JC-RTR11002-0 BACnet Router Catalog Page

Introduction

The BACnet® Router facilitates communication between BACnet/IP and BACnet MS/TP networks to monitor and control a wide variety of HVAC equipment, meters, fire alarm panels, and lighting on the Building Automation System (BAS).

Figure 1: JC-RTR11002-0 BACnet Router

Features and benefits

- Routes data between BACnet MS/TP and BACnet/IP.
- Supports BACnet/IP and BACnet MS/TP.
- Supports 100 devices for increased capacity, limited to 32 devices for the Remote Field Bus.
- Complies with BACnet: Building Automation Control Network, ANSI/ASHRAE 135.
- Features LEDs to indicate operational status.
- Available in three configurations: router only, router in a panel, or custom panel.

Ordering information

Table 1: BACnet Router ordering information

Product code number	Description
JC-RTR11002-0	BACnet Router: Supports BACnet MS/TP field controller (FC) trunk. Requires a 24 VAC power supply. Includes one Ethernet port. Supports a maximum of 100 devices on the MS/TP trunk, limited to 32 devices for the Remote Field Bus.
P2ABN-JB001NA3	Control Panel Assembly, 20 in. x 16 in. x 6.5 in. enclosure, JC-RTR11002-0 BACnet Router, 120/24 VAC Power Supply with 5-port network switch.

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Technical specifications

Table 2: JC-RTR11002-0 BACnet Router technical specification

Specification	Description
Power requirement	Dedicated nominal 24 VAC, Class 2 power supply (North America), SELV power supply (Europe), at 50/60 Hz (20 VAC minimum to 30 VAC maximum) Alternate: Dedicated nominal 24 VDC, Class II power supply input; North America: ACC-PWRKIT-1A24; Europe: ACC-PWRKIT-1E24
Power consumption	38 VA maximum
Operating system	Wind River® Linux LTS 19 (LTS: long-term support)
Processor	NXP i.MX6 DualLite processor, dual core Cortex-A9 processor at 1.0 GHz with 512 KB of L2 cache
Memory	16 GB flash nonvolatile memory for operating system, configuration data, and operations data storage and backup 2 GB SDRAM for operations data dynamic memory
Supported integrations	BACnet/IP, BACnet MS/TP
Network and serial interfaces	One Ethernet port: 100/10 Mbps, 8-pin RJ45 connector One FC port: RJ12 6-pin port, connects with 1.5 m (4.9 ft) RJ12 field bus cable One galvanically isolated RS-485 port, with a removable 4-pin terminal block Three USB ports: one Micro-B port and two USB A ports. All USB ports are currently inactive.
Transmission speeds	**Ethernet communication:** 100 Mbps or 10 Mbps The device can reside and interoperate on a 1 Gbps network, but does not itself connect at 1 Gbps. Galvanically isolated, serial communication (FC bus): 76,800 bps, 38,400 bps, 19,200 bps, 9600 bps, or 1200 bps (selectable)
Ambient temperature conditions	**Operating:** 0°C to 50°C (32°F to 122°F) **Non-Operating:** -40°C to 70°C (-40°F to 158°F)
Ambient humidity conditions	**Storage:** 5% to 95% RH, 30°C (86°F) maximum dew point conditions **Operating:** 10% to 90% RH, 30°C (86°F) maximum dew point conditions
Housing	Black polycarbonate and acrylonitrile butadiene styrene (ABS) blend IP protection class: IP20 UL flammability rating: UL94-5VB
Mounting	On flat surface with screws on three mounting clips or a single 35 mm DIN rail

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Table 2: JC-RTR11002-0 BACnet Router technical specification

Specification	Description
Dimensions (height x width x depth)	190 mm x 125 mm x 44.5 mm (7.48 in. x 4.92 in. x 1.75 in.)
Weight	0.387 kg (0.852 lbs)
Compliance ⓘ **Note:** This compliance applies to the JC-RTR11002-0 BACnet Router only. For Control Panel Assembly, you must adhere to local regulations and compliance requirements for your application.	**United States:** UL Listed, File E107041, CCN PAZX, UL 916, Energy Management Equipment; FCC Compliant to CFR47, Part 15, Subpart B, Class A, Conformance to FIPS 140-2 Level 1 using FIPS validated components.
	Canada: UL Listed, File E107041, CCN PAZX7, CAN/CSA C22.2 No. 205, Signal Equipment; Industry Canada Compliant, ICES-003
CE	**Europe:** CE Mark – Johnson Controls, Inc. declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive.
	Australia and New Zealand: RCM Mark, Australia/NZ Emissions Compliant
	BACnet Testing Laboratories™ (BTL) Listing Pending
	FIPS 140-2 Level 1: Compliant using FIPS validated components
UK CA	**United Kingdom:** Johnson Controls declares that this product is in compliance with Electromagnetic Compatibility Regulations, The Electrical Equipment (Safety) Regulations, and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations.

Table 3: JC-RTR11002-0 BACnet Router Standard Control Panel Assembly technical specifications

Specification	Description
Part number	P2ABN-JB001NA3
Enclosure rating	NEMA 1
Enclosure finish	ANSI 61 gray polyester powder coating
Ambient operating condition	0°C to 50°C (32°F to 122°F) 10% to 90% RH 30°C (86°F) maximum dew point conditions
Dimensions (height x width x depth)	20 in. x 16 in. x 6.50 in. (406 mm x 508 mm x 165 mm)

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Table 3: JC-RTR11002-0 BACnet Router Standard Control Panel Assembly technical specifications

Specification	Description
Panel weight	45 lbs (20.4 kg)
Ambient storage condition	5% RH to 95% RH 30°C (86°F) maximum dew point conditions
Agency compliance	Control Panel: UL 508A Rated (cULus listed); Enclosure UL 50 Rated, cUL-CAN/CSA C22.2 No. 14-05, HCAI Special Seismic Certification Preapproval: OSP-0140-10 California Building Code (CBC) - 2013, International Building Code (IBC) - 2012 Seismic Performance Characteristics: $S_{DS}(g)$ = 2.26, z/h = 1.0, I_p = 1.5

North American emissions compliance

United States

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the users will be required to correct the interference at their own expense.

Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada

This Class (A) digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe (A) respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Industry Canada Statement(s)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage, et
2. L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Repair information

If the device fails to operate within its specifications, replace it. The device is not a serviceable product, however, it does support software updates to enable feature enhancements. For a replacement unit, software updates, or accessories, contact your local Johnson Controls representative.

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Do not open the device housing. A tamper-evident label indicates if the unit was opened. The device has no user-serviceable parts inside and does not require periodic field maintenance. A non-replaceable super capacitor, not a battery, retains device data during a loss of power.

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Software terms

Use of the software that is in (or constitutes) this product, or access to the cloud, or hosted services applicable to this product, if any, is subject to applicable end-user license, open-source software information, and other terms set forth at www.johnsoncontrols.com/techterms. Your use of this product constitutes an agreement to such terms.

Patents

Patents: https://jcipat.com

Single point of contact

APAC	EU	UK	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS VOLTAWEG 20 6101 XK ECHT THE NETHERLANDS	JOHNSON CONTROLS TYCO PARK GRIMSHAW LANE MANCHESTER M40 2WL UNITED KINGDOM	JOHNSON CONTROLS 5757 N GREEN BAY AVE. GLENDALE, WI 53209 USA

Contact information

Contact your local Johnson Controls representative:
www.johnsoncontrols.com/locations
Contact Johnson Controls:
www.johnsoncontrols.com/contact-us

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