

Overview

Figure 1: EasyIO Neo Series CW controllers



The EasyIO Neo Series CW controllers are a highly flexible and fully live programmable suite of equipment for stand-alone applications or as part of a larger system.

The CW controller series supports IT network and security standards and Wi-Fi b/g/n. You can use this series as part of an existing network or as an isolated BMS Wi-Fi network. The dual Ethernet port capability allows for daisy chain capability within the recommended IT standards.

The CW-1612 has 16 UI voltage and resistance, four AO voltage, and eight DO with 24 VAC contact relays. The CW-0806 has eight UI, four AO voltage, and two DO. The CW-0404 has four UI and four AO. For floating control, you can add an optional RM-0102 module.

The CW series supports BACnet/IP client/server, BACnet MS/TP client/server, Modbus TCP/RTU M/S as well as Sox, P2P, and MQTT. The CW series also features HTML5-ready dashboards that you can program live with use of the Edge Controller Programming Tools (EP) application.

Features and benefits

- Modbus, MQTT, and Sox protocol
- BACnet
 - BACnet MS/TP client and BACnet/IP client for up to five devices

- BACnet MS/TP server
- BACnet IP server over Wi-Fi or Ethernet
- Air Flow Balancing with use of any HTML5 compatible web browser without any special tools
- Modbus TCP and RTU Master for up to five devices
- EasyIO Peer to Peer Protocol, compatible with FS, and FT series controllers.
- Built-in HTML5 web server and SSL certificate support
- RESTful API and other web services
- Built-in dashboard
- Wi-Fi Access Point, Repeater or Client Mode
- Two Ethernet ports act as a normal network switch to support Ethernet daisy chains of up to nine units or up to 30 units when you connect the units in a ring and use Spanning Tree Protocol (STP)
- Network Time Protocol (NTPv4) Client
- SMTP protocol for outgoing email with use of SSL authentication
- Up to 6,000 SQL Lite records

Ordering information

Table 1: Ordering information

Product code	Description
CW-1612	EasyIO Neo Series CW-1612 controller
CW-0806	EasyIO Neo Series CW-0806 controller
CW-0404	EasyIO Neo Series CW-0404 controller

Accessories

Table 2: EasyIO Neo Series CW controller accessories

Product code	Description
RM-0102	EasyIO Neo Series RM-0102 module. 1 x AO to provide floating control via two built-in relays.
IO-2000	EasyIO Neo Series IO-2000 module. 20 input point expansion device, 10 Analog Inputs (AI), and 10 Digital Inputs (DI).
IO-1006	EasyIO Neo Series IO-1006 module. A cost-effective programmable controller which you can also use for IO expansion. 5 Universal Inputs (UI), 5 Digital inputs (DI), 3 Digital Outputs (DO), and 3 Analog outputs (AO).
IO-0602	EasyIO Neo Series IO-0602 module. A cost-effective programmable controller which you can also use for IO expansion. 6 Universal Inputs (UI), 2 Digital Outputs (DO).

Technical specifications

Table 3: CW-1612 UL certified input, output, and communication ratings

Description	Specification			Terminal
Power supply	<ul style="list-style-type: none"> 24 VAC, plus or minus 5% 24 VDC, plus 20% or minus 15% 			H and G
	12 VA, Class 2			
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	UI1 and COM to UI16 and COM
	Resistance	500 ohm to 500,000 ohm		
	Pulse count mode (max)	20 Pulse per sec at 50% duty cycle (20Hz): Voltage free contact (DI)		
Digital outputs	24 VAC, 0.5 A pilot duty, Class 2, dry-contact relay output			DO1 to DO8
	24 VDC, 0.5 A pilot duty, Class 2, dry-contact relay output			
Analog outputs	Voltage	0 V to 10 V, Class 2	3% accuracy	AO1 and COM to AO4 and COM
	Minimum load impedance	2,000 ohm		
	Maximum current draw	5 mA		

Table 3: CW-1612 UL certified input, output, and communication ratings

Description	Specification	Terminal
EIA/RS-485	Class 2	D+
		D-
		S
Ethernet ports	Class 2	ENET0
		ENET1

