

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	256 (1 FG with DAM411B51)
Temperature Unit	Degrees Fahrenheit or Celsius

**Connectivity:**

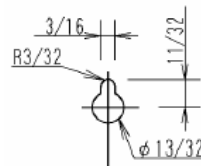
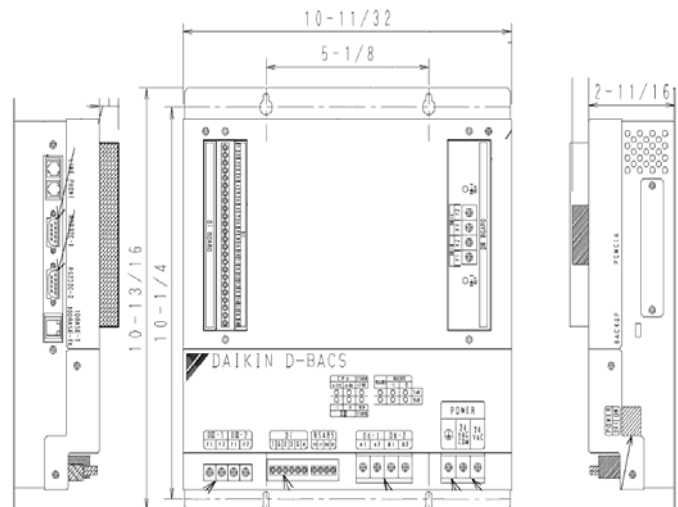
DIII-Net x 2	AC equip. communication line
10BASE-T or 100BASE-TX	Interface to BACnet network
Di (Digital Input) x 4	Forced Off Function
Do (Digital Output) x 2	A/C malfunction indication

**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 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>	On / Off status	Monitors the On / Off status of the indoor unit.
	Alarm	Monitors whether or not the indoor unit is operating normally, and issues an alarm if the indoor unit has a malfunction.
	Malfunction code	Displays a malfunction code specified by Daikin if an indoor unit in the system has a malfunction.
	Operation mode	Monitors if the indoor unit is in Cool, Heat, Fan, or Dry mode.
	Room temperature (Note 1)	Monitors and displays the room temperature.
	Filter sign	Monitors filter run time and provides service alert.
	Thermo-on	Monitors whether or not the indoor unit is actively cooling or heating.
	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>	On / Off stop operation (Note 2)	Starts / stops the indoor unit and monitors the latest status.
	Operation mode setting (Note 2)	Sets the Cool / Heat / Fan / Dry / Auto mode for the indoor unit and monitors the latest mode.
	Setpoint setting (Note 2)	Sets the setpoint of the indoor unit and monitors the latest setpoint.
	Filter sign and reset	Monitors the filter run time, provides service alert, and allows a manual reset of the status as required.
	Remote permit / prohibit (Note 2)	Permits or prohibits the remote controller so that it can or cannot be used to control the indoor unit's On/Off / Operation mode / Setpoint.
	Lower Centralized Controller operation enable / disable	Enables or disables operation of a Centralized Controller connected to the DIII network.
	Fan speed setting (Note 2)	Sets the fan speed and monitors the latest setting.
	Vane direction setting (Note 2)	Sets the vane direction and monitors the the latest setting.
	Forced system stop	The forced system stop command will force the indoor unit to stop running based upon a received emergency alarm input. Remote controllers will be locked out from restarting indoor units during the forced system stop event.
	Forced Thermo-off	In response to the forced thermo-off command, the indoor unit stops actively cooling or heating.
Energy saving	Offsets the internal setpoint +3.6°F (2°C) in cooling, and -3.6°F (-2°C) in heating in an indoor unit. The actual setpoint is not changed.	
<b>Application Notes</b>		

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, on / off status, operating mode, vane 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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