





|          |          |           |   |           |          |          |
|----------|----------|-----------|---|-----------|----------|----------|
| <b>S</b> | <b>2</b> | <b>BR</b> | - | <b>P1</b> | <b>G</b> | <b>A</b> |
| ①        | ②        | ③         |   | ④         | ⑤        | ⑥        |

| Classification | Ordering Information |   |    |   |    |   | Description  |
|----------------|----------------------|---|----|---|----|---|--|
|                | ①                    | ② | ③  | - | ④  | ⑤ |  |
| Model          | S                    |   |    |   |    |   | Control Switches   |
| Dimension      |                      | 2 |    |   |    |   | Ø22/25   |
| Appearance     |                      |   | BR |   |    |   | Start push button switches   |
| Operation      |                      |   |    |   | P1 |   | Spring return type, Non-Illuminated  |
| Color          |                      |   |    |   | G  |   | GREEN  |
|                |                      |   |    |   | R  |   | RED  |
| Contact        |                      |   |    |   |    | A | A (Normal Open) 110VAC/10A, 250VAC/6A   |
|                |                      |   |    |   |    | B | B (Normal Close) 110VAC/10A, 250VAC/6A  |

Push Button Switches

Push Button Switches (Illuminated)

Selector Switches

Double Push Button Switches

Start Push Button Switches

Emergency Switches

Emergency Switches (Illuminated)

Pilot Lamps

Accessories

Magnetic Buzzers

Piezo Buzzers

Sockets

● Ø22/25 Start Push Button Switches (Non-Flush)

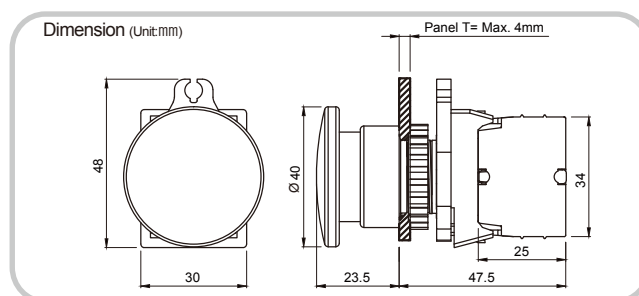


| Model       | Contacts  |           |
|-------------|-----------|-----------|
|             | A Contact | B Contact |
| S2BR - P1□A | 1EA       |           |
| " - " □2A   | 2EA       |           |
| " - " □3A   | 3EA       |           |
| " - " □B    |           | 1EA       |
| " - " □2B   |           | 2EA       |
| " - " □3B   |           | 3EA       |
| " - " □AB   | 1EA       | 1EA       |
| " - " □2AB  | 2EA       | 1EA       |
| " - " □A2B  | 1EA       | 2EA       |

