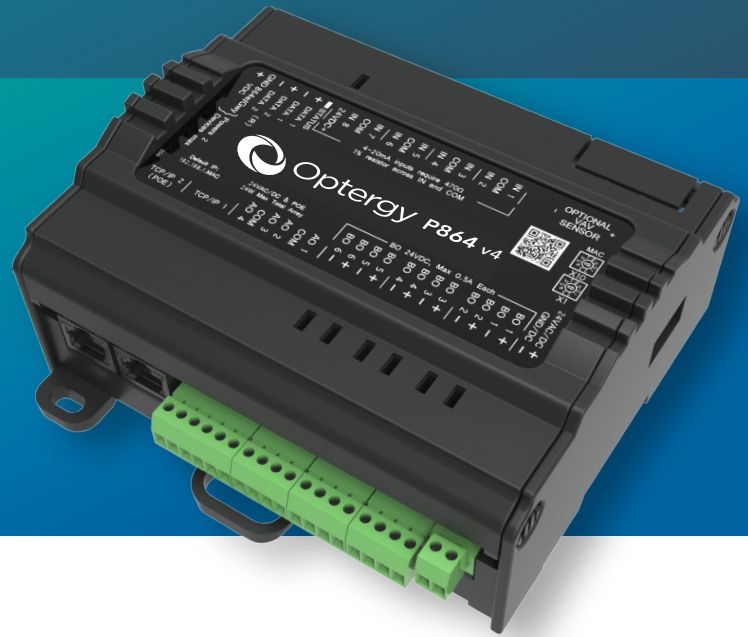# Optergy Edge

Optergy P864 (version 4)

The Optergy P864 edge controller enables you to fully optimise your building performance by delivering smart monitoring and control with ease. You get real time processing capabilities and the added confidence that comes with a controller designed to fit your exact building needs.

APPLICATIONS

Central Plants
Large Built Up Air Handling Unit (AHU)
Packaged AHU
Fan Coil Unit
Variable Air Volume

Humidification/Dehumidification Systems
Pulse Meter Data Collection
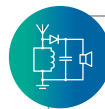Induction Units
Chilled Beams

Fully Versatile & Expandable Solution
Click here to view the Optergy 864e Datasheet.

REST API

Read / write via API for the following features:
- Authorization
- Device Configuration
- User Profile Modification
- Analogue (Input, Output, Value)
- Binary (Input, Output, Value)

OPEN PROTOCOL CONFIGURATION OPTIONS

- BACnet IP - Daisy Chain IP (10/100 Mbps)
- BACnet MS/TP
  (MS/TP baud: 9.6, 19.2, 38.4, 76.8, 115.2 kbps)
- BACnet MS/TP Routing (BACnet IP to MS/TP Router)
- Modbus IP/485 Gateway
- Powered via PoE+ (IEEE 802.3 AT), 24 VAC, 24 VDC

KEY FEATURES

General
- Web based programming logic
- Local web page configuration (HTTPS)
- Intellectual property safeguards
- Built-in programming tools
- REST API
- User Access Permissions

Hardware
- 8 x universal inputs (24-bit resolution)
- 6 x binary outputs (0.2A max each)
- 4 x analog outputs (12-bit resolution)
- Add up to 7 additional (Optergy 864e) input/output modules
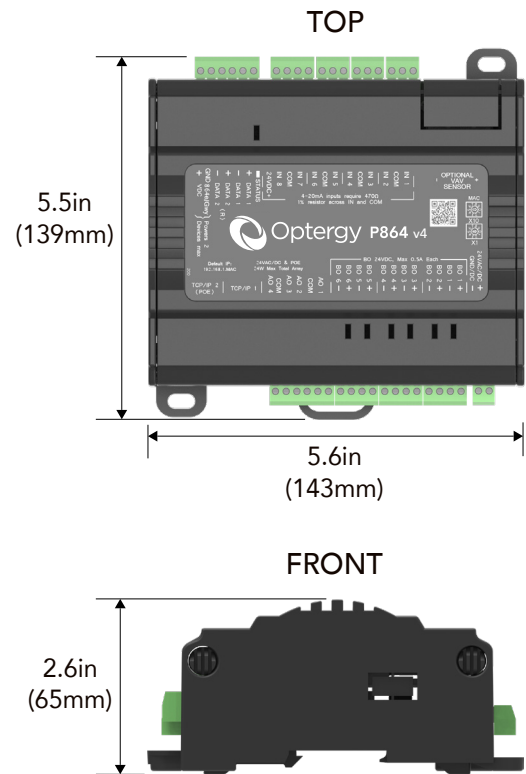- Additional optional airflow sensor (Optergy AFS-864)

