

AHU Kit

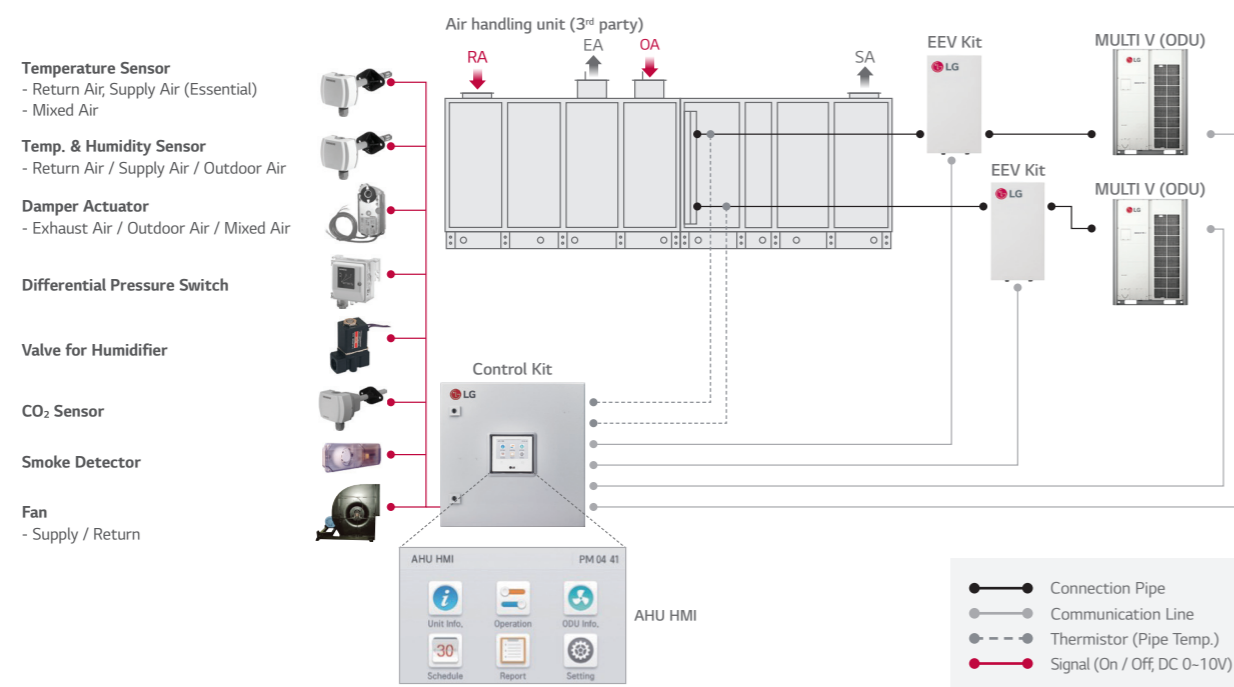
Control Kit

Field Supplied Item

LIST	REQUIRED SPECIFICATION	APPLY LOCATION
Temperature / Humidity Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Temperature range : -40 °C ~ 70 °C - Humidity range : 0 ~ 95 % RH	Supply air duct, Return air duct, Outdoor air duct
Temperature Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Temperature range : -50 °C ~ 50 °C	Supply air duct, Return air duct, Mixed air duct
Damper Actuator	- Power : AC 24 V - Input / output signal : DC 0 ~ 10 V - Torque : 15 N·m - Operation time : 150 s - Rotation Angle : 90°	Outdoor air damper, Exhaust air damper, Mixed damper
Filter Differential Pressure Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Range: 0 ~ 1,000 Pa - Switch type : Relay open / close	Filter
Static Pressure Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Range : 0 ~ 1,000 Pa	Supply air duct
CO ₂ Sensor	- Power : AC 24 V - Output signal : DC 0 ~ 10 V - Range : 0 ~ 2,000 ppm	Return air duct
Smoke Detector	- Power : AC 24 V - Type : Contact	Return air duct

