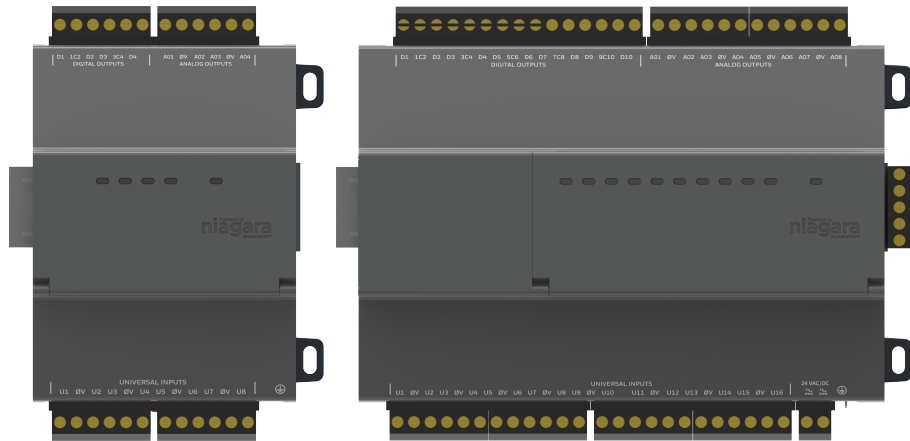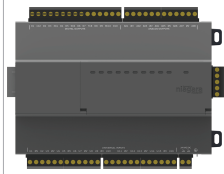# EC-BOS-8 IO Modules

Overview

The EC-BOS-8 IO-R modules are part of the EC-Net portfolio of hardware, software and tools designed for remote monitoring and control applications that enables end-to-end automation and device-to-enterprise integration. The IO-R modules allow the EC-BOS-8 to interface directly with simple non-intelligent inputs and outputs remotely located up to 4,000 feet from the EC-BOS-8. The connection is established via an industry-standard RS 485 multi-drop communications bus. Multiple IO-R devices can be utilized on a single EC-BOS-8, providing 250+ IO points on a single EC-BOS-8.

Applications

☐ Direct pin out replacement of NDIO IO-16 and IO-34 modules

☐ Remote monitoring of input devices

☐ Basic control applications

DISTECH CONTROLS™

Innovative Solutions for Greener Buildings™

Model Selection

| IO-R-16 | | 16 Point IO Module. Powered by IO-R-34. Connected to EC-BOS-8 remotely over RS485 |
| IO-R-34 | | 34 Point IO Module. Powered by 24VAC. Capable of powering 4 IO-R-16 modules. Connected to EC-BOS-8 remotely over RS485 |

Product Specifications

General (IO-R-16)

Universal Inputs ———————————————————————————————— 8 inputs

Type 3 (10K) thermistors

0-100KΩ

0-10VDC

0-20mA with external resistor

Relay Outputs ———————————————— 4 (Form A contacts, 24VAC @ 0.5 amp rated)

Analog Outputs ———————————————————————————— 4 (0-10VDC)

Power ———————————————————————————— Powered from IO-R-34

Connection ———————————————— Connected to EC-BOS-8 remotely over a shielded RS485 bus

General (IO-R-34)

Universal Inputs ———————————————————————————————— 16inputs

Type 3 (10K) thermistors

0-100KΩ

0-10VDC

0-20mA with external resistor

Relay Outputs ———————————————— 10 (Form A contacts, 24VAC @ 0.5 amp rated)

Analog Outputs ———————————————————————————— 8 (0-10VDC)

Power ———————————————————————— Powered from a 24VAC/DC source

Can power up to 4 IO-R-16 modules

Connection ———————————————— Connected to EC-BOS-8 remotely over a shielded RS485 bus

