Advanced Application Field Equipment Controller (FAC) Catalog Page

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Advanced Application Field Equipment Controller (FAC)

The Advanced Application Field Equipment Controller (FAC) Series Controllers are programmable controllers that can communicate using BACnet® Secure Connect (BACnet/SC), BACnet/IP, MS/TP, or N2 communications protocols, depending on the model. The FAC4911 is a BACnet Advanced Application Controller (B-AAC) that communicates using BACnet/IP or BACnet/SC communications protocol. All other FAC Series controllers, except the FAC4911, can be switched between MS/TP and N2 communication protocols. FAC controllers used as MS/TP devices are B-AACs with integral RS-485 MS/TP communication.

FAC Series Controllers feature an integral real-time clock. FACs support time-based tasks and maintain time-based control, which enables these field controllers to monitor and control schedules, calendars, alarms, and trends. FACs can continue time-based control and monitoring when offline for extended periods of time from a Metasys system network.

FAC Series Controllers can also operate as stand-alone controllers in applications that do not require a networked supervisory device or for network applications where it is preferred to have the scheduling, alarming, and/or trending performed locally in the field controllers.

The FAC4911 controllers operate on BACnet/SC or BACnet/IP networks and integrate into Johnson Controls® and third-party systems.

The FAC3613 model includes a fast persistence feature that allows data values to be held at a configurable value, up to once per second. Persistence refers to how often samples of data are stored locally. In the event of a problem, such as a loss of power, data can be retrieved up to the rate that the data is persisted, minimizing the potential loss of data. When power is restored, previously persisted data, up to the rate of persistence, remains available and accessible. For example, if persistence is configured for once per second, you only risk losing one second of data. Persisting data may be essential for situations that require greater data accuracy, including certain methods of utility data collection and billing.

The FAC2612 controller features line-voltage relay outputs, which makes this controller well-suited for use in terminal units. The FAC2612-2 model uses a line-voltage power supply, which eliminates the need for a 24 VAC transformer in line-voltage applications.

The FAC2611, FAC2612, and FAC3613 controllers using the MS/TP protocol support wireless communications using the ZFR or ZFR Pro Series accessories and the WRZ-7860 One-to-One Receiver.

- **Important:** You cannot purchase a similar third-party device and install it in a UL/cUL Listed smoke control system. Doing so voids the UL/cUL Smoke Control Listing. Third-party devices must be provided and labeled by the factory as described in the UL/cUL Smoke Control Listing.

- **Important:** Only those Johnson Controls products identified for use in smoke control applications have been tested and listed by UL for use in a Metasys system UL 864 10th Edition UUKL/ORD-C100-13 UUKLC Smoke Control System. Installation of a product that is not UL/cUL Listed and labeled for this application prevents the entire system from being UL/cUL Listed for smoke control.

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Features

Standard BACnet Protocol

Provides interoperability with other Building Automation System (BAS) products that use the widely accepted BACnet standard.

Switchable Communications Protocols

Provides flexibility with a choice between BACnet MS/TP and N2 communication.

Model to support BACnet/SC and BACnet/IP communications

FAC4911 controllers provide higher speed communication with the Controller Configuration Tool (CCT) and improved bandwidth. BACnet/SC is a new protocol that provides a secure method of communication on IP networks. It uses standards widely accepted by the IT community, eliminating many of the IT community's concerns.

Standard Hardware and Software Platform

Uses a common hardware design throughout the family line to support standardized wiring practices and installation workflows; also uses a common software design to support use of a single tool for control applications, commissioning, and troubleshooting to minimize technical training.

Wireless ZFR and ZFR Pro support

Wireless ZFR and ZFR Pro support provides a wireless alternative to hard-wired MS/TP networking, offering application flexibility and mobility with minimal disruption to building occupants, and also simplifies and speeds up replacements.