Various Control with Control Kit – Multiple MULTI V + EEV Kits

Field Supplied Item



Water Communication Module

PAHCMW000

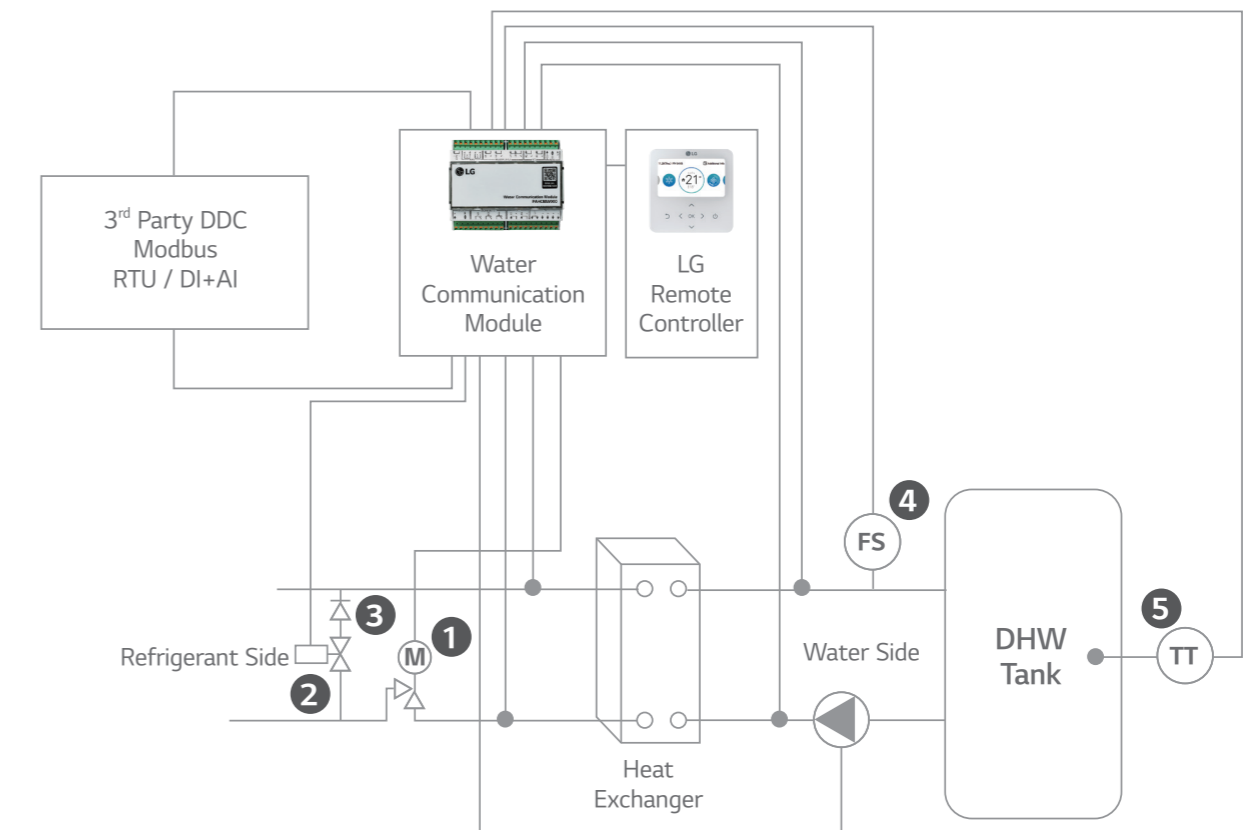
This module is intended to connect 3rd party plate heat exchanger to LG outdoor unit with the ability to control water temperature from 3rd party DDC or LG remote controller.



Overview

Interlocking with 3rd parties can make various solution with LG Multi V outdoor unit.

1. EEV
2. Solenoid Valve (NC)
3. Non-Return Valve
4. FS : Flow Switch
5. TT : DHW Temperature Transmitter



• 3rd party solenoid, non-return valve, heat exchanger, flow switch and DHW temperature transmitter (Optional) must be purchased separately. (Field supplied items)

Water Communication Module

Features & Benefits

Interlocking with 3rd parties can make various solution with LG MULTI V outdoor unit.

Interlocking with 3rd Party Equipment

CONTENTS	CONNECTION PORT		FUNCTION
RS485	CH1 (A+ / B-)	Module Comm. Port	Communication Port Modbus
	CH2 (A+ / B-)	IDU Comm. Port	Communication with Multi V Outdoor
UNIVERSAL INPUT (Cooling / Heating Setting)	UI1	Flow Switch	Flow Switch Input by 3rd party
	UI2	0 ~ 10V Set Temp.	Target Temp. Setting
	UI3	Cooling Thermostat Signal	Thermostat Cooling Signal
	UI4	Heating Thermostat Signal	Thermostat Heating Signal
UNIVERSAL INPUT (DHW Only)	UI1	Flow Switch	Flow Switch Input by 3rd party
	UI2	0-10V Set Temp.	Target Temp. Setting
	UI3	DHW Temperature Transmitter 0 ~ 10V	Measured Water Temp. Input by 3rd party 0 ~ 10 V sensor
	UI4	DHW Thermostat Signal	DHW Heating Signal
NTC	RI1	Water Inlet Sensor	PHEX Water Inlet Sensor
	RI2	Water Outlet Sensor	PHEX Water Outlet Sensor
REMO	+12V / SIG / GND	LG Remote Controller	-
SINGLE	Reserved	-	-
DIGITAL OUTPUT	DO1	Defrost / Mode	Output for defrost signal and / or cool mode
	DO2	Pump	Output signal for pump on / off
	DO3	Bypass	Output signal for PHEX Bypass Valve
NTC	RI3	Thermistor Pipe In	PHEX Ref. Inlet Pipe Sensor
	RI4	Thermistor Pipe Out	PHEX Ref. Outlet Pipe Sensor
EEV	+12V / 1 / 2 / 3 / 4	Expansion Valve	EEV Control

Compatibility & Accessory

EEV (LG MODEL)

MODEL	CAPACITY (kW)		PAHCMW000
	MIN.	MAX.	
PAEEVC000	3.6	28	HP / HR
PRLK048A0	3.6	28	HP / HR
PRLK096A0	28.1	56	HP

Note :
Water communication module can accept plate heat exchangers from 3, 6 to 112 kW for combination with Multi V Outdoor units.

LG Controllers

CONTROLLER	INDIVIDUAL CONTROLLER	CENTRALIZED CONTROLLER		DRY CONTACT
	HEATING STANDARD III	AC EZ TOUCH	AC SMART 5	
	PREMTW101	PACEZA000	PACS5A000	PDRYCB000

Specification for Field supply item

- The 3rd party can select the for best usable version

Solenoid valve for Bypass

CAPACITY (kW)		EEV TYPE	SYSTEM	KV VALUE OF SOLENOID AND NON-RETURN VALVE	PIPE SIZE
MIN.	MAX.				
3.6	28	PAEEVC000	HP / HR	0.95	3 / 8" / 9.52mm
		PRLK048A0			
28	56	PRLK096A0	HP	1.9	1 / 2" / 12.7mm

Flow switch

- The nominal flow and cut of flow can be calculated using the values below.

CONTROLLER	NOMINAL FLOW	FLOW SWITCH CUT OFF
L / min*kW	3.29	1.23

* Example : ODU nominal Cooling Capacity 28 kW, 28 x 3.29 = 92.12 L / min. nominal flow, 28 x 1.23 = 34.44 L / min. flow switch cut off