

Used in the heavy equipment, marine, process control and instrumentation markets, the R2 rotary switch is an excellent replacement for rocker switches, offering improved visual position indication, additional lighting options and different styling opportunities on front panels. The R2 is a sealed, lighted rotary switch which snaps into a 1.475" x 0.875" industry standard rocker switch panel opening. The rotary knob snaps onto a shaft and can be installed by the panel builder for those desiring that flexibility. The R2 rotary switch provides up to three positions in all combinations of momentary and maintained action. It is capable of handling loads from logic level up to 20 amps resistive. Sealing is to IP68S via a shaft O-ring seal in front and a potted base in the back. Termination options include 0.250" faston or a snap-on modular connector. The R2 offers unique lighting options including up to three independent LED light positions which illuminate a lens on the rotary knob. This design provides more lighting options than traditional rocker switches, handles the full range of electrical loads and is robust enough to survive in the most demanding applications.

## Features:

- **Sealed watertight per IP68S**
- **Snap-in panel mounting into industry standard 1.475" x 0.875" panel cutout**
- **Unique lighting options—up to 3 independent LED light positions**
- **Plastic or Soft Touch knob options available**
- **2 or 3 positions in all combinations of momentary & maintained action**
- **Termination can be used as 0.250" faston or with snap-on modular connector**



### Standard Characteristics/Ratings:

#### ELECTRICAL RATINGS:

| Load        | Sea Level<br>@ 12/28VDC                                                                         | Sea Level<br>@ 125VAC |
|-------------|-------------------------------------------------------------------------------------------------|-----------------------|
| Resistive   | 20A                                                                                             | 16A                   |
| Inductive   | 15A                                                                                             | 15A                   |
| Lamp        | 4A                                                                                              | 4A                    |
| Motor       | 0.5HP @ 110VAC                                                                                  |                       |
| DWV         | 1000Vrms except across light terminals                                                          |                       |
| Logic Level | 10mA @ 5VDC, max D.C. logic level ratings<br>(void if logic level load(s) exceeded at any time) |                       |

**Electrical Life:** 25,000 cycles at full load

**Lighting:** LED 2V, 6V, 12V, 24V (VDC)

**Mechanical Life:** 100,000 cycles

**Seal:** IP68S

**Operating Temp Range:** -40°C to +85°C

#### MATERIALS:

|                           |                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------|
| <b>Case:</b>              | Thermoplastic                                                                                     |
| <b>Knob:</b>              | Thermoplastic                                                                                     |
| <b>Lens:</b>              | Thermoplastic, clear                                                                              |
| <b>Terminals:</b>         | Copper, silver plate, gold plate for logic level                                                  |
| <b>Contacts:</b>          | Silver alloy, gold plate for logic level                                                          |
| <b>Terminal Hardware:</b> | R2 recommended Quick Connect terminals:<br>AMP 60253-2 for 12-16 AWG<br>AMP 42100-2 for 14-18 AWG |
| <b>Mounting Hardware:</b> | None provided                                                                                     |

Your official representative



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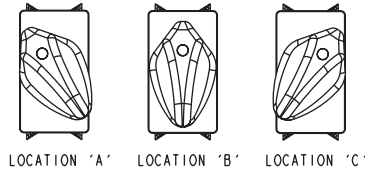
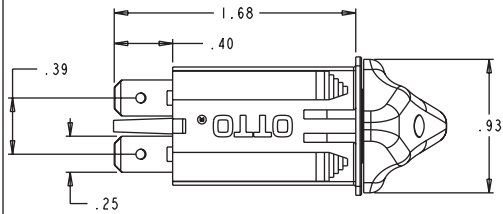
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# ROTARY SWITCH

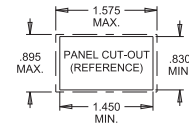
**R2**  
LIGHTED  
ROTARY

UP TO 3 POSITIONS WITH 3 OPTIONAL, INDEPENDENT LED LIGHT POSITIONS

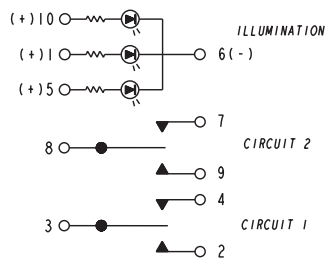


KNOB LOCATION DETAILS

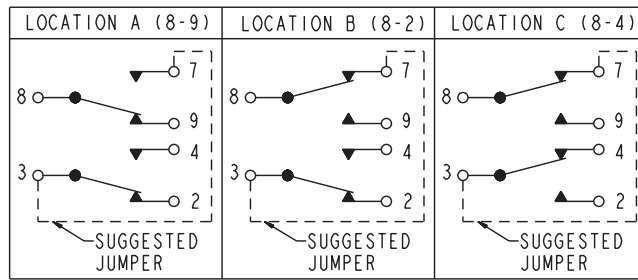
PANEL THICKNESS RANGE OF .025 - .105 A GASKET IS RECOMMENDED  
PANEL THICKNESS RANGE OF .105 - .187 W/O GASKET  
PANEL OPENING: MIN. TYP. MAX.  
WIDTH .830 .863 .895  
LENGTH 1.450 1.513 1.575