Auto-Tuned Control Loops

Proportional Adaptive Control (P-Adaptive) and Pattern Recognition Adaptive Control (PRAC) deliver continuous control loop tuning, which reduces commissioning time, eliminates change-of-season recommissioning, and reduces wear and tear on actuators.

Integral real-time clock

Controllers use an integral real-time clock to monitor and control schedules, calendars, and trends, and operate for extended periods of time as stand-alone controllers when offline from the Metasys system network.

Universal Inputs and Configurable Outputs

Allows multiple signal options to provide input/output flexibility.

BACnet Testing Laboratories (BTL) Listed and Certified

Ensures interoperability with other BTL-listed devices. BTL is a third-party agency, which validates that BAS vendor products meet the BACnet industry-standard protocol.

BACnet Automatic Discovery

Supports easy controller integration into a Metasys BAS.

End-of-Line (EOL) Switch in MS/TP Field Controllers

Enables field controllers to be terminating devices on the communications bus.

Pluggable Communications Bus and Supply Power Terminal Blocks

Expedites installation and troubleshooting.

Writable Flash Memory

Allows standard or customized applications to be downloaded from the CCT and enables persistent application data.

Local Controller Display and the MAP Gateway Support

Enable monitoring and commanding of I/O and configuration parameters.

Application documentation

Refer to the *Metasys System Field Equipment Controllers and Related Products Product Bulletin (LIT-12011042)* for product application details.

FAC series model information (including point type counts)

Note: The FAC2513 is only available in certain regions. Contact your local Johnson Controls representative for more information.

Table 1: FAC series model information (Including point type counts)

		FAC2513	FAC2611	FAC2612	FAC3613	FAC4911
Point types	**Signals accepted**					
Universal Input (UI)	Analog Input, Voltage Mode, 0–10 VDC Analog Input, Current Mode, 4–20 mA Analog Input, Resistive Mode, 0–2k ohm, RTD (1k NI [Johnson Controls], 1k PT, A99B SI), NTC (10k Type L, 2.252k Type 2) Binary Input, Dry Contact Maintained Mode	4 Current Mode not supported	6	5	8	10
Binary Input (BI)	Dry Contact Maintained Mode Pulse Counter/Accumulator Mode (High Speed), 100 Hz	6	2	4	6	6
Analog Output (AO)	Analog Output, Voltage Mode, 0–10 VDC Analog Current Mode, 4–20 mA	2 Current Mode not supported	2		6	4
Binary Output (BO)	24 VAC Triac	2 External Power only	3		6	4
Configurable Output (CO)	Analog Output, Voltage Mode, 0–10 VDC Binary Output Mode, 24 VAC Triac	2	4	4		4
Relay Output (RO)	RO: Single-Pole, Double-Throw (SPDT) RO: Single-Pole, Single-Throw (SPST)			2 - SPDT and 3 - SPST line-voltage relays, 1/4 hp 120 VAC, 1/2 hp 240 VAC		

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Table 1: FAC series model information (Including point type counts)

	FAC2513	FAC2611	FAC2612	FAC3613	FAC4911
Communication protocol	**FAC2513, FAC2611, FAC2612, FAC3613** BACnet MS/TP, N2, or Zigbee wireless with add-on modules				
	FAC4911 BACnet/SC or BACnet/IP				
Engines supported	**FAC2513, FAC2611, FAC2612, FAC3613** All Model types. Refer to the *Network Engines Product Bulletin (LIT-12012138)* for details.				
	FAC4911 All Model types; however, certain restrictions apply. For more information, refer to the footnotes in the *Network Engine Hardware Limitations* table in the *Metasys System Configuration Guide (LIT-12011832)* for details. For details about SNE and SNC Series of Network Control Engines, refer to the *SNE Series Network Engines* section and the *SNC Series Network Engines* section of the *Metasys System Configuration Guide (LIT-12011832)*. ⓘ **Note:** Only engines with firmware version 9.0 or later support FAC4911.				
Modular jacks	**All models** 6-pin SA Bus Modular Port supports one communicating sensor. Or you can wire up to four communicating sensors to the SA Bus Terminal Block. They cannot be used at the same time.				
	FAC2611, FAC2612, FAC3613 6-pin FC Bus for tool support				

