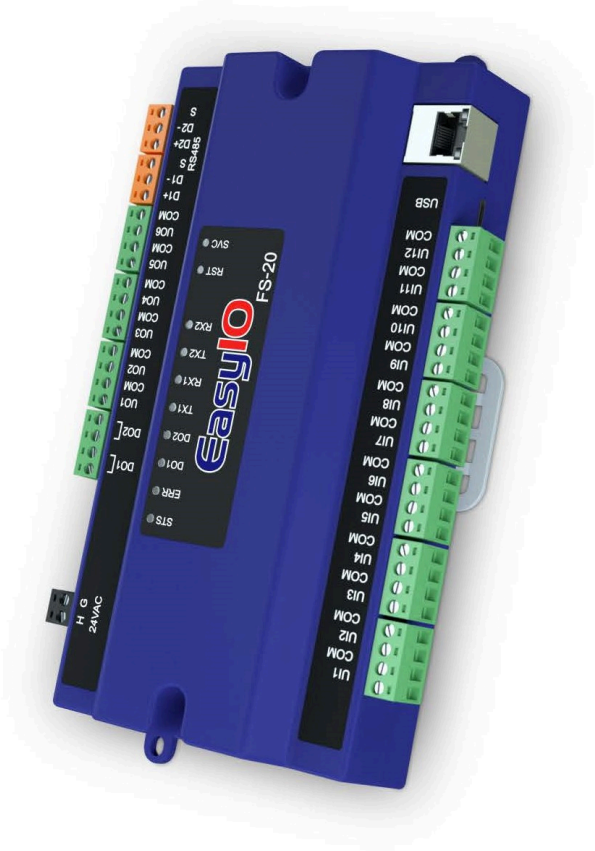
Description

Figure 1: EasyIO FS-20 controller



The FS-20 is a high-performance network controller with a 1.2 GHz quad core processor, 1 GB RAM, 8 GB flash memory, HTML5 graphics, a suite of applications and kits, and multifunctional adapter widgets.

The FS-20 offers incomparable performance and live programming via EasyIO CPT Tools. The FS-20 supports the latest IT network and security standards. The built-in VPN allows for secure remote connectivity, a unique feature in a controller.

Protocols such as BACnet, Modbus, MQTT, Sox, and TCom are supported. The FS series includes SQL database and REST API for additional data integration and multi-system interoperability. Flash RAM enables data collection and storage at the device.

The FS-20 has 12 universal inputs, six universal outputs, and two digital outputs. Input point capacity can be expanded using the FD-20i. Device and engineering licenses and annual maintenance upgrades are included in the one-time cost of the controller.

© 2023 Johnson Controls. All rights reserved.

Johnson Controls

Features

- Onboard 8 GB of EMMC for storage and history
- Supports Enterprise Network Security 802.1x and TLS 1.3, SSL, IPv6, and DHCP Client
- BACnet MSTP Client/Server, BACnet IP Client/Server, Modbus RTU M/S, Modbus TCP M/S, MQTT, TCOM, SOX
- EasyIO Peer to Peer Protocol, compatible with FS, FG+, FW and FT Series
- Built-in HTML 5 web server and SSL certificate support
- RESTful API and graphics web services
- Built-in VPN Server and Client
- Network Time Protocol (NTP) Client
- SMTP protocol with SSL authentication
- SQL Lite up to 100,000 records
- Built-in dashboard

Ordering information

Table 1: Product order code and description

Product code	Description
EASYIO-FS-20	EasyIO FS Series 20-point controller

Technical specifications

Table 2: FS-20 UL input, output, and communication ratings

Description	Specification			Terminal
Power supply	• 24 VAC, plus or minus 5%, 20 VA • 24 VDC, plus 20% or minus 15%, 15 VA, Class 2			H and G
	12 VA, Class 2			
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	UI1 and COM to UI12 and COM
	Current	0 mA to 20 mA		
	Resistance	500 ohm to 500,000 ohm		
Digital outputs	24 VAC, 0.5 A pilot duty, Class 2, dry-contact relay output			DO1 to DO2
	24 VDC, 0.5 A pilot duty, Class 2, dry-contact relay output			
Universal outputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	UO1and COM to UO6 and COM
	Minimum load impedance	2,000 ohm		
	Maximum current draw	5 mA		
	Current	0 mA to 20 mA		
	Open collector output	0.3 A max, Class 2		
Ethernet ports	Class 2			ETH
EIA/RS-485 port 1	Class 2			D1+
				D1-
				S
EIA/RS-485 port 2	Class 2			D2+
				D2-
				S

© 2023 Johnson Controls. All rights reserved.

Table 3: FS-20 Technical specifications

Description	Specification
Controller processor and memory specifications	
Main processor	1.2 GHz Quad Core ARM A7
Processor	ARM Cortex 48 MHz
Flash memory	8 GB
RAM	1 GB
Product temperature and humidity specifications	
Operating temperature	0°C to 50° (32°F to 122°F)
Storage temperature	-20°C to 65°C (-4°F to 150°F)
Operating humidity	10% to 90% relative humidity, non-condensing
Physical specifications	
Dimension	198 mm x 104 mm x 44 mm (7.8 in. x 4.1in. x 1.7 in)
Material	UL Approved
Weight	436 g (15.4 oz)

Repair Information

If a controller or any related product fails to operate within its specifications, replace the product. For replacement products, contact the nearest Johnson Controls® representative.

Patents

Patents: https://jcipat.com

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Contact information

Contact your local Johnson Controls representative:
www.johnsoncontrols.com/locations
Contact Johnson Controls:
www.johnsoncontrols.com/contact-us

Single point of contact

APAC	EU	UK	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS VOLTAWEG 20 6101 XK ECHT THE NETHERLANDS	JOHNSON CONTROLS TYCO PARK GRIMSHAW LANE MANCHESTER M40 2WL UNITED KINGDOM	JOHNSON CONTROLS 5757 N GREEN BAY AVE. GLENDALE, WI 53209 USA

© 2023 Johnson Controls. All rights reserved.

© 2023 Johnson Controls. All rights reserved. All specifications and other information shown were current as of document revision and are subject to change without notice.

© 2023 Johnson Controls. All rights reserved.

Johnson Controls