SOLARAI

ControlPoint
MESH

Multipurpose Integration Device and BACnet Router

HARDWARE FEATURES

- 9-36VDC Supply (match to sensors)
- BACnet ZigBee-IP Router*
  - BBMD functionality (optional)
- 5 Analog Sensor Inputs
  - 0-10V or Pulsed Sensors (4-20mA available on special request)
  - Advanced Value Processing
- Flexible Integration
  - BACnet ZigBee –Wireless
  - BACnet IP*—RJ45 Port
  - RS232 ASCII Serial Interface
  - 6 Configurable Contact Closure Outputs
- Pluggable Connectors for Easy Installation
- Programmable through network or on-board Micro-USB

*Only available on IP Variants

WORKS WITH...

- Solarai Control Networks
- 3rd Party BAS/BMS Systems
- And more...

BACnet NATIVE

No gateway device required for BMS integration

CONTROL HIGHLIGHTS

- STANDARDIZED INTEGRATION
  - BAS/BMS (BACnet ZigBee or IP)
  - A/V SYSTEMS (ASCII Command String)
- DISTRIBUTED INTELLIGENCE
  - SCALABLE—MESH-IP ROUTER
  - ROBUST AND SECURE
- ENHANCES ENVIRONMENTAL MODELING
  - SOLAR PATH TRIGGERS / RESPONSES
  - ADVANCED SCHEDULING
- FULLY PROGRAMMABLE
  - SENSOR RESPONSE PROFILES
  - HYSTERESIS AND DELAYS
  - PRIORITY BASED CONTROL
  - CUSTOMIZABLE LOGIC
- NETWORK—WIRELESS (BACnet ZigBee)
- NETWORK—WIRED (BACnet IP) (-IP variants only)
- Micro-USB PROGRAMMING INTERFACE

Product Overview

Embedia's Solarai ControlPoint is a highly flexible and adaptable, multipurpose integration device. As a native BACnet device it is interoperable with 3rd party systems and capable of forming part of a BACnet ZigBee network. IP variants additionally serve as BACnet routers enabling communication between ZigBee and IP networks, allowing existing IP infrastructure to be used for Building Management System (BMS) / Building Automation System (BAS) integration as well as scaling of control networks to virtually any size. Wireless Mesh technology makes each device a wireless repeater improving network reliability.

The ControlPoint's 5 analog sensor inputs can be used to integrate various types of sensors (sun, wind, rain, etc) into a Solarai control network. Sensor value processing, paired with the fully programmable response profiles on Solarai motor controllers, may be used for enhanced control based on real world environmental conditions.

An RS232 ASCII serial interface and 6 programmable contact closure outputs are provided for easy integration with 3rd party Audio/Visual (AV) or BMS/BAS systems.

With pluggable connectors and all network parameters settable through the onboard display, installation and configuration is simple. More advanced programming can be performed over the network or through the provided Micro USB port.

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Technical Specifications

Parameter	Specification
Low Voltage Supply	9-36 VDC ⊖—●—⊕; 2.1mm ID x 5.5mm OD Barrel Connector (Center Positive)
Sensor Inputs	5 x 0-10VDC or Pulsed Frequency (0/4-20mA available on special request)
Integration Inputs/Outputs	1 x RS-232 Serial Port (DB9)—ASCII command interface
	6 x Normally Open Contact Closures (pluggable screw terminals)—Programmable
	1 x Ethernet Port (RJ45)—BACnet IP (-IP variants only)
Communication Network(s)	BACnet ZigBee; ZigBee Pro @ ISM 2.4GHz BACnet IP (-IP variants only); - enables connection of multiple ZigBee Segments through IP infrastructure
Wireless Network Range*	500m / 1650ft in free space (30m / 100ft typical in commercial / urban environment) - Repeaters may be added to extend wireless range *Wireless Range depends on actual wireless spectrum and network loading at install location.
Dimensions	160.00mm (6.30") x 97.00mm (3.82") x 30.00mm (1.18")
Enclosure	Custom Molded ABS Plastic Enclosure

Ordering Information

Orderable Part Number	Description
CP-Z	ControlPoint—MESH Sensor / AV Interface
CP-IP-Z	ControlPoint-IP—MESH BACnet ZigBee-IP Router with Sensor / AV Interface
PS-24V-1-US	24V 1A Power Supply (US plug) for ControlPoint

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