

Air Conditioning Technologies

CONTROLS & ACCESSORIES



ABOUT LG



About LG Electronics USA, Inc.

LG Electronics USA, Inc., based in Englewood Cliffs, NJ, is the North American subsidiary of LG Electronics, Inc., a \$54 billion global force and technology leader in consumer electronics, home appliances and mobile communications. LG Electronics, a proud ENERGY STAR® Partner of the Year for several consecutive years, sells a range of stylish and innovative home entertainment products, mobile phones, home appliances, commercial displays, air conditioning systems and solar energy solutions in the United States, all under LG's "Life's Good" marketing theme. For more news and information on LG Electronics, please visit www.LG.com

LG Electronics USA Air Conditioning Technologies

The LG Electronics USA Commercial Air Conditioning business is based in Alpharetta, Ga. LG is a leading player in the global air conditioning market, manufacturing both commercial and residential air conditioners and providing total sustainability and building management solutions. From consumer and individual units to industrial and specialized air conditioning systems, LG provides a wide range of products for heating, ventilating and air conditioning. For more information, please visit www.lghvac.com

By utilizing advanced control strategies, LG Air Conditioning systems not only save energy, they also increase operational convenience and comfort.

LG offers a variety of controls, including individual zone control, central control, and building management system integration control options that scale easily to meet the requirements of buildings small to large. User-friendly controllers from LG enable users to control and monitor their entire system at the touch of a button. Centralized controllers provide building owners, facilities managers and maintenance personnel with the ability to manage the entire LG air conditioning system from a single location. This provides convenient management of air conditioning units and other facilities equipment—even in multiple sites—which helps ensure the highest energy savings are realized from the system.













LG building controllers allow for interfacing with third-party building management systems and also control sub-market segments such as lighting control, security control and access control. Built to be compatible with the entire family of LG Air Conditioning Technologies products, LG controls are the best way to achieve the highest performance from LG systems.


















ENHANCED ENERGY SAVINGS While LG Air Conditioning systems are engineered for efficiency, there are many ways that LG controls can help save even more energy with advanced features like scheduling and setpoint range limiting.

CONVENIENCE LG controls come with features that make them easy to use and simple to control. From our customizable touch screen interfaces to automatic energy saving features, you are sure to be pleased with the aesthetics appeal of the controls interface as well their intuitive ease of use.

EASY TO INSTALL The LG communications network is based on simple two-wire, daisy chain architecture that reduces installation cost and complexity. This allows the system to be installed by the mechanical contractor, eliminating the need for costly building management system integration contractors and specialists.

CONTROLS Lineup

BUILDING MANAGEMENT	CENTRAL CONTROLLERS	SYSTEM INTEGRATION DEVICES	
System	System	Integration Solutions	Specialty Application Devices
<p>LG MultiSITE™ VM3</p>  <p>PBACNBTR1A</p>	<p>AC Smart™ 5</p>  <p>PACS5A000</p>	<p>LG MultiSITE™ Communications Manager</p>  <p>PBACNBTR0A</p>	<p>Dry Contact for Thermostat</p>  <p>PDRYCB300</p>
	<p>ACP 5</p>  <p>PACP5A000</p>	<p>ACP LonWorks</p>  <p>PLNWKB100</p>	<p>Dry Contact for Economizer/Setback</p>  <p>PDRYCB400</p>
			<p>Simple Dry Contact</p>  <p>PDRYCB100</p>
			<p>PDI (Power Distribution Indicator)</p>  <p>Premium (8 port) PQNUD1S41 Standard (2 port) PPWRDB000</p>
			<p>IO Module (Input / Output Module)</p>  <p>PEXPMB000</p>

