

BACnet Protocol Implementation Conformance Statement

Date: September 13, 2009

Vendor Name: Novar/Honeywell

Product Name: Refrigeration Case Controller

Product Model Number: rcc.521

Application Software Version: 1.0 **Firmware Revision:** A.0 **BACnet Protocol Revision:**

Product Description:

The rcc.521 Refrigeration Case Controller is a component of Novar's Opus Building Control System. In terms of the BACnet protocol, the rcc.521 is an application-specific controller.

Other BACnet devices on the network can read and write to the BACnet objects within this device.

BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks Supported (Annex K):

- Data Sharing-ReadProperty-B (DS-RP-B)
- Data Sharing-WriteProperty-B (DS-WP-B)
- Device Management-Dynamic Device Binding-B (DM-DDB-B)

Segmentation Capability:

- Able to transmit segmented messages Yes No Window Size _____
- Able to receive segmented messages Yes No Window Size _____

Standard Object Types Supported:

Analog Input
 Dynamically Creatable: No
 Dynamically Deletable: No

Analog Value
 Dynamically Creatable: No
 Dynamically Deletable: No

Binary Input
 Dynamically Creatable: No
 Dynamically Deletable: No

Binary Output
 Dynamically Creatable: No
 Dynamically Deletable: No

Binary Value
 Dynamically Creatable: No
 Dynamically Deletable: No

Device Object

Dynamically Creatable: No

Dynamically Deletable: No

Loop

Dynamically Creatable: No

Dynamically Deletable: No

Multistate Value

Dynamically Creatable: No

Dynamically Deletable: No

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8), baud rate(s)_____
- MS/TP master (Clause 9), baud rate(s): 9600, 19.2k, 38.4k, 76.8k
- MS/TP slave (Clause 9), baud rate(s): 9600, 19.2k, 38.4k, 76.8k
- Point-To-Point, EIA 232 (Clause 10), baud rates(s):
- Point-To-Point, modem (Clause 10), baud rates(s):
- Lon Talk, (Clause 11), medium:_____
- Other:

Device Address Binding:

Is static device binding supported?

(This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)

- Yes N
o

Networking Options:

- Router, Clause 6 – List all routing configurations
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)
Does the BBMD support registrations by Foreign Devices? Yes N
o

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

- ANSI X3.4
- IBM™/Microsoft™ DBCS
- JIS C 6226
- ISO 10646 (UCS-4)
- ISO 10646 (UCS-2)
- ISO 8859-1

Gateway:

If this product is a communication gateway, describe the types of non-BACnet equipment/network(s) that the gateway supports:

Not Applicable

BACnet Device Object

Device Object Property	Required	Default Value	Read/Write	Identifier	Range of Values	Comments
Object Identifier	Y	<device, MAC address>	Read		0-4194302	
Object Name	Y	"RCC-521- <serial no.>"	Read		32 characters	Configured at factory depending on Device Type
Object Type	Y	Device	Read			
System Status	Y	Operational	Read		Others	
Vendor Name	Y	Novar / Honeywell	Read		32 characters	Configured at factory
Vendor Identifier	Y	333	Read			Configured at factory
Model Name	Y	RCC-521	Read		32 characters	Configured at factory
Firmware Revision	Y	Per Mfg Instructions	Read/Write		Latest Version	Initially configured at factory - must be read/writeable for field updates
Application Software Version	Y	Per Mfg Instructions	Read/Write		Latest Version	Initially configured at factory - must be read/writeable for field updates
Location	N					Not Required
Description	N					Not Required
Protocol Version	Y	1	Read/Write			Initially configured at factory - must be read/writeable for field updates
Protocol Revision	Y	5	Read/Write			Initially configured at factory - must be read/writeable for field updates
Protocol Services Supported	Y	See Condensed List below	Read/Write			Initially configured at factory - must be read/writeable for field updates
Protocol Object Types Supported	Y	See Condensed List below	Read/Write			Initially configured at factory - must be read/writeable for field updates
Object List	Y		Read/Write			Initially configured at factory - must be read/writeable for field updates
Max APDU Length Accepted	Y	480 (bytes or characters)	Read/Write			Initially configured at factory - must be read/writeable for field updates
Segmentation Supported	N					Initially configured at factory
VT Classes Supported	N					Not Required
Active VT Sessions	N					Not Required
Local Time	N					Not Required
Local Date	N					Not Required
UTC Offset	N					Not Required
Daylight Savings Status	N					Not Required
APDU Segment Timeout	N					Not Required
APDU Timeout	Y	3000 milliseconds	Read/Write			Default
Number Of APDU Retries	Y	1	Read/Write			Default
List Of Session Keys	N					Not Required
Time Synchronization Recipients	N					Not Required