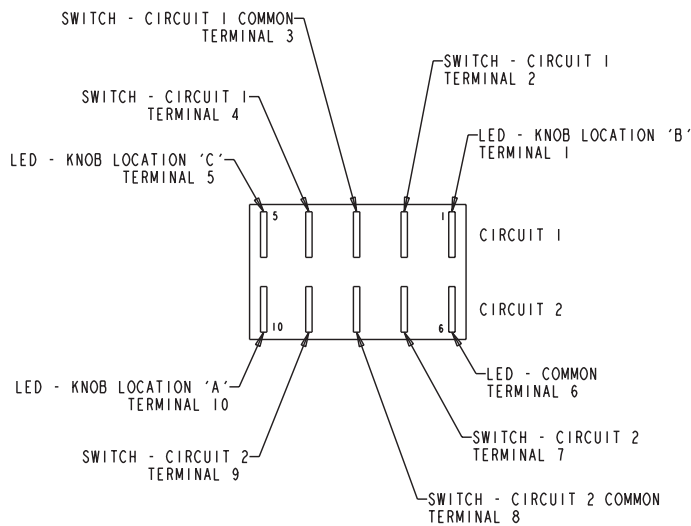
## ELECTRICAL SCHEMATICS



GENERIC SWITCH SCHEMATIC  
USE TERMINALS AS APPLICABLE  
TO PART NUMBER

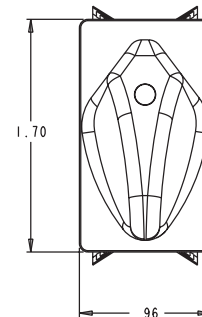
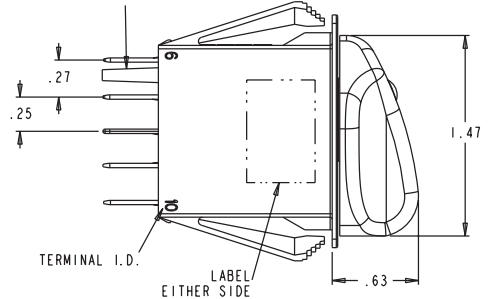


SPIT SCHEMATIC  
USE R2XXXX77XXXX FOR (8-9),(8-2),(8-4)  
USE R2XXXX74XXXX FOR (OFF),(8-2),(8-4)  
USE R2XXXX67XXXX FOR (8-9),(8-2),(OFF)



TERMINAL LOCATION AS VIEWED  
FROM THE BOTTOM OF THE SWITCH

OPTIONAL CONNECTOR KEY



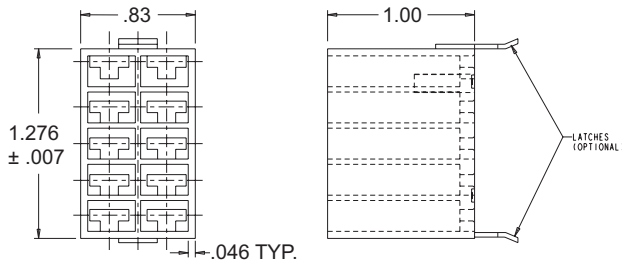
• R2 panel plugs available as shown in Panel Plugs (PP) section.

