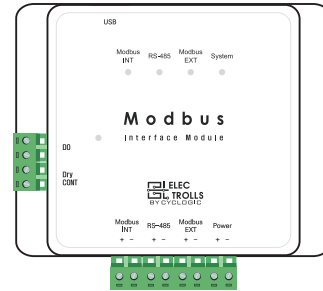


Modbus Adapter for Samsung HVAC Systems

Job Name _____
 Purchaser _____
 Submitted to _____
 Unit Designation _____

Location _____
 Engineer _____
 Reference Approval Construction
 Schedule # _____

Model number	Controllable indoor unit quantity
CL-MC0301C	1
CL-MC0308C	1 - 8
CL-MC0316C	1 - 16
CL-MC0332C	1 - 32
CL-MC0364C	1 - 64



Features

- Modbus interface module that will allow control of Samsung HVAC systems sold in North America via Modbus protocol.
- Control and monitoring of 1, 1-8, 1-16, 1-32, and 1-64 indoor units (based on Modbus interface module selected).
- Control points: IDU on/off status, IDU operation mode, ventilation on/off, ventilation mode, set temperature, room temperature, IDU fan speed control, IDU deco panel louver swing, IDU on/off status, IDU operation mode, ventilation on/off, ventilation mode, set temperature, room temperature, duct unit discharge air temperature, IDU fan speed control, IDU deco panel louver swing (NOTE: control points vary based on indoor unit type and model)
- External contact input to disable the unit when contact is opened
- Error output Digital Output (DO). 12 ~ 24VDC output when a system error code occurs

Specifications

- DC 12 - 24V. 12VDC can be supplied from indoor unit V1/V2 connection or from external power adapter (field supplied)
- Supports two types of register, Read Holding Registers and Preset Single Register. All analogue and digital values are accessed through these registers. All register values are 2 byte (16bit) values.
- Registers are accessed using standard Modbus functions. The following two functions are supported:
 - Function Code (Hex): 03 (03h), Read Holding Registers
 - Function Code (Hex): 03 (06h), Preset Single Registers
- Central control must be enabled via indoor unit option settings
- Dimensions (W X H X D): 3 1/8" X 4" X 15/16"
- Installation location temperature range: 32°F ~ 104°F.
- Compatibility: DVM S (AM***N***/AA), CAC (AC***N***/AA), FJM (AJ0***N***/AA), RAC (AR*****N**, excludes Novus models AR**JSALBWKNVCV and AR**JSFLBWKNVCV).
- Maximum 1 adapter per system

Configuration

- Mode: Modbus RTU Slave
- Length: 500m
- Baud: 19600
- Parity: Even
- Stop bits: 1

Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice.

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Modbus Adapter for Samsung HVAC Systems

Readback Data

Indoor Unit Address				Length (Byte)	Name	Value	Notes	Read/ Write
IDU 00	IDU 01	....	IDU 63					
40001	40021	....	41261	2	IDU ON/OFF STATUS	0	OFF	R
						1	ON	R
40002	40022	....	41262	2	IDU OPERATION MODE	0	AUTO	R
						1	COOLING	R
						2	DRY	R
						3	FAN	R
						4	HEAT	R
						11	AUTO COOL	R
						12	AUTO DRY	R
						13	AUTO FAN	R
						14	AUTO HEAT	R
40005	40025	....	41265	2	SET TEMPERATURE		SET TEMP = Data/10	R
40006	40026	....	41266	2	ROOM TEMPERATURE		ROOM TEMP = Data/10	R
40009	40029	....	41269	2	IDU FAN SPEED CONTROL	0	AUTOMATIC	R
						1	LOW	R
						2	MIDDLE	R
						3	HIGH	R
						4	TURBO	R
40010	40030	....	41270	2	IDU DECO PANEL LOUVER SWING	0	SWING OFF	R
						1	SWING ON: UPPER & LOWER LOUVER	R
						2	SWING ON: RIGHT & LEFT LOUVER	R
						3	SWING ON: UPPER & LOWER / RIGHT & LEFT LOUVER	R
40011	40031	....	41271	2	Supply Air (Discharge) Temperature (Duct unit only)		SET TEMP = Data/10	R
40012	40032	....	41272	2	States of Supply Air (Discharge) Temperature Control	0	DISABLE	R
						1	ENABLE	R
40013	40033	....	41273	2	Set Temp. of Cooling Supply Air (Duct unit only)		SET TEMP = Data/10	R
40014	40034	....	41274	2	Set Temp. of Heating Supply Air (Duct unit only)		SET TEMP = Data/10	R

Unit data is available for each of the indoor units on the F1/F2 network. Unit input registers are numbered using the indoor unit numbering range 40001 - 40014 + N (indoor unit address) x 20 added to an offset relating to a specific feature.

Not all points/features noted above are compatible with all indoor units.

Modbus Adapter for Samsung HVAC Systems

Control Data

Indoor Unit Address				Length (Byte)	Name	Value	Notes	Read/ Write	
IDU 00	IDU 01	....	IDU 63					
40001	40021	....	41261	2	IDU ON/OFF & MODE		Data 1	
						0	OFF	W	
				1		ON	W		
				2			Data 2		
						0	AUTO	W	
						1	COOLING	W	
						2	DRY	W	
						3	FAN	W	
						4	HEAT	W	
						11	AUTO COOL	W	
						12	AUTO DRY	W	
						13	AUTO FAN	W	
						14	AUTO HEAT	W	
						40005	40025	41265	2	SET TEMPERATURE		SET TEMP = Data/10	W
40009	40029	41269		2	IDU FAN SPEED CONTROL		Data 1	
				0			AUTOMATIC	W	
				1			LOW	W	
				2			MIDDLE	W	
				3			HIGH	W	
				4	TURBO		W		
				2			Data2		
					0		SWING OFF	W	
					1		SWING ON: UPPER & LOWER LOUVER	W	
					2		SWING ON: RIGHT & LEFT LOUVER	W	
3	SWING ON: UPPER & LOWER / RIGHT & LEFT LOUVER	W							
40011	40031	....	41271	2	Supply Air (Discharge) Temperature (Duct unit only)		SET TEMP = Data/10	W
40012	40032	....	41272	2	States of Supply Air (Discharge) Temperature Control	0	DISABLE	W
						1	ENABLE	W	
40013	40033	....	41273	2	Set Temp. of Cooling Supply Air (Duct unit only)		SET TEMP = Data/10	W
40014	40034	....	41274	2	Set Temp. of Heating Supply Air (Duct unit only)		SET TEMP = Data/10	W

Unit data is available for each of the indoor units on the F1/F2 network. Unit input registers are numbered using the indoor unit numbering range 40001 - 40014 + N (indoor unit address) x 20 added to an offset relating to a specific feature.

Not all points/features noted above are compatible with all indoor units.