FAC series ordering information

Table 2: FAC series ordering information

Product Code Number	Description
MS-FAC2611-0	17-Point Advanced Application Field Equipment Controller with 6 UI, 2 BI, 4 CO, 3 BO, and 2 AO; 24 VAC; SA Bus; FC Bus; Integral Real-time Clock
MS-FAC2612-1	18-Point Advanced Application Field Equipment Controller with 5 UI, 4 BI, 4 CO, 2 SPDT and 3 SPST Line-Voltage ROs 1/4 hp 120 VAC, 1/2 hp 240 VAC; 24 VAC; SA Bus; FC Bus; Integral Real-time Clock
MS-FAC2612-2	18-Point Advanced Application Field Equipment Controller with 5 UI, 4 BI, 4 CO, 2 SPDT and 3 SPST Line-Voltage ROs, 1/4 hp 120 VAC, 1/2 hp 240 VAC; 100–240 VAC; SA Bus; FC Bus; Integral Real-time Clock
MS-FAC3613-0	26-Point Advanced Application Field Equipment Controller with 8 UI, 6 BI, 6 BO, and 6 AO; 24 VAC; SA Bus; FC Bus; Integral Real-time Clock; Fast Persistence
MS-FAC4911-0	28-Point Advanced Application Field Equipment Controller with 10 UI, 6 BI, 4 BO, 4 AO, and 4 CO; 24 VAC; SA Sensor Port; Integral Real-time Clock; 2 Ethernet Ports for BACnet/SC or BACnet/IP Communications

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FAC accessories

ⓘ **Note:** The accessories marked with an asterisk (*) in the table are not qualified for use with a UL 864 UUKL/UUKLC 10th Edition Listed Smoke Control system.

Table 3: FAC Accessories

Product Code Number	Description
IOM Series Expansion Modules	Refer to the *Metasys System Field Equipment Controllers and Related Products Product Bulletin (LIT-12011042)* for a complete list of available IOM Series Expansion Modules.
XPM Series Expansion Modules	Refer to the *Metasys CGx, CVx Equipment Controllers and XPM Expansion Modules Product Bulletin (LIT-12013105)* for a complete list of available XPM series expansion modules.
TL-CCT-0	Controller Configuration Tool (CCT) software
MS-FCP-0	Metasys Field Controller Firmware Package Files for CCT
Mobile Access Portal (MAP) Gateway*	Refer to the *Mobile Access Portal Gateway Catalog Page (LIT-1900869)* to identify the appropriate product for your region.
NS Series Network Sensors	Refer to the *NS Series Network Sensors Product Bulletin (LIT-12011574)* for specific sensor model descriptions.
TP-2420*	Transformer, 120 VAC Primary to 24 VAC secondary, 20 VA, Wall Plug
MS-DIS1710-0*	Local Controller Display, 3.0 in. (76 mm) monochrome display with navigation keypad. Refer to *Local Controller Display Product Bulletin (LIT-12011273)* for more information.
M4-DLK0350-0*	Local Controller Display with 3.5 in. (89 mm) color display and navigation keypad. For more information, refer to *DLK0350 Product Bulletin (LIT-12014001)*.
WRZ Series Wireless Room Sensors*	Refer to the *WRZ Series Wireless Room Sensors Product Bulletin (LIT-12011653)* for specific sensor model descriptions.
WRZ-7860-0*	Receiver for One-to-One Wireless Room Sensing Systems - functions with WRZ Series Sensors room sensors. Refer to the *WRZ-7860 Receiver for One-to-One Wireless Room Sensing Product Bulletin (LIT-12011640)* for a list of available products.
WRZ-SST-120*	Wireless System Survey Tool (for use with the lower power 10mW WRZ and WRZ-7860 systems). Refer to the WRZ-SST-120 Wireless Sensing System Tool Installation Instructions (LIT-24-10563-55) for usage instructions.
ZFR-HPSST-0*	Wireless System Survey Tool. For use with the higher power WRG1830/ZFR183x System and lower power WRZ Sensors (10mW). Refer to the Hi Power Survey Tool Installation Document (LIT-24-11461-00012) for usage instructions.
WRG1830/ZFR183x Pro Wireless Field Bus System*	For more information on products needed for wireless field bus installations and for a list of available products, refer to the *WRG1830/ZFR183x Pro Series Wireless Field Bus System Catalog Page (LIT-1901153)*.
ZFR-USBHA-0	ZFR USB Dongle provides a wireless connection through CCT to allow wireless commissioning of the wirelessly enabled FAC controllers. It also allows use of the ZFR Checkout Tool (ZCT) in CCT. ⓘ **Note:** The ZFR-USBHA-0 is not compatible with the WRG1830/ZFR183x Pro Series. ⓘ **Note:** The ZFR-USBHA-0 replaces the IA OEM DAUBI_2400 ZFR USB dongle. For additional information about the ZFR-USBHA-0 ZFR dongle, refer to the *ZCT Checkout Tool Help (LIT-12012292)* or the *WNC1800_ZFR182x Pro Series Wireless Field Bus System Technical Bulletin (LIT-12012356)*.

