## STANDARD PUSHBUTTONS (Cont.)



| Retail Part No. | $\begin{gathered} \text { Bulk } \\ \text { Part No. } \end{gathered}$ | Figure No. | Circuit Function |  | Poles/ Throws | $\begin{array}{\|c\|} \hline \text { AMPS } \\ \text { 125VAC } \end{array}$ | $\begin{gathered} \text { Amps } \\ 250 \text { VAC } \end{gathered}$ | Bushing Length | Actuator Length | Actuator Color/ Material | $\begin{gathered} \text { Frame/ } \\ \text { Bezel } \end{gathered}$ | Terminal Type | Mount Hole | Hardware | Spec. Drawing Page No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35-3454 | 35-3454-BU | 1 | On | Off | SPST†† | $10^{*}$ | N/R | 0.561" | 0.410" | Chrm. Metal |  | 6"WL | 0.500" | N, KN | 1-29 A |
| 35-473 | 35-473-BU | 2 | NO | NC | SPDT | 16† | $16 \dagger$ | 0.3801 | $0.125^{\prime \prime}$ | Red Plastic | Black Shroud | QC .250" | 0.500" | N | I-29 B |
| 35-458 | 35-458-BU | 3 | On | Off | SPST | 15 | 10 | $0.562^{\prime \prime}$ | $0.238^{\prime \prime}$ | Chrm. Metal |  | Sc | $0.500^{\prime \prime}$ | N, KN, Sc | 1-29 C |
| 35-3425 | 35-3425-BU | 4 | On | Off | SPST | 15 | 10 | 0.561" | 0.415" | Chrm. Metal |  | Sc | 0.500" | N, KN, Sc | 1-29 D |
| 35-3427 | 35-3427-BU | 4 | Off | (0n) | NO SPST | 15 | 10 | 0.561" | $0.415^{\prime \prime}$ | Chrm. Metal |  | Sc | 0.500" | N, KN, Sc | 1-29 D |
| 35-3429 | 35-3429-BU | 4 | On | (0ff) | NC SPST | 15 | 10 | $0.561^{\prime \prime}$ | $0.415^{\prime \prime}$ | Chrm. Metal |  | Sc | 0.500" | N, KN, Sc | 1-29 D |
| 35-3490 | 35-3490-BU | 4 | On | On | SPDT | 15 | 10 | 0.561" | $0.415^{\prime \prime}$ | Chrm. Metal |  | Sc | 0.500" | 2 N, Sc | 1-29 D |
| 35-455 | 35-455-BU | 5 | Off | On | SPST | $16^{\wedge}$ | 16 | Snap-in | $0.157^{\prime \prime}$ | Red Plastic | Black | QC .250"/Sd | 0.992" |  | 1-29 E |
| 35-457 | 35-457-BU | 5 | Off | (0n) | NO SPST | $16^{\wedge}$ | 16 | Snap-in | 0.157" | Red Plastic | Black | QC .250"/Sd | 0.992" |  | 1-29 E |
| 35-459 | 35-459-BU | 5 | Off | (0n) | NO SPST | $16^{\wedge}$ | 16 | Snap-in | $0.157{ }^{\prime \prime}$ | Black Plastic | Black | QC .250"/Sd | 0.992" |  | 1-29 E |
| 35-490 | 35-490-BU | 6 | On | Off | DPDT†† | 8 | 6 | 0.730" | 0.312" | Orange $\triangle$ | Black | PCB/Sd Lug | 0.530" | N, W | 1-29 F |
| 35-3484 | 35-3484-BU | 7 | Off | (0n) | N0 SPST | **** | **** | 1.200" | 0.375" | Black Chrome | Black | Sc | 0.625" | N, W | 1-29 G |

Notes: (On)/(Off)/(SPDT) = Momentary Action
*Rated 8Amps @125V DC, 4Amps @250V DC, 1/3 HP @125VAC
**Rated 6Amps @120VAC/3Amps @240VAC
***Rated 3Amps @120VAC/1.5Amps @277VAC
****Rated $(25,15)$ Amps @ $(6,12)$ VDC
$\wedge=1 / 2 \mathrm{HP} @ 125 \mathrm{VAC}, 1 \mathrm{HP} @ 250$ VAC
$\dagger=$ Rated 1/2 HP @125 VAC, 0.2A @250 VDC
NC = Normally Closed
NO = Normally Open
$N / R=$ Not Rated
QC = Quick Connect
Sc = Screw

