Input/Output Module (IOM)

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. Refer to Table 5 for details.

Important: You cannot purchase a similar third-party device and install it in a UL/ULC Listed smoke control system. Doing so voids the UL/ULC Smoke Control Listing. Third-party devices must be provided and labeled by the factory as described in the UL/ULC 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/ULC Listed and labeled for this application prevents the entire system from being UL/ULC Listed for smoke control.

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

If the product fails to operate within its specifications, replace the product. For a replacement product, contact the nearest Johnson Controls® representative.
Features

• **Ability to Reside on the FC Bus or SA Bus**—Provides application flexibility.

• **Standard BACnet Protocol**—Provides interoperability with other Building Automation 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.
IOM Series Model Information (Including Point Type Counts)

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

### Table 1: IOM Series Model Information (Including Point Type Counts)

<table>
<thead>
<tr>
<th>Communication Protocol</th>
<th>IOM 1711</th>
<th>IOM 2711</th>
<th>IOM 2721</th>
<th>IOM 3711</th>
<th>IOM 3721</th>
<th>IOM 3731</th>
<th>IOM 4711</th>
<th>IOM 2723</th>
<th>IOM 3723</th>
<th>IOM 3733</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engines</strong></td>
<td>BACnet MS/TP</td>
<td>All Model types. Some NIE models support MS/TP and N2 devices. Refer to the Network Engines Product Bulletin (LIT-12012138) for details.</td>
<td></td>
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<tr>
<td><strong>Modular Jacks</strong></td>
<td>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</td>
<td></td>
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<tr>
<td><strong>Point Types</strong></td>
<td><strong>Signals Accepted</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Universal Input (UI)</td>
<td>Analog Input, Voltage Mode, 0–10 VDC</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Analog Input, Current Mode, 4–20 mA</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>8</td>
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<tr>
<td></td>
<td>Analog Input, Resistive Mode, 0–2 kOhm, RTD (1k NI [Johnson Controls], 1k PT, A99B SI), NTC (10k Type L, 2.252k Type 2)</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>8</td>
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<tr>
<td></td>
<td>Binary Input, Dry Contact Maintained Mode</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>8</td>
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</tr>
<tr>
<td>Binary Input (BI)</td>
<td>Dry Contact Maintained Mode</td>
<td>4</td>
<td>16</td>
<td>8</td>
<td>2</td>
<td>16</td>
<td>8</td>
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<tr>
<td></td>
<td>Pulse Counter/Accumulator Mode (High Speed), 100 Hz</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>6</td>
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<tr>
<td>Analog Output (AO)</td>
<td>Analog Output, Voltage Mode, 0–10 VDC</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>8</td>
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<tr>
<td></td>
<td>Analog Output, Current Mode, 4–20 mA</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>8</td>
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<tr>
<td>Binary Output (BO)</td>
<td>24 VAC Triac</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td></td>
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</tbody>
</table>
### Table 1: IOM Series Model Information (Including Point Type Counts)

<table>
<thead>
<tr>
<th>IOM</th>
<th>1711</th>
<th>2711</th>
<th>2721</th>
<th>3711</th>
<th>3721</th>
<th>3731</th>
<th>4711</th>
<th>2723</th>
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<th>3733</th>
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<tbody>
<tr>
<td>Universal</td>
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<td>Analog Output</td>
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<tr>
<td>Voltage Mode,</td>
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<tr>
<td>0–10 VDC</td>
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<td>Binary Output</td>
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<td>24 VAC/DC</td>
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<td>4–20 mA</td>
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<tr>
<td>Analog Output</td>
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<td>Voltage Mode,</td>
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<td>0–10 VDC</td>
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<tr>
<td>Binary Output</td>
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<tr>
<td>24 VAC Triac</td>
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<tr>
<td>Relay Output</td>
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<tr>
<td>(RO) (-0 models only)</td>
<td>120/240 VAC</td>
<td>2</td>
<td>4</td>
<td></td>
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<tr>
<td>Relay Output</td>
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</tr>
<tr>
<td>(RO) (-2 models only)</td>
<td>240 VAC</td>
<td>2</td>
<td>4</td>
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</tbody>
</table>