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Table 3: FAC Accessories

Product Code Number	Description
Y64T15-0*	Transformer, 120/208/240 VAC Primary to 24 VAC Secondary, 92 VA, Foot Mount, 30 in. Primary Leads and 30 in. Secondary Leads, Class 2
Y65A13-0*	Transformer, 120 VAC Primary to 24 VAC Secondary, 40 VA, Foot Mount (Y65AS), 8 in. Primary Leads and 30 in. Secondary Leads, Class 2
Y65T42-0*	Transformer, 120/208/240 VAC Primary to 24 VAC Secondary, 40 VA, Hub Mount (Y65SP+), 8 in. Primary Leads and Secondary Screw Terminals, Class 2
Y65T31-0*	Transformer, 120/208/240 VAC Primary to 24 VAC Secondary, 40 VA, Foot Mount (Y65AR+), 8 in. Primary Leads and Secondary Screw Terminals, Class 2
AP-TBK4SA-0	Replacement MS/TP SA Bus Terminal, 4-Position Connector, Brown (Bulk Pack of 10)
AS-XFR050-0*	Power transformer (Class 2, 24 VAC, 50 VA maximum output), no enclosure.
AP-TBK3PW-0	Replacement Power Terminal, 3-Position Connector, Gray (Bulk Pack of 10)
AS-CBLTSTAT-0	Cable adapter for connection to 8-pin TE-6700 Series sensors

