

Avi-on BACnet Link

Local Interface to Building Control Systems

Two-Way Communication
Creates two-way communication over local Ethernet to building control systems using BACnet over IP

Highly Scalable
Support thousands of connection points using a single BCS Link

No Gateways Required
The Avi-on ecosystem is gateway-free



Simple Set Up
The BCS Bridge is easy to install and configure using a Windows application

LED Indicators
Power, EnOcean, Network, and Update LED indicators for visual device status.

Description

The BCS Link interfaces between Building Control Systems via BACnet IP to provide two-way building control integration. An Internet connection to the cloud is not required.

SUPPORTED DATA TYPES

Data Export:

Device Status

Send real time device status and dimming level changes from any Avi-on device

Motion Triggers

Send an update to the BCS any time a motion sensor is triggered

Daylight Values

Send an update to the BCS anytime a daylight sensor updates the dimming level on a group of lights

Fixture Energy Consumption Data

Send energy consumption data to the BCS every 15 minutes on all data points enabled with the appropriate energy monitoring Avi-on fixture controller (AVI-IFAC and AVI-XFAC)

Control Inputs:

On/Off/Dim

Adjust dimming levels or on/off status to groups of lights or individual lights, trigger scenes

Special Schedules

Turn on and off devices for groups or individual devices for special holiday or override schedules.

Demand Response

Enable pre programmed demand response modes from a BCS trigger

Emergency Mode Triggers

Trigger emergency lighting mode in emergency circuits from a BCS (or any BACnet IP compatible) control signal

Project		Location/ Type	
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ORDERING INFORMATION

Part Number	Name	Description
AVI-BACnet-LINK	Avi-on BACnet Link	Interface Avi-on network data and control commands to BACnet over IP. One per network up to 2000 nodes. Add additional links for larger networks.

To order please contact Avi-on sales at **(877) AVION-US**, (877) 284-6687 or prosales@avi-on.com for information on becoming an Avi-on partner and order details.

SUPPORTED BACNET MESSAGES

Message	Functions	Data Type	Unit	Min Value	Max value
Dimming	Read/Write	Real	Percent	0	100
Motion Sensing	Read	Binary	Binary PV	N/A	N/A
Energy Monitoring	Read	Analog Register Meter Reading	Watt Hours* 15 minute interval	0	5242880
Color Changing	Read/Write	Analog Value	Degrees Kelvin	2700	5000

* Raw readings in 15 minute increments

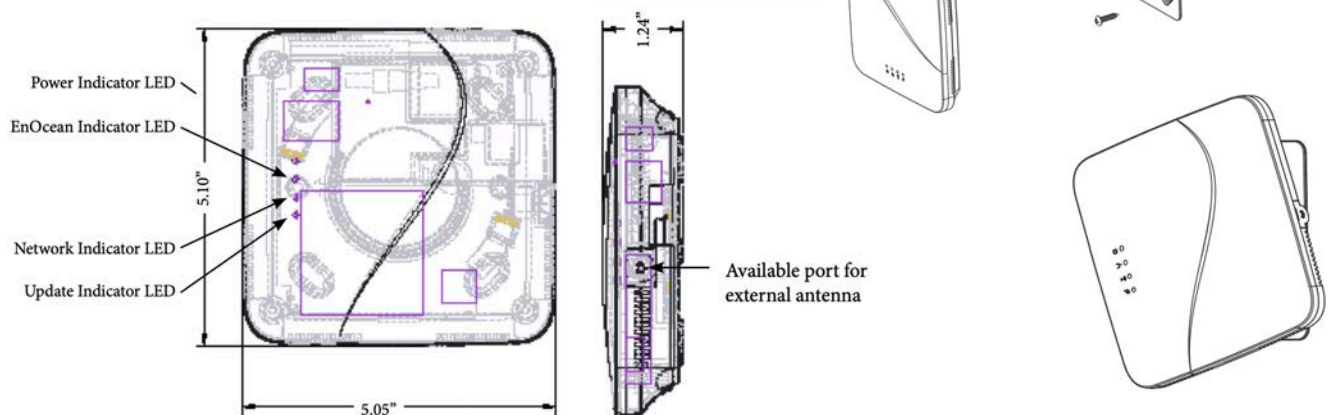
To get kWh/15 minute interval consumption it is necessary to subtract the latest reading from the prior reading. A blank reading means data was not received for that interval. If the reading was lost, but the device was operating, the next interval that reports will include all the energy used since the prior received interval, so lost intervals will not cause loss of data. The interval is broadcast every 15 minutes at the end of the interval (latency <3 seconds). The receiving system should time stamp based on local system time.

When a device register value exceeds 5242880 or on a power cycle, the register value will reset to 0 and start again. Interpreting the data requires "rollover" logic to recognize these rollovers and produce a correct value. This is standard logic in BCS systems designed to handle ordinary meter reading data.

SPECIFICATIONS

Input Voltage:	24VDC (Includes 110-240 VAC Power Supply)	Operating Temperature:	-32°F to 113°F (0°C to 45°C)
Power Consumption:	500mA @24VDC	Storage Temperature:	-4°F to 140°F (0°C to 60°C)
Network Interface:	Ethernet 10/100/1000	Relative Humidity:	95% non-condensing
Network Port:	RJ-45/ Cat 5	Warranty:	5 years
Interface points:	Approximately 2000 per Bridge (Depends on Traffic Volume)	Device Discovery:	BACnet Application Specific Controller (B-ASC), Annex L
Operating System:	Windows OS	Data Link Layer:	BACnet IP (Annex J)
Internet Connection:	Required during configuration on the configuration computer, not needed during operation. BCS-Internet connection not required	Supported Message Types:	See User Guide
Local Network :	Ethernet	USA FCC:	2AFZI-AV11010B
Dimensions:	5" (128mm) X 5.1" (130mm) x 1.2" (30mm)	Canada IC:	20544-AV11010B
		BQB:	DID: D031801 Qualified Design ID: 86303

CASE DIMENSIONS (Excluding Bluetooth Dongle)



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