INDIVIDUAL CONTROLLERS	ACCESSORIES		
Remote Controllers	Control Accessories	MultiSITE™ CRC1 Accessories	MultiSITE™ CM/VM3 Accessories
<p>LG MultiSITE™ Remote Controller (With Occupancy Sensor)</p>  <p>PREMTBVC1</p>	<p>Remote Temperature Button Sensor</p>  <p>ZRTBS01</p>	<p>ZigBee Pro Wireless Card</p>  <p>ZVRCZPWC1</p>	<p>LON Module</p>  <p>ZHWLONWK0</p>
<p>LG MultiSITE™ Remote Controller</p>  <p>PREMTBVC0</p>	<p>Group Control Wire</p>  <p>PZCWRCG3</p>	<p>Wireless Door/Window Switch</p>  <p>ZVRCZDWS1</p>	<p>Wall Power Adapter</p>  <p>ZHWPWADTR</p>
<p>Premium</p>  <p>PREMTA000</p>	<p>Extension Cable</p>  <p>PZCWRC1</p>	<p>Wireless Wall Occupancy Sensor</p>  <p>ZVRCZWOC1</p>	<p>Remote I/O Module (16)</p>  <p>ZHWREMIO16</p>
<p>Simple</p>  <p>PREMTC00U</p>		<p>Wireless Ceiling Occupancy Sensor</p>  <p>ZVRCZCOC1</p>	<p>Remote I/O Module (34)</p>  <p>ZHWREMIO34</p>
<p>Wireless Remote Controller</p>  <p>PQWRHQ0FDB</p>			<p>MultiSITE™ Supervisor</p>  <p>ZSWSUPN** Only for use with LG MultiSITE VM3</p>

LG MULTISITE™ VM3

PBACNBTR1A

The LG MultiSITE VM3 is powered by the Niagara 4 Framework®, an industry leading integration platform that provides a common design language to integrate seamlessly into any diverse building portfolio. With its modern UX framework, advanced analytics and visualization, the MultiSITE VM3 provides a best in class building management system. The VM3 is a complete LG branded system from an indoor unit's remote all the way to the building management system, while supporting BACnet®, LonWorks®, Fox and other protocols depending on user licensing.



Features

- Control and monitor mechanical and electrical systems in building such as HVAC, lighting and power
- Integrates LG Multi V™ systems, Multi F systems, and select LG single zone systems
- Supports BACnet®, LonWorks®, Fox and other protocols depending on licensing
- An “Open” license model providing system owners a choice of service providers and procurement partners for scalability

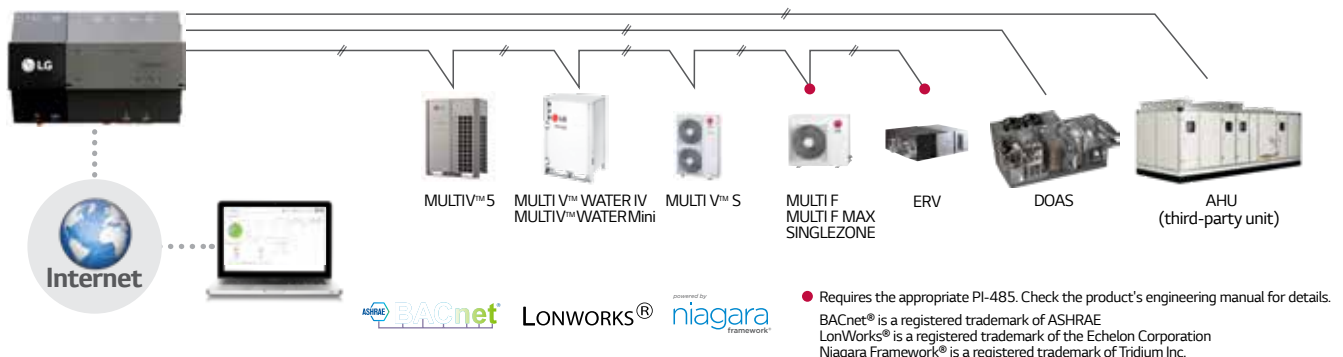
- Powered by Niagara Framework®
- Two 10/100Mb Ethernet ports
- Two isolated RS485 ports
- Native Wi-Fi capability (WAP or Client)
- Intuitive LG user interface

NOTE: Available functions/features may differ based on the connected system.
Due to our commitment to continued innovation, some specifications may be changed without notification.

