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

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 @ 12/28VDC	Sea Level @ 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 (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:		
Case:	Thermoplastic	
Knob:	Thermoplastic	
Lens:	Thermoplastic, clear	
Terminals:	Copper, silver plate, gold plate for logic level	
Contacts:	Silver alloy, gold plate for logic level	
Terminal Hardware:	R2 recommended Quick Connect terminals: AMP 60253-2 for 12-16 AWG AMP 42100-2 for 14-18 AWG	
Mounting Hardware:	None provided	

ROTARY SWITCH

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

1.68
.40
.39
.93
.25

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

1.575 MAX.
.895 MAX.
PANEL CUT-OUT (REFERENCE)
.830 MIN.
1.450 MIN.

LOCATION 'A'   LOCATION 'B'   LOCATION 'C'
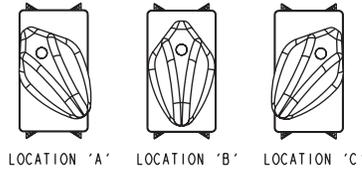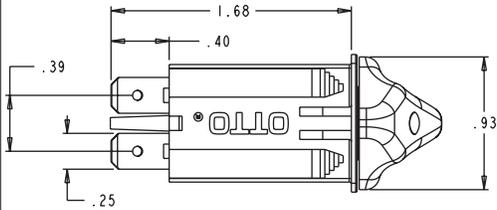
KNOB LOCATION DETAILS

ELECTRICAL SCHEMATICS

(+)10   ILLUMINATION
(+)1   6(-)
(+)5
8   7   CIRCUIT 2
     9
     4
3   CIRCUIT 1
     2
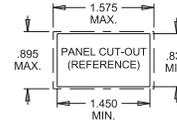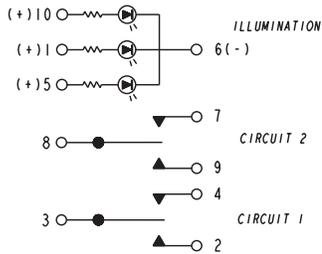
GENERIC SWITCH SCHEMATIC
USE TERMINALS AS APPLICABLE
TO PART NUMBER

LOCATION A (8-9)	LOCATION B (8-2)	LOCATION C (8-4)
8 7 9 4 3 2	8 7 9 4 3 2	8 7 9 4 3 2
SUGGESTED JUMPER	SUGGESTED JUMPER	SUGGESTED JUMPER
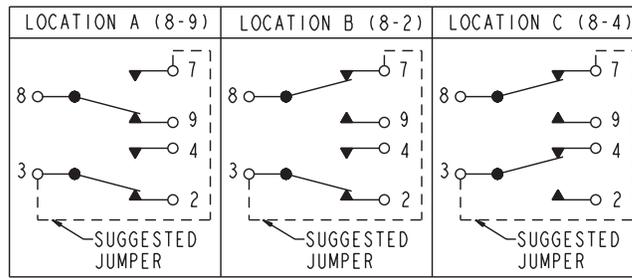
SPTT SCHEMATIC
USE R2XXXX77XXXX FOR (8-9),(8-2),(8-4)
USE R2XXXX74XXXX FOR (OFF),(8-2),(8-4)
USE R2XXXX67XXXX FOR (8-9),(8-2),(OFF)

SWITCH - CIRCUIT 1 COMMON TERMINAL 3
SWITCH - CIRCUIT 1 TERMINAL 4
LED - KNOB LOCATION 'C' TERMINAL 5
SWITCH - CIRCUIT 1 TERMINAL 2
LED - KNOB LOCATION 'B' TERMINAL 1
CIRCUIT 1
CIRCUIT 2
LED - KNOB LOCATION 'A' TERMINAL 10
LED - COMMON TERMINAL 6
SWITCH - CIRCUIT 2 TERMINAL 9
SWITCH - CIRCUIT 2 TERMINAL 7
SWITCH - CIRCUIT 2 COMMON TERMINAL 8
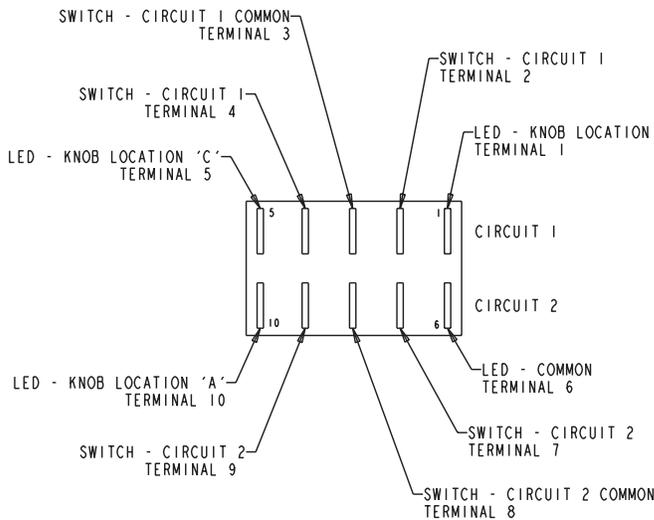
*TERMINAL LOCATION AS VIEWED
FROM THE BOTTOM OF THE SWITCH*

