

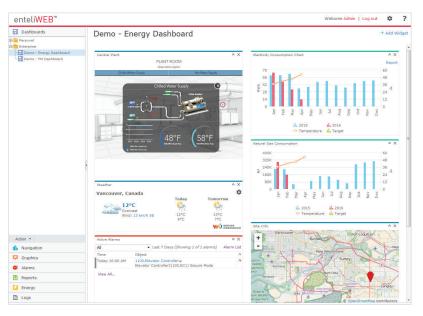
## Software: Enterprise Facility and Energy Management

### **Description**

enteliWEB is a web-based application that connects all your facilities and centralizes building management operations, site engineering and energy analytics.

View your building your way by creating your own personal dashboards. Whether you are an executive, an energy manager or a building operator, the user experience in enteliWEB can be tailored to meet your exact needs.

- ► Energy Analytics inside of enteliWEB enables you to turn the existing data and sensors inside your building into virtual meters, and manage energy consumption down to the zone and equipment level. This software-based approach gives you a complete level of knowledge at a fraction of the cost of installing sub-meters.
- ▶ Engineering Tools in enteliWEB allow you to create, edit and save objects, modify system graphics and back up databases. Work on-site or connect remotely using the modern-looking front-end.
- ➤ Centralize Facility Management and make it easy to integrate scheduling, alarm management and operations. Connect to all of your buildings under a single login without having to network everything together. Track all building automation system (BAS) changes by service personnel, partner technicians and facility managers in enteliWEB.



### **Specifications**

BACnet Protocol Rev 14

BACnet Device Profile
Advanced Operator Workstation (B-AWS)

#### Server Operating System

Microsoft® Windows Server® 2016 Microsoft Windows Server® 2012 Microsoft Windows Server® 2008 Microsoft Windows® 7 Microsoft Windows® 8 Microsoft Windows® 10

### Server Virtualization

VMware® vCenter Server™ Microsoft Hyper-V® Microsoft Azure™ Amazon® EC2® Rackspace® Cloud Server™

### Client Operating System

Microsoft Windows Server 2016 Microsoft Windows Server 2012 Microsoft Windows Server 2008 Microsoft Windows 7 Microsoft Windows 8 Microsoft Windows 10

OS X v10.4 and higher

### **Client Browser**

Windows Internet Explorer® 9 and higher Firefox® 20 and higher Google Chrome™ 20 and higher Safari® 6 and higher for Mac Microsoft Edge



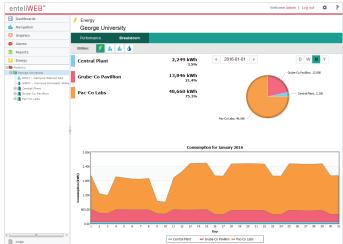
## enteliWEB Energy

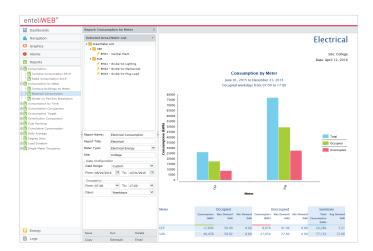
enteliWEB Energy is an enterprise energy management package that makes it easy for anyone to understand the energy usage of their building.

Leveraging the rich dashboard interface of enteliWEB, you have the tools to view your system's energy usage, set target energy goals and compare your energy usage against historical baselines.

- ► Local or Cloud Applications. enteliWEB Energy is the only energy analytics solution that scales from locally installed dashboards and reports to powerful cloud-based analytics.
- ➤ Virtual Meters. Find out exactly which building system is consuming too much energy without having to install costly wired meters. Virtual Meters utilize sensors and the data already gathered by the building automation system to track the energy consumption of every piece of equipment in your building, giving you unprecedented visibility into your consumption profile. You can also validate the calculated virtual meters with upstream utility meters.
- ▶ Intuitive Dashboards. These interactive dashboards allow you to analyze and breakdown usage to find energy savings. You can also create energy reports, and send and receive them by email.
- ► Alerts and Insights. Simple alerts to analytics-based Insights warn you in advance of potential consumption overages. Both alerts and Insights are annunciated in enteliWEB and can also be set up for email notification.