FAC series technical specifications

Table 4: FAC series

	Description
Product Code Numbers	**MS-FAC2513-0:** 16-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power **MS-FAC2611-0:** 17-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power **MS-FAC2612-1:** 18-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power **MS-FAC2612-2:** 18-Point FAC with Integral Real-Time Clock and 100–240 VAC Supply Power **MS-FAC3613-0:** 26-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power with Fast Persistence **MS-FAC4911-0:** 28-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power **Smoke Control Models:** **MS-FAC2611-0U:** 17-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power **MS-FAC2612-1U:** 18-Point FAC with Integral Real-Time Clock and 24 VAC Supply Power
Communications Protocol	**MS-FAC2513-0, MS-FAC2611-0, MS-FAC2612-1, MS-FAC2612-2, and MS-FAC3613-0:** BACnet MS/TP, N2 **MS-FAC4911-0:** BACnet/SC or BACnet/IP
Engines Supported	**MS-FAC2513-0, MS-FAC2611-0, MS-FAC2612-1, MS-FAC2612-2, and MS-FAC3613-0:** All Model types. Some NIE models support MS/TP and N2 devices. Refer to the *Network Engines Product Bulletin (LIT-12012138)* for details. **MS-FAC4911-0:** All Model types; however, certain restrictions apply. Refer to the footnotes in the *Network Engine Hardware Limitations* table of the *Metasys System Configuration Guide (LIT-12011832)* for details. For details about SNE and SNC Series of Network Control Engines, refer to the *SNE Series Network Engines* section and the *SNC Series Network Engines* section of the *Metasys System Configuration Guide (LIT-12011832)*. ⓘ **Note:** The FAC4911 is supported only by engines with firmware version 9.0 or greater.
Power Requirement	**MS-FAC2513-0, MS-FAC2611-0, MS-FAC2612-1, MS-FAC3613-0, and MS-FAC4911-0:** 24 VAC (nominal, 20 VAC minimum/30 VAC maximum), 50/60Hz, Power Supply Class 2 (North America), SELV (Europe) **MS-FAC2612-2:** 100–240 VAC 50/60 Hz

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Table 4: FAC series

	Description
Power Consumption	**MS-FAC2513-0, MS-FAC2611-0, MS-FAC3613-0, and MS-FAC4911-0:** 14 VA maximum **MS-FAC2612-1:** 30 VA maximum **MS-FAC2612-2:** 40 VA maximum ⓘ **Note:** VA ratings do not include any power supplied to the peripheral devices connected to Binary Outputs (BOs) or Configurable Outputs (COs), which can consume up to 12 VA for each BO or CO, for a possible total consumption of an additional 84 VA (maximum).
Ambient Conditions	**Operating:** 0 to 50°C (32 to 122°F), 10 to 90% RH noncondensing; Pollution Degree 2 **Storage:** -40 to 80°C (-40 to 176°F), 5 to 95% RH noncondensing
Device addressing for BACnet MS/TP	Decimal address set using dip switches: valid controller device addresses 4-127
Device addressing for N2	Decimal address set using dip switches: valid controller device addresses 1-254
Controller Number for Ethernet controller	3 rotary switches to assign a unique number for each controller to physically identify the controller and relate it to the building drawings; valid controller numbers 0-999
Communications Bus	**RS-485, field selectable between BACnet MS/TP and N2 communications on certain models:** • 3-wire FC Bus between the supervisory controller and field controllers • 4-wire SA Bus between field controller, network sensors, and other sensor/actuator devices, includes a lead to source 15 VDC supply power (from field controller) to bus devices. **MS-FAC4911-0:** • BACnet/SC or BACnet/IP over Ethernet cable • 4-wire SA Bus between field controller, network sensors, and other sensor/actuator devices, includes a lead to source 15 VDC supply power (from field controller) to bus devices.
Processor	**MS-FAC2611-0, MS-FAC2612-1, and MS-FAC2612-2 :** H8SX/166xR Renesas® microcontroller **MS-FAC2513-0 and MS-FAC3613-0**: RX631 32-Bit Renesas microcontroller **MS-FAC4911-0:** RX63N 32-Bit Renesas microcontroller
Memory	**MS-FAC2611-0, MS-FAC2612-1, and MS-FAC2612-2:** 4 MB Flash Memory and 1 MB RAM **MS-FAC2513-0 and MS-FAC3613-0:** 16 MB Flash Memory and 8 MB SDRAM **MS-FAC4911-0:** 16 MB Flash Memory and 8 MB RAM
Real-Time Clock Backup Power Supply	Super capacitor maintains power to the onboard real-time clock for a minimum of 72 hours when supply power to the controller is disconnected.

