PROGRAMMABLE CONTROLLERS

METASYS® CONTROLLERS

IOM

INPUT/OUTPUT MODULES

The IOM Series expansion I/O modules have integral RS-485 MS/TP communications and integrate into the web-based *Metasys*® system.

IOMs can serve in one of two capacities, depending on where they are installed in the *Metasys* system. When installed on the Sensor/Actuator (SA) Bus of an Advanced Application Field Equipment Controller (FAC), Field Equipment Controller (FEC), or VAV Modular Assembly (VMA) controller, the IOM expands the point count of these controllers. When installed on the Field Controller (FC) Bus, IOMs can be used as I/O point multiplexors to support monitoring and control from a Network Automation Engine (NAE) or Network Control Engine (NCE). The point multiplexor can also be useful for sharing points between other field controllers on the FC Bus using peer-to-peer connectivity.

Note: At Controller Configuration Tool (CCT) Release 10.1 and later, FACs, FECs, and VMAs can communicate by using either the BACnet[®] or the N2 field bus networking protocol. The operation of the IOM Input/Output Module is not affected by the selection of the BACnet or the N2 protocol in the host controller.

All IOM expansion modules are BACnet Testing Laboratory (BTL) listed and certified.

FEATURES

- Ability to Reside on the FC Bus or SA Bus Provides application flexibility.
- **Standard BACnet Protocol** Provides interoperability with other Building Automatcion System (BAS) products that use the widely accepted BACnet standard.
- **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.
- **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.
- Universal Inputs and Configurable Outputs Allows multiple signal options to provide input/output flexibility.
- **32-bit Microprocessor –** Ensures optimum performance and meets industry specifications.
- **BACnet Automatic Discovery** Supports easy controller integration into a *Metasys* BAS.
- Pluggable Communications Bus and Supply Power Terminal Blocks Expedites installation and troubleshooting.
- Wireless Connectivity through the ZFR1800 Series or the WNC1800/ZFR182x Pro Series Wireless Field Bus Systems in MS/TP Controllers Enables wireless mesh connectivity to supervisory controllers, facilitating easy initial location and relocation.
- **Bluetooth® Wireless Commissioning –** Provides an easy-to-use connection to the configuration and commissioning tool.
- **End-of-Line (EOL) Switch in MS/TP Field Controllers –** Enables field controllers to be terminating devices on the communications bus.





PROGRAMMABLE CONTROLLERS

IOM - METASYS® CONTROLLERS

ORDERING INFORMATION

IOM SERIES MODEL (INCLUDING POINT TYPE COUNTS)



	IOM 1711	IOM 2711	IOM 2721	IOM 3711	IOM 3721	IOM 3731	IOM 4711	IOM 2723	IOM 3723	IOM 3733
Communication Protocol	BACnet	MS/TP		,				,	1	
Engines	All Model types. Some NIE models support MS/TP and N2 devices. Refer to the Network Engines Product Bulletin (LIT-12012138) for details.									
Modular Jacks	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.									
	6-pin FC Bus for tool support									
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, 0–2 kOhm, RTD (1k NI [Johnson Controls], 1k PT, A99B SI), NTC (10k Type L, 2.252k Type 2)		2	8	4			6	8		
Binary Input, Dry Contact Maintained Mode										
Binary Input (BI)										
Dry Contact Maintained Mode										
Pulse Counter/Accumulator Mode (High Speed), 100 Hz					16	8	2		16	8
Analog Output (AO)										
Analog Output, Voltage Mode, 0−10 VDC										
Analog Output, Current Mode, 4–20 mA			2				2	2		
Binary Output (BO) ¹		1						1		1
24 VAC Triac						8	3			8
Note										

Note



¹ The IOM2723, IOM3723, and IOM3733 models are only available in certain regions. Contact your local Johnson Controls representative for more information.