OPTIONAL CONNECTOR KEY
.27
.25
9
10
TERMINAL I.D.
LABEL EITHER SIDE
1.47
.63

1.70
.96
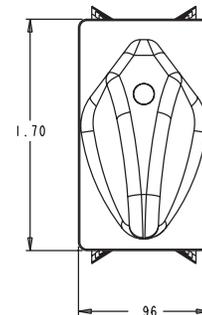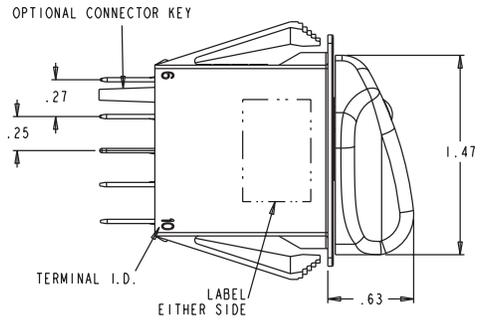
• **R2 panel plugs available as shown in Panel Plugs (PP) section.**

ROTARY SWITCHES

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

Terminal Style/ Switch Rating

A. Without Terminal Barriers, With Connector Keying Pin, Standard Rating
B. Without Terminal Barriers, Without Connector Keying Pin, Standard Rating
C. Without Terminal Barriers, With Connector Keying Pin, Logic Level Rating
D. Without Terminal Barriers, Without Connector Keying Pin, Logic Level Rating

Knob Color & Texture

A. Black Plastic
B. Black Soft Touch
C. White Plastic
D. White Soft Touch
E. Red Plastic
F. Red Soft Touch

Switch Action

	Knob Location "A"	Knob Location "B"	Knob Location "C"
2-Position Switch, Knob Locations A/B			
11.	Maintain	Maintain	N/A
12.	Maintain	Momentary	N/A
13.	Momentary	Maintain	N/A
2-Position Switch, Knob Locations A/C			
21.	Maintain	N/A	Maintain
22.	Maintain	N/A	Momentary
23.	Momentary	N/A	Maintain
2-Position Switch, Knob Locations B/C			
31.	N/A	Maintain	Maintain
32.	N/A	Maintain	Momentary
33.	N/A	Momentary	Maintain
3-Position Switch, Knob Locations A/B/C			
44.	Maintain	Maintain	Maintain
45.	Momentary	Maintain	Momentary
46.	Maintain	Maintain	Momentary
47.	Momentary	Maintain	Maintain

Switch Circuit 1 Terminals 2, 3, 4

	Knob Location "A"	Knob Location "B"	Knob Location "C"
2-Position Switch, Knob Locations A/B			
1.	3-2	OFF	N/A
2.	OFF	3-4	N/A
3.	3-2	3-4	N/A
2-Position Switch, Knob Locations A/C			
1.	3-2	N/A	OFF
2.	OFF	N/A	3-4
3.	3-2	N/A	3-4
2-Position Switch, Knob Locations B/C			
1.	N/A	3-2	OFF
2.	N/A	OFF	3-4
3.	N/A	3-2	3-4
3-Position Switch			
4.	OFF	3-4	3-4
5.	3-2	OFF	3-4
6.	3-2	3-2	OFF
7.	3-2	3-2	3-4
8.	3-2	OFF	OFF
9.	OFF	OFF	3-4

Switch Circuit 2 Terminals 7, 8, 9

N. NONE (Single Pole)

	Knob Location "A"	Knob Location "B"	Knob Location "C"
2-Position Switch, Knob Locations A/B			
1.	8-9	OFF	N/A
2.	OFF	8-7	N/A
3.	8-9	8-7	N/A
2-Position Switch, Knob Locations A/C			
1.	8-9	N/A	OFF
2.	OFF	N/A	8-7
3.	8-9	N/A	8-7
2-Position Switch, Knob Locations B/C			
1.	N/A	8-9	OFF
2.	N/A	OFF	8-7
3.	N/A	8-9	8-7
3-Position Switch			
4.	OFF	8-7	8-7
5.	8-9	OFF	8-7
6.	8-9	8-9	OFF
7.	8-9	8-7	8-7
8.	8-9	OFF	OFF
9.	OFF	OFF	8-7

LED Light Source Voltage*

N. NONE
A. 2V
B. 6V
C. 12V
D. 24V

Light Source Color

Location "A"	Location "B"	Location "C"
N. NONE	**N.** NONE	**N.** NONE
1. Red	**1.** Red	**1.** Red
2. Green	**2.** Green	**2.** Green
3. Amber	**3.** Amber	**3.** Amber

*See appendix for complete voltage/ratings table

.83
1.276 ± .007
.046 TYP.
1.00
LATCHES (OPTIONAL)
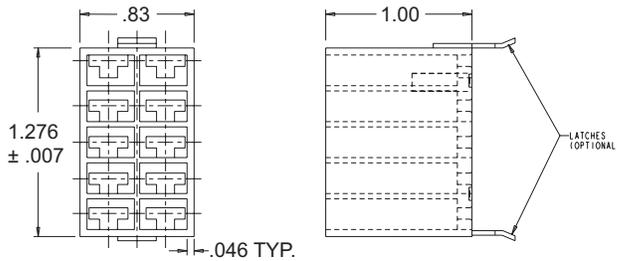
R2 Connector
P/N C801775-2A Without Latches
P/N C801775-2B With Latches

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