

The P864 is an edge controller that can add smart monitoring and control to any building. The controller can operate on an enterprise IP network, be added to any legacy BACnet network, or operate stand alone.

The P864 controller can directly control its inputs and outputs using BACnet IP and MS/TP.

The P864 controller can host control logic, schedules, trends, alarms and is expandable using the 864e expansion modules up to 144 hardware data points.

The P864 controller can be powered using PoE+ (Power over Ethernet) which simplifies communication wiring and power needs.

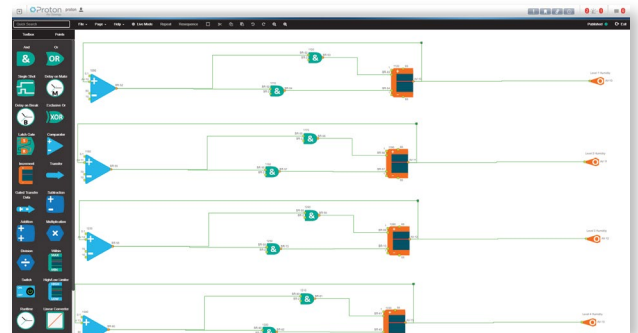


MAIN FEATURES

- 8 x universal inputs (24-bit resolution)
- 6 x binary outputs
- 4 x analog outputs (12-bit resolution)
- Add up to 7 additional (864e) input/output modules
- TCP/IP or RS-485 connectivity
- Ethernet switched in/out (10/100 Mbps)
- Powered via PoE+ (IEEE 802.3 AT), 24 VAC, 24 VDC
- BACnet IP to MS/TP Router
- Web based programming logic
- Local web page configuration (https)
- Intellectual property safeguards
- VAV application (optional airflow sensor AFS-864)
- BACnet IP and MS/TP
- 150 trendlogs
- 100 alarms
- 10 schedules
- 10 calendars
- 10 notification classes
- MS/TP baud: 9.6, 19.2, 38.4, 76.8, 115.2 kbps
- Modbus Gateway
- Rest API

MODELS

- P864** (programmable IO controller)
- 864e** (expansion IO module connects to P864 only)
- AFS-864** (optional clip-on airflow sensor)



Web based programming

AIRFLOW SENSOR OPTION (AFS-864)

- 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 (-20°C to + 55°C, -4°F to + 131°F)



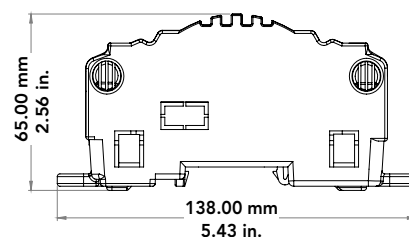
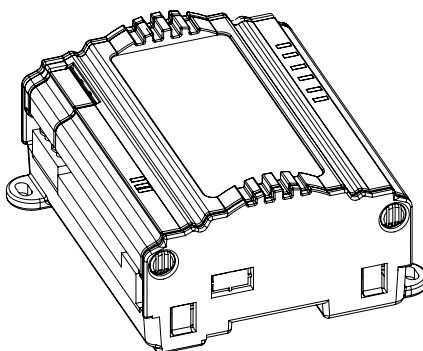
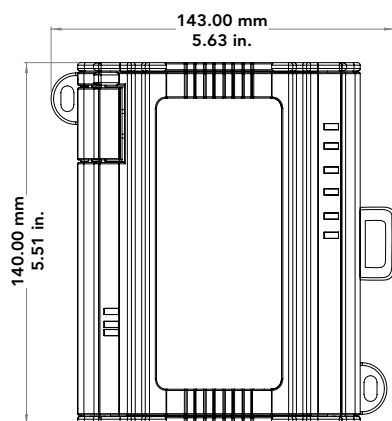
APPLICATIONS

Master Controller	Central Plants Large built up AHU Small Building
Unitary Controller	Air Handling Unit Fan Coil Unit Variable Air Volume Lighting Control Energy Metering