PROGRAMMABLE CONTROLLERS

IOM - METASYS® CONTROLLERS

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ORDERING INFORMATION

CODES	DESCRIPTION	CE MARKED
MS-IOM1711-0	4-Point IOM with 4 BI, FC Bus and SA Bus Support	
MS-IOM2711-2	6-Point IOM with 2 UI, 2 UO, 2 BO, FC Bus, and SA Bus Support. Relays are rated for 240 VAC.	
MS-IOM2721-0	10-Point IOM with 8 UI, 2 AO, FC Bus, and SA Bus Support	
MS-IOM2723-0	10-Point IOM with 8 UI, 2 AO, FC Bus, and SA Bus Support	
MS-IOM3711-2	12-Point IOM with 4 UI, 4 UO, 4 BO, FC Bus, and SA Bus Support. Relays are rated for 240 VAC.	
MS-IOM3721-0	16-Point IOM with 16 BI, FC Bus, and SA Bus Support	
MS-IOM3723-0	16-Point IOM with 16 BI, FC Bus, and SA Bus Support	
MS-IOM3731-0	16-Point IOM with 8 BI, 8 BO, FC Bus, and SA Bus Support	
MS-IOM3733-0	16-Point IOM with 8 BI, 8 BO, FC Bus, and SA Bus Support. Binary Outputs (BOs) on MS-IOM3733 controllers do not supply power for the outputs; the BOs require external low-voltage (<30 VAC) power sources.	-
MS-IOM4711-0	17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO, FC and SA Bus Support	

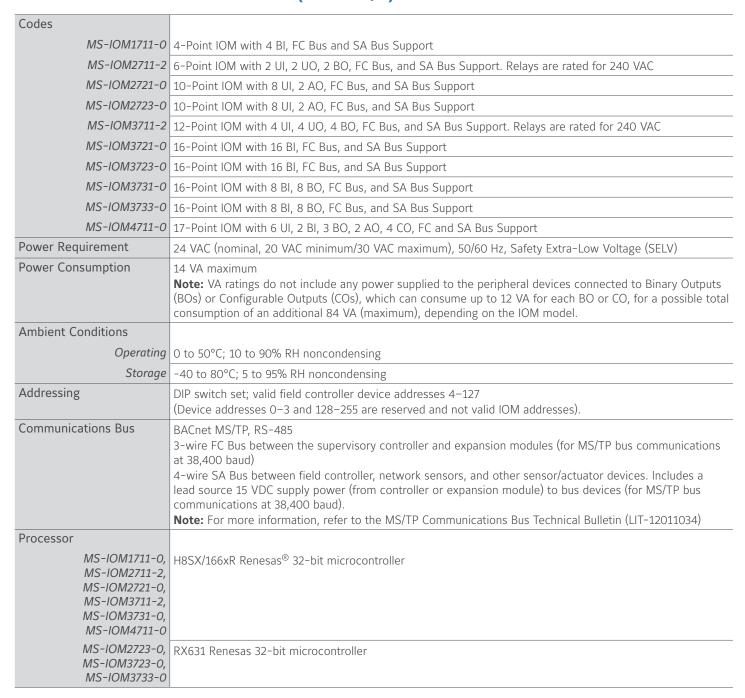
ACCESSORIES

CODES	DESCRIPTION					
TL-CCT-0	Metasys 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. Note: The MAP Gateway serves as a replacement for the BTCVT, which is no longer available for purchase, but continues to be supported.					
ZFR1800 Series Wireless Field Bus System	This system is used for installations that only support BACnet MS/TP. Refer to the WNC1800/ZFR182x Pro Series Wireless Field Bus System Product Bulletin (LIT-12012320) for a list of available products.					
ZFR-USBHA-0	ZFR USB Dongle provides a wireless connection through CCT to allow wireless commissioning of the wirelessly enabled FEC, FAC, IOM, and VMA16 controllers. Also allows use of the ZFR Checkout Tool (ZCT) in CCT.					
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					
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					
AP-TBK4SA-0	Replacement MS/TP SA Bus Terminal, 4-Position Connector, Brown (Bulk Pack of 10)					
AP-TBK4FC-0	Replacement MS/TP FC Bus Terminal, 4-Position Connector (Bulk Pack of 10)					
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					
TL-BRTRP-0	Portable BACnet/IP to MS/TP Router					

