

DMS504C71 – Interface for Use in LonWorks

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

MODEL COMPATIBILITY:

Compatible with VRV and VRV Life[™] indoor unit models: FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, CXTQ, VAM Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ

Compatible with Single Zone/Multi Zone/SkyAir system indoor unit models:

- FDMQ, FFQ_Q
- FFQ_LVJU with the use of the Interface Adaptor DTA112BA51:
- FTXS, CTXS, CTXG, FTXG, FDXS, CDXS, FVXS with the use of the DIII-Net Adapter KRP928BB2S
- FTX, FTXN, FTK, and FTKN with the use of the DIII-Net Adapter KRP928BB2S and an Interface adaptor KRP067A41E/KRP980B1/KRP980B2E

SPECIFICATIONS:

Model	DMS504C71
Description	LonWorks Interface
Maximum Indoor Units	64 groups/128 indoor units
Maximum Outdoor Units	10
DIII-Net Communication Wire	18AWG-2, No polarity Stranded, Non-shielded
Communication Protocol	LonTalk protocol
LonWorks	FT-X1 (78 Kbps Free Topology)
Power	24VAC, 60HZ
Power consumption	5 Watts Maximum
Comfort Setpoint Range	60 to 90 °F (16 to 32 °C)
Setpoint	Single Setpoint
Temperature Units	Degrees Celsius only
Operating Temp Range	14 to 104°F (-10 to 40°C)
Operating Humidity Range	95% or less (RH) (w/o condensation)
Dimensions (WxHxD)	10.81 x 10.34 x 2.69 inch (274.57 x 262.13 x 68.33 mm)
Weight (Mass)	6.2 lbs. (2.8 kg)
Certification	FCC Part 15 Subpart B Class A

PRODUCT IMAGE:



Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



DMS504C71 – Interface for Use in LonWorks

Project Name:

Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

FEATURES:

•

- Integrate Daikin VRV, SkyAir, Multi-Zone and Single Zone systems with third party building automation systems supporting the LonTalk® protocol
- Gateway architecture delivers a fully scalable control interface for up to 64 Daikin indoor unit groups.
- Low voltage design simplifies the installation process.
- XIF configuration file available
- On board T1-T2 input enables forced shut-off of connected VRV air conditioning units.
 - The following program is required from BMS:
 - o Auto-changeover
 - Setpoint Range Limitation
 - o Setback
 - o Scheduling
 - Dual Setpoints

DIMENSIONS:





Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



DMS504C71 – Interface for Use in LonWorks

Project Name:

Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

INDOOR UNIT MONITORING AND CONTROL POINTS:

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

	•		
		Function	Description
		ON / OFF Status	Monitors the start / stop status of the indoor unit.
		Operation Mode Status	Monitors whether the indoor unit is in the cooling, heating or fan mode.
		Temperature Setpoint	Reports the current temperature setpoint of the indoor unit.
		Room Temperature (Note 1)	Reports the current return air or room temperature of the indoor unit. (Note 1)
		Airflow rate	Reports the current fan speed setting of the indoor unit.
S		Filter Indication Status	Reports the status of the filter maintenance icon on the indoor unit remote controller.
j.		Error Status	Monitors the indoor unit malfunction status.
õ		Error Code	Reports a specific malfunction code for an indoor unit in alarm state.
l Gu		Thermo Status	Reports whether the indoor unit is demanding heating or cooling capacity or if it is in a satisfied state.
ori		Forced Thermostat Off Status	Reports whether the indoor unit is forced to a satisfied state.
ij		Remote Controller ON / OFF Restriction Status	Indicates the restriction status of the indoor units remote controller ON / OFF button.
Mor		Remote Controller Operating Mode Restriction Status	Indicates the restriction status of the indoor units remote controller operation mode button.
		Remote Controller Temperature Setpoint Restriction Status	Indicates the restriction status of the indoor units remote controller temperature setpoint buttons.
		System Forced OFF Setting Status	Monitors the system forced off status for all indoor units connected to the Lon gateway.
		Sub-group Control Operation Restriction Setting Status	Monitors the network variable input status for permission / prohibition of centralized control devices on the DIII-Net bus.
		A/C Communication Status	Monitors the communication status of the indoor unit to the DIII-Net.
p		ON / OFF Command	Starts and stops the indoor unit. (Note 2)
an		Operating Mode	Sets the cooling / heating / ventilating / auto mode for the indoor unit. (Note 2)
'n,		Temperature Setpoint	Commands the temperature setpoint for the indoor unit. (Note 2)
atic ts		Airflow Rate (Fan Speed)	Sets the fan speed (high, low) for the indoor unit. (Note 2)
oin ur		Filter Indicator Reset	Resets the filter maintenance indicator on the indoor unit.
pc		Forced Thermo OFF Setting	Forcibly stops all cooling or heating capacity for the indoor unit.
		Remote Controller ON / OFF Restriction Setting	Disables the operation of the indoor unit remote controller ON / OFF button.
o, c		Remote Controller Operating Mode Restriction Setting	Disables the operation of the indoor unit remote controller MODE button.
io S		Remote Controller Temperature Setpoint Restriction Setting	Disables the operation of the indoor unit remote controller temperature setpoint buttons.
erat		System Forced OFF Setting	Forcibly stops / resets all indoor units that are under control of the Lon interface. Units cannot be started by a remote controller or centralized controller while in this state.
do		Sub-group Control Restriction Setting	Network variable input to permit or prohibit the operation of Daikin centralized control devices on the DIII-Net bus.

=controls settings that applies to entire system

 Room temperature data (SNVT_temp_p nvoSpaceTemp_nn) by default is reported from the Daikin indoor units embedded return air thermistor. Depending upon the remote controller model and the manufacturing date of the indoor unit, this may be reconfigured to retrieve the room temperature value from the remote controller thermistor. During periods when the indoor unit is turned off or during certain operating modes that cycle off the fan 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-

> Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



DMS504C71 – Interface for Use in LonWorks

Project Name:

Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

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 BRC1E72/73 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. LonWorks® and LonTalk® are trademarks of Echelon Corporation.

DOCUMENTATION:

Documentation available on www.daikincity.com and/or www.daikinac.com:

- Design Guide
- Installation Manual
- Submittal
- Guide Specifications

Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056 www.daikinac.com www.daikincity.com