1. The BOs on the MS-IOM3733-0 model requires an external low-voltage power source.

### IOM Series Ordering Information

### Table 2: IOM Series Ordering Information

<table>
<thead>
<tr>
<th>Product Code Number</th>
<th>Description</th>
<th>UL and cUL (Canada)</th>
<th>CE Marked</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-IOM1711-0</td>
<td>4-Point IOM with 4 BI, FC Bus and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM2711-0</td>
<td>6-Point IOM with 2 UI, 2 UO, 2 BO, FC Bus, and SA Bus Support. Relays are rated for 120/240 VAC.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>MS-IOM2711-2</td>
<td>6-Point IOM with 2 UI, 2 UO, 2 BO, FC Bus, and SA Bus Support. Relays are rated for 240 VAC.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM2721-0</td>
<td>10-Point IOM with 8 UI, 2 AO, FC Bus, and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM2723-0</td>
<td>10-Point IOM with 8 UI, 2 AO, FC Bus, and SA Bus Support. <strong>Note:</strong> This model is only available in certain regions. Contact your local Johnson Controls representative for more information.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM3711-0</td>
<td>12-Point IOM with 4 UI, 4 UO, 4 BO, FC Bus, and SA Bus Support. Relays are rated for 120/240 VAC.</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
### Table 2: IOM Series Ordering Information

<table>
<thead>
<tr>
<th>Product Code Number</th>
<th>Description</th>
<th>UL and cUL (Canada)</th>
<th>CE Marked</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-IOM3711-2</td>
<td>12-Point IOM with 4 UI, 4 UO, 4 BO, FC Bus, and SA Bus Support. Relays are rated for 240 VAC.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM3721-0</td>
<td>16-Point IOM with 16 BI, FC Bus, and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM3723-0</td>
<td>16-Point IOM with 16 BI, FC Bus, and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> This model is only available in certain regions. Contact your local Johnson Controls representative for more information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS-IOM3731-0</td>
<td>16-Point IOM with 8 BI, 8 BO, FC Bus, and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MS-IOM3733-0</td>
<td>16-Point IOM with 8 BI, 8 BO, FC Bus, and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Binary Outputs (BOs) on MS-IOM3733 controllers do not supply power for the outputs; the BOs require external low-voltage (&lt;30 VAC) power sources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> This model is only available in certain regions. Contact your local Johnson Controls representative for more information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS-IOM4711-0</td>
<td>17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO, FC and SA Bus Support</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

### Table 3: IOM Series for Smoke Control Ordering Information

<table>
<thead>
<tr>
<th>Product Code Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-IOM1710-0U</td>
<td>4-Point IOM with 4 BI; 24 VAC; FC Bus and SA Bus Support</td>
</tr>
<tr>
<td>MS-IOM1711-0U</td>
<td>4-Point IOM with 4 BI; 24 VAC; FC Bus and SA Bus Support</td>
</tr>
<tr>
<td>MS-IOM2710-0U</td>
<td>6-Point IOM with 2 UI, 2 UO, 2 BO; 24 VAC; FC Bus and SA Bus Support</td>
</tr>
<tr>
<td>MS-IOM2711-0U</td>
<td>6-Point IOM with 2 UI, 2 UO, 2 BO; 24 VAC; FC Bus and SA Bus Support</td>
</tr>
<tr>
<td>MS-IOM3710-0U</td>
<td>12-Point IOM with 4 UI, 4 UO, 4 BO; 24 VAC; FC Bus and SA Bus Support</td>
</tr>
<tr>
<td>MS-IOM3711-0U</td>
<td>12-Point IOM with 4 UI, 4 UO, 4 BO; 24 VAC; FC Bus and SA Bus Support</td>
</tr>
<tr>
<td>MS-IOM4710-0U</td>
<td>17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO; 24 VAC; FC Bus and SA Bus Support with Mounting Base</td>
</tr>
<tr>
<td>MS-IOM4711-0U</td>
<td>17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO; 24 VAC; FC Bus and SA Bus Support with Mounting Base</td>
</tr>
</tbody>
</table>

○ **Note:** These devices are UL/ULC 864 Listed, File S4977, 10th Edition UUKL/ORD-C100-13 UUKLC Smoke Control System. These devices must be ordered in a Smoke Control UUKL listing.

○ **Note:** All field controllers in a smoke control system must be mounted in Johnson Controls custom or standard UL 864 panels or in panels that are ordered from Johnson Controls. If these field controllers are used with panels that are not supplied by Johnson Controls, they are
not compliant with the UL 864 10th Edition UUKL/ORD-C100-13 UUKLC Smoke Control System listing.