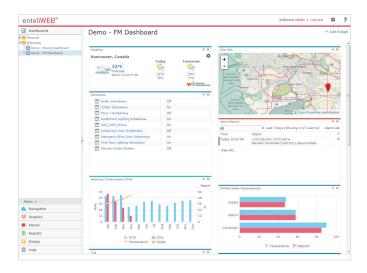


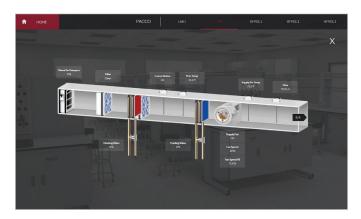


### Visualizing Your Building

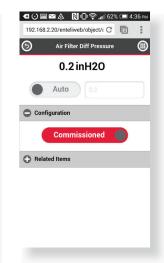
enteliWEB makes your data more accessible by presenting information in a visually attractive and user-friendly way.

- ► Enterprise Dashboards. Provide high level information in simple graphical formats to help manage the facility's key performance indicators (KPIs).
- ▶ Personal Dashboards. Personal dashboards are an experience you create yourself. By mixing and matching widgets, each user gets their own personalized dashboard to keep an eye on things that matter.
- ➤ **System Dashboards.** Make operating a facility easy by aggregating system graphics, alarm management, energy information and more into a single dashboard screen.
- ▶ Navigator. Automatically scans the BACnet network and presents devices in a logically arranged network tree. BACnet objects can be monitored and commanded directly from Navigator, or opened from Navigator to change the configuration details.
- ▶ enteliVIZ<sup>TM</sup> Graphics. Create HTML5-based intelligent visualizations and equipment graphics in your web browser. Use them in dashboards alongside other widgets, or as fullpage standalone graphics.
- ▶ Mobile Friendly. Dashboard and object pages are optimized for viewing on your smartphone or tablet. Whether you just want an overview, or you need to override a point, dashboard-driven navigation makes it easy to drill down from high-level views to specific BACnet objects. Finger-friendly buttons and large text mean you don't have to pinch-and-zoom to view content.
- ▶ Multiple Language Display. Support your stakeholders in the language that they are most comfortable using. enteliWEB's user-interface can be displayed in one of 22 world languages by selecting the language preference in each user account.
- ▶ Building Automation Reports. Gather information about your building by querying controllers on the network and displaying them in professional-looking reports. Reports can be converted to multiple file types, such as .pdf and .xlsx and emailed automatically on a schedule.











## Centralizing Facility Management

enteliWEB provides you the tools to manage multiple sites more effectively.

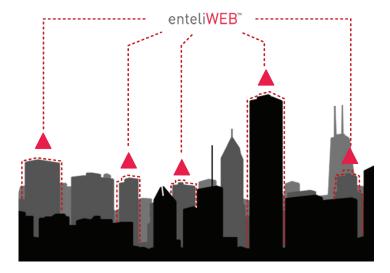
- ➤ Single Login. Manage multiple sites using a single login.

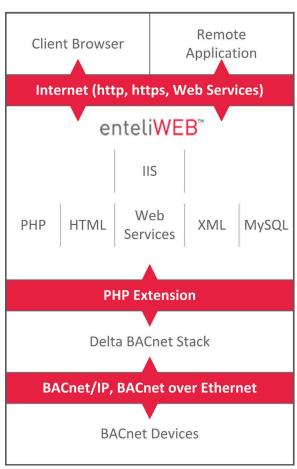
  No need to worry about duplicate addresses or networking everything together. All you need is an IP address for each site.
- ▶ Retain Supervisory Control of your entire portfolio of BACnet sites. Leave the other vendor's front end on-site while centralizing your alarm management, scheduling and energy analytics with enteliWEB.
- ➤ Version Independent Software. Allows organizations to operate an entire WAN without having to worry about maintaining different firmware versions in the hardware.
- ▶ Restore and Backup. Restore your entire BAS to an earlier state or quickly find a specific backup of a device. Schedule daily, weekly or monthly backups across devices on multiple sites.

### Platform for Innovation

enteliWEB's suite of developmental tools allow you to create mobile apps, customize user interfaces and integrate thirdparty software.