※ Represents colors □ : R, G





- Mushroom-head shaped design
- Mounting hole layout : Ø22.5 / 25.5mm



## Control Switches Series

| Items                   | Push Button Switches  |   |  | Push Button Switches(Illuminated)   |  | Double Push Button Switches   | Start Push Button Switches  |
|-------------------------|---|---|--|---|--|---|---|
|                         | Non-Flush<br>Ø22 / 25   | Non-Flush<br>Ø30  | Flush<br>Ø30   | Non-Flush<br>Ø22 / 25   | Flush<br>Ø30   | Non-Flush<br>Ø22 / 25   | Non-Flush<br>Ø22 / 25   |
| Mounting Hole Dimension | Ø22 / 25  | Ø30   | Ø30  | Ø22 / 25  | Ø30  | Ø22 / 25  | Ø22 / 25  |
| Model                   | S2PR - P1   | S3PR - P1   | S3PF - P1  | S2PR - P3   | S3PF - P3  | S2TR - P3   | S2BR - P1   |
| Appearance              |    |    |     |      |    |  |  |
| Page                    | 06  | 07  | 07   | 08  | 08   | 12  | 13  |
| Items                   | Selector Switches, Non-Flush  |   |  | Selector Switches, Non-Flush  |  |   |   |
|                         | Short Lever<br>Ø22 / 25   |   | Long Lever<br>Ø22 / 25   | Short Lever<br>Ø30  |  | Long Lever<br>Ø30   |   |
| Mounting Hole Dimension | Ø22 / 25  |   | Ø22 / 25   | Ø30   |  | Ø30   |   |
| Model                   | S2SR - S3,5,7   |   | S2SR - S4,6,8  | S3SF - S3,5,7   |  | S3SF - S4,6,8   |   |
| Appearance              |    |   |     |     |  |  |   |
| Page                    | 10  |   | 10   | 11  |  | 11  |   |
| Items                   | Ø30 Emergency Switches  |   | Ø40 Emergency Switches   |   | Ø60 Emergency Switches   |   |   |
|                         | Large Head<br>Ø22 / 25  | Small Head<br>Ø22 / 25  | Non-Illuminated<br>Ø22 / 25  | Illuminated<br>Ø22 / 25   | Non-Illuminated<br>Ø22 / 25  |   |   |
| Mounting Hole Dimension | Ø22 / 25  | Ø22 / 25  | Ø22 / 25   | Ø22 / 25  | Ø22 / 25   |   |   |
| Model                   | S2ER - E1   | S2ER - E2   | S2ER - E3  | S2ER - E4   | S2ER - E5  |   |   |
| Appearance              |   |   |    |    |  |   |   |
| Page                    | 14  | 15  | 15   | 16  | 16   |   |   |
| Items                   | Dome Type / Horn Type / Flat Type Pilot Lamps                                       |   |  |   |  |   |   |
|                         | Dome Type<br>Ø22 / 25   | Horn Type<br>Ø22 / 25   | Flat Type<br>Ø22 / 25  | Flat Type, Flush<br>Ø30   |  |   |   |
| Mounting Hole Dimension | Ø22 / 25  | Ø22 / 25  | Ø22 / 25   | Ø30   |  |   |   |
| Model                   | L2RR - L1   | L2RR - L2   | L2RR - L3  | L3RF - L3   |  |   |   |
| Appearance              |  |  |  |  |  |   |   |
| Page                    | 17  | 18  | 18   | 19  |  |   |   |

## Specifications

|                                      |   |   |  |
|--------------------------------------|---|---|--|
| <b>Mechanical Characteristics</b>    | Actuating Travel  | 5.5mm (0 ~ -0.5)  |  |
|                                      | Actuating Force   | 4.9N (0.5Kgf) (at 1 contact)  |  |
|                                      | Shock   | Shock Resistance  | 500m/s <sup>2</sup> (50G) in each of x,y,z directions for 3 times                            |
|                                      |   | Mechanical Malfunction  | 100m/s <sup>2</sup> (10G) in each of x,y,z directions for 3 times                            |
|                                      | Vibration   | Vibration Resistance  | 1.5mm amplitude at frequency of 10~55Hz(for 1minute) in each of x,y,z directions for 2 hours |
| Mechanical Malfunction               |   | 1.5mm amplitude at frequency of 10~55Hz(for 1minute) in each of x,y,z directions for 10 minutes |  |
|                                      | Mechanical Life Time  | Min. 1 Million (20 times/min)   |  |
| <b>Electrical Characteristics</b>    | Rated Voltage/Current   | 110VAC/10A, 250VAC/6A   |  |
|                                      | Dielectric Strength   | 2000VAC 50/60Hz for 1 minute  |  |
|                                      | Insulation Resistance   | Min.100MΩ (at 500VDC)   |  |
|                                      | Contact Resistance  | Max.20mΩ (Initial value)  |  |
|                                      | Electric Life Cycle   | Min. 100 thousand (20 times/min)  |  |
| <b>LED block</b>                     | Rated Voltage   | DC type : 12-24VAC/DC, AC type : 110-220VAC   |  |
|                                      | Power Consumption   | Max. 20mA   |  |
|                                      | Ambient Temperature   | -15 ~ 55 °C (at non-freezing status)  |  |
| <b>Environmental Characteristics</b> | Ambient Humidity  | 35 ~ 85%RH  |  |
|                                      | Storage Temperature   | -25 ~ 65 °C (at non-freezing status)  |  |
|                                      | Protection Degree   | IP52 (IP 50 for double push button switch)  |  |
| <b>Approval</b>                      |  (Emergency switches is  process of certification) |   |  |