



STRAP ON

Non-Intrusive, BACnet™ MS/TP | Modbus RTU

The BN Series Strap On networked temperature sensors are a cost effective, single point native BACnet™ or Modbus sensing solution designed to reduce the need for additional input modules or building management controllers when a limited number of input points are available. The BN series offers both BACnet™ and Modbus protocols in one device, providing great flexibility with various systems. The BTL Certification provides confidence that these sensors may be used in any new or retrofit installation using a BACnet™ MS/TP controller with third party BACnet™ devices. The sensor is encapsulated to the back side of a 1.5" square

copper plate providing thermal conductivity between the pipe and the sensor. These sensors incorporate a conformally coated printed circuit board for long-term reliability. The ABS enclosure features an easy open latch for easy access to the wiring and internal dip switches for quick setup and installation. Please contact ACI for more information regarding the BN Series communicating sensors.

Applications: Cold Water Systems, Hot Water Systems, Hydronic Heating Systems, Chillers

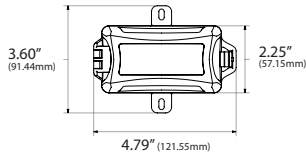
The BACnet™ Strap On sensors are covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com

PRODUCT SPECIFICATIONS

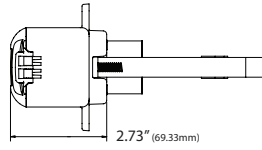
Supply Voltage:	12 to 36 VDC / 24 VAC +/- 10%, 50/60 Hz (Reverse Polarity Protected)
Current Consumption:	25 mA maximum (0.67 VA)
Temperature Measurement Range:	-22 to 185°F (-30 to 85°C)
Temperature Measurement Accuracy @ 77°F (25°C):	+/- 1.0°F (+/- 0.5°C)
Temperature Calibration Offset:	+/- 9°F (+/- 5°C) (Field Configurable)
Temperature Units:	°F (Factory Default), °C, °K (Field Configurable)
Resolution:	+/- 0.1°
Temperature / RH Update Rate:	4 seconds
Communication Protocol:	BACnet™ MS/TP or Modbus RTU = Field Selectable; EIA RS-485
Sensor Addresses:	0 = Factory Default 1-127 = Field Selectable
Supported Baud Rates:	Auto Baud (Factory Default) 9600, 19200, 38400, 57600, 76800, 115200 (Field Selectable)
Parity (Modbus RTU):	None/Even/Odd = Field Selectable
Stop Bits (Modbus RTU):	1 or 2 = Field Selectable
Databits (Modbus RTU):	8
Maximum Distance:	4000 ft (1219 m)
End Of Line Termination Resistance:	120 Ohms Termination Resistance (Field Selectable)
Tri-Color Status LED:	Connection Status
Connections Wire Size:	Screw Terminal Blocks 16 AWG (1.31 mm²) to 22 AWG (0.33 mm²)
Transmitter Operating Temperature Range:	-40 to 176°F (-40 to 80°C)
Storage Temperature Range:	-40 to 185°F (-40 to 85°C)
Operating Humidity Range:	10 to 95% RH, non-condensing
Pipe Mount Sensor Plate Material:	Copper
Acceptable Pipe Size:	S: 1 1/4" (32 mm) to 4" (100 mm) S10: 2" (50 mm) to 10" (250 mm)
Enclosure Material UL Flammability Rating:	ABS Plastic UL94-HB
Enclosure Temperature Rating:	-22 to 194°F (-30 to 90°C)
Product Weights:	0.43 lbs. (0.20 kg)
Agency Approvals:	BTL Certified, CE, RoHS2, WEEE, China RoHS



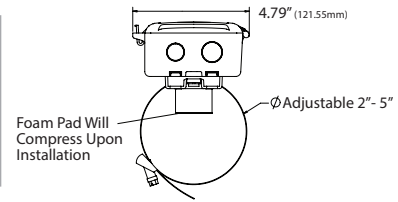
DIMENSIONAL DRAWING



Front View



Right View



Top View

STANDARD ORDERING

Model # Example: **BN2110-S-PB** -OR- **146549**

Model #	Item #	Description
BN2110-S-PB	146549	BACnet™ MS/TP, Modbus RTU, Temperature, Strap On, Plastic Enclosure
BN2110-S10-PB	146550	BACnet™ MS/TP, Modbus RTU, Temperature, Strap On, 2-10" Pipe, Plastic Enclosure



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 (BI). BTL is a registered trademark of BACnet International.

