SWIFT®
Intelligent Wireless Modules

General

SWIFT® wireless modules are intelligent (addressable) modules which provide secure, reliable communication to the Fire Alarm Control Panel (FACP) across a Class A mesh network. Wireless modules create an opportunity for applications where it is costly (concrete walls/ceilings, buried wires), obtrusive (surface mount conduit), or possibly dangerous (asbestos) to use traditional wired devices. In addition, both wired and wireless devices can be present on the same FACP providing an integrated wired-wireless solution for increased installation potential.

The mesh network within the SWIFT system creates a child-parent relationship between the devices so that each device has two parents providing a second path for communications on every device. If one device can no longer operate for any reason, the rest of the devices can still communicate with each other, directly or through one or more intermediate devices.

The SWIFT system also engages frequency hopping to prevent system interference whether intentional or accidental.

The SWIFT monitor module is intended for use with a wireless gateway to interface with a device having contacts used to signal status conditions. It is designed to provide an interface to contact devices such as security contacts, waterflow switches, or pull stations. The input to the monitor module is non-latching and does not require a reset. The device has a panel controlled LED indicator. The monitor module must be within 3-feet of the monitored device when using field wiring or 20 feet in non-metallic conduit.

The SWIFT relay module allows a compatible control panel to switch discrete contacts by code command. The relay contains an isolated set of Form-C contacts, which operate as a SPDT switch. Circuit connections to the relay are not supervised by the module. The SWIFT relay module can be used to activate functions such as a remote power supply (in conjunction with a monitor module), elevator recall, door holders and fan shut-down of wired devices or SWIFT devices within the same mesh network. The module also includes a panel-controlled LED indicator.

The devices communicate across the mesh network through a gateway to the FACP. The FACP views the SWIFT wireless device and another addressable device on the system providing similar detection functions and outputs as a wired counterpart. In addition, both wired and wireless devices can be present on the same FACP to meet the needs of a given application. A SWIFT wireless system can use any combination of modules, smoke, or heat detectors.

Features

- Wireless installation
- Class A mesh network
- Addressable code wheels
- Commercial applications
- UL 268 listed
- Frequency hopping
- Bi-directional communications

Monitor Module Specifications

PHYSICAL / OPERATING SPECIFICATIONS
Dimensions: Height 4-1/2 inches; Width 4-1/2 inches; Depth 1-1/2 inches
Device Weight (includes 4 batteries): 7.9 oz (224 g)
Operating Temperature Range: 32°F to 120°F (0°C to 49°C)
Operating Humidity Range: 10% to 93% non-condensing

ELECTRICAL SPECIFICATIONS
Maximum Operating Voltage: 3.3 VDC
Average Operating Current: 210µA, 3.9 EOL
Maximum Current Draw: 5 mA (LED on)
EOL Resistance: 3.9K Ohms
Maximum IDC Wiring Resistance: 10 Ohms
Maximum IDC Voltage: 3.2 Volts
Maximum Average IDC Current: 5.5µA
Maximum Transmit RF Power: 17 dBm
Radio Frequency Range: 902-928 MHz

BATTERY SPECIFICATIONS
Battery Type: 4 Panasonic CR123A or 4 Duracell DL 123A
Battery Life: 2 years
Battery Replacement: Upon BATTERY LOW or BAT LOW display and/or during annual maintenance

Relay Module Specifications

PHYSICAL / OPERATING SPECIFICATIONS
Dimensions: Height 4-1/4 inches; Width 4-1/4 inches; Depth 1-1/2 inches
Operating Temperature Range: 32°F to 120°F (0°C to 49°C)
Operating Humidity Range: 10% to 93% non-condensing
**ELECTRICAL SPECIFICATIONS**

- **Maximum Operating Voltage:** 3.3 VDC
- **Average Operating Current:** 210µA
- **Maximum Current Draw:** 5 mA (LED on)
- **Maximum Transmit RF Power:** 17 dBm
- **Radio Frequency Range:** 902-928 MHz

**BATTERY SPECIFICATIONS**

- **Battery Type:** 4 Panasonic CR123A or 4 Duracell DL 123A
- **Battery Life:** 2 years
- **Battery Replacement:** Upon BATTERY LOW or BAT LOW display and/or during annual maintenance

### Relay Contact Ratings

<table>
<thead>
<tr>
<th>Current Rating</th>
<th>Maximum Voltage</th>
<th>Load Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 A</td>
<td>25 VAC</td>
<td>PF = 0.35</td>
<td>Non-coded</td>
</tr>
<tr>
<td>3 A</td>
<td>30 VDC</td>
<td>Resistive</td>
<td>Non-coded</td>
</tr>
<tr>
<td>2 A</td>
<td>30 VDC</td>
<td>Resistive</td>
<td>Coded</td>
</tr>
<tr>
<td>0.46 A</td>
<td>30 VDC</td>
<td>(L/R = 20ms)</td>
<td>Non-coded</td>
</tr>
<tr>
<td>0.7 A</td>
<td>70.7 VAC</td>
<td>PF = 0.35</td>
<td>Non-coded</td>
</tr>
<tr>
<td>0.9 A</td>
<td>125 VDC</td>
<td>Resistive</td>
<td>Non-coded</td>
</tr>
<tr>
<td>0.5 A</td>
<td>125 VAC</td>
<td>PF = 0.75</td>
<td>Non-coded</td>
</tr>
<tr>
<td>0.3 A</td>
<td>125 VAC</td>
<td>PF = 0.35</td>
<td>Non-coded</td>
</tr>
</tbody>
</table>

### Agency Listings and Approvals

Each device complies with part 15 of the FCC rules meaning operation is subject to two conditions.

1) The device may not cause harmful interference and 2) The device must accept any interference received including interference that may cause undesired operation.

The listings and approvals below apply to the basic intelligent wireless detectors. In some cases, certain modules may not be listed by certain approval agencies or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S635
- **CSFM (Monitor Module):** 7300-0028:0273
- **FM Approved**
- **FCC ID:** (Monitor Module) AUBWFSMM and (Relay Module) AUBWFSRM
- **IC ID:** (Monitor Module) 573X-WFSMM and (Relay Module) 573X-WFSRM

**Standards and Codes**

The SWIFT Wireless Intelligent Detectors comply with the following UL Standards and with NFPA 72 Fire Alarm System requirements.

- UL 864
- UL 268

**Ordering Information**

- **FW-MM:** Wireless monitor module for use with the FWSG wireless gateway. Includes a special cover with a tamper magnet built in. Recommended for installation in a SMB500 box (ordered separately) rather than a metal backbox for best performance. Ships with 4 Panasonic CR123A or 4 Duracell DL123A batteries.
- **FW-RM:** Wireless relay module for use with the FWSG wireless gateway. Includes a special cover with a tamper magnet built in. Recommended for installation in an SMB500 box (ordered separately) rather than a metal backbox for best performance. Ships with 4 Panasonic CR123A or 4 Duracell DL123A batteries.
- **FWSG:** FlashScan® Wireless Gateway
- **W-USB:** Wireless USB radio/antenna dongle that plugs into the USB port of a PC running SWIFT Tools.
- **SMB500:** Optional surface-mount backbox.