



APPLICATION

The WEB-03022H and WEB-09056H are Expansion I/O modules that are exclusively utilized with the CIPer Model 30 Controller (either WEB-C3036EPVBNH or WEB-C3036EPUBNH).

They can be directly connected to the CIPer Model 30 Controller or remotely mounted up to 100' away. Multiple Expansion I/O Modules can be connected to a single CIPer Model 30 Controller. You can mix the small WEB-03022H and the large WEB-C09056H in any combination to meet specific project I/O requirements.

The CIPer Model 30 Expansion I/O modules feature removable terminal blocks, Hand-Off-Auto switches and indicator LEDs and can be powered by the CIPer Model 30 Controller.

Features

- Plug-and-play functionality for each installation and maintenance.
- All wiring connections are made to removable terminal blocks to simplify device installation and replacement.
- Wide range of sensors supported sensors like 20KNTC, PT1000 and other resistive sensors.
- Multiple Expansion I/O capability support and 300 additional points. Refer to CIPer Model 30 technical documentation and SRB for more details.
- 16-bit A/D conversion resolution for accurate measurement.
- Indication LEDs for all Digital and Analog Outputs (DO & AO).
- HOA (Hand-Off-Auto) switches on DOs and AOs. HOA are configurable and can be monitored.
- Compact size for small installation housings.
- Field configurable and programmable for control, input, and output functions using the Niagara Framework® based CIPer Model 30 programming tool.



Description

The WEB-09056H module is a large expansion module which adds 20 additional I/O points, and the WEB-03022H module is a small expansion module which adds 7 additional I/O points. Multiple expansion I/O modules can be added to a controller. Both I/O modules use the side-mounted terminal port to connect with the CIPer Model 30 Controller and additional I/O modules.

Ordering part numbers

Table 1: Ordering part numbers

OS Number (SKU)	Description	UI (Universal Input)	UI/AO (Universal Input/Analog Output)	DO (Digital Output)
WEB-09056H	Large Expansion Module, 20 Mixed I/O	9	5	6
WEB-03022H	Small Expansion Module, 7 Mixed I/O	3	2	2

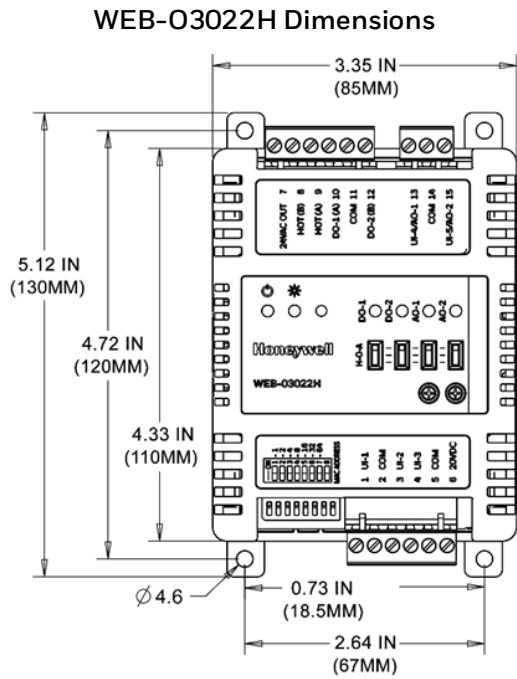


Figure 1: WEB-03022H

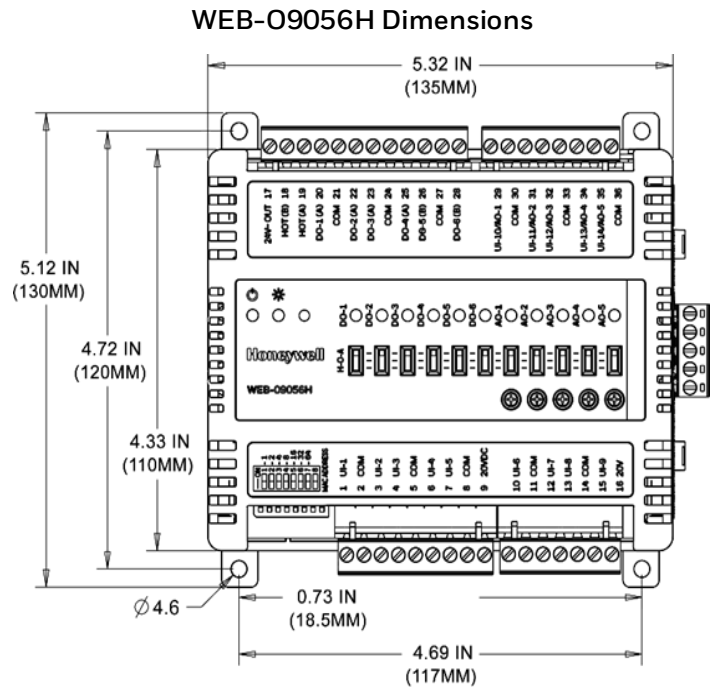


Figure 2: WEB-09056H

Specifications

Electrical

Rated input voltage: 20-30 VAC; 50/60Hz Power consumption:

WEB-O9056H

- 207VA maximum for I/O module with all connected loads.
- 35 VA maximum for I/O module without any load.