UP TO 3 POSITIONS WITH 3 OPTIONAL, INDEPENDENT LED LIGHT POSITIONS

## R2 SERIES PART NUMBER CODE

| R2                                                                             | X                          | X                                       | XX                | X                 | X                                     | X                 | X                 | X                                     | X                 | X                 |                                 |                       |              |              |
|--------------------------------------------------------------------------------|----------------------------|-----------------------------------------|-------------------|-------------------|---------------------------------------|-------------------|-------------------|---------------------------------------|-------------------|-------------------|---------------------------------|-----------------------|--------------|--------------|
| Terminal Style/<br>Switch Rating                                               | Knob<br>Color<br>& Texture | Switch Action                           |                   |                   | Switch Circuit 1<br>Terminals 2, 3, 4 |                   |                   | Switch Circuit 2<br>Terminals 7, 8, 9 |                   |                   | LED Light<br>Source<br>Voltage* | Light<br>Source Color |              |              |
| A. Without Terminal Barriers, With Connector Keying Pin, Standard Rating       | A. Black Plastic           | Knob Location "A"                       | Knob Location "B" | Knob Location "C" | Knob Location "A"                     | Knob Location "B" | Knob Location "C" | Knob Location "A"                     | Knob Location "B" | Knob Location "C" | N. NONE                         | Location "A"          | Location "B" | Location "C" |
| B. Without Terminal Barriers ,Without Connector Keying Pin, Standard Rating    | B. Black Soft Touch        | 2-Position Switch, Knob Locations A/B   |                   |                   | 2-Position Switch, Knob Locations A/B |                   |                   | N. NONE (Single Pole)                 |                   |                   | A. 2V                           | N. NONE               | N. NONE      | N. NONE      |
| C. Without Terminal Barriers, With Connector Keying Pin, Logic Level Rating    | C. White Plastic           | 11. Maintain                            | Maintain          | N/A               | 1. 3-2                                | OFF               | N/A               | 1. 8-9                                | OFF               | N/A               | B. 6V                           | 1. Red                | 1. Red       | 1. Red       |
| D. Without Terminal Barriers ,Without Connector Keying Pin, Logic Level Rating | D. White Soft Touch        | 12. Maintain                            | Momentary         | N/A               | 2. OFF                                | 3-4               | N/A               | 2. OFF                                | 8-7               | N/A               | C. 12V                          | 2. Green              | 2. Green     | 2. Green     |
|                                                                                | E. Red Plastic             | 13. Momentary                           | Maintain          | N/A               | 3. 3-2                                | 3-4               | N/A               | 3. 8-9                                | 8-7               | N/A               | D. 24V                          | 3. Amber              | 3. Amber     | 3. Amber     |
|                                                                                | F. Red Soft Touch          | 2-Position Switch, Knob Locations A/C   |                   |                   | 2-Position Switch, Knob Locations A/C |                   |                   | 2-Position Switch, Knob Locations A/B |                   |                   |                                 |                       |              |              |
|                                                                                |                            | 21. Maintain                            | N/A               | Maintain          | 1. 3-2                                | N/A               | OFF               | 1. 8-9                                | N/A               | OFF               |                                 |                       |              |              |
|                                                                                |                            | 22. Maintain                            | N/A               | Momentary         | 2. OFF                                | N/A               | 3-4               | 2. OFF                                | N/A               | 8-7               |                                 |                       |              |              |
|                                                                                |                            | 23. Momentary                           | N/A               | Maintain          | 3. 3-2                                | N/A               | 3-4               | 3. 8-9                                | N/A               | 8-7               |                                 |                       |              |              |
|                                                                                |                            | 2-Position Switch, Knob Locations B/C   |                   |                   | 2-Position Switch, Knob Locations B/C |                   |                   | 2-Position Switch, Knob Locations A/C |                   |                   |                                 |                       |              |              |
|                                                                                |                            | 31. N/A                                 | Maintain          | Maintain          | 1. N/A                                | 3-2               | OFF               | 1. N/A                                | 8-9               | OFF               |                                 |                       |              |              |
|                                                                                |                            | 32. N/A                                 | Maintain          | Momentary         | 2. N/A                                | OFF               | 3-4               | 2. N/A                                | OFF               | 8-7               |                                 |                       |              |              |
|                                                                                |                            | 33. N/A                                 | Momentary         | Maintain          | 3. N/A                                | 3-2               | 3-4               | 3. N/A                                | 8-9               | 8-7               |                                 |                       |              |              |
|                                                                                |                            | 3-Position Switch, Knob Locations A/B/C |                   |                   | 3-Position Switch                     |                   |                   | 3-Position Switch, Knob Locations B/C |                   |                   |                                 |                       |              |              |
|                                                                                |                            | 44. Maintain                            | Maintain          | Maintain          | 4. OFF                                | 3-4               | 3-4               | 4. N/A                                | 8-9               | 8-7               |                                 |                       |              |              |
|                                                                                |                            | 45. Momentary                           | Maintain          | Momentary         | 5. 3-2                                | OFF               | 3-4               | 5. 8-9                                | OFF               | 8-7               |                                 |                       |              |              |
|                                                                                |                            | 46. Maintain                            | Maintain          | Momentary         | 6. 3-2                                | 3-2               | OFF               | 6. 8-9                                | 8-9               | OFF               |                                 |                       |              |              |
|                                                                                |                            | 47. Momentary                           | Maintain          | Maintain          | 7. 3-2                                | 3-2               | 3-4               | 7. 8-9                                | 8-7               | 8-7               |                                 |                       |              |              |
|                                                                                |                            |                                         |                   |                   | 8. 3-2                                | OFF               | OFF               | 8. 8-9                                | OFF               | OFF               |                                 |                       |              |              |
|                                                                                |                            |                                         |                   |                   | 9. OFF                                | OFF               | 3-4               | 9. OFF                                | OFF               | 8-7               |                                 |                       |              |              |

\*See appendix for complete voltage/ratings table



### R2 Connector

P/N C801775-2A Without Latches

P/N C801775-2B With Latches

### Recommended Quick Connect Terminals

AMP C60253-2 for 12-16 AWG

AMP C42100-2 for 14-18 AWG

### Panel Seal Gasket

P/N C807109-25-1