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 4: IOM Accessories

<table>
<thead>
<tr>
<th>Product Code Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL-CCT-0</td>
<td>Metasys Controller Configuration Tool (CCT) software</td>
</tr>
<tr>
<td>MS-FCP-0</td>
<td>Metasys Field Controller Firmware Package Files for CCT</td>
</tr>
<tr>
<td>Mobile Access Portal (MAP) Gateway*</td>
<td>Refer to the Mobile Access Portal Gateway Catalog Page (LIT-1900869) to identify the appropriate product for your region.</td>
</tr>
<tr>
<td>ZFR1800 Series Wireless Field Bus System*</td>
<td>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.</td>
</tr>
<tr>
<td>ZFR-USBHA-0*</td>
<td>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.</td>
</tr>
<tr>
<td>Y64T15-0*</td>
<td>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</td>
</tr>
<tr>
<td>Y65A13-0*</td>
<td>Transformer, 120 VAC Primary to 24 VAC Secondary, 40 VA, Foot Mount (Y65AS), 8 in. Primary Leads and 30 in. Secondary Leads, Class 2</td>
</tr>
<tr>
<td>Y65T42-0*</td>
<td>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</td>
</tr>
<tr>
<td>Y65T31-0</td>
<td>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</td>
</tr>
<tr>
<td>AP-TBK4SA-0</td>
<td>Replacement MS/TP SA Bus Terminal, 4-Position Connector, Brown (Bulk Pack of 10)</td>
</tr>
<tr>
<td>AP-TBK4FC-0</td>
<td>Replacement MS/TP FC Bus Terminal, 4-Position Connector (Bulk Pack of 10)</td>
</tr>
<tr>
<td>AP-TBK3PW-0</td>
<td>Replacement Power Terminal, 3-Position Connector, Gray (Bulk Pack of 10)</td>
</tr>
<tr>
<td>AS-CBLTSTAT-0</td>
<td>Cable adapter for connection to 8-pin TE-6700 Series sensors</td>
</tr>
<tr>
<td>TL-BRTRP-0*</td>
<td>Portable BACnet/IP to MS/TP Router</td>
</tr>
</tbody>
</table>

Repair Information

If the product fails to operate within its specifications, replace the product. For a replacement product, contact the nearest Johnson Controls® representative.
**IOM Series Technical Specifications**

**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.

| Product Code Numbers | MS-IOM1711-0: 4-Point IOM with 4 BI, FC Bus and SA Bus Support  
| MS-IOM2711-0: 6-Point IOM with 2 UI, 2 UO, 2 BO, FC Bus, and SA Bus Support. Relays are rated for 120/240 VAC  
| 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-IOM3711-0: 12-Point IOM with 4 UI, 4 UO, 4 BO, FC Bus, and SA Bus Support. Relays are rated for 120/240 VAC  
| 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  
| MS-IOM4711-0: 17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO, FC and SA Bus Support  
| Smoke Control Models:  
| MS-IOM1710-0U: 4-Point IOM with 4 BI, FC Bus and SA Bus Support  
| MS-IOM1711-0U: 4-Point IOM with 4 BI, FC Bus and SA Bus Support  
| MS-IOM2710-0U: 6-Point IOM with 2 UI, 2 UO, 2 BO, FC Bus, and SA Bus Support  
| MS-IOM2711-0U: 6-Point IOM with 2 UI, 2 UO, 2 BO, FC Bus, and SA Bus Support  
| MS-IOM3710-0U: 12-Point IOM with 4 UI, 4 UO, 4 BO, FC Bus, and SA Bus Support  
| MS-IOM3711-0U: 12-Point IOM with 4 UI, 4 UO, 4 BO, FC Bus, and SA Bus Support  
| MS-IOM4710-0U: 17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO, FC Bus and SA Bus Support with Mounting  
| MS-IOM4711-0U: 17-Point IOM with 6 UI, 2 BI, 3 BO, 2 AO, 4 CO, FC Bus and SA Bus Support with Mounting  
| Power Requirement | 24 VAC (nominal, 20 VAC minimum/30 VAC maximum), 50/60 Hz, Power Supply Class 2 (North America), Safety Extra-Low Voltage (SELV) Europe |
### Table 5: IOM Series

