

## M-SWITCH. R-SWITCH

## Microcontroller Based Switch

The M-Switch is a microcontroller based digital transmitter, which can provide a switch input for M-Controller System and Q4 Controller System to actuate or reset any assigned outputs, such as Relays, Buzzers and Strobe. M-Switch converts Switch Status to gas concentration and communicates with Controller System. It occupies one digital sensor address in the Controller System and works as a manual override switch to turn on a relay at the M-Controller or Q4C. The M-Switch has one switch onboard and contains two terminal blocks for connecting Remote Switches. An R-Switch connected to the Remote Switch Terminal Block, will have the same function as the M-Switch. If an R-Switch is connected to the Reset Switch Terminal Block, the R-Switch will be used as a reset switch to reset latched switch. the M-Switch and R-Switch not only can provide multi-switch inputs and parallel switch inputs, it also provides a way to bring other devices switch outputs to M-Controller System or Q4 Controller System, such as actuating an M-Relay by customer's emergency switch, a timer/clock status, or actuating a fan by a temperature sensor status, etc. For instance, the M-Switch can be configured as Latched outside a machinery room to be capable of starting, but not stopping ventilation.

Applications: Testing System Outputs, such as Relays, Strobe, Horn \& Fans, or Manual Actuation of the System for M-Controller \& Q4 Controllers

The M-Switch and R-Switch are covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors \& Transmitters catalog, as well as on ACI's website, www.workaci.com.

## PRODUCT SPECIFICATIONS

| Input Voltage: | 24 VDC nominal, range 18 to 30 VDC; 24 VAC nominal, range 15 to 24 VAC 50/60 HZ |
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|  | AC must not be grounded |
| Wiring Connections: | De-Pluggable Screw Terminal Blocks |
| Wire Size: | 16 to 24 AWG (0.2047 to 1.301 mm ) Shielded Twisted Pair |
| Terminal Block Torque Rating: | $0.37 \mathrm{ft}-\mathrm{lb}(0.502 \mathrm{Nm})$ Nominal |
| Communication Wire: | Belden 9841 or comparable wire |
| Fuse: | F1 Very Fast-Acting Fuse |
| Communication Protocol: | RS-485 with OptoMux protocol for use with M-Controller or Q4 controller systems |
|  | Output 0 when switch is OFF \| Output 9999 when switch is ON |
|  | Fixed Baud rate: 4800 bps |
| End-Of-Line Termination: | Jumper selectable 120ת (Default OFF) |
| Addressing: | 0 to 31 Dip Switch selectable for M-Controller, 0 to 3 for Q4C |
| Indicators: | Red LED = Switch ON, TX/RX |
| Onboard Switch Style: | Momentary Pushbutton with Splash Cover, Meets IP 65 of IEC60529 Specification |
| Switch Input: | Configurable: Momentary or ON/OFF; Latching or Non-Latching |
| Operating Temperature: | -49 to $149^{\circ} \mathrm{F}$ ( -45 to $65^{\circ} \mathrm{C}$ ) |
| Operating RH: | $5 \%$ to $95 \%$ non-condensing |
| Storage Temperature: | -49 to $158^{\circ} \mathrm{F}\left(-45\right.$ to $70^{\circ} \mathrm{C}$ ) |
| Storage Humidity: | $5 \%$ to 95\% non-condensing |
| Enclosure: | IP 66 \& NEMA 4, 4X, 12 \& 13 Polycarbonate \| Flammability UL94-5 VA |
| Enclosure Dimmensions: | (L) $4.724^{\prime \prime}(120 \mathrm{~mm}) \times$ (W) 2.559 " (65 mm) $\times$ (D) $2.362^{\prime \prime}(60 \mathrm{~mm}$ ) |
| Product Weight: | $0.7 \mathrm{lbs}(0.318 \mathrm{~kg}$ ) |

DIMENSIONAL DRAWING


| STANDARD ORDERNG |  |  |  |
| :---: | :---: | :---: | :---: |
| Model \# | Item \# | Description |  |
| M-SWITCH | 127160 | Microcontroller Based Switch |  |
| R-SWITCH | 140640 | Extension of an M-Switch, or u | -Controller or Q4C Gas System |