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Table 4: FAC series

	Description
Input and Output Capabilities	**MS-FAC2513-0:** 4 - Universal Inputs: *Defined as 0–10 VDC, 0–600k ohm, or Binary Dry Contact.* 6 - Binary Inputs: *Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode.* 2 - Analog Outputs: *Defined as 0–10 VDC.* 2 - Binary Outputs: *Defined as 24 VAC Triac (external power source only)* 2 - Configurable Outputs: *Defined as 0–10 VDC or 24 VAC Triac BO* **MS-FAC2611-0:** 6 - Universal Inputs: *Defined as 0–10 VDC, 4–20 mA, 0–600k ohm, or Binary Dry Contact*. 2 - Binary Inputs: *Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode.* 2 - Analog Outputs: *Defined as 0–10 VDC or 4–20 mA.* 3 - Binary Outputs: *Defined as 24 VAC Triac (selectable internal or external source power).* 4 - Configurable Outputs: *Defined as 0–10 VDC or 24 VAC Triac BO*. **MS-FAC2612-1 and MS-FAC2612-2:** 5 - Universal Inputs: *Defined as 0–10 VDC, 4–20 mA, 0–600k ohm, or Binary Dry Contact.* 4 - Binary Inputs: *Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode.* 4 - Configurable Outputs: *Defined as 0–10 VDC or 24 VAC Triac BO.* 2 - Relay Outputs (Single-Pole, Double-Throw): *UL 916: 1/4 hp 120 VAC, 1/2 hp 240 VAC; 360 VA Pilot Duty at 120/240 VAC (B300); 3 A Non-inductive 24–240 VAC; EN 60730: 6 (4) A N.O. or N.C. only.* 3 - Relay Outputs (Single-Pole, Single-Throw): *UL 916:1/4 hp 120 VAC, 1/2 hp 240 VAC; 360 VA Pilot Duty at 120/240 VAC (B300); 3 A Non-inductive 24–240 VAC; EN 60730: 6 (4) A N.O. or N.C. only* **MS-FAC3613-0:** 8 - Universal Inputs: *Defined as 0–10 VDC, 4–20 mA, 0–600k ohms, or Binary Dry Contact*. 6 - Binary Inputs: *Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode*. 6 - Binary Outputs: *Defined as 24 VAC Triac (external power source only)*. 6 - Analog Outputs: Defined as 0–10 VDC or 4–20 mA **MS-FAC4911-0:** 10 - Universal Inputs: Defined as 0–10 VDC, 0–600k ohms, or Binary Dry Contact 6 - Binary Inputs: Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode 4 - Binary Outputs: Defined as 24 VAC Triac (external power source only) 4 - Analog Outputs: Defined as 0–10 VDC or 4–20 mA 4 - Configurable Outputs: Defined as AO mode , 0–10 VDC or BO mode, 24 VAC Triac
Analog Input (AI)/ Analog Output (AO) Resolution and Accuracy	Analog Input: 15-bit resolution Analog Output: 15-bit resolution, +/- 200 mV accuracy in 0–10 VDC applications

