Optergy Edge

P442

The P442 controller offers an affordable, high-volume solution for small controller and VAV applications, streamlining your control system needs. It ensures seamless integration and reliability, consistent with our Optergy Edge controller range.

OPTERGY AIR COMPATIBLE

Compatible with:

- Optergy Air BG-1000 gateway and WBG-1000
- Wireless communication to Optergy Air Sensors
- Wireless communication to Optergy Air Touch user interfaces

PROGRAMMING ENGINE

- P442 utilizes the latest DDC Engine
- Programmable via desktop application
- High speed control logic
- No licensing required

REST API

Read / write via API for the following features:

- Authorization
- Device configuration
- Analogue (Input, Output, Value)
- Binary (Input, Output, Value)

OPEN PROTOCOL CONFIGURATION OPTIONS

- BACnet IP - Daisy Chain IP (10/100 Mbps)
- BACnet MS/TP (Baud: 9.6, 19.2, 38.4, 76.8, 115.2 kbps)
- Modbus to BACnet Gateway

KEY FEATURES

General

- Web enabled controller
- Local web page configuration (HTTPS)
- Ethernet failover bypass
- REST API

Hardware

- 4 x universal inputs (16-bit resolution)
- 4 x binary outputs (0.25 A max each)
- 2 x analog outputs (12-bit resolution)
- Optional replaceable airflow sensor (Optergy AFS)

BACnet Functions

Internally hosted objects:

- 10 trendlogs
- 10 alarms
- 1 schedule
- 1 calendar
- 1 notification class

HARDWARE SPECIFICATIONS

Processor & Memory	ARM Cortex M4 180MHz 8 MB RAM 16 MB Flash Memory
Power	24 VAC, 12-24 VDC Class 2 Min load: < 5 VA with 24 VAC or 5 W with 12-24 VDC Max load: 36 VA with 24 VAC or 36 W with 12-24 VDC
Inputs	4 Universal Inputs with 16-bit resolution. Software selectable: • Dry Contact • 0-10 VDC • 10K Type 2 thermistor • 3K Type 2 thermistor • 4-20 mA (requires a 470 Ohm, 1% across IN and COM) • Pulse Count (support up to 100 Hz) • Raw / Counts
Binary Outputs	4 Binary Outputs each rated at 24 VDC, 0.25 A.
Analog Outputs	2 Analog Outputs with 12-bit resolution. Software selectable: • 0-10 VDC • 4-20 mA (min load resistance is 470 ohm)
24 VDC Output	Power for external devices (Stay within 6 W power budget with 24 VDC and 24 VAC)
Real Time Clock	Powered by on-board super capacitor with up to 5 days' life, real-time clock supports a time schedule, a calendar, alarms and trendlogs
Dimensions	6.0in (154mm) x 5.2in (132mm) x 1.5in (40mm)
Weight	256 grams
Mounting	Both screw and DIN rail mountable
Terminals	Removable terminals
Environment	-4°F (-20°C) to +140°F (+60°C) 0 to 95% RH, non condensing
Communications	BACnet IP, BACnet MS/TP, Modbus RTU, REST API

Ratings

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

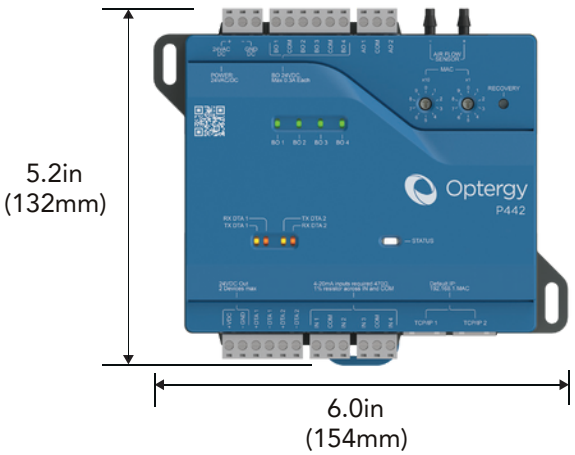
BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International. BTL is a registered trademark of BACnet International.

Operating Control, Network Energy Management Controller
Purpose of Control: Energy Management
Construction of control: Independently Mounted Control for Surface Mount or DIN Rail
Impulse Voltage: 330V
Pollution Degree: 2
SELV Levels: 24V
Automatic action: Type 1 Action

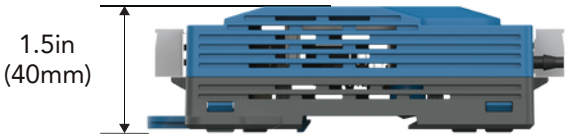
Model Number	P442-V1
Country of Origin	Australia

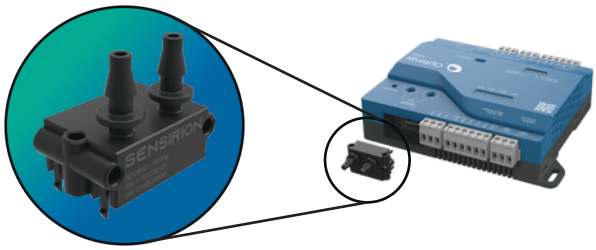
DIMENSIONS

TOP



FRONT





AIRFLOW SENSOR (EDGE-AFS)

- Field replaceable
- No offset, no zero-point drift, hysteresis free
- Accurate and long-term stable (even below .004'' w.c. / 1 Pa)
- Pressure range of up to ±500 Pa (±2'' w.c. / ±5 mbar)
- Calibrated and temperature compensated -4°F (-20°C) to +131°F (+55°C)

View the EDGE-AFS Datasheet >

Optergy