WEB-O3022H

- 87VA maximum for I/O module with all connected loads.
- 15 VA maximum for I/O module without any load.

Operating Environment

- Ambient temperature: - 4 to 131°F (-20 to 55°C)
- Storage temperature: - 4 to 150°F (-20 to 65°C)
- Humidity: 5% to 95% non-condensing

Inputs and Outputs

Analog Outputs (AO)

AOs are individually configurable for current or voltage. Universal Inputs marked as UI-x/AO-x are configurable as AOs.

Analog Current Outputs	Analog Voltage Outputs
<u>Current Output Range:</u> 4.0 to 20.0 mA	<u>Current Output Range:</u> 4.0 to 20.0 mA
<u>Output Load Resistance:</u> 550 Ohms maximum	<u>Output Load Resistance:</u> 550 Ohms maximum

Digital Outputs (DO)

- Voltage rating: 20 to 30 VAC @ 50/60Hz
- Digital Outputs type: Solid-State Relay
- Current rating: 1.5A Continuous, 3.5A in-rush for 100 milliseconds

Universal Inputs (UI)

Flexible UI's to connect external sensors like 20KNTC, PT1000 and other resistive sensors.

Pulse Inputs:

Type: Dry contact

Frequency: 100Hz max.

Duty cycle: minimum 5 ms ON / 5 ms OFF

Table 2. Universal Inputs specifications

Input Type	Sensor Type	Operating Range
Room/Zone Discharge Air Outdoor Air Temperature	20K Ohm NTC	-40° F to 199° F (-40° C to 93° C)
Outdoor Air Temperature	C7031G	-40° F to 120° F (-40° C to 49° C)
	C7041F	-40° F to 250° F (-40° C to 121° C)
	PT1000 (IEC751 3850)	-40° F to 199° F (-40° C to 93° C)
TR23 Setpoint Potentiometer	500 Ohm to 10,500 Ohm	50° F to 90° F (10° C to 32° C)
Resistive Input	Generic	100 Ohms to 100K Ohms
Voltage Input	Transducer, Controller	0 - 10 VDC
Discrete Input	Dry Contact closure	OpenCircuit ≥ 3000 Ohms ClosedCircuit < 3000 Ohms

Status Indication LEDs

The expansion I/O modules indicate the device Power and Fault status using the LEDs on top.

Mounting

The CIPer Model 30 expansion I/O modules can be mounted in any orientation on a DIN rail. Ventilation openings are designed into the cover to allow proper heat dissipation, regardless of mounting orientation. When mounting on DIN rail, the locking clip present on both I/O modules ensures accurate alignment of connectors between all modules.

The controller can also be screw-mounted on a panel using the four mounting tabs, accessible under the covers. These mounting tabs may be broken off if needed to save space when DIN rail mounting.

Note:

- Avoid mounting in areas where acid fumes or other deteriorating vapors can attack the metal parts of the controller, or in areas where escaping gas or other explosive vapors are present.
- Mount in a position that allows clearance for wiring, servicing and removal.
- For complete mounting and wiring information, refer to the CIPer Model 30 expansion I/O Installation Instructions.

Standards and Approvals

- UL/CUL (E87741) listed under UL 60730-1 and CSA E60730-1, UL 60730-2-9:2010.
- Meets FCC Part 15, Subpart B:2017, Class B (radiated emissions) requirements.
- Meets Canada ICES-003:2016.
- EMC Directive: 2014/30/EU. Standards Applied:
- EN 61000-6:2005
- EN 61000-6-3:2007 + A1
- EN 60730-1: 2011, EN 60730-2-9: 2010
- RoHS Directive: 2011/65/EU.
- Standard EN 50581: 2012

Conformance Statement

This digital apparatus complies with CAN ICES-3 (B)/NMB-3 (B).

FCC Notice

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference,
- This device must accept any interference received, including interference that may cause undesired operation.

Safety Information as per EN60730-1

The Open System is intended for residential, commercial, and light-industrial environments. The Open System is an independently mounted electronic control system with fixed wiring.

The WEB-O9056H and WEB-O3022H are suitable for mounting in fuse boxes conforming with standard DIN43880 and having a slot height of max. 1.77 inches (45 mm).

It is suitable for panel rail mounting on 1.38 inches (35 mm) standard panel rail (both horizontal and vertical rail mounting possible).

Table 3. Safety information as per EN-60730-1

Electric Shock Protection	PELV
Pollution Degree	Pollution Degree 2, suitable for use in industrial environments.
Installation	Class 3
Overvoltage Category	24 V-powered controls: Category I
Rated Impulse Voltage	330 VAC for Category I (SELV)
Automatic Action	Type 1
Software Class	Class A
Purpose of control	Operating Control, Open Energy Management Equipment.
Enclosure degree of protection	IP20 (NEMA 1)
Ball-pressure Test Temperature	>75 °C for all housing and plastic parts. >125 °C in the case of devices applied with voltage-carrying parts, connectors, and terminals.
Electromagnetic Interference	Tested at 230 VAC with the modules in normal condition.
System Transformer	Europe: safety isolating transformers according to IEC61558-2-6. U.S.A. and Canada: NEC Class-2 transformers.