- ▶ API Documentation Available. The enteliWEB application programming interface (API) is well-documented, so that you can easily create custom modules, widgets and interfaces to third-party software.
- ▶ BACnet Web Services. Allow remote applications, such as mobile apps or business systems to communicate with enteliWEB.
- ➤ Alarm Module. The alarm module allows alerts and alarms from non-BACnet systems to be annunciated and managed within enteliWEB.
- ▶ Open Source Reporting Package. Design custom reports in enteliWEB using an industry standard open source report package.
- ▶ **ODBC Driver.** Integrate the building automation system with business-level software.







### **Alarms**

enteliWEB has a robust alarm management system that provides a detailed look at the issues and problems that come up on all your sites.

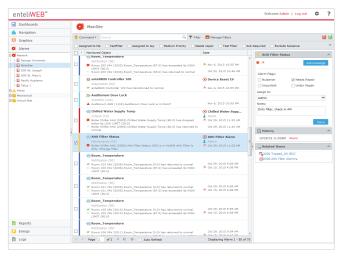
- ➤ Comprehensive Alarm Management. Includes intelligent visualizations, alarm assignments and operator comments on one screen. Powerful filtering, emailing and priorization make enteliWEB alarm management effective even on your largest sites.
- ▶ Alarm Widgets. Can be added to any dashboard for a quick summary of specific data types. The maps widget uses pushpins on a map of your building locations to indicate the number and severity of alarms. The alarm list widget shows the active alarms for specific equipment and the widget can be added to system dashboards.

## **Audit Log**

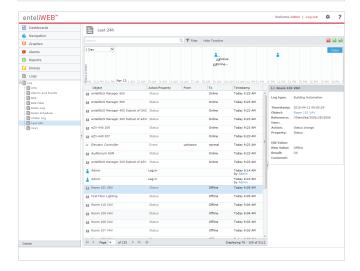
Audit logs provide the ability to track changes made to the system. The powerful filtering and timeline chart make it easy to find the information you're looking for, including manual changes to outputs, alarm history and any other changes made by the system's users.

### **User Permissions**

- ▶ **User/Group Permissions.** Permissions give you the ability to assign roles and determine which BACnet objects and visualizations a user can see and interact with.
- ► LDAP. Integrate users from LDAP servers so that IT can control user access to enteliWEB.
- ► Multi-Language Support. Gives each user the option to select the language they want to use throughout enteliWEB.









## Software: Enterprise Energy Management

### **Ordering**

enteliWEB is available in 200, 500, 2500, and Enterprise editions. All editions and add-ons include 1-year software maintenance subscription.

### eWEB-200

Indicales	200 I/O Multiple Cites	
Includes	200 I/O, Multiple Sites	
Select add-ons	eW200-EV	enteliVIZ Graphics
	eW200-KEE	Energy management
	eW200-VM	enteliWEB on an offline virtual machine
	eW200-API	Web services, mobile app, interface API and ODBC Driver

#### eWEB-500

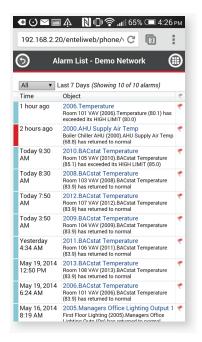
Includes	500 I/O, Multiple Sites	
Select add-ons	eW500-EV	enteliVIZ Graphics
	eW500-KEE	Energy management
	eW500-VM	enteliWEB on an offline virtual machine
	eW500-API	Web services, mobile app, interface API and ODBC Driver

### eWEB-2500

Includes	2500 I/O, Multiple Sites	
Select add-ons	eW2500-EV	enteliVIZ Graphics
	eW2500-KEE	Energy management
	eW2500-VM	enteliWEB on an offline virtual machine
	eW2500-API	Web services, mobile app, interface API and ODBC Driver

### eWEB-Ent

Includes	5000 I/O (expandable with AddOns), Multiple Sites	
Select add-ons	eWEnt-EV	enteliVIZ Graphics
	eWEnt-KEE	Energy management
	eWEnt-VM	enteliWEB on an offline virtual machine
	eWEnt-API	Web services, interface API and ODBC Driver
	eWEnt-2500I0	2,500 I/O point add-on
	eWEnt-25kl0	25,000 I/O point add-on
	eWEnt-UnLtd	Unlimited I/O point add-on





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Updated September 2017





### 03-DIN-SRC

### **Description**

The O3-DIN-SRC is a fully programmable native BACnet® building controller. As a primary integration engine of the O3 system, the O3-DIN-SRC contains memory storage and external communication ports, as well as the control logic for the expansion modules. The O3-DIN-SRC can support up to 4 expansion modules.

