

Job Name: \_\_\_\_\_ Location: \_\_\_\_\_  
 Purchaser: \_\_\_\_\_  
 Engineer: \_\_\_\_\_  
 Submitted To: \_\_\_\_\_ For:  Reference  Approval  Construction  
 Submitted By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Unit Designation: Schedule #: \_\_\_\_\_ Model No.: \_\_\_\_\_

FEATURES / BENEFITS	
•	Integrate Daikin VRV, SkyAir and Duct-Free Split Systems with third party building automation systems supporting the BACnet protocol.
•	BACnet Application Specific Controller (B-ASC) device profile compatible with BACnet (ANSI / ASHRAE-135)
•	BACnet IP Data Link Layer (Annex J)
•	Supports COV – Change of Value, Property Array Index and Segmented Requests
•	IPV6 and Foreign Device Registration capability
•	BTL Certification (Operating System Version 6.2 and Later)

**Power:**

Power supply (externally supplied)	24VAC, 50/60Hz
Power consumption	20 Watts maximum (40 VA Transformer Recommended)

**Operating conditions:**

Surrounding temperature	14° F to 122° F
Storage temperature	5° F to 140° F
Humidity (% Relative)	0% to 98% (non-condensing)
Dimensions (H x W x D)	10-13/16" x 10-11/32" x 2-11/16"

Maximum number of outdoor units	20 (40 with DAM411B51)
Maximum number of indoor units	128 (256 with DAM411B51)
Temperature Unit	Degrees Celsius (Fixed)

**Connectivity:**

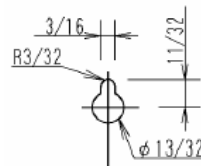
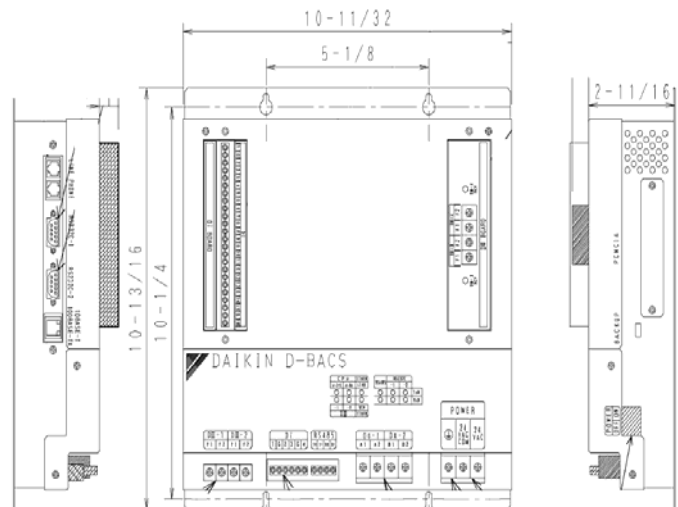
DIII-Net x 2	AC equip. communication line
10BASE-T or 100BASE-TX	Interface to BACnet network
Di (Digital Input) x 4	Forced Off Function
Do (Digital Output) x 2	A/C malfunction indication

**Options:**

DAM411B51	Adds (2) DIII-Net lines
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**Certifications:** FCC Part 15 Subpart B Class A

Configuration and engineering for each project are necessary.



SPECIFICATIONS OF COMMUNICATIONS CABLING (DIII-NET)	
<b>TYPE</b>	2-conductor, stranded, non-shielded copper cable / PVC or vinyl jacket
<b>SIZE</b>	AWG18-2
<b>TOTAL LENGTH</b>	Maximum wiring distance between units: 3,280 ft Maximum wiring length: 6,550 ft

**Daikin air conditioner monitoring and control points accessible through the DMS502B71**

Check the appropriate box indicating the required integrated points for this project.

Function		Description
<b>Monitoring points</b>	Start / stop status	Monitors the start / stop status of the air conditioner.
	Alarm	Monitors whether or not the air conditioner is operating normally, and issues an alarm if the air conditioner has a malfunction.
	Malfunction code	Displays a malfunction code specified by the manufacturer if an air conditioner in the system has a malfunction.
	Air-conditioning mode	Monitors if the air conditioner is cooling, heating, or ventilating.
	Room temperature (Note 1)	Monitors and displays the room temperature.
	Filter sign	Monitors indoor unit's filter sign status.
	Thermostat status	Monitors whether or not the air conditioner is properly controlling the temperature.
	Compressor status	Monitors if the compressor of the outdoor unit connected to the indoor unit is properly operating.
	Indoor fan status	Monitors if the indoor unit's fan is properly operating.
	Heater operation status	Monitors if the indoor unit's heater is properly operating.
	Communication status	Monitors the indoor unit's DIII-net communications status.
<b>Operation, configuration, and monitoring points</b>	Start / stop operation (Note 2)	Starts / stops the air conditioner and monitors the result.
	Air-conditioning mode setting (Note 2)	Sets the cooling / heating / ventilating / auto air-conditioning mode and monitors the result.
	Room temperature setting (Note 2)	Sets the room temperature of the air conditioner and monitors the result.
	Filter sign reset	Resets the indoor unit's filter sign.
	Remote controller enable / disable (Note 2)	Enables or disables the remote controller so that it can or cannot be used to control the air conditioner's start / stop / air-conditioning mode / room temperature.
	Lower central device operation enable / disable	Enables or disables operation of a central device connected to the DIII network.
	Air flow rate setting (Note 2)	Sets the air flow rate and monitors the result.
	Air direction setting (Note 2)	Sets the air direction and monitors the result.
	Forced system stop	In response to the forced stop command, checks whether clearance or setting is required and performs the required action.
	Forced thermostat disable	In response to the forced thermostat disable command, checks whether clearance or setting is required and performs the required action.
	Energy saving	In response to the energy saving command, checks whether clearance or setting is required and performs the required action.

**Application Notes**

1. Room temperature data (BACnet object name RoomTemp\_XXX) by default is reported from the Daikin indoor units return air thermistor. This applies to all VRV indoor units styles and capacities. During periods when the indoor unit is turned off or during certain operating modes that cycle the fan off including defrost operation, hot-start and system pressure equalization, the reported temperature may not accurately reflect the actual space temperature. For applications where this temperature value will be primary to system control including mode and temperature setpoint management, it is recommended that the Daikin remote temperature sensor (Part No. KRCS01-1B or 4B depending on model) is specified for each indoor unit and installed within the occupied space or unit be configured to be controlled from temperature sensor in BRC1E71 Navigation Controller if the unit is capable.
2. The Daikin indoor unit maintains the settings for temperature, start / stop status, operating mode, air direction and fan speed in non-volatile memory each time they are changed. These settings will not be lost upon a power loss event.
3. BACnet® is a registered trademark of ASHRAE.

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