



INTEGRATED CONTROL SYSTEM  
FOR SEAMLESS CONNECTION  
BETWEEN VRV<sup>®</sup> AND BMS  
SYSTEMS

NETWORK SOLUTIONS



**BACnet Interface**

[www.daikin.eu](http://www.daikin.eu)



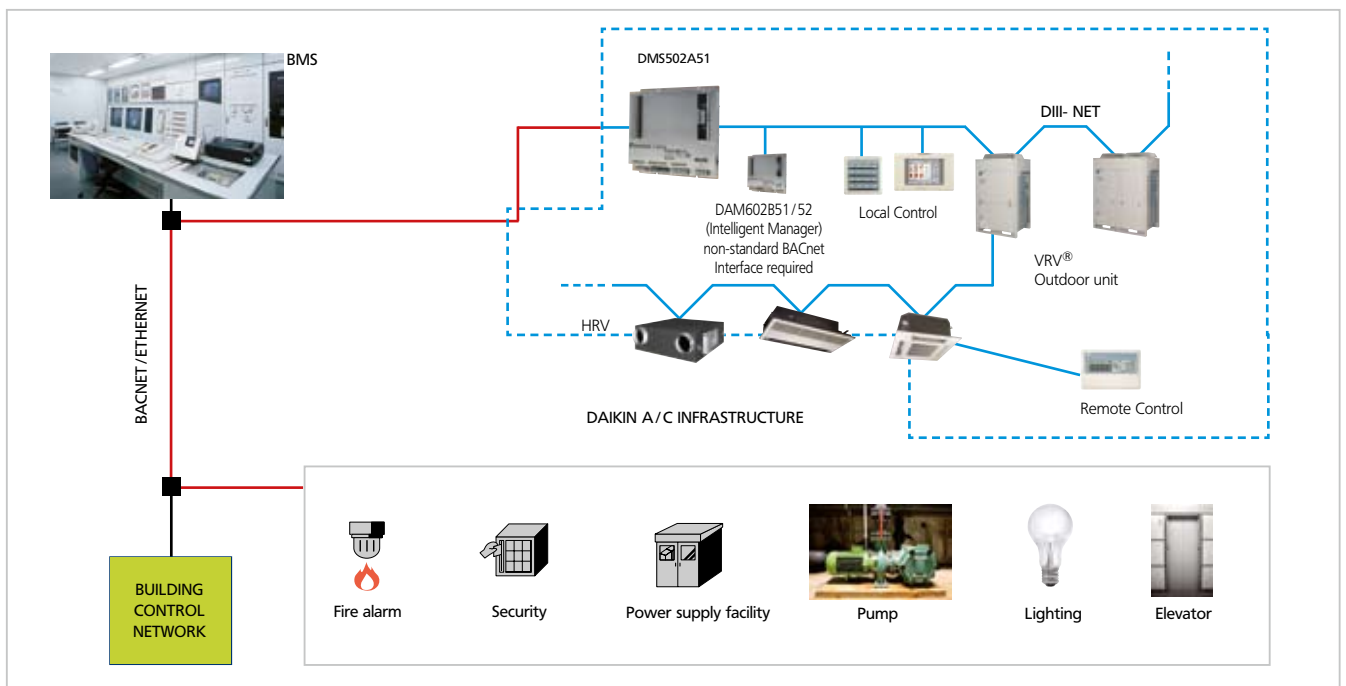
# MAIN FEATURES

## 1. BACnet INTERFACE

- > Precise and efficient monitoring and control of VRV® and HRV systems. Also Split and Sky Air units can be connected via an optional interface adapter
- > Flexible, multi purpose system
- > Control mechanism is BACnet
- > Provides easy integration into building management systems (BMS) including management of all building installations in remote control or interlocked control.

## 2. OPEN NETWORK INTEGRATION

- > The Daikin BACnet adapter requires no additional interfaces for connection to BACnet networks equipment and building control systems. BACnet networks are recognised worldwide as the standard within the building controls industry. BACnet data communication protocol makes it possible to control access, energy management, fire/ life / safety, HVAC and lighting etc.



### 3. QUICK AND EASY INSTALLATION

- > The open protocol specification gives local system integrators complete design freedom. Moreover, the ability to combine individual items of equipment into BACnet networks reduces the time and costs required for wiring work.