The O3-DIN-SRC supports multiple communication methods, including BACnet/IP, BACnet over Ethernet, BACnet MS/TP and Delta LINKnet.



### **Application**

The O3 system is a complete solution that combines HVAC, access control and lighting control in a modular system. It combines multiple protocols and I/O points in one unit.

The O3 system improves room control, avoids duplicate devices and offers a satisfying occupant experience at a lower energy cost.

The O3-DIN-SRC single room controller is ideal for cost-sensitive applications where core features and single serial port connectivity are required.

### **Features**

- Fully programmable
- ▶ BACnet/IP, BACnet over Ethernet and BACnet MS/TP communication ports
- Dual Ethernet ports
- Modular, expandable I/O. Modular design provides flexibility, ease of service and reduces cost of future upgrades.
- Fault detection and diagnostics
- Firmware upgrade and database load/ save over the network
- ► LED indicators for device status, NET and Ethernet ports
- USB expansion ports
- ► DIN rail mountable (EN 50022-35x7.5)

### **Specifications**

BACnet Protocol Rev 14

**BACnet Device Profile**BACnet Building Controller (B-BC)

**Device Addressing**Software addressed

### Connectors

Removable screw-type terminal connectors

Wiring Class Class 2 / SELV

### Power

24 VDC, 2 W typical (7 W max) 24 VDC, 100 W max output fully loaded

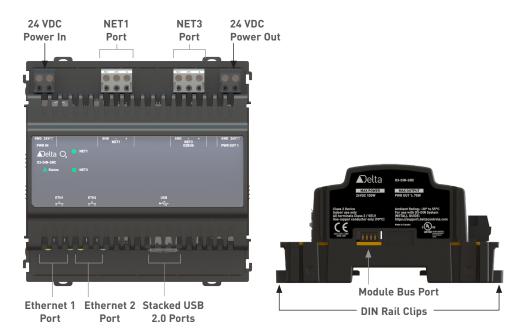
Power Out 75 W max

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Updated 13 December 2018\_r



### 03-DIN-SRC



Order the O3-DIN-SRC with one or more modules or hubs:

Base	Un	it

03-DIN-SRC	CPU base unit: 2 network ports, 2 Ethernet ports, 1 power output, Modbus RTU, NFC
Modules and Hu	bs
03-DIN-4F4xP	FET I/O module: 4 universal I/O, 4 FET binary outputs
03-DIN-8xP	I/O module: 8 universal I/O, input (0–10 V, 0–5 V, 10K) or output (20 mA source, 10 mA sink)
03-DIN-ACCESS	Access module, single door support
03-DIN-DALI	DALI lighting module: DALI interface, 100 mA power output
03-DIN-PoE	Power over Ethernet module
03-DIN-SMI	SMI module for motorized blinds: SMI interface, 30 mA power output
03-HUB	Sensor hub (temperature, humidity, light, motion, Bluetooth, LED ring, microphone and speaker) with mounting plate
03-HUB-En868	Sensor hub (temperature, humidity, light, motion, Bluetooth, EnOcean 868 MHz, LED ring, microphone and speaker) with mounting plate
03-HUB-En902	Sensor hub (temperature, humidity, light, motion, Bluetooth, EnOcean 902 MHz, LED ring, microphone and speaker) with mounting plate

### Specifications (Continued)

### Technology

Arm® Cortex®-A8
32-bit 600 MHz RISC CPU
256 MB DDR3L RAM
4 GB eMMC flash memory
Real-time clock
Supercapacitor power backup for RTC
and CPU

### **Communication Ports**

2 Ethernet (10/100-Base T) BACnet/IP, BACnet over Ethernet

1 RS-485 port supporting up to 4 devices with the following protocols:

BACnet MS/TP up to 76800 bps Delta LINKnet up to 76800 bps Modbus RTU up to 115200 bps

1 03BUS port (CAN-based) supporting up to 2 03-HUB devices

2 USB 2.0 ports

NFC, passive, two-way, short range

### **Ambient Rating**

-30°C to 55°C (-22°F to 131°F) 10% to 95% RH (non-condensing)

### **Dimensions**

 $108 \times 111 \times 58 \text{ mm}$  (4.25 × 4.37 × 2.28 in.)