Sd = Solder
$W=$ Washer
WL = Wire Lead
KN = Knurled Nut
$\mathrm{N}=\operatorname{Nut}(\mathrm{s})$

## LIGHTED PUSHBUTTONS



Fig. 8


Fig. 9


Fig. 10


Fig. 11


Fig. 12

Switches

| Retail Part No. | Bulk Part No. | Figure No. | Circuit Function |  | Poles/ Throws | $\left\lvert\, \begin{gathered} \text { Amps } \\ 125 \text { VAC } \end{gathered}\right.$ | $\begin{gathered} \text { Amps } \\ 250 \text { VAC } \end{gathered}$ | $\begin{aligned} & \text { Amps } \\ & 14 \mathrm{VDC} \end{aligned}$ | $\begin{aligned} & \text { HP } 125 \\ & \text { VAC } \end{aligned}$ | Bushing Length | Actuator Length | Actuator Color | Actuator Style | $\begin{aligned} & \text { Terminal } \\ & \text { Type } \end{aligned}$ | Mounting Hole | Spec. Drawing Page №. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35-480 | 35-480-BU | $8^{\wedge}$ | On | Off | SPST | 10 | 10 | 10 | 1/4 | Snap-in | $0.360{ }^{\prime \prime}$ | Red Lens | Square | QC .25"/Sd | $1.10^{\prime \prime} \times 0.88^{\prime \prime}$ | 1-29 J |
| 35-481† $\dagger$ |  | 8 |  |  |  |  |  |  |  |  |  | Red Lens | Square |  |  | 1-29 J |
| 35-482 | 35-482-BU | $8^{\wedge}$ | On | Off | SPST | 10 | 10 | 10 | 1/4 | Snap-in | 0.360" | Amber Lens | Square | QC . 25 "/Sd | $1.10{ }^{\text {" }} \times 0.88{ }^{\text {" }}$ | 1-29 J |
| 35-484 | 35-484-BU | $8^{\wedge}$ | On | Off | SPST | 10 | 10 | 10 | 1/4 | Snap-in | 0.360" | Green Lens | Square | QC .25"/Sd | 1.10 " x 0.88" | 1-29 J |
| 35-3412 | 35-3412-BU | 9 | (1NC) | (1N0) | SPDT |  | $4 \dagger$ |  |  | 0.295" | $0.196^{\prime \prime}$ |  | Square | Sd Eyelet | 0.638" | I-29 H |
| 35-3414 | 35-3414-BU | 9 | 1NC | 1N0 | SPDT |  | $4 \dagger$ |  |  | 0.295" | $0.196{ }^{\prime \prime}$ |  | Square | Sd Eyelet | 0.638" | 1-29 H |
| 35-3430 | 35-3430-BU | 9 | 2NC | 2NO | DPDT |  | $4 \dagger$ |  |  | 0.295" | 0.196" |  | Square | Sd Eyelet | 0.638" | 1-29 H |
| 35-3431 | 35-3431-BU | 10 | 2NC | 2NO | DPDT |  | $4 \dagger$ |  |  | 0.295" | $0.196^{\prime \prime}$ |  | Rq | Sd Eyelet | $0.638^{\prime \prime}$ | \|-29| |
| 35-3432 | 35-3432-BU | 10 | (1NC) | (1N0) | SPDT |  | $4 \dagger$ |  |  | 0.295" | $0.196^{\prime \prime}$ |  | Rq | Sd Eyelet | 0.638" | \|-29| |