### 4. UNLIMITED SITE SIZE

- > The network adapter can be connected to 128 groups (256 with optional accessory). Maximum value of BACnet Interface is set by BACnet BMS.

### 5. RoHS COMPLIANCE

- > Restriction of Hazardous Substances in electrical and electronic equipment (2002/95/EC).
- > Hazardous substances include Lead (Pb), Cadmium (Cd), Hexavalent Chromium (Cr6+), Mercury (Hg), Polybrominated biphenyls (PBB), Polybrominated diphenylether (PBDE).
- > Although RoHS regulations are only applicable to small and large household equipment, Daikin's environmental policy nevertheless ensures that VRV®III will be totally in line with RoHS.

### 6. SPECIFICATIONS OF COMMUNICATION

#### Objects

- > Analog input
- > Analog value
- > Binary input
- > Binary output
- > Binary value
- > Multistate input
- > Multistate output

#### Functionality

- > Monitoring
- > Commanding
- > Alarming

#### Datalink

- > Ethernet (IEEE802.3)
- > BACnet/IP

### 7. FUNCTIONS

#### Monitoring

- > Air conditioning status monitoring: 128 groups of indoor units and 20 outdoor systems. (Max 256 groups of indoor units and 40 outdoor systems, when optional DIII board is added)<sup>1</sup>
- > Indoor unit error monitoring
- > Indoor (air inlet) temperature monitoring
- > Filter sign monitoring
- > Thermostat status
- > Compressor operation status
- > Indoor fan operation
- > Heater operation
- > Air direction monitoring
- > Air flow rate monitoring
- > Forced thermostat off/on monitoring
- > Alarm sign
- > PPD data<sup>2</sup>

The transmission of VRV® PPD (power proportional distribution) data is possible by BACnet communication for BMS system.

#### Control, operation and settings

- > Start / stop control
- > Temperature adjustment mode setting
- > Remote control setting
- > Temperature setting
- > Filter sign reset
- > Indoor unit mode setting
- > Air direction setting
- > Air flow rate setting
- > Forced thermostat off/on setting
- > Energy efficiency command (setting temperature shift)
- > Forced OFF setting
- > Subgroup adress control operation rejection
- > Gateway LED display for operation and malfunction detection

<sup>1</sup> Optional DIII board (DAM411B51)

<sup>2</sup> Optional Di board (DAM412B51) is required

## 8. COMPATIBILITY WITH LEADING BMS SYSTEMS, A.O.:

MANUFACTURER	TYPE	
Andover Controls	- Continuum ver. 1.6	1.6
Cimetrics Sauter	- OPC Server	
Honeywell	- EBI	V2.0
Iconix Sauter	- OPC Server	
Invensys (Sacthwel) Polar Soft	- System Manager - BACdoor	
Johnson Controls	- Metasys BSI	V9.01c
Johnson Controls	- Metasys N30	
Priva		
Reliable Systems	- Mach	

MANUFACTURER	TYPE	
Siemens	- System 600 Apogee Insight	V3.2
Siemens	- System 600 Apogee Insight	V3.4
Siemens	- Desigo Insight	V1.01
Siemens	- PX Desigo Insight	V2.2
TAC Pacific	- OPC Server	
Trane	- Tracer Summit	
Trend		
Tridium	- Niagara Framework	2301.321.v1
Trilogy		

Compatibility can be checked with a Joint Matching Test before installation.  
For more information contact your sales representative.

## SPECIFICATIONS

ITEM	DESCRIPTION
BACnet Interface	DMS502A51
BACnet transmission	Up to 128 groups ASHRAE135 (IEEE802.3) BACnet/IP Conformance class3
Power supply	1~ AC, 100 to 240V, ± 10% at 50/60Hz
Power consumption	20W max.
Dimensions (HxWxD)	mm 263x275x81.5
Weight	kg ± 3
Ambient condition	-10°C to 50°C within humidity range between 0% and 98% (no condensation)
Insulation resistance	At least 50MΩ at 500VDC

## ACCESSORIES

ITEM	DESCRIPTION
DIII board	DAM411B51
Optional Di board	DAM412B51
Interface adapters	KRP928B2S
	DTA102A52
	DTA112B51



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues.  
For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.

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Daikin units comply with the European regulations that guarantee the safety of the product.

VRV® products are not within the scope of the Eurovent certification programme.

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