Accessories

Description	Model
LON Module	ZHWLONWK0
Wall Power Adapter	ZHWPWADTR
Remote I/O Module (16)	ZHWREMIO16
Remove I/O Module (34)	ZHWREMIO34
MultiSITE Supervisor	ZSWSUPN**

System Communication Architecture



LG MULTISITE™ COMMUNICATIONS MANAGER

PBACNBTR0A

The LG MultiSITE™ Communications Manager is a compact and powerful controller that allows third-party integration of an LG HVAC system into any Building Management System via BACnet®, LonWorks® and Fox protocols. The MultiSITE Communications Manager is a network-ready, out-of-the-box integration solution and includes the LG pre-engineered, graphical user interface. The MultiSITE Communications Manager is easily configurable and requires no additional software.



Features

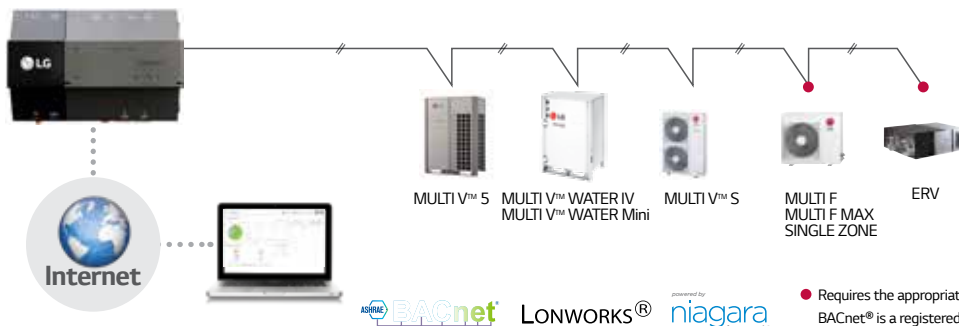
- Integrates Multi V™, Multi F, and select single zone systems with third-party building management systems using BACnet, LonWorks and Fox protocols
- Controls up to 128 indoor units
- Maximum number of LG Devices for LonWorks export: 40
- Provides graphical user interface that allows centralized control

NOTE: Available functions/features may differ based on the connected system.
Due to our commitment to continued innovation, some specifications may be changed without notification.

Accessories

Description	Model
LON Module	ZHWLONWK0
Wall Power Adapter	ZHWPWADTR

System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.
BACnet® is a registered trademark of ASHRAE
LonWorks® is a registered trademark of the Echelon Corporation
Niagara Framework® is a registered trademark of Tridium Inc.

AC SMART™ 5

Large 10.2 inch touch screen with a responsive user interface (HTML 5) for consistent system control design across a variety of different remote devices.

PACS5A000



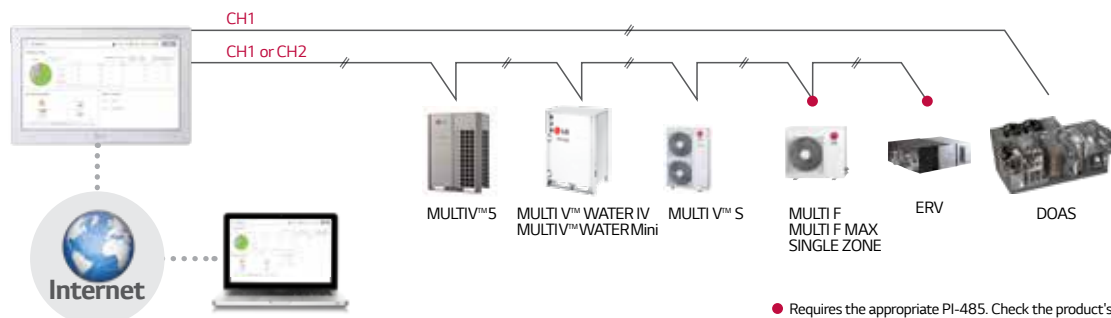
Features

Model Name	PACS5A000
Maximum Number of Indoor Units	Up to 128
Individual / Group Control	●
Ventilation Control	●
Individual Controller Lock	● (Temperature / Mode / Fan / All)
Error Check	Self Diagnosis
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Schedule	Daily / Weekly / Monthly / Yearly / Exception Day
Operation History	●
Visual Navigation	●
Operation Time Limit	●
Operation Trend	●
Temperature Limit	●
Internet Access ¹⁾	●
Auto Changeover / Setback	● (Two set)
Power Consumption Monitoring (with PDI)	●
Interlock Control	●
Virtual Group Control	●
Emergency Alarm Display	●
IO Module Interlocking	●
External IO Port No.	DI 2 / DO 2
Dimensions W x H x D (in.)	10 x 6-5/8 x 1-3/16

¹⁾ An IP address is required to access the central controller through the internet.