Lens and Diffuser Kits
Choose a Lens and Diffuser Kit below to go with Fig. 9 and Fig. 10 above part numbers (Sold Separately)

| Retail Part No. | $\begin{aligned} & \text { Bulk } \\ & \text { Part No. } \end{aligned}$ | Figure No. | Style | Color | Spec. Drawing Page No. | Retail Part No. | $\begin{gathered} \text { Bulk } \\ \text { Part No. } \end{gathered}$ | Figure No. | Style | Color | Spec. Drawing Page No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35-3435 | 35-3435-BU | 11 | Square | Green | I-29 K | 35-3440 | 35-3440-BU | 12 | Rectangle | Green | I-29L |
| 35-3437 | 35-3437-BU | 11 | Square | Red | 1-29 K | 35-3442 | 35-3442-BU | 12 | Rectangle | Red | 1-29 L |
| 35-3438 | 35-3438-BU | 11 | Square | Clear | 1-29 K | 35-3443 | 35-3443-BU | 12 | Rectangle | Clear | 1-29 L |
| 35-3439 | 35-3439-BU | 11 | Square | Yellow | 1-29 K | 35-3444 | 35-3444-BU | 12 | Rectangle | Yellow | 1-29 L |
|  | 35-3400-BU | 12V Replacement Bulb |  |  |  |  | 35-3400-BU | 12 V Replacement Bulb |  |  |  |

Notes: ( ) = Momentary Function
*NC = Normally Closed and NO = Normally Open
$\wedge=12 \mathrm{~V}$ Incandescent
$-\quad \dagger=0.2 \mathrm{~A}$ @ 220VDC, 5 mA
Note: All figures are for illustration purpose only, and the number/type of terminals may vary.

## STANDARD PUSHBUTTONS (Cont.)



## LIGHTED PUSHBUTTONS (Cont.)



## S.P.S.T. (Single Pole/ Single Throw)

A two terminal switch which opens or closes one circuit.

S.P.D.T. (Single Pole /Double Throw)

A three terminal switch that controls two single-wire circuits. Permits only one circuit to be energized at a time.

D.P.S.T.(Double Pole/Single Throw)

A four terminal switch that controls one double wire circuit or two single wire circuits.

D.P.D.T. (Double Pole/Double Throw)

A six terminal switch that controls two double wire circuits permitting only one circuit to be energized at a time, or four single wire circuits permitting only two circuits to be energized at a time.


## ELECTRICAL TERMS

Ampere Electrical unit indicating rate of flow of electricity through a circuit.
Circuit Path taken by electrical current flowing through conductor from one terminal source of supply to another.
Current The movement of electrons through a conductor measured in amperes.
Double Pole A switch that operates simultaneously in two separate electric circuits.

Double Throw A switch that alternately completes a circuit at either end of its extreme positions.
Double Pole/Single Throw D.P.S.T. - A switch that has four terminals and is used to connect or disconnect two pairs of terminals simultaneously.

Double Pole/Double Throw D.P.S.T. - A switch that has six terminals and is used to connect one pair of terminals to either of the other two pairs.
Inductive Load Initial amps needed to engage a circuit and/or load which allows a momentary flow of current when a circuit is open. (Devices that create inductive loads are typically motor coils and solenoids.)
Lamp Load Light bulb current expressed in amps at a rated voltage.
Momentary Momentary action is obtained by holding switch in position with pressure. Upon release the switch returns to the previous position.

Reversing Reversing action is obtained by reversing the polarity of a switch with jumper wires or blades to change the rotation of a motor. Typical applications are winches, plows, radio antennas and fuel selector valves.

Single Pole A switch that opens, closes, or changes connection in a single conductor of an electrical circuit to a common contact.
Single Throw A switch that opens, closes, or completes a circuit at only one of the extreme positions of its actuator.
Single Pole/Single Throw S.P.S.T. - A two terminal switch which opens or closes one circuit.
Single Pole/Double Throw S.P.D.T. - A three terminal switch for connecting one terminal to either of two other terminal.

Volt The unit that measures the potential difference in electrical force or "pressure" between two points on a circuit.
Watt The unit of power that indicates the rate at which a device converts electric current to another form of energy, either heat or motion.

## Service Tip

- Replacement switch must have same or higher rating as original switch.
- Unplug circuit or turn off power at electrical panel.
- Remove wires from old switch one-at-a-time and attach to new switch in same manner, or follow wiring diagram.
- For Screw Terminals - Twist stranded wire together. Loop wire clockwise around screw. Tighten securely.
- For Blade Terminals - Use Female push-on terminals. Crimp tightly on stranded wire. Make sure you have a snug fit.
- Turn on power.