PROGRAMMABLE CONTROLLERS

IOM - METASYS® CONTROLLERS

TECHNICAL SPECIFICATIONS (PART 1/3)



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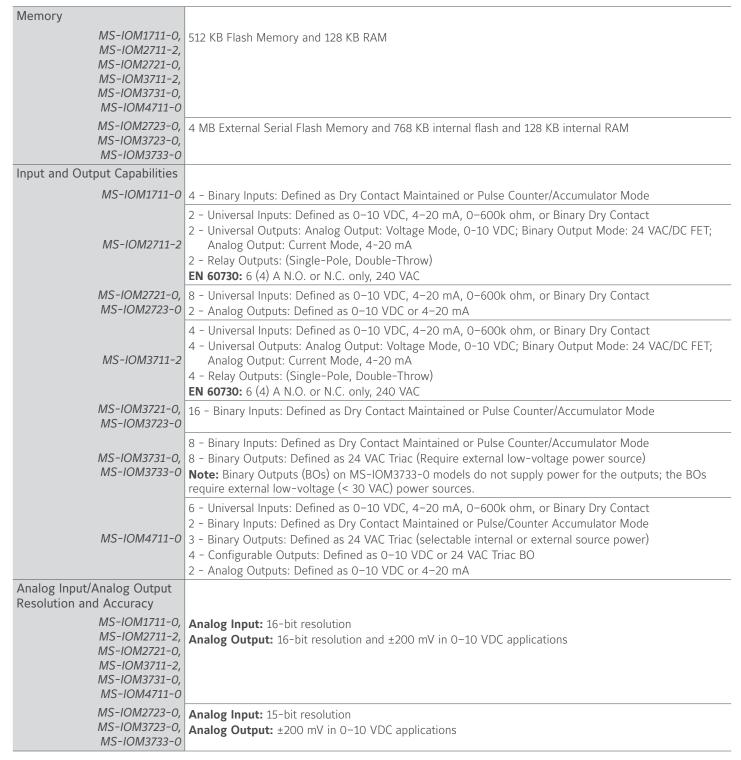




PROGRAMMABLE CONTROLLERS

IOM - METASYS® CONTROLLERS

TECHNICAL SPECIFICATIONS (PART 2/3)



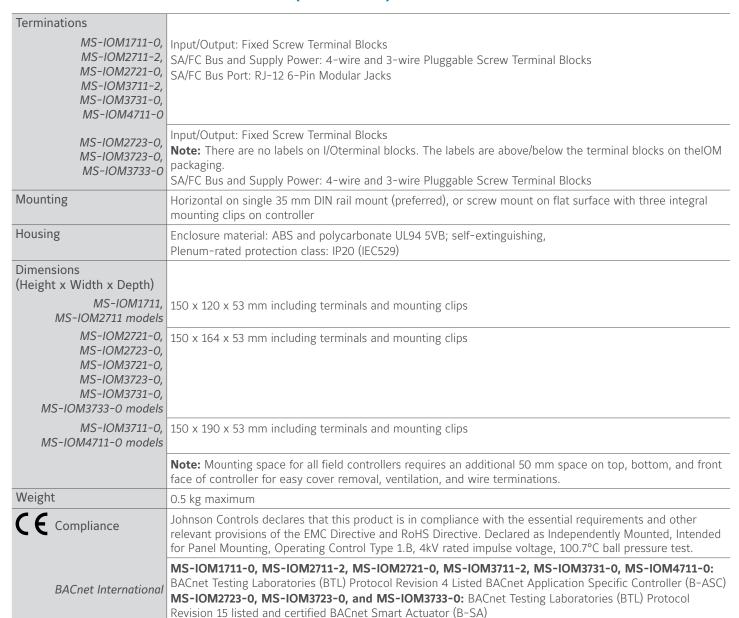
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PROGRAMMABLE CONTROLLERS

IOM - METASYS® CONTROLLERS

TECHNICAL SPECIFICATIONS (PART 3/3)



Note

The MS-IOM2723-0, MS-IOM3723-0, and MS-IOM3733-0 models are only available in certain regions. Contact your local Johnson Controls representative for more information.