Mounting and Dimensions

The EC-BOS-8 IO modules support mounting on EN50022 standard 7.5mm x 35mm DIN rail or panel mounting.
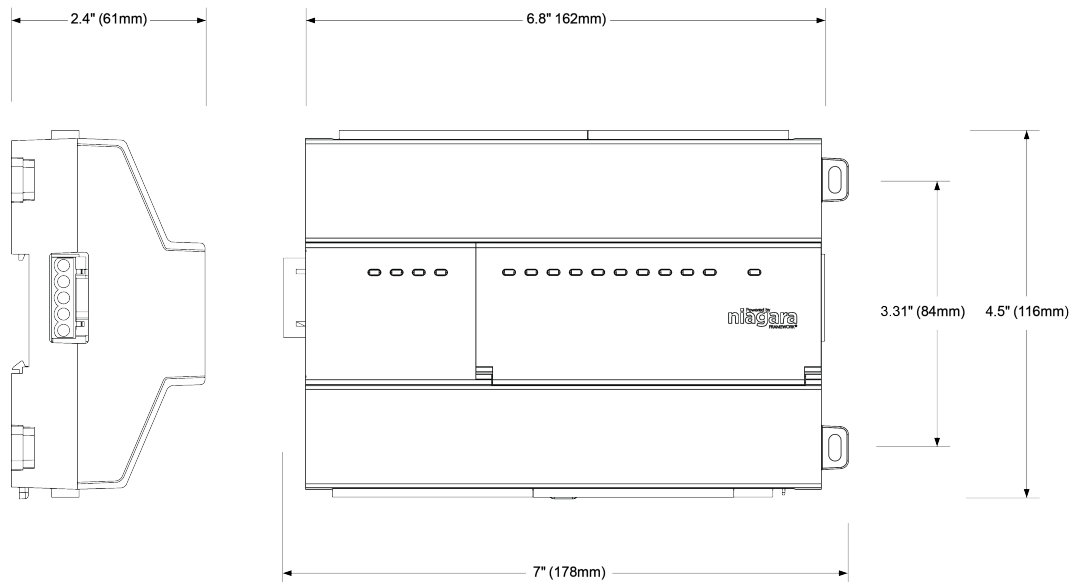
IO-R-16:

Dimensions ———————————— 82.5mm (w) x 116mm (h) x 61mm (d) (3.25 in x 4.5 in x 2.4 in)
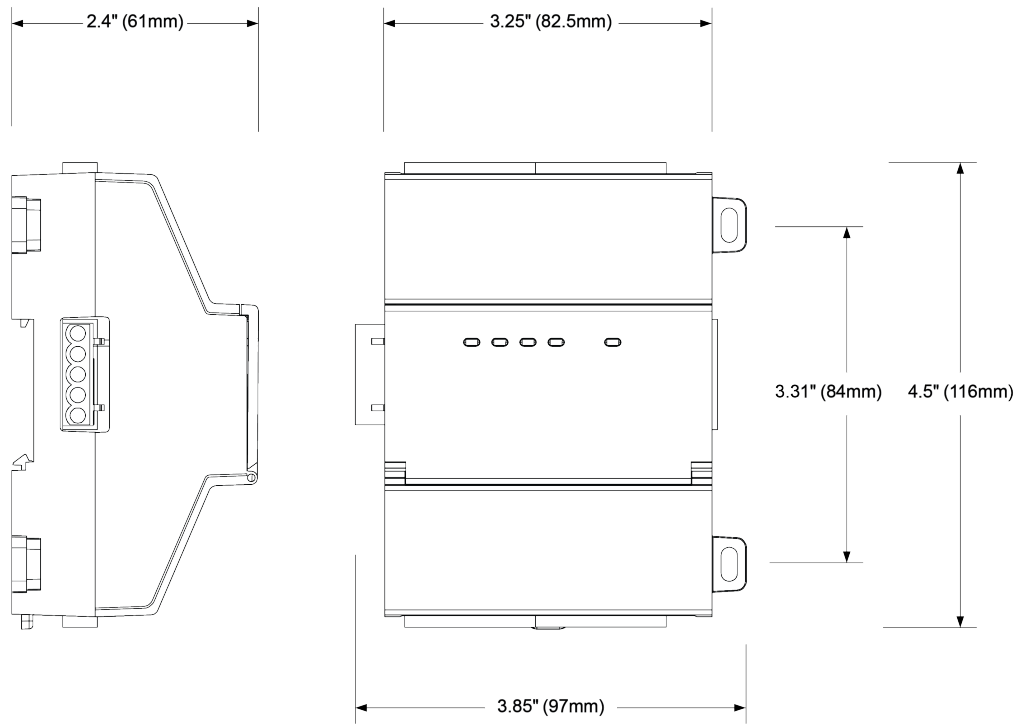
IO-R-34:

Dimensions ———————————— 162mm (w) x 116mm (h) x 61mm (d) (6.8 in x 4.5 in x 2.4 in)

Environmental Specifications

Operating temperature ———————————————————— 20–60°C

Storage temperature ————————————————————— 40–85°C

Humidity ————————————————— 5%–95% — Non-condensing

Shipping & vibration ———————— ASTM D4169, Assurance Level II

MTTF ————————————————————————————— 10 years+

Operating Systems

EC-Net 4 —————————————————————————— 4.3 or later

EC-Net^{AX} ———————————————————————— 3.8.3xx or later

Expandability

Maximum Expansion:

IO-R-34 ——————————————————————————————— 8
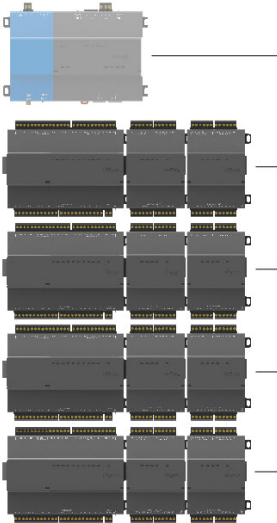
IO-R-16 —————————————————————————————— 16

Power ————————— One IO-R-34 can power four IO-R-16 modules

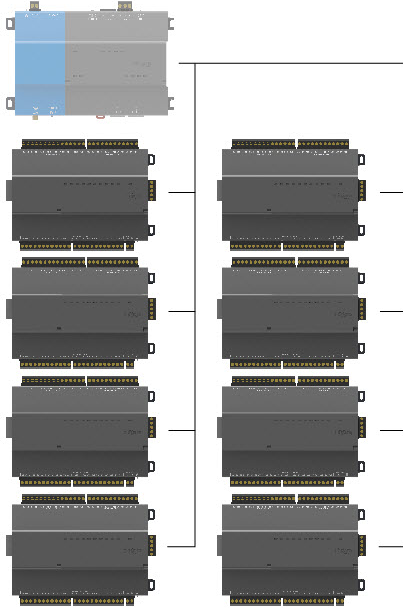### Common Configurations:

Maximum configuration for 2 panels. Shown with maximum of 4 IO-R-16s per IO-R-34:
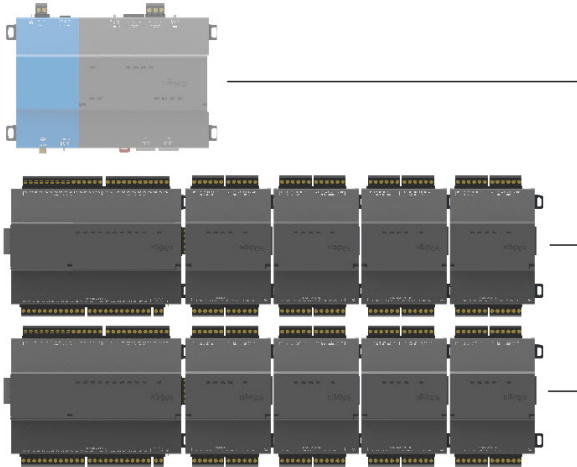
Maximum configuration for 4 panels:

Maximum configuration for 8 panels:

Agency Certifications

- ☐ UL 916
- ☐ C-UL
- ☐ CE EN 61326-1:2013
- ☐ RCM
- ☐ FCC part 15, class b
- ☐ RoHS2
- ☐ REACH
- ☐ WEEE
- ☐ China ROHS
- ☐ Open Energy
- ☐ Management Class 2

EC-BOS-8 IO Modules_DS_10_EN