

BACnet IP “Smart Motor” Shade Controller



HARDWARE FEATURES

- BACnet IP Motor Control
 - RS485 Motor Interface (Options available for use with Embedia, Somfy, Mechoshade, and Rollease motors)
 - Manage up to 32 motors
- 5 Analog Sensor Inputs
 - 0-10V or Pulsed Sensors (4-20mA available on special request)
 - Advanced Value Processing
- 9-36VDC Supply (match to sensors)
- Flexible Integration
 - Motor Interface—RS485 Ports
 - 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

WORKS WITH...

- Solarai Control Networks
- RS485 “smart” motors for Roller Shades, Venetian Blinds, Louvers, Rack Arm Systems, Skylights, Operable Windows, etc
- 3rd Party BAS/BMS Systems
- And more...

BACnet NATIVE



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CONTROL HIGHLIGHTS

- ☀️ SUN TRACKING—Predictive Solar Control
- 🌿 OPTIMIZES ENERGY EFFICIENCY
- 👤 MAXIMIZES OCCUPANT COMFORT
- 🏠 ADVANCED ENVIRONMENTAL MODELING
- 👁️ ANTI-GLARE REGIONS
- 👁️ REFLECTED / INDIRECT GLARE CONTROL
- 🏠 OVERSHADOWING AND FIXED SHADES
- ☀️ SOLAR PATH TRIGGERS / RESPONSES
- 🕒 SCHEDULING
- 🔄 STANDARDIZED INTEGRATION
 - 🏠 BAS/BMS (BACnet IP)
 - 🎧 AV SYSTEMS (e.g. Modbus ASCII)
- 🏠 DISTRIBUTED INTELLIGENCE
 - 🏠 SCALABLE SYSTEM ARCHITECTURE
 - 🔒 ROBUST AND RESILIENT
- ⚙️ CONFIGURABLE WITH INSIGHT MOBILE APP
 - 🔄 SWITCH/SENSOR RESPONSE PROFILES
 - ⚡ PRIORITY BASED CONTROL
- 🏠 NETWORK—WIRED (BACnet IP)

Product Overview

Embedia’s Solarai ControlPoint PLUS is a “smart motor” controller capable of independent or grouped control for up to 32 motorized systems. It is designed with unrivalled intelligence for predictive environmental control of roller shades, venetian blinds, operable louvers, and other devices using various RS485 bus motors.

Proprietary sun tracking algorithms utilize geographic location, system orientations, and other advanced modeling parameters to provide accurate, real-time, predictive control ensuring shades are always in the optimal position for both energy efficiency and occupant comfort.

Implementing a unique distributed intelligence architecture, ControlPoint PLUS does not rely on a central server or control unit for shade positioning or even advanced modelling. The resulting resiliency of the control system reduces maintenance down time, and effectively eliminates single points of failure. Network load is also significantly reduced allowing the system to scale to any size. Native BACnet IP capabilities allow existing IP infrastructure to be used for Building Management System (BMS) /

Building Automation System (BAS) integration as well as scaling of control networks beyond the 32 device limit of a single ControlPoint.

5 analog inputs are provided to integrate various types of sensors (sun, wind, rain, etc) into a Solarai control network. Sensor value processing and fully programmable response profiles enhance 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 network parameters that are configurable through the onboard display, installation and configuration is simple. More advanced programming can be performed over the network, through the provided Micro USB port, or with the Embedia InSight mobile app (USBIF-WIFI add-on required).



EuroShade

Embedia



COMPANION PRODUCTS

Supported Motors

- Embedia MT35
- Somfy SDN
- Mechoshade IQ2*
- Rollease ARC*

Brightness Sensors

- SENSOR-SUNOMNI-0TO10V
- SENSOR-SUNLOWA-0TO10V
- SENSOR-SUN3DIR-0TO10V
- SENSOR-SUNINTS-0TO10V

Wind Sensors

- SENSOR-WINDSPEED-PULSE

Control Panel Software

- Graphical User Interface for Advanced system Management

*availability TBD on special request

WARRANTY

All Embedia products carry a standard 2-year product replacement warranty. Extended 5 and 10 year warranties are available.

For more information on any of our products or services please visit us on the Web at: www.embedia.com

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 2 x RS-485 (pluggable screw terminals)—Motor Control Interface 6 x Normally Open Contact Closures (pluggable screw terminals)—Programmable
Communication Network(s)	BACnet MSTP; Maximum 127 Devices per MSTP Segment; BACnet IP (-IP variants only); - enables connection of multiple MSTP Segments through IP infrastructure
Network Wiring (RS485)	1 x Twisted Pair + Ground meeting RS485 specification; 1200m / 4000ft absolute max bus Length (limiting to 600m / 2000ft recommended)
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-IP-GC32E	ControlPoint PLUS—BACnet IP Shade Controller with Sensor / AV Interface supporting up to 32 Embedia MT35 RS485 motors
CP-IP-GC32S	ControlPoint PLUS (SDN)—BACnet IP Shade Controller with Sensor / AV Interface supporting up to 32 Somfy SDN motors
PS-24V-1-US	24V 1A Power Supply (US plug) for ControlPoint