NOTE: Available functions/features may differ based on the connected system. Supports IPV4 and IPV6. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

ACP 5 (ADVANCED CONTROL PLATFORM)

PACP5A000



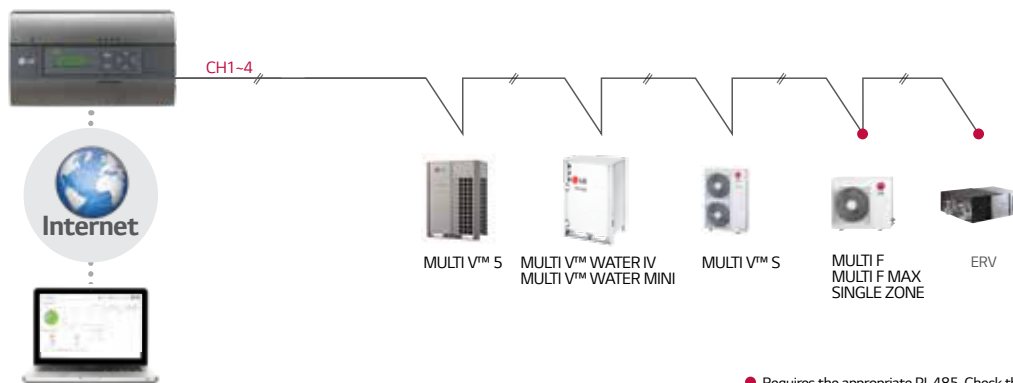
Features

Model Name	PACP5A000
Maximum Number of Indoor Units	Up to 256
Individual / Group Control	●
Ventilation Control	●
Individual Controller Lock	● (Temperature / Mode / Fan / All)
Error Check	Self Diagnosis
Mode Change	Cooling / Heating / Auto / Dehumidification / Fan
Schedule	Daily / Weekly / Monthly / Yearly / Exception Day
Operation History	●
Visual Navigation	●
Operation Time Limit	●
Operation Trend	●
Temperature Limit	●
Internet Access ¹⁾	●
Auto Changeover / Setback	● (Two set)
Power Consumption Monitoring (with PDI)	●
Interlock Control	●
Virtual Group Control	●
Emergency Alarm Display	●
IO Module Interlocking	●
External IO Port No.	DI 10 / DO 4
Dimensions W x H x D (in.)	10-11/16 x 6-3/16 x 2-5/8

¹⁾ An IP address is required to access the central controller through the internet.

NOTE: Available functions/features may differ based on the connected system. Supports IPV4 and IPV6. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



● Requires the appropriate PI-485. Check the product's engineering manual for details.

ACP LONWORKS® GATEWAY

PLNWKB100



Features

Integrates Multi V™, Multi F, and select single zone systems with third-party building management systems.

- Controls up to 64 indoor units
- Controls up to 16 AHU Control kits
- Provides graphical user interface that allows centralized control
- LonMark® Certified

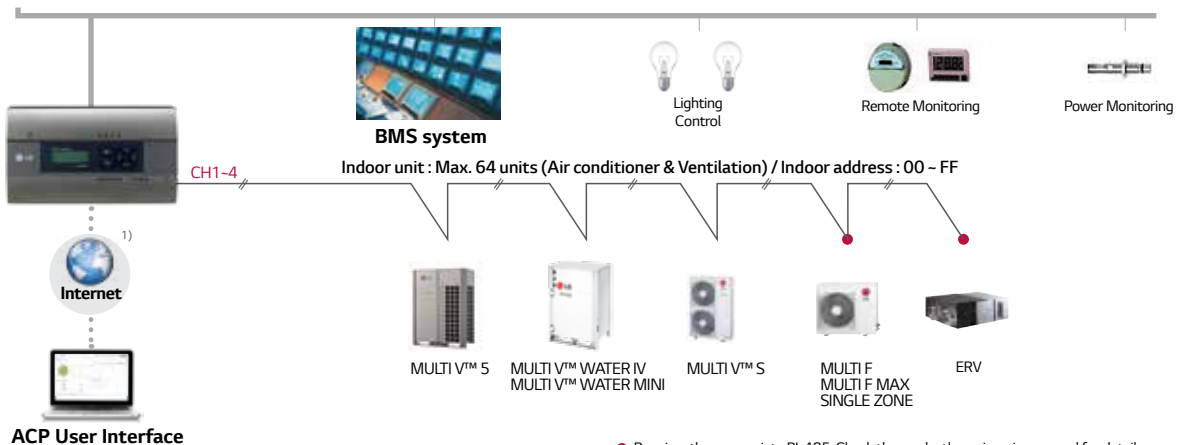
Dimensions (W x H x D): 10-11/16" x 6-3/16" x 2-5/8"