<table>
<thead>
<tr>
<th><strong>Power Consumption</strong></th>
<th>14 VA maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong> 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), depending on the IOM model.</td>
<td></td>
</tr>
<tr>
<td><strong>Ambient Conditions</strong></td>
<td><strong>Operating:</strong> 0 to 50°C (32 to 122°F); 10 to 90% RH noncondensing</td>
</tr>
<tr>
<td></td>
<td><strong>Storage:</strong> -40 to 80°C (-40 to 176°F); 5 to 95% RH noncondensing</td>
</tr>
<tr>
<td><strong>Addressing</strong></td>
<td>DIP switch set; valid field controller device addresses 4–127</td>
</tr>
<tr>
<td></td>
<td>(Device addresses 0–3 and 128–255 are reserved and not valid IOM addresses).</td>
</tr>
<tr>
<td><strong>Communications Bus</strong></td>
<td>BACnet MS/TP, RS-485</td>
</tr>
<tr>
<td></td>
<td>3-wire FC Bus between the supervisory controller and expansion modules (for MS/TP bus communications at 38,400 baud)</td>
</tr>
<tr>
<td></td>
<td>4-wire SA Bus between field controller, network sensors, and other sensor/actuator devices. Includes a lead source 15 VDC supply power (from controller or expansion module) to bus devices (for MS/TP bus communications at 38,400 baud).</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> For more information, refer to the MS/TP Communications Bus Technical Bulletin (LIT-12011034).</td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>MS-IOM1711-0, MS-IOM2711-0, MS-IOM2711-2, MS-IOM2721-0, MS-IOM3711-0, MS-IOM3711-2, MS-IOM3731-0, and MS-IOM4711-0:</td>
</tr>
<tr>
<td></td>
<td>H8SX/166xR Renesas® 32-bit microcontroller</td>
</tr>
<tr>
<td></td>
<td>MS-IOM2723-0, MS-IOM3723-0, MS-IOM3733-0:</td>
</tr>
<tr>
<td></td>
<td>RX631 Renesas 32-bit microcontroller</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>MS-IOM1711-0, MS-IOM2711-0, MS-IOM2711-2, MS-IOM2721-0, MS-IOM3711-0, MS-IOM3711-2, MS-IOM3731-0, and MS-IOM4711-0:</td>
</tr>
<tr>
<td></td>
<td>512 KB Flash Memory and 128 KB RAM</td>
</tr>
<tr>
<td></td>
<td>MS-IOM2723-0, MS-IOM3723-0, and MS-IOM3733-0:</td>
</tr>
<tr>
<td></td>
<td>4 MB External Serial Flash Memory and 768 KB internal flash and 128 KB internal RAM</td>
</tr>
<tr>
<td><strong>Input and Output Capabilities</strong></td>
<td>MS-IOM1711-0:</td>
</tr>
<tr>
<td></td>
<td>4 - Binary Inputs: Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode</td>
</tr>
<tr>
<td>Model</td>
<td>Universal Inputs</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>MS-IOM2711-x</td>
<td>Defined as 0–10 VDC, 4–20 mA, 0–600k ohm, or Binary Dry Contact</td>
</tr>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>MS-IOM2721-0 and MS-IOM2723-0</td>
<td>Defined as 0–10 VDC, 4–20 mA, 0–600k ohm, or Binary Dry Contact</td>
</tr>
<tr>
<td>MS-IOM3711-x</td>
<td>Defined as 0–10 VDC, 4–20 mA, 0–600k ohm, or Binary Dry Contact</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>MS-IOM3721-0 and MS-IOM3723-0</td>
<td>Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode</td>
</tr>
<tr>
<td>MS-IOM3731-0 and MS-IOM3733-0</td>
<td>Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode</td>
</tr>
<tr>
<td></td>
<td>Binary Inputs: Defined as Dry Contact Maintained or Pulse Counter/Accumulator Mode</td>
</tr>
<tr>
<td></td>
<td>Note: Binary Outputs (BOs) on MS-IOM3733-0 models do not supply power for the outputs; the BOs require external low-voltage (&lt; 30 VAC) power sources.</td>
</tr>
</tbody>
</table>
### Table 5: IOM Series

