

## 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	• 24 VAC, plus or minus 5%			H and G	
	• 24 VDC, plus 20% or minus 15%				
Universal inputs	12 VA, Class 2			3% accuracy	
	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy		
	Resistance	500 ohm to 500,000 ohm			
Digital outputs	Pulse count mode (max)	20 Pulse per sec at 50% duty cycle (20Hz): Voltage free contact (DI)	3% accuracy	UI1 and COM to UI16 and COM	
	24 VAC, 0.5 A pilot duty, Class 2, dry-contact relay output				
	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
<b>Controller processor and memory specifications</b>	
Main processor	Qualcomm 560 Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
<b>Product temperature and humidity specifications</b>	
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
<b>Physical specifications</b>	
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)
<b>Wireless ratings</b>	
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"> <li>24 VAC, plus or minus 5%</li> <li>24 VDC, plus 20% or minus 15%</li> <li>12 VA, Class 2</li> </ul>		H and G
	15V (15 VDC Max 240mA)		+15V
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy
	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
	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
<b>Controller processor and memory specifications</b>	
Main processor	Qualcomm 560Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
<b>Product temperature and humidity specifications</b>	
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
<b>Physical specifications</b>	

**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)
<b>Wireless ratings</b>	
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
<b>Controller processor and memory specifications</b>	
Main processor	Qualcomm 560Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
<b>Product temperature and humidity specifications</b>	
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
<b>Physical specifications</b>	
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)
<b>Wireless ratings</b>	
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](http://www.johnsoncontrols.com/buildingswarranty).

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## Patents

Patents: <https://jcipat.com>

## Single point of contact

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