NOTE: Available functions/features may differ based on the connected system.
Due to our commitment to continued innovation, some specifications may be changed without notification.

Controlling	Monitoring Items
On / Off Command	On / Off Status
Operation Mode Setting	Operation Mode Status
Fan Speed Setting	Fan Speed Status
Lock Setting	Lock Status
Air Flow Setting	Air Flow Status
Set Temperature Setting	Set Temperature Status
-	Current Space Temperature Status
-	Error Status
-	Accumulator Power Distribution Status
Upper Limit Temp. Setting	Upper Limit Temperature Status
Low Limit Temp. Setting	Low Limit Temperature Status
Mode Lock Setting	Mode Lock Status
Peak Operation Ratio Setting	Peak Operation Ratio Status
All On / Off Setting	-
-	Total Accumulated Power Status

System Communication Architecture

LONWORKS



● Requires the appropriate PI-485. Check the product's engineering manual for details.

1) Assignment of an IP address is required to access central controller through the Internet.

Lonworks is a registered trademark of the Echelon Corporation.

DRY CONTACT

Simple Dry Contact

PDRYCB100



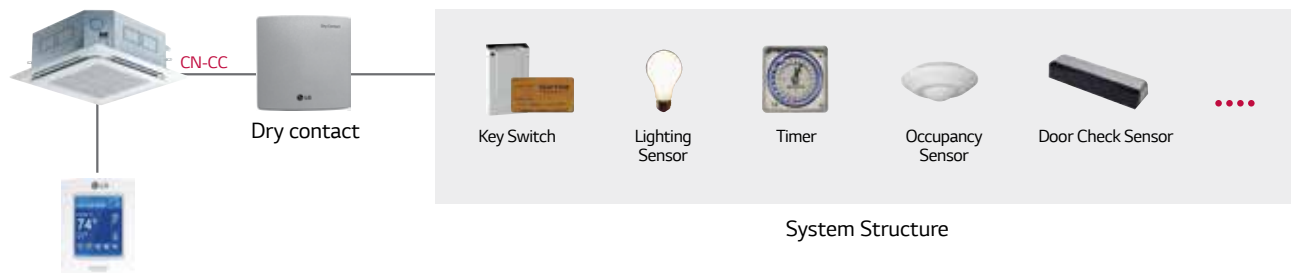
Features

Model Name	PDRYCB100
Contact Point	One Contact Point
Power Input	AC 24V
Voltage / Non Voltage Input	-
On / Off Control	●
Lock / Unlock	-
Thermo Off	-
Energy Saving	-
Temperature Setting	-
Error Monitoring	●
Operation Monitoring	●
Dimensions W x H x D (in.)	4-1/8 x 3-1/16 x 1-3/8

* Maximum operation AC : 2A

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



DRY CONTACT

Dry Contact for Thermostat (5-12V dc, 24V ac)

PDRYCB300



Features

Model Name	PDRYCB300
On / Off Control	●
Mode Control	● (Cool, Heat, Fan)
Fan Speed Setting	● (Low, Middle, High)
Thermo Off	●
Error Monitoring	●
Operation Monitoring	●
Rotary Switch 1	Operating Set Temperature Selection
Rotary Switch 2	Operating Logic Selection
Dimensions W x H x D (in.)	4-1/8 x 3-1/16 x 1-3/8
Power Input	24V AC

