Mobile Access Portal Gateway Catalog Page

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Johnson Controls

Description

The Mobile Access Portal (MAP) Gateway is a pocket-sized web server that provides a wireless mobile user interface to *Metasys*® Field Controllers, FX Field Controllers, CH Field Controllers, TEC3000 Series Thermostats, and Smart Equipment Rooftop Units (RTUs). The mobile user interface can be displayed in the browser of a phone, tablet, or computer.

The MAP Gateway ships from the factory with a base set of features that allow users to access, view, edit, and override key information from all devices connected on a common BACnet Token Passing (TP) field bus. The wireless connection on the MAP Gateway allows users to be up to 31m (100 ft line of sight) away indoors and up to 91 m (300 ft line of sight) away outdoors. The MAP Gateway can also be permanently mounted, powered with an optional separate power supply and connected to an Ethernet access point for use as remote connection to a TP field bus of devices.

MAP Gateways ship from the factory with version 5.0x firmware, MAP Gateway units already in the field with version 3.0x firmware or later can be upgraded to Release 5.0 to provide a complete set of Commissioning and Wiring Validation functions targeted for use by electricians, commissioning contractors, and technicians. The Release 5.0 upgrade can be acquired from Johnson Controls internal portal pages or Authorized Building Controls System (ABCS) Contractor portal pages. These updates are complemented by a set of targeted videos that are available using the following link https://jcpublic.kzoplatform.com/containers/957891534378768109.

The MAP Gateway **cannot** be used on Smoke Control systems or at *Metasys* for Validated Environment (MVE) sites.

In addition, a stationary version of the MAP Gateway is available that can be permanently mounted and plugged into the SA bus or FC bus of a field controller.

The MAP Gateway user interface is accessed either over Wi-Fi or an existing Ethernet network on site.

Figure 1: Mobile Access Portal Gateway

Features and Benefits

Standard Hardware Functionality from the Factory

- **Simple Brower-Based User Interface**—The MAP Gateway has a consistent, intuitive, menu-driven set of browser based views that allow you to quickly navigate between the connected devices and drill down into the point and feature data supported by each device type.
- **Secure Wi-Fi Connectivity to Multiple Platforms**—The MAP Gateway communicates securely using WiFi to smart phones, tablets or personal computers. The browser-based user interfaces automatically conforms to the size constraints of the connected platform
- **Carry with You or Leave on Site**—The MAP Gateway can be used as a basic, portable commissioning tool to view, adjust, or override the key points on the supported field controllers connected on an MS/TP network. When permanently mounted and connected to an MS/TP network, the MAP provides a secure local display option for the connected devices.
- **Access to Advanced Application Field Controller Schedules, Alarms and Trends**—The MAP Gateway allows you to view alarms, events, and trends, and modify the schedules created for an advanced application controller.
- **Permanent Audit Log**—Allows you to export and view a log file to review all user logins, transactions, and to log any events generated from the connected controllers.

Standard Release 5.0 Functionality from the Factory

- **Advanced Commissioning and Validation Framework**—A new framework for technicians, installers and balancers to setup and organize their tasks for each MS/TP network.
- **Tailored Summaries**—You can easily add attribute templates into your MAP Gateway to provide multi-point views for each device. While in this view, you can sort values and mass override points on multiple controllers.
- **Device Checkout**—This view allows an installer or technician to verify the point wiring for each controller in an organized manner, and provide a report that captures their verification steps.
- **Live Trend**—You can select up to 4 points on a controller and are presented with a live trend graph. During the trending session, you are allowed to command a set point, or override an output, to verify that control processes or end devices are functioning properly.
- **VAV Box Air Balancing**—A balancing contractor can quickly perform their tasks on any single duct, dual duct, or supply exhaust VAV Box configuration. A dual point balancing option is also available for use on critical space.
- **Reporting Options**—At the completion of a commissioning and validation session, all the steps performed can be captured and saved in the report that is organized by the framework setup at the beginning of the session.
- **BACnet Router Setup for ToolConnections**—The BACnet Router setup has been updated to allow the MAP Gateway to easily connect to the Field Controller and System Tools through a WIFI connection to perform file transfers and commissioning functions.

Ordering Information

Contact your Johnson Controls representative to order the MAP Gateway or any related products. See Table 1 for product code numbers and product descriptions.

