4,9 x 1,7 inch)
Material	UL Approved
Weight	436g

INPUTS & OUTPUTS:

Universal Input	12xUI
	12-Bit ADC (with PGA)
	5 modes:
	Digital mode:
	voltage free contact input
	Resistance mode:
	input range 500 - 500 KOhm
	Voltage mode: input range 0-10V
	Current mode: input range 0-20mA
	Pulse count mode: maximum pulse frequency: 20Hz
Digital output	2xDO (with LED's for status)
	Relay: output with contact rating 1A 30VDC
Universal Output	6xUO
	3 modes:
	Voltage mode: output range 0-10V (min impedance 1k Ohm)
	Current mode: output range 0-20mA
	Digital mode: maximum sinking current 200mA for Switching Relays

THE SPECIFICATIONS

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,78.6K), Data Bit: (8 bits), Parity: (None)
Ethernet Support	IPv4, IPv6, TCP, UDP, ICMP, HTTP(S), (S) FTP, Samba, DHCP client
Application Support	Sox, TCom, Modbus, BACnet, P2P, MQTT publisher, REST API
Security	VPN client/server, 802.1x, TLS 1.2

CHARACTERISTICS:

- 1.2 Ghz Quad Core ARM A7 main processor
- 48 Mhz ARM Cortex-M0 processor for the I/O
- 512MB Gbyte RAM
- 8GB NAND Flash
- SD card holder
- 1 x 10/100 Ethernet Port
- 1 x Mini USB
- 2 x RS485
- Real Time Clock
- SuperCap Apps Safety Backup
- 24V AC/DC Power
- Remote Flash Upgrades

KEY FEATURES

- 2 processors, main processor is 1.2 Ghz Quad Core
- Memory/Storage – 8GB EMMC on board and history storage
- Supports BACnet, Modbus, TCom and Sox protocols
- Supports MQTT publisher, REST API and other web services
- Built-in VPN client and server, IPv4, IPv6, 802.1x, TLS 1.2
- Programmable gain amplifiers for all UI channels for higher precision at lower range.
- Nginx Web Server Engine for HTML5 graphics

PARTNER
INFO

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