* Maximum operation AC : 2A

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



DRY CONTACT

Dry Contact for Economizer

PDRYCB400

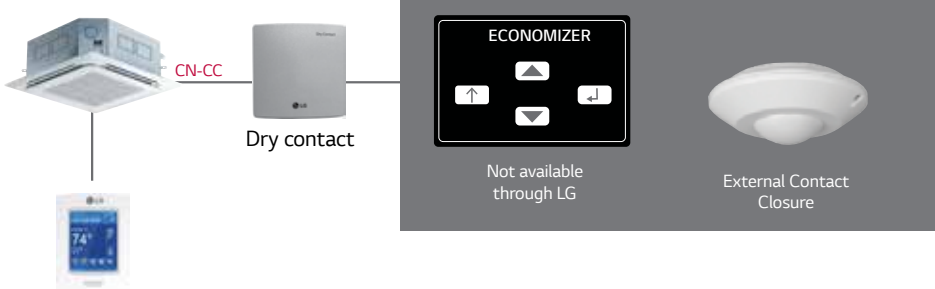


Features

Model Name	PQDSBC1
On / Off	●
Economizer	●
Occupied / Unoccupied	●
Remote Lock / Unlock	●
Compressor Stop	●
Dimensions W x H x D (in.)	4-1/8 x 3-1/16 x 1-3/8

* Maximum operation AC: 2A
 NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



PDI PREMIUM (POWER DISTRIBUTION INDICATOR)

Premium

PQNUD1S41 (8 port)

Standard

PPWRDB000 (2 port)

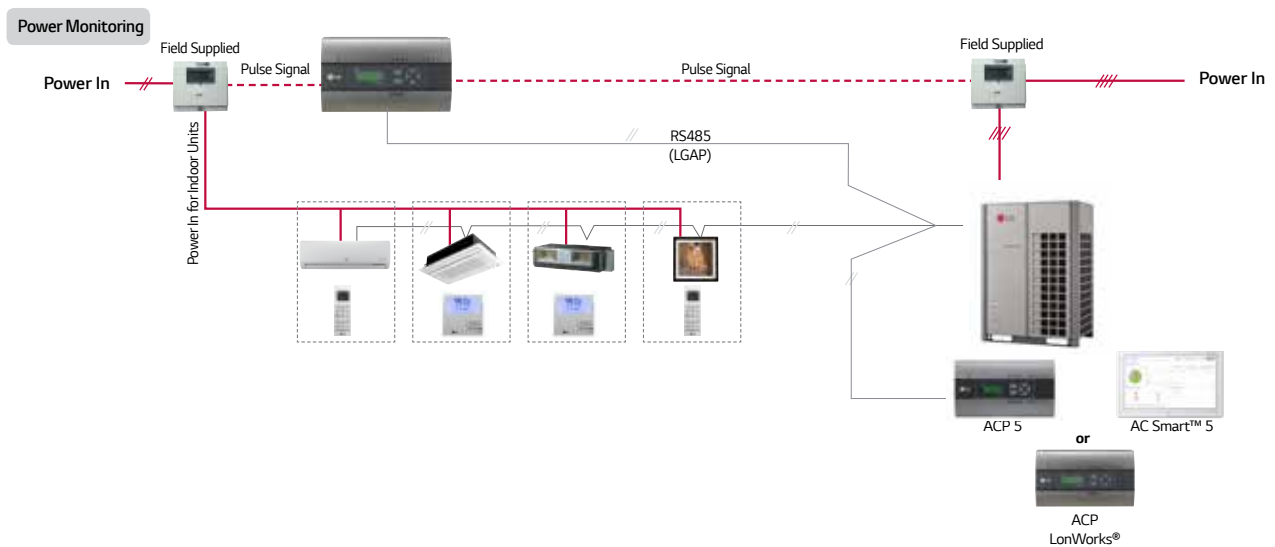


Features

- Power monitoring data is backed up in the event of a power outage
- Connector can be separated for convenient installation
- Linkable with RS485 communication type or pulse type power meter
- Shows power consumption of up to 128 indoor units.

