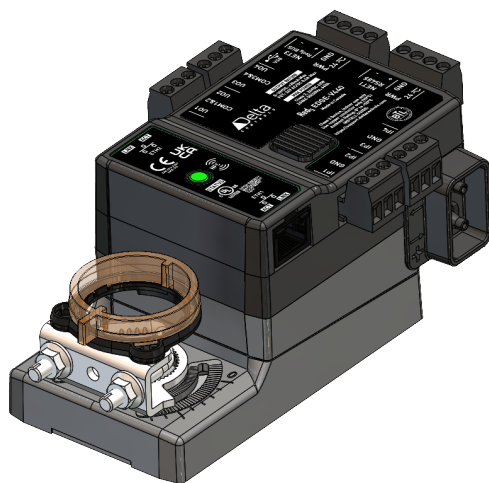# Red5 Series

Red5-EDGE-V440

Description

The Red5-EDGE-V440 is a fully integrated, programmable, IoT-based VAV controller that communicates using BACnet/IP, BACnet over Ethernet, or BACnet/SC. It is a native BACnet controller that supports an Ethernet daisy chain with bypass technology, with additional support for Red5BUS expansion. Using the Proviso™ app, you can adjust network settings to streamline the connection and configuration process.

Application

Specifically designed for VAV applications, the Red5-EDGE-V440 includes an actuator and differential pressure sensor with an integrated housing. The fully programmable, IoT-based Red5-EDGE-V440 allows GCL+ programs and BACnet objects to be tailored to any VAV application.

Features

- Native BACnet firmware
- BACnet/IP, BACnet over Ethernet, BACnet/SC
- Supports a RS-485 subLAN of LINKnet smart network sensors and remote I/O expansion modules
- Direct-mount housing integrates controller, Belimo actuator, and airflow sensor into a single package for easy, cost effective installation
- Ethernet daisy chain with bypass
- Built-in, selectable, editable Guideline 36 databases
- Network configuration via NFC
- Fully programmable in GCL+
- Zero drift differential pressure sensor
- LED indicator and SCAN status
- Support for up to 5 Modbus RTU devices
- USB port
- Anti-rotation bracket included

Specifications

BACnet Device Profile
BACnet Building Controller (B-BC)

External Inputs
4 universal inputs
Software selectable:
  0–5 VDC
  0–10 VDC
  10K thermistor
  4–20 mA

Internal Inputs
1 actuator position feedback standard
1 airflow input, differential pressure
0–2 inH_2O (0–500 Pa)

External Outputs
4 universal outputs
Software selectable:
  BO: 24 VAC/DC @ 500 mA max
  AO: 0–10 VDC @ 20 mA max

Belimo Actuator
Integrated Belimo actuator with analog positioning control
5 N·m (45 in-lb) torque

Device Addressing
Software addressed

Connectors
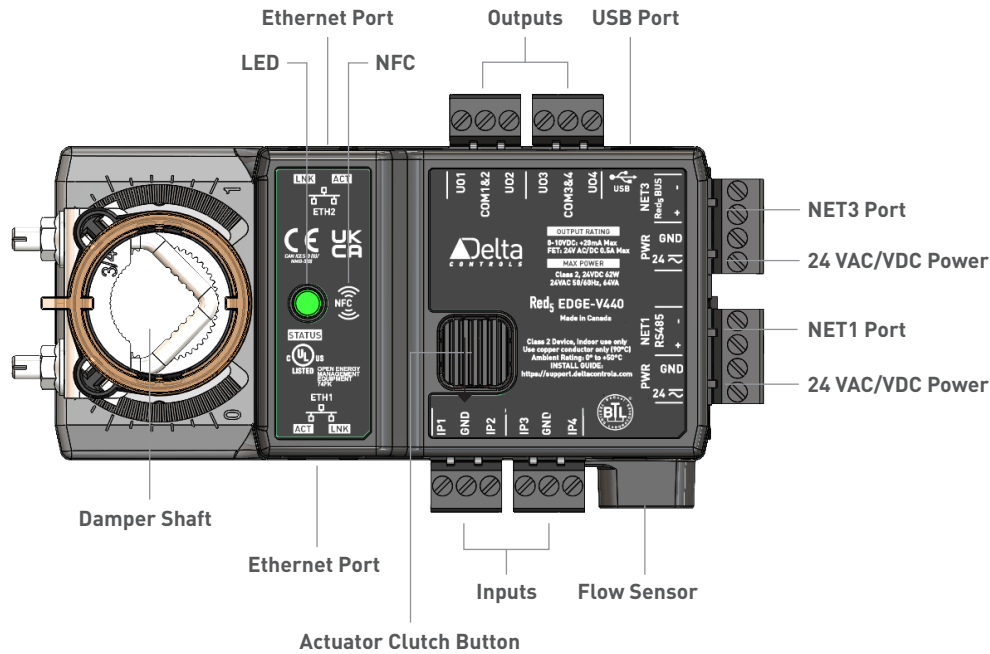Removable screw-type terminal connectors

Wiring Class
NEC Class 2 / SELV

Tubing
Flow sensor tubing must be 4 mm ($^5/_{32}$ in.) inside diameter

Updated December 2024

Red5 Series

Red5-EDGE-V440

Ethernet Port
Outputs
USB Port
LED
NFC
NET3 Port
24 VAC/VDC Power
NET1 Port
24 VAC/VDC Power
Damper Shaft
Ethernet Port
Inputs
Flow Sensor
Actuator Clutch Button

Ordering

Order the Red5-EDGE-V440 application controller according to the following product number:

322149	Programmable, IoT-based VAV controller, Belimo actuator, 4 inputs, 4 universal outputs (AO or BO)

Accessories

Proviso™ App	Provisioning tool for setting up and configuring devices. Download the app from Google Play (Android) or the App Store (iOS).

Specifications (Continued)

Power
24 VAC, 50/60 Hz @ 64 VA max, 14 VA typ
24 VDC, 62 W max, 5 W typ

Technology
32-bit dual-core Arm® Cortex®-A7
256 MB RAM
4 GB flash memory
24.4 KB GCL+ PG size
20 MB database space

Communications Ports
2 Ethernet (10/100-BaseT) ports with failover bypass
   BACnet/IP, BACnet over Ethernet, BACnet/SC

NET1 (RS-485):
   LINKnet up to 76800 bps, max 12 LINKnet devices total with no more than 4 DFM-4xx devices

   BACnet MS/TP: max 4 devices (1 port only) up to 76800 bps, max

   Modbus RTU max 5 devices

NET3 (Red5BUS):
   Max 4 remote I/O modules (requires Red5-EXPAND-04); max 2 O3 Hubs

1 USB port

NFC

Ambient
0°C to 50°C (32°F to 122°F)
10% to 90% RH (non-condensing)

Dimensions
158×88×68 mm (6.22×3.46×2.68 in.)

Weight
427 g (0.94 lb) excluding anti-rotation bracket

Compliance
CE
FCC

Listings
UL 916 Listed

Subject to change without notice.