### Weight

193 g (0.425 lb)

**Enclosure Protection Rating** IP20

### Compliance

CE FCC

### Listings

UL 916 Listed



## 03-DIN-SRC

### **Power Supplies**

DRC-24V30W1AZ	Chrome Line Voltage DC power supply 24 V 30 W Class A EMC
DRC-24V60W1AZ	Chrome Line Voltage DC power supply 24 V 60 W Class A EMC
DRC-24V100W1AZ	Chrome Line Voltage DC power supply 24 V 100 W Class A EMC
DRS-24V30W1NZ	Sync Line Voltage DC power supply 24 V 30 W Class B EMC
DRS-24V50W1NZ	Sync Line Voltage DC power supply 24 V 50 W Class B EMC
DRS-24V100W1NZ	Sync Line Voltage DC power supply 24 V 100 W Class B EMC



### 03-DIN-8xP: 8 Universal I/O Module

### **Description**

The O3-DIN-8xP is an I/O module for the O3-DIN system. Its 8 universal points can be configured to create the exact combination of inputs and/or outputs for a given application. When expansion is needed in the future, it's as easy as adding more modules to an existing system.



### **Application**

The 03 system is a complete solution that combines HVAC, access control and lighting control in a modular system. It combines multiple protocols and I/O points in one unit.

The 03 system improves room control, avoids duplicate devices and offers a satisfying occupant experience at a lower energy cost.

### **Features**

- 8 Universal points that can be configured as inputs or outputs
- ► Software configurable I/0
- Support for lighting applications with dimming
- ► DIN rail mountable (EN 50022-35x7.5)
- Modular design provides flexibility, ease of service and reduces cost of future upgrades and expansions.

### **Specifications**

### **Universal Points**

Up to 8 inputs (16 bit), supporting: 0-5 VDC 0-10 VDC 10 k $\Omega$  Thermistor Dry Contact (using 10 k $\Omega$  Thermistor software setting) 4-20 mA (using external 250  $\Omega$  resistor on 0-5 V setting)

Up to 8 outputs (12 bit), supporting: 0-10 V @ 20 mA max (sourcing) 1-10 V @ 10 mA max (sinking)

#### Connectors

Removable screw-type terminal connectors

Wiring Class Class 2 / SELV



## 03-DIN-8xP: 8 Universal I/O Module





Order the O3-DIN system base unit with one or more modules:

### **Base Unit**

03-DIN-CPU	CPU base unit: 3 network ports, dual Ethernet ports, 3 Power Out, Bluetooth, Modbus RTU support, NFC
Module Options	
03-DIN-8xP	I/O module: 8 Universal I/O, input (0-10V, 0-5V, 10K) or output (20mA source, 10mA sink)
03-DIN-DALI	DALI lighting module: DALI interface, 100mA power output
Power Supply	
DRC-24V30W1AZ	Chrome Line Voltage DC power supply 24V 30 Watt Class A EMC
DRC-24V60W1AZ	Chrome Line Voltage DC power supply 24V 60 Watt Class A EMC
DRC-24V100W1AZ	Chrome Line Voltage DC power supply 24V 100 Watt Class A EMC
DRS-24V30W1NZ	Sync Line Voltage DC power supply 24V 30 Watt Class B EMC
DRS-24V50W1NZ	Sync Line Voltage DC power supply 24V 50 Watt Class B EMC
DRS-24V100W1NZ	Sync Line Voltage DC power supply 24V 100 Watt Class B EMC
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### Specifications (Continued)

### Power

24 VDC, 4W max with fully loaded outputs\*

 $\ensuremath{^{*}}$  I/O module power is internally supplied from a O3-DIN-CPU through the O3BUS port.

### Communication Port 03BUS port

### Ambient

-30° to 55°C (-22° to 131°F) 10 to 95% RH (non-condensing)

### **Dimensions**

36 x 111 x 58 mm (1.42 x 4.37 x 2.28 in.)