Max Master	N				1-127	Not Required
Max Info Frames	N				1-65535	Not Required
Device Address Binding	Y	None				
Database Revision	Y	1				
Hardware Revision	Novar Proprietary	Per Mfg Instructions	Read	512	32 characters	Configured at factory
Mfg Date Code	Novar Proprietary	Per Mfg Instructions	Read	513	32 characters	Configured at factory and matches product label specification. Format is YYWK.
Serial Number	Novar Proprietary	Per Mfg Instructions	Read	514	32 characters	Configured at factory and matches product label specification. Number is unique for every device - used for warranty tracking, etc...
Case Vendor Name	Novar Proprietary	Leave Blank	Read/Write	515	32 characters	Vendor name of case the device is installed on - optionally loaded during system commissioning process
Case Model Description	Novar Proprietary	Leave Blank	Read/Write	516	32 characters	Vendor Case Model Number (if applicable) - optionally loaded during system commissioning process
Installed Location	Novar Proprietary	Leave Blank	Read/Write	517	32 characters	String to describe installed location of this device (eg. "LTA2" for Low Temp, Rack A, circuit #2) Optionally loaded during system commissioning process
Function Performed	Novar Proprietary	Leave Blank	Read/Write	518	32 characters	Describes function being performed by this device - EEV control; EEPR Control. Optionally loaded during system commissioning process

Condensed List

Property Description	Default Value
Object Name	"RCC-521-<Serial Number>"
Vendor Name	"Novar / Honeywell"
Vendor Identifier	333
Model Name	"RCC-521"
Firmware Revision	Latest Revision
Application Software Version	Firmware Date
Protocol Version	1
Protocol Revision	5
Protocol Services Supported	Read Property Write Property AtomicWriteFile ReinitializeDevice Who-Is I-Am
Object Types Supported	Analog Input Object Analog Value Object Binary Input Object Binary Output Object Binary Value Object Device Object File Object Loop Object Multistate Value Object
Object List	Suction Pressure Object Suction Temperature Object Discharge Air Temperature Object Defrost Temperature Object Suction Pressure Offset Object Suction Temperature Offset Object Discharge Air Temp. Offset Object Defrost Temperature Offset Object Medium Temp. SH Setpoint Object Low Temp. SH Setpoint Object Current Superheat Setpoint Object Valve Number of Steps Object Valve Step Rate Object Defrost Termination Temp. Object Maximum Time in Defrost Object Drain Time Object Fan Delay Temperature Object Maximum Fan Delay Time Object Valve Signature Value Object Defrost Interval Object Thermostat Mode Cut-in Temp. Object Thermostat Mode Cut-out Temp. Object Saturation Temperature Object Superheat Reading Object

	<p> Superheat Setpoint Override Time Object Valve Position Override Time Object Supply Solenoid Override Time Object Defroster Override Time Object DAT Setpoint Override Time Object Discharge Air Temp. Cut-in 1 Object Discharge Air Temp. Cut-in 2 Object Discharge Air Temp. Cut-out/SP 1 Object Discharge Air Temp. Cut-out/SP 2 Object Minimum DATRC Setpoint Object Initial Valve % Open After Def. Object Requested Valve Position Object Current Valve Position Object Current DAT Setpoint Object Maximum Evap. Fans Override Time Object Solenoid Signature On Time Object Solenoid Signature Off Time Object Refrigerant Leak Detector Object Dual Temperature Input Object Evaporator Fans Object Defroster Object Supply Solenoid Object Fans Off During Defrost Object Thermostat Mode Control Object High Superheat Alarm State Object Low Superheat Alarm State Object Floodguard Active Object Defrost Type Selection Object Def. Recovery Limiting Strategy Object Display Settings Control Object Valve Type Object Pressure Units Object Temperature Units Object SH PID Control Loop Object DAT PID Control Loop Object System Type Selection Object Refrigerant Type Selection Object Auto Pressure Sensor Selection Object Current System Cycle Object </p>
Maximum APDU Size	480
Segmentation Support	Segmentation Not Supported
APDU Timeout	3 seconds
Number of APDU Retries	1
Database Revision	Latest Database Revision