Selection Charts

Table 1: Ordering Information

Product Code Number	Country/Region	Description
TL-MAP1810-0P	US / Canada	Portable MAP Gateway - includes MAP Gateway, RJ-12 cable, protective shell, and lanyard
TL-MAP1810-0S	US / Canada	MAP Gateway - includes MAP Gateway, field bus adapter, mounting bracket, and AC power supply (Adapters for the power supply may vary by country.)
TL-MAP1810-0PE	Europe - All EU Countries	Portable MAP Gateway for Metasys, FX, and BCPro™ systems - includes MAP Gateway, RJ-12 cable, protective shell, and lanyard
TL-MAP1810-0PA	Asia - China, Japan, Australia, New Zealand, India, Singapore, Thailand, and Hong Kong	Portable MAP Gateway for Metasys, FX, and BCPro systems - includes MAP Gateway, RJ-12 cable, protective shell, and lanyard
TL-MAP1810-0PM	S.Africa, UAE, Qatar, Kuwait, Bahrain, Egypt, Iraq, Oman, and Pakistan.	Portable MAP Gateway for Metasys, FX, and BCPro systems - includes MAP Gateway, RJ-12 cable, protective shell, and lanyard
TL-MAP1810-0PL	Mexico, Colombia, Panama, Peru, Chile, Brazil, Costa Rica, Argentina, Ecuador,El Salvador, Trinidad and Tobago, Dominican Republic,Guatemala, Honduras, Nicaragua, Paraguay, Jamaica,Bermuda, Bahamas, and Barbados.	Portable MAP Gateway for Metasys, FX, and BCPro systems - includes MAP Gateway, RJ-12 cable, protective shell, and lanyard

ⓘ **Note:** Last digit (**x**) represents non-US country requirements.

Accessories (Order Separately)

Table 2: Accessories

Product Code Number	Description
MP-STAKIT-0H	Stationary Mounting Cradle Kit - includes mounting bracket, field bus adapter, and AC power supply. **North America only**.
MP-PWRKIT-0D	MAP Universal Power Supply for Non-North America Markets
MP-PRTKIT-0P	Portable Kit - includes RJ-12 cable, shell, and lanyard.
MP-STAKIT-0	Stationary Mounting Cradle only - includes mounting bracket.
MP-STAFBA-0	Field Bus Adapter - RJ-12 to 4-position Terminal Block Adapter. Used for connecting directly to MS/TP Field Bus.

Related Documentation and Videos

Table 3: Related Documentation and Videos

For Information On	See Document or Video
Getting started with MAP Gateway	*Mobile Access Gateway Portal Quick Start Guide (Part No. 24-10737-16)*
Getting started with MAP Gateway (Asia)	*Mobile Access Portal Gateway Quick Start Guide (Part No. 24-10737-164)*(Asia)
Getting started with MAP Gateway (Europe)	*Mobile Access Gateway Portal Quick Start Guide (Part No. 24-10737-148)*(Europe)
Installing and wiring MAP Gateway	*Mobile Access Gateway Portal Installation Instructions (Part No. 24-10737-8)*
Using MAP Gateway	*Mobile Access Portal Gateway User's Guide (LIT-12011999)*
Installing and using private keys and security certificates	*Mobile Access Portal Gateway Network and IT Guidance Technical Bulletin (LIT-12012015)*
Using Commissioning Features	*Mobile Access Portal Gateway (MAP) training videos* at https://jcpublic.kzoplatform.com/containers/957891534378768109

Technical Specifications

Table 4: MAP Gateway

Product Code	**TL-MAP1810-0Px:** Portable MAP Gateway (Includes MAP Gateway, RJ-12 cable, bumper guard, and lanyard.) US-compatible countries. **TL-MAP1810-0Sx:** Stationary MAP Gateway (Includes MAP Gateway, field bus adapter, mounting bracket, and 100 to 240 VAC power supply.) US-compatible countries.
Power Consumption	From SA/FC bus: 15 VDC at 2.7 VA maximum From 100 to 240 VAC external power supply: 15 VDC at 3.8 VA maximum
Ambient Temperature Conditions	**TL-MAP1810-0Px** **Operating:** 0°C to 50°C (32°F to 122°F) **Operating Survival:** -30°C to 60°C (-22°F to 140°F) **Non-Operating:** -40°C to 70°C (-40°F to 158°F)
Ambient Humidity Conditions	**Operating:** 5 to 95% RH, 30°C (86°F) maximum dew point conditions **Storage:** 5 to 95% RH 30°C (86°F) maximum dew point conditions
Transmission Power (Typical)	**Wireless Local Area Network (WLAN) Transmission Power:** +14.5 dBm, 54 Mbps +12.5 dBm, 65 Mbps
WLAN Receiver Sensitivity (Typical)	-76 dBm, 10% packet error rate (PER), 54 Mbps -73 dBm, 10% PER, 65 Mbps
Transmission Speeds	**Wireless Communication:** 2.4 GHz ISM bands, 802.11 b/g/n, 11/22/54 Mbps **Serial Communication (SA/FC Bus):** 9600, 19.2k, 38.4k, or 76.8k bps ⓘ **Note:** Use 38.4k bps when connecting to an FC bus using MAP 4.0 and earlier. **Ethernet Communication:** 10 Mbps, 100 Mbps, 1000 Mbps
Wi-Fi Transmission Range (Typical)	**Wi-Fi Wireless Communication:** 30 m (100 ft) line-of-sight indoors; however, a typical indoor range in an area with obstacles is 15 m (50 ft). 91 m (300 ft) line-of-sight outdoors **WLAN Range Performance:** 0–50 ft = Excellent 50–100 ft = Good 100–300 ft = Weakest, approaching out of range
Wi-Fi Wireless Security	WPA2-PSK TKIP (Wi-Fi Protected Access Pre-Shared Key Mode Temporal Key Integrity Protocol) WPA2-EAP-PEAP WPA2-EAP-TLS