### Weight

72.9 g (0.161 lb)

### Compliance

CE FCC

### Listings

UL 916 Listed

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Published February 2018\_r





### 03-DIN-CPU

### **Description**

The O3-DIN-CPU is a fully programmable native BACnet® Building Controller. As the primary integration engine of the O3 system, the O3-DIN-CPU contains memory storage and external communication ports as well as the control logic for the expansion modules. The O3-DIN-CPU can support up to 4 expansion modules.

The O3-DIN-CPU supports multiple communication methods, including BACnet/IP, BACnet over Ethernet, BACnet MS/TP and Delta LINKnet.



### **Application**

The O3 system is a complete solution that combines HVAC, access control and lighting control in a modular system. It combines multiple protocols and I/O points in one unit.

The 03 system improves room control, avoids duplicate devices and offers a satisfying occupant experience at a lower energy cost.

### **Features**

- Fully programmable
- ► BACnet/IP, BACnet over Ethernet and BACnet MS/TP communication ports
- Dual Ethernet ports
- ► Modular, expandable I/O. Modular design provides flexibility, ease of service and reduces cost of future upgrades.
- Advanced fault detection and diagnostics
- Firmware upgrade and database load/ save over the network
- ► LED indicators for device status, NET and Ethernet ports
- USB expansion ports
- ► DIN rail mountable (EN 50022-35x7.5)

### **Specifications**

**BACnet Device Profile** BACnet Building Controller (B-BC)

**Device Addressing** Software addressed

### Connectors

Removable screw-type terminal connectors

Wiring Class Class 2 / SELV

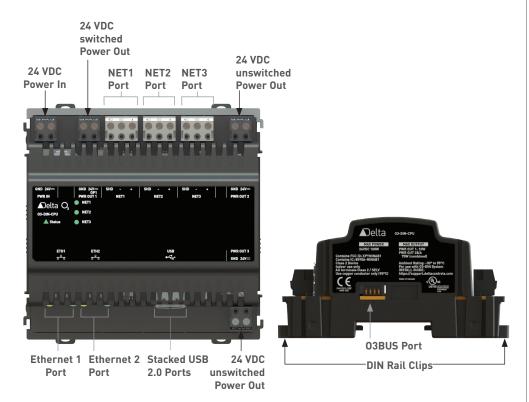
### Power 24 VDC, 100W max

### Power Out

- 1 24 VDC switched Power Out port Short circuit protected Overcurrent protected
- 2 24 VDC unswitched Power Out ports



### 03-DIN-CPU



Order the O3-DIN system base unit with one or more modules:

Base Unit	
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Base Unit	
03-DIN-CPU	CPU base unit: 3 network ports, dual Ethernet ports, 3 Power Out, Bluetooth, Modbus RTU support, NFC
Module Options	
03-DIN-8xP	I/O module: 8 Universal I/O, input (0-10V, 0-5V, 10K) or output (20mA source, 10mA sink)
03-DIN-DALI	DALI lighting module: DALI interface, 100mA power output
Power Supply	
DRC-24V30W1AZ	Chrome Line Voltage DC power supply 24V 30 Watt Class A EMC
DRC-24V60W1AZ	Chrome Line Voltage DC power supply 24V 60 Watt Class A EMC
DRC-24V100W1AZ	Chrome Line Voltage DC power supply 24V 100 Watt Class A EMC
DRS-24V30W1NZ	Sync Line Voltage DC power supply 24V 30 Watt Class B EMC
DRS-24V50W1NZ	Sync Line Voltage DC power supply 24V 50 Watt Class B EMC
DRS-24V100W1NZ	Sync Line Voltage DC power supply 24V 100 Watt Class B EMC

### Specifications (Continued)

### Technology

ARM Cortex-A8
32-bit 600 MHz RISC CPU
4 GB eMMC Flash memory
256 MB DDR3L RAM
Real-time clock
Ultracap power backup for RTC and CPU

### **Communication Ports**

2 Ethernet (10/100-Base T) BACnet/IP, BACnet over Ethernet

3 RS-485 Ports supporting: BACnet MS/TP up to 76800 bps, max 16 devices per O3-DIN-CPU on MS/TP

Delta LINKnet up to 76800 bps, max 8 eZNS devices per 03-DIN-CPU on LINKnet

2 USB 2.0 Host ports

03BUS port

Bluetooth Low Energy (Version 4.2)

### Ambient

-30° to 55°C (-22° to 131°F) 10 to 95% RH (non-condensing)

### **Dimensions**

108 x 111 x 58 mm (4.25 x 4.37 x 2.28 in.)