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: 7 VA or 7 W, max load: 24 VA or 24 W, PoE+ max load: 24 W (PoE+ 802.3 AT), 48 VDC, type 2, Mode B Note: Not compatible with PoE 802.3 AF
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
P864 Binary Outputs	6 binary outputs each rated at 24 VDC, 0.5 A
Analog Output	4 outputs with 12-bit resolution. Software selectable 0-10 VDC or 4-20 mA. (0-10 VDC min load resistance is 500 ohm)
24 VDC Output	Power for external devices (Stay within 24 W power budget)
Battery	3.0 V replaceable lithium coin cell battery
Real Time Clock	On-board battery backed real-time clock supports schedules, trendlogs and timed automation functions
Dimensions	W 143.00 mm (5.63 in.) x L 140.00 mm (5.51 in.) x H 65.00 mm (2.56 in.) Both screw and DIN rail mountable
Terminals	Removable header-type screw terminals accept 14-24 AWG (max 3 x 1.5 mm ²)
Environment	-20°C to + 60°C -4°F to + 140°F 0 to 95% RH, non condensing
Communications	BACnet IP, BACnet MS/TP, Modbus RTU, Modbus TCP/IP REST (IoT)
Agency Certifications	<p>B-AAC 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.</p> <p>UL LISTED Operating Control, Network Energy Management Controller, E507611</p> <p>CE FC</p> <p>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</p>

HARDWARE DIMENSIONS



ACF Electrical Solutions

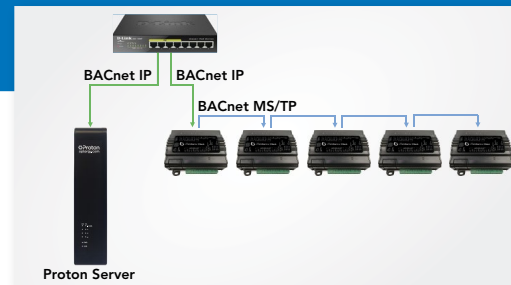
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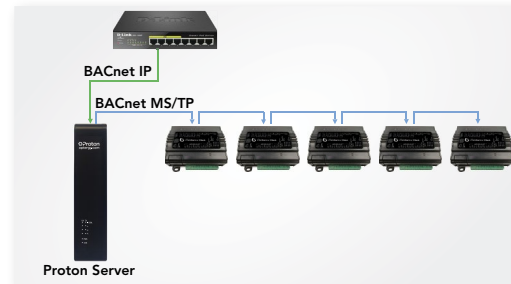
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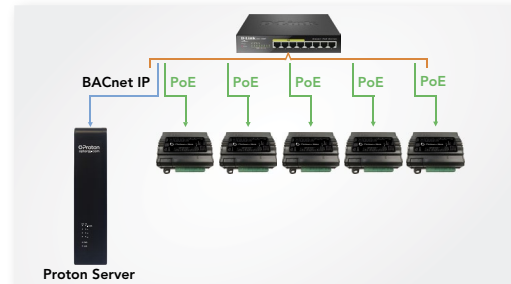
CONFIGURATION OPTIONS



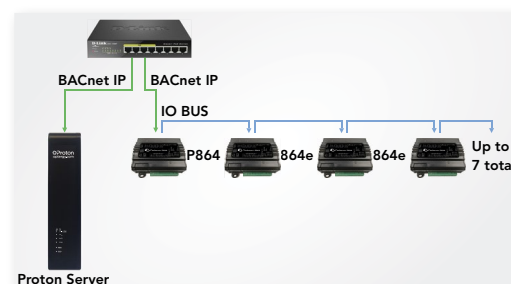
BACnet IP Controller, MS/TP Routing and Server



Traditional BACnet MS/TP Routing and Server



PoE BACnet IP Controllers and Server



Master Controller with Expansion IO control



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