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



I/O MODULE (INPUT/OUTPUT MODULE)

PEXPMB000



Features

Model Name		PEXPMB000
Linkable Products		AC Smart5 ACP5
Communication	RS-485	1
I/O	DI	3
	DO	3
	UI	4
	AO	4

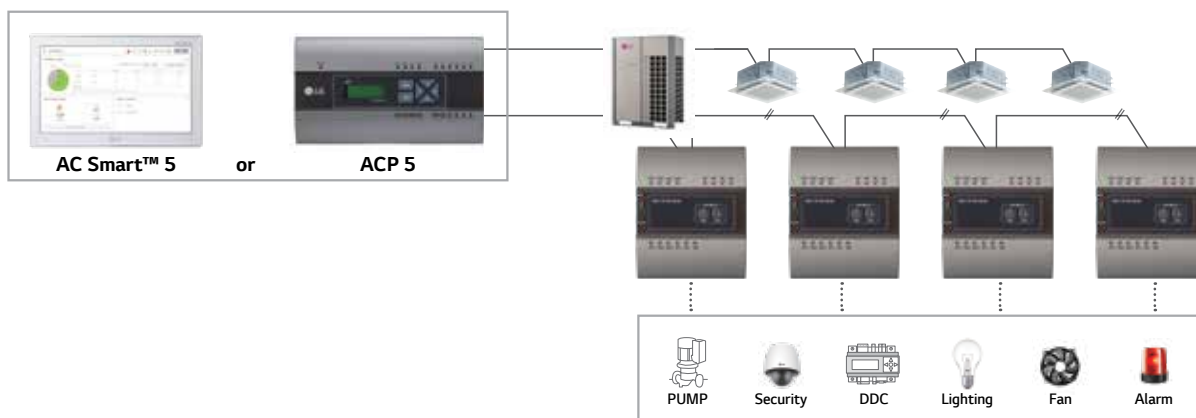
Interface Type		Min.	Max.
Analog Input	NTC 10k	0.68 kΩ	177 kΩ
	PT 1000	803 kΩ	1573 kΩ
	Ni 1000	871.7 kΩ	1675.2 kΩ
	DC (Voltage)	0 V	10 V
Analog Output	DC (Current)	0 mA	20 mA
	-	0 V	10 V
Digital Input	Binary Input (Dry Contact)	-	-
Digital Output	Normal open	-	30VAC / 30VDC, 2A

	AC Smart™ 5	ACP 5
Number of Indoor Units	64-128	128-256
Max. I/O Points	130	224
Maximum Number of Node	9	16

* Maximum number of Indoor units may be reduced by increasing the number of I/O points.

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture



- Sensor / Valve / Actuator
- Pump / Fan etc.

NOTE: For a full list of compatible features, check the latest Engineering Manual.

MULTISITE™ REMOTE CONTROLLER

PREMTBVC1 (WITH OCCUPANCY SENSOR) PREMTBVC0

Features

The LG MultiSITE Remote Controller (with occupancy sensor on PREMTBVC1) is a part of the LG MultiSITE Controls Suite. Featuring a customizable home screen with a highly intuitive user interface, it allows customers to tailor the functions and appearance to meet the needs of their application.

In addition to the flexibility of the user interface, the LG MultiSITE Remote Controllers allow integration with a Building Management System via its onboard BACnet® MS/TP connectivity. The touch screen, coupled with Zigbee wireless compatibility provides a complete out of the box solution.



Model Name	PREMTBVC1 / PREMTBVC0
BACnet MS/TP	●
ZigBee Pro Wireless Network	●
Motion (PIR) Sensor	●
Humidity Display	●
Function Code Search Tool	●
Configurable Home Screen	●
Screen Saver	●
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	●
Additional Mode Setting	●
Auto Swing	●
Vane Control (Louver Direction)	●
E.S.P. (External Static Pressure)	●
Scheduling	●
Digital Color Display	●
Indoor Temperature Display	●
Time Display	●
Date Display	●
Occupancy Status	●
Multilanguage Support	●
Electric Failure Compensation	●
Child Lock	●
Filter Sign Time Remaining & Alarm	●
Operation Status LED	●
Dimensions W x H x D (in.)	3.39 x 4.72 x 1.06
Backlight	●

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

Accessories

Description	Model
ZigBee Pro Wireless Card	ZVRCZPWC1
Wireless Door & Window Switch	ZVRCZDWS1
Wireless Ceiling Mounted Occupancy Sensor	ZVRCZWOC1
Wireless Wall Mounted Occupancy Sensor	ZVRCZCOC1