BACnet Functions
- 150 trendlogs
- 100 alarms
- 10 schedules
- 10 calendars
- 10 notification classes

HARDWARE SPECIFICATIONS

Processor & Memory	Arm Quad-core Cortex A7 1.2 Ghz processor 512 MB RAM 8 GB Flash Memory
Power	P864: 24 VAC/VDC Class 2, min load: 4 VA or 4 W, max load: 12 VA with 24 VAC or 24 W with 24VDC, PoE+ max load: 24 W (PoE+ 802.3 AT), 48 VDC, type 2, Mode B
Inputs	8 Universal inputs with 24-bit resolution, software selectable for 10 K. Type 2 thermistor, 3K thermistor, dry contact, 0-5 VDC /4-20 mA or 0-10 VDC signals. Pulse inputs support up to 100 Hz. Each protected by Transient Voltage Suppressing (TVS) diode.
Binary Outputs	6 binary outputs each rated at 24 VDC, 0.2 A Each protected by 0.2 A Positive Thermal Coefficient (PTC) Fuse and Transient Voltage Suppressing (TVS) diode.
Analog Outputs	4 outputs with 12-bit resolution. Software selectable 0-10 VDC or 4-20 mA (0-10 VDC min load resistance is 500 ohm). Each protected by 0.1 A Positive Thermal Coefficient (PTC) Fuse and Transient Voltage Suppressing (TVS) diode.
24 VDC Output	Power for external devices (Stay within 24 W power budget with 24VDC or PoE and 12VA with 24VAC) 0.3 A Positive Thermal Coefficient (PTC) Fuse.
Battery Real Time Clock	Powered by super on-board capacitor up to a week, real-time clock supports schedules, trendlogs and timed automation functions.
Dimensions	L 5.6 in (143 mm) x W 5.5 in (139 mm) x H 2.6 in (65 mm)
Weight	0.77lbs (0.35 KG)
Mounting	Both screw and DIN rail mountable
Terminals	Removable header-type screw terminals accept 14-24 AWG (max 3 x 1.5 mm²)
Environment	-4°F (-20°C) to +140°F (+60°C) 0 to 95% RH, non condensing
Communications	BACnet IP, BACnet MS/TP, Modbus RTU, Modbus TCP/IP REST (IoT)
Ratings	CE — 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. FC B-AAC BTL — 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. c(UL)us LISTED — Operating Control, Network Energy Management Controller, E507611 Purpose of control: Energy Management Construction of control: Independently Mounted Control for Surface Mount or DIN rail Impulse Voltage: 330 V Pollution Degree: 2 SELV Levels: 24 V
Enclosure	ABS Plastic Fire Retardant Grade V-0
Model Number	P864 V4 Programmable IO controller
Country of Origin	Australia

DIMENSIONS

TOP

5.5in (139mm)

5.6in (143mm)

FRONT

2.6in (65mm)

AIRFLOW SENSOR (OPTERGY AFS-864) *OPTIONAL*

- Field replaceable
- No offset, no zero-point drift, hysteresis free
- Accurate and long-term stable (even below 1 Pa or .004'' w.c.)
- Pressure range of up to ±500 Pa (±2 inch H2O / ±5 mbar)
- Calibrated and temperature compensated -4°F (-20°C) to +131°F (+55°C)

View the Optergy AFS-864 Datasheet >

Optergy