Table 4: CW-1612 technical specifications

Description	Specification
Controller processor and memory specifications	
Main processor	Qualcomm 560 Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
Product temperature and humidity specifications	
Operating temperature	0°C to 65°C (32°F to 149°F)
Storage temperature	-20°C to 85°C (-4°F to 185°F)
Operating humidity	10% to 90% relative humidity, non-condensing
Physical specifications	
Dimensions	230 mm x 104 mm x 44 mm (9.1 in. x 4.1 in. x 1.7 in)
Material	UL certified
Weight	500 g (17.6 oz)
Wireless ratings	
Standard	IEEE 802.11
Band	b/g/n
Frequency range	2412 MHz to 2462 MHz
Antenna	2.2 dBi Dipole
Transmission power	19.18 dBm EIRP

Table 5: CW-0806 UL certified input, output, and communication ratings

Description	Specification			Terminal
Power supply	<ul style="list-style-type: none"> 24 VAC, plus or minus 5% 24 VDC, plus 20% or minus 15% 12 VA, Class 2 			H and G
	15V (15 VDC Max 240mA)			+15V
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	UI1 and COM to UI8 and COM
	Resistance	500 ohm to 500,000 ohm		
	Pulse count mode (max)	20 Pulse per sec at 50% duty cycle (20Hz): Voltage free contact (DI)		
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			
Analog outputs	Voltage	0 V to 10 V, Class 2	3% accuracy	AO1 and COM to AO4 and COM
	Minimum load impedance	2,000 ohm		
	Maximum current draw	5 mA		
EIA/RS-485	Class 2			D+
				D-
				S
Ethernet ports	Class 2			ENET0
				ENET1

Table 6: CW-0806 technical specifications

Description	Specification
Controller processor and memory specifications	
Main processor	Qualcomm 560Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
Product temperature and humidity specifications	
Operating temperature	0°C to 65°C (32°F to 149°F)
Storage temperature	-20°C to 85°C (-4°F to 185°F)
Operating humidity	10% to 90% relative humidity, non-condensing
Physical specifications	

Table 6: CW-0806 technical specifications

Description	Specification
Dimensions	192mm x 104 mm x 44mm (7.5in. x 4.1in. x 1.7in)
Material	UL certified
Weight	410 g (14.5 oz)
Wireless ratings	
Standard	IEEE 802.11
Band	b/g/n
Frequency range	2412 MHz to 2462 MHz
Antenna	2.2 dBi Dipole
Transmission power	19.18 dBm EIRP

Table 7: CW-0404 UL certified input, output, and communication ratings

Description	Specification			Terminal
Power supply	24 VAC, plus or minus 5%			H and G
	24 VDC, plus 20% or minus 15%			
	12 VA, Class 2			
	15V (15VDC Max 240mA)			+15v
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	UI1 and COM to UI4 and COM
	Resistance	500 ohm to 500,000 ohm		
	Pulse count mode (max)	20 Pulse per sec at 50% duty cycle (20Hz): Voltage free contact (DI)		
Analog outputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	AO1 and COM to AO4 and COM
	Minimum load impedance	2,000 ohm		
	Maximum current draw	5 mA		
EIA/RS-485	Class 2			D+
				D-
				S
Ethernet ports	Class 2			ENET0
				ENET1

Table 8: CW-0404 technical specifications

Description	Specification
Controller processor and memory specifications	
Main processor	Qualcomm 560Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
Product temperature and humidity specifications	
Operating temperature	0°C to 65°C (32°F to 149°F)
Storage temperature	-20°C to 85°C (-4°F to 185°F)
Operating humidity	10% to 90% relative humidity, non-condensing
Physical specifications	
Dimensions	136 mm x 104 mm x 44 mm (5.4 in. x 4.1 in. x 1.7 in.)
Material	UL certified
Weight	350 g (12.35 oz)
Wireless ratings	
Standard	IEEE 802.11
Band	b/g/n
Frequency range	2412 MHz to 2462 MHz
Antenna	2.2 dBi Dipole
Transmission power	19.18 dBm EIRP

Product warranty

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

Software terms

Use of the software that is in (or constitutes) this product, or access to the cloud, or hosted services applicable to this product, if any, is subject to applicable end-user license, open-source software information, and other terms set forth at www.johnsoncontrols.com/techterms. Your use of this product constitutes an agreement to such terms.

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