### Weight

193 g (0.425 lb)

**Enclosure Protection Rating** IP20

### Compliance

CE FCC

### Listings

UL 916 Listed

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Updated March 8 2018\_r





## 03-DIN-PWRINJ: Power Injector

### **Description**

The O3-DIN-PWRINJ power injector increases the number of O3-DIN modules on an O3 system by providing power to a maximum of 4 O3-DIN I/O or gateway modules. These power injector expansions can be located up to 70 m (230 ft) away and still be directly controlled by the O3-DIN-CPU room controller.

Using power injectors, HVAC, access and lighting control can be centralized on single controller. The O3 system's modular nature also has the flexibility to grow to meet future needs of the site without additional wiring costs.



### Application

The O3 system is a complete solution that combines HVAC, access control and lighting control in a modular system.

### **Features**

- ➤ A series of power injector units adds up to 12 O3-DIN modules to a single O3-DIN-CPU room controller
- Small footprint, DIN rail mounted
- Power injectors can be externally powered or powered by the O3-DIN-CPU controller

### **Specifications**

**Device Addressing** Set via rotary switch

### Connectors

Removable screw-type terminal connectors

Wiring Class Class 2 / SELV

Power 24 VDC, 100 W

Power Out 80 W (PWR OUT 1 and 2)

Ambient Rating -30°C to 55°C (-22°F to 131°F) 10% to 95% RH (non-condensing)

**Dimensions** 36 × 111 × 58 mm (1.42 × 4.37 × 2.28 in.)

**Weight** 70 g (0.15 lb)

Compliance CE EAC

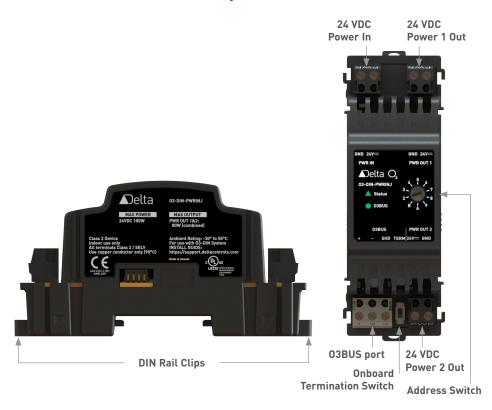
**Listings** C-UL Listed UL 916 Listed

EAC

Updated 16 June 2020\_r



## 03-DIN-PWRINJ: Power Injector



Order the O3-DIN-CPU with one or more modules or hubs:

### **Base Unit**

03-DIN-CPU	Base unit: 3 network ports, 2 Ethernet ports, 3 power outputs, Modbus, NFC

### **Modules and Hubs**

03-DIN-PWRINJ	Power injector for 03 expansion supporting up to 4 modules	
03-DIN-4F4xP	I/O module: 4 universal I/O, 4 FET binary outputs	
03-DIN-8xP	I/O module: 8 universal I/O	
03-DIN-ACCESS	Access module, single door support	
03-DIN-DALI	DALI lighting module: DALI interface, 100 mA power output	
03-DIN-PoE	Power over Ethernet module (IEEE 802.3at)	
03-DIN-SMI	SMI module for motorized blinds: SMI interface, 30 mA power output	
03-HUB	Sensor hub (temp, hum, light, motion, Bluetooth, LED ring, microphone, speaker	
03-HUB-En868	03-HUB with EnOcean 868 MHz	
03-HUB-En902	03-HUB with EnOcean 902 MHz	



## 03-DIN-PWRINJ: Power Injector

## **Power Supplies**

Chrome Line Voltage DC power supply 24 V 30 W Class A EMC
Chrome Line Voltage DC power supply 24 V 60 W Class A EMC
Chrome Line Voltage DC power supply 24 V 100 W Class A EMC
Sync Line Voltage DC power supply 24 V 30 W Class B EMC
Sync Line Voltage DC power supply 24 V 50 W Class B EMC
Sync Line Voltage DC power supply 24 V 100 W Class B EMC