PREMIUM WIRED REMOTE CONTROLLER

PREMTA000

Features

- Designed to optimize user experience
 - Full touch/Intuitive GUI (graphical user interface)
 - Main display simple mode/Touch buzzer
- Two set points control
- Improved scheduling
 - Timer/Daily/Weekly/Yearly/Holiday
- Self-management for energy saving
 - Time limit operation/power consumption monitoring
 - Weekly/Monthly/Yearly trend tracking
 - Target alert alarm
 - Temperature range setting



Model Name	PREMTA000
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	●
Additional Mode Setting	●
Auto Swing	●
Vane Control (Louver Direction)	●
E.S.P. (External Static Pressure)	●
Scheduling	●
Digital Color Display	●
Indoor Temperature Display	●
Time Display	●
Occupancy Status	●
Electric Failure Compensation	●
Child Lock	●
Filter Sign Time Remaining & Alarm	●
Energy Management	●
Operation Status LED	●
Wireless Remote Controller Receiver	●
Dimensions W x H x D (in.)	5-1/2 x 4-3/4 x 3/4
Backlight	●

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

SIMPLE WIRED REMOTE CONTROLLER

PREMTC00U



Features

Model Name	PREMTC00U
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	●
Auto Swing	●
Two Setpoint Control	●
Vane Control (Louver Direction)	●
E.S.P. (External Static Pressure)	●
Child Lock	●
Wireless Remote Controller Receiver	●
Dimensions W x H x D (in.)	2-3/4 x 4-3/4 x 5/8

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

WIRELESS REMOTE CONTROLLER

PQWRHQ0FDB



Features

Model Name	PQWRHQ0FDB
On / Off	●
Fan Speed Control	●
Temperature Setting	●
Mode Change	●
Additional Mode Setting	●
Auto Swing	●
Vane Control (Louver Direction)	●
Scheduling	●
Indoor Temperature Display	●
Dimensions W x H x D (in.)	2-3/16 x 1-3/16 x 6-3/16

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

REMOTE TEMPERATURE BUTTON SENSOR

ZRTBS01

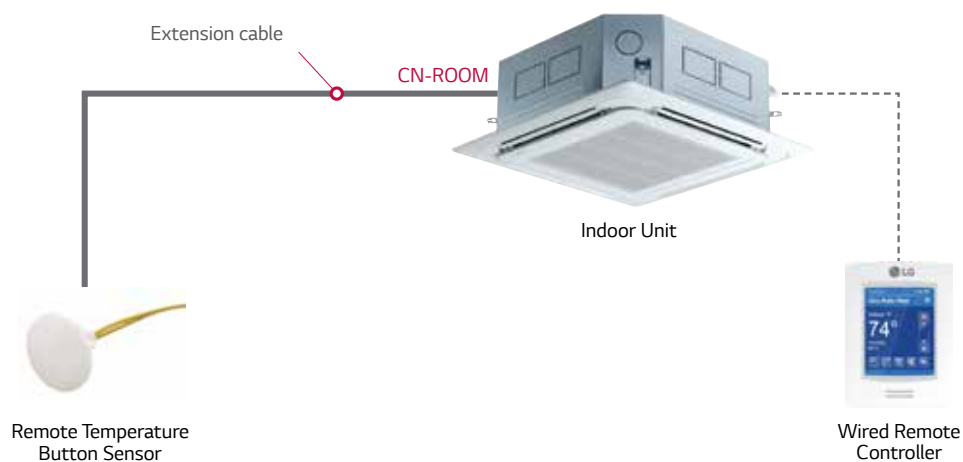


Features

- 0.8" Diameter (approximate size of a quarter) flush button mounts virtually anywhere
- Paintable with latex or oil base to match any decor
- Replaces IDU return air sensor for remote temperature sensing
- Connects to CN-ROOM on IDU PCB
- Compatible LG indoor units: All cassette and ducted IDUs for Multi V, Multi F, Multi F MAX, and Single Zone
- Applied to Ceiling Mounted Cassette, Ceiling Concealed Duct, and Hydro Kit
- Extension cable (49 ft.) is included

NOTE: Available functions/features may differ based on the connected system. Due to our commitment to continued innovation, some specifications may be changed without notification.

System Communication Architecture





LONWORKS®



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