Table 4: MAP Gateway

Network and Serial Interfaces	One SA/FC port (6-pin port; connects with ZFR1820/1823. Can be extended to 30 m (100') if necessary) One Ethernet port (8-pin port; connects with 30.48 m [100 ft], 8-pin RJ-45 cable) One USB port (Micro-B port; 2.0; supports Open Host Controller Interface [Open HCI] specification)
Dimensions **(H x W x D)**	Unit alone: 120 x 70 x 24.5 mm (4-23/32 x 2-3/4 x 31/32 in. when used vertically) Unit in shell: 128 x 75 x 29.5 mm (5-1/32 x 2-61/64 x 1-5/32 in. when used vertically) Unit in mounting bracket: 137 x 84.5 x 32 mm (5-25/64 x 3-21/64 x 1-17/64 in. when used vertically, includes DIN clips)
Housing	White Acrylonitrile butadiene styrene (ABS) bracket, plenum-rated
Weight	MAP Gateway alone: 0.10 kg (0.22 lb) MAP Gateway in shell: 0.15 kg (0.33 lb) Unit in mounting bracket: 0.17 kg (0.38 lb) ⓘ **Note:** Weights do not include any peripheral components such as cables, lanyard, or an external power supply.
Web Browser Requirements for Computers and Handheld Devices	**Computer:** Google®Chrome™ 30 or later is the preferred browser for MAP. Windows Internet Explorer® 11 and Apple®Safari® 8 and later are also supported. **Handheld Device**: The handheld device must be running either Internet Explorer Mobile for Windows Mobile, version 5 or version 6 operating system (OS); Apple iPhone® and iPod touch®® iOS, version 8.0 or later; Android™™ versions 5.1 or later; or Google Chrome 30 or later. ⓘ **Note:** Other web browsers may display the UI, but the functionality is not guaranteed.
Compliance CE	**United States** UL Listed File E365459, ANSI/UL 60950-1, Information Technology Equipment; UL 2043 (Stationary version only), Suitable for Use in Other Environmental Air Space in Accordance with Section 300.22, (C) of the National Electric Code. Transmission Complies with FCC Part 15.247 Regulations for Low Power Unlicensed Transmitters Transmitter FCC Identification: OEJ-MAPWIFI FCC Compliant to CFR 47, Part 15, Subpart B, Class A
	Canada: Industry Canada IC: 279A-MAPWIFI IC: RSS-210 ULC Listed File E365459, CAN/CSA-C22.2 No. 60950-1, Safety of Information Technology Equipment

Table 4: MAP Gateway

	Europe: CE Mark—Johnson Controls declares that this product is in compliance with the essential requirements and other relevant provisions of the Radio Equipment Directive (RED), LVD Directive, and the EMC Directive. **CE Emission:** EN61000-6-3: 2007; Generic standards for residential, commercial, and light-industrial environments. ETSI EN 301 489-1:2001-09, ETSI EN301 489-3:2001-11 (Class 2), IEC 60950-1/ EN 60950-1
	Australia and New Zealand: RCM Mark, Australia/NZ Emissions Compliant.
	**Mexico:** La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada. The operation of this equipment is subject to the following two conditions: (1) it is possible that this equipment or device may not cause harmful interference, and (2) this equipment or device must accept any interference, including interference that may cause undesired operation IFT, Número: NYCE/CT/0471/17/TS
	**Brazil:** According to application guidance "INSTRUMENTO DE GESTÃO DOC.IG/06 - v.02 DATA: 15/10/2006" Para atender os limites de radiofrequencia estabelecidos, a distância entre a antena ou antenas e o usuário não deve ser inferior a 20cm. To comply with RF exposure limits established, the distance between the antenna or antennas and the user should not be less than 20 cm. ANATEL: 03298-17-06174 Para consultas, visite: www.anatel.gov.br
	Argentina: CNC, Número de Inscripción: C-17791 **Jamaica:** This product has been Type Approved by Jamaica: SMA - MAP18 **Paraguay:** CONATEL, Número del Registro: 2017-06-I-0000165

ⓘ **Note:** The performance specifications are nominal and conform to acceptable industry standard. 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.