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Table 4: FAC series

	Description
Terminations	**MS-FAC2513-0**: Input/Output: Fixed Screw Terminal Blocks FC Bus, SA Bus and Supply Power: 3-wire and 4-wire Pluggable Screw Terminal Blocks SA Bus Port: RJ-12 6-pin Modular Jacks **MS-FAC2611-0 and MS-FAC3613-0:** Input/Output: Fixed Screw Terminal Blocks FC Bus, SA Bus and Supply Power: 3-wire and 4-wire Pluggable Screw Terminal Blocks FC Bus and SA Bus Port: RJ-12 6-pin Modular Jacks **MS-FAC2612-1 and MS-FAC2612-2:** Input/Output: Pluggable Screw Terminal Blocks FC Bus, SA Bus and Supply Power: 3-wire and 4-wire Pluggable Screw Terminal Blocks FC Bus and SA Bus Port: RJ-12 6-pin Modular Jacks **MS-FAC4911-0:** Input/Output: Fixed Screw Terminal Blocks SA Bus and Supply Power: 3-wire and 4-wire Pluggable Screw Terminal Blocks SA Bus Port: RJ-12 6-pin Modular Jacks
Mounting	Horizontal on single 35 mm DIN rain mount (preferred), or screw mount on flat surface with three integral mounting clips on controller
Housing	Enclosure material: ABS and polycarbonate UL94 5VB, self-extinguishing; Plenum-rated Protection Class: IP20 (IEC529) (except the FAC2612 controller)
Dimensions (Height x Width x Depth)	**MS-FAC2513-0:** 150 x 164 x 48 mm (5-7/8 x 6-7/16 x 1-7/8 in.) including terminals and mounting clips **MS-FAC2611-0:** 150 x 190 x 53 mm (5-7/8 x 7-1/2 x 2-1/8 in.) including terminals and mounting clips **MS-FAC2612-x:** 150 x 164 x 53 mm (5-7/8 x 6-7/16 x 2-1/8 in.) including terminals and mounting clips **MS-FAC3613-0 and MS-FAC4911-0:** 150 x 220 x 57.5 mm (5-7/8 x 8-3/4 x 2-3/8 in.) including terminals and mounting clips ⓘ **Note:** Mounting space for FAC models requires an additional 50 mm (2 in.) space on top, bottom, and front face of controller for easy cover removal, ventilation, and wire terminations.
Weight	0.5 kg (1.1 lb)
Compliance	**United States:** UL Listed, File E107041, CCN PAZX, UL 916, Energy Management Equipment; FCC Compliant to CFR47, Part 15, Subpart B, Class A UL Listed, File S4977, UL 864 UUKL/UUKLC 10th Edition Listed, Smoke Control Units and Accessories for Fire Alarm Systems Equipment (models with **U** product code suffix only)
	Canada: UL Listed, File E107041, CCN PAZX7, CAN/CSA C22.2 No. 205, Signal Equipment; Industry Canada Compliant, ICES-003 UL Listed, File S4977, UL 864 UUKL/ORD-C100-13 10th Edition Listed, Smoke Control Units and Accessories for Fire Alarm Systems (models with U product code suffix only)
CE	**Europe:** CE Mark – Johnson Controls declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive and RoHS Directive. Johnson Controls, declares that the FAC2612-2 models are also in compliance with the essential requirements and other relevant provisions of the Low Voltage Directive. Declared as Independently Mounted, Intended for Panel Mounting, Operating Control Type 1.B, 4kV rated impulse voltage, 100°C ball pressure test.
	**Australia and New Zealand:** RCM Mark, Australia/NZ Emissions Compliant

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Table 4: FAC series

	Description
	BACnet International: **MS-FAC261x-x:** BACnet® Testing Laboratories (BTL) Protocol Revision 7 Listed BACnet Advanced Application Controller (B-AAC) **MS-FAC2513-0, MS-FAC3613-0, and MS-FAC4911-0:** BACnet® Testing Laboratories (BTL) Protocol Revision 18 Listed and Certified BACnet Advanced Application Controller (B-AAC)
UK CA	**United Kingdom:** Johnson Controls declares that this product is in compliance with Electromagnetic Compatibility Regulations, The Electrical Equipment (Safety) Regulations, and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations.

ⓘ **Note:** The MS-FAC2513-0 model is only available in certain regions. Contact your local Johnson Controls representative for more information.

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products.

Repair information

If a controller, network sensor, or any related product fails to operate within its specifications, replace the product. For replacement products, contact the nearest Johnson Controls representative.

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Patents

Patents: https://jcipat.com

Single point of contact

APAC	EU	UK	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS VOLTAWEG 20 6101 XK ECHT THE NETHERLANDS	JOHNSON CONTROLS TYCO PARK GRIMSHAW LANE MANCHESTER M40 2WL UNITED KINGDOM	JOHNSON CONTROLS 5757 N GREEN BAY AVE. GLENDALE, WI 53209 USA

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