<table>
<thead>
<tr>
<th>Analog Input/Analog Output Resolution and Accuracy</th>
<th>MS-IOM4711-0, MS-IOM2711-0, MS-IOM2711-2, MS-IOM2721-0, MS-IOM3711-0, MS-IOM3711-2, MS-IOM3731-0, and MS-IOM4711-0:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analog Input</strong>: 16-bit resolution</td>
<td><strong>Analog Output</strong>: 16-bit resolution and ±200 mV in 0–10 VDC applications</td>
</tr>
<tr>
<td><strong>MS-IOM2723-0, MS-IOM3723-0, and MS-IOM3733-0:</strong></td>
<td><strong>Analog Input</strong>: 15-bit resolution</td>
</tr>
<tr>
<td><strong>Analog Output</strong>: ±200 mV in 0–10 VDC applications</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminations</th>
<th>MS-IOM1711-0, MS-IOM2711-0, MS-IOM2711-2, MS-IOM2721-0, MS-IOM3711-0, MS-IOM3711-2, MS-IOM3731-0, and MS-IOM4711-0:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input/Output: Fixed Screw Terminal Blocks</td>
<td><strong>Note</strong>: There are no labels on I/O terminal blocks. The labels are above/below the terminal blocks on the IOM packaging.</td>
</tr>
<tr>
<td>SA/FC Bus and Supply Power: 4-wire and 3-wire Pluggable Screw Terminal Blocks</td>
<td></td>
</tr>
<tr>
<td>SA/FC Bus Port: RJ-12 6-Pin Modular Jacks</td>
<td></td>
</tr>
<tr>
<td><strong>MS-IOM2723-0, MS-IOM3723-0, and MS-IOM3733-0:</strong></td>
<td><strong>Input/Output</strong>: Fixed Screw Terminal Blocks</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Horizontal on single 35 mm DIN rail mount (preferred), or screw mount on flat surface with three integral mounting clips on controller</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>Enclosure material: ABS and polycarbonate UL94 5VB; self-extinguishing, Plenum-rated protection class: IP20 (IEC529)</td>
</tr>
</tbody>
</table>
| Dimensions (Height x Width x Depth) | MS-IOM1711 and MS-IOM2711 models:  
150 x 120 x 53 mm (5-7/8 x 4-3/4 x 2-1/8 in.) including terminals and mounting clips  
MS-IOM2721-0, MS-IOM2723-0, MS-IOM3721-0, MS-IOM3723-0, MS-IOM3731-0, and MS-IOM3733-0 models:  
150 x 164 x 53 mm (5-7/8 x 6-7/16 x 2-1/8 in.) including terminals and mounting clips  
MS-IOM3711-0 and MS-IOM4711-0 models:  
150 x 190 x 53 mm (5-7/8 x 7-1/2 x 2-1/8 in.) including terminals and mounting clips  
① Note: Mounting space for all field controllers requires an additional 50 mm (2 in.) space on top, bottom, and front face of controller for easy cover removal, ventilation, and wire terminations. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>0.5 kg (1.1 lb) maximum</td>
</tr>
</tbody>
</table>
| 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)  
① Note: Except MS-IOM2711-2 and MS-IOM3711-2 |
|  | Canada: UL Listed, File E107041, CCN PAZX, 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)  
② Note: Except MS-IOM2711-2 and MS-IOM3711-2 |
|  | 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. Declared as Independently Mounted, Intended for Panel Mounting, Operating Control Type 1.B, 4kV rated impulse voltage, 100.7°C ball pressure test.  
① Note: Except MS-IOM2711-0 and MS-IOM3711-0 |
|  | Australia and New Zealand: RCM Mark, Australia/NZ Emissions Compliant  
② Note: Except MS-IOM2711-0 and MS-IOM3711-0 |
|  | BACnet International:  
MS-IOM1711-0, MS-IOM2711-0, MS-IOM2711-2, MS-IOM2721-0, MS-IOM3711-0, MS-IOM3711-2, MS-IOM3731-0, and MS-IOM4711-0: BACnet Testing Laboratories (BTL) Protocol Revision 4 Listed BACnet Application Specific Controller (B-ASC)  
MS-IOM2723-0, MS-IOM3723-0, and MS-IOM3733-0: BACnet Testing Laboratories (BTL) Protocol Revision 15 listed and certified BACnet Smart Actuator (B-SA) |
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.