

SERIES D16, P16, L16 SWITCHES

PUSHBUTTON SWITCHES - ILLUMINATED

TACT SWITCHES

NAVIGATION SWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

ROCKER SWITCHES

SLIDE SWITCHES

SNAP-ACTION SWITCHES

DIP SWITCHES

KEYLOCK SWITCHES

ROTARY SWITCHES

DETECTOR SWITCHES

CAP OPTIONS



SPECIFICATIONS

| | |
|-------------------------------|---|
| Contact Rating: | 5A@250 VAC-UL, VDE 8A@125 VAC - UL, CSA 6A@24 VDC - UL, CSA |
| Life Expectancy (Mechanical): | 100,000 cycles |
| Life Expectancy (Electrical): | 50,000 cycles |
| Contact Resistance: | 100mΩ max. typical; initial @ 2-4 VDC |
| Insulation Resistance: | > 1,000MΩ |
| Dielectric Strength: | > 1,500 volts 1 minute > 3,000 volts between poles |
| Actuation Force: | 300g/pole |
| Operating Temperature: | -20°C to 55°C |

FEATURES & BENEFITS

- ▶ Modular interface/contact block design
- ▶ Robust product for industrial applications
- ▶ Attractive front panel design
- ▶ Illuminated options available

APPLICATIONS/MARKETS

- ▶ Industrial controls
- ▶ Instrumentation
- ▶ Transportation
- ▶ Telecommunications

MATERIALS

| | |
|------------------|----------------------------|
| Switch Housing: | Polyetherimide (PEI) |
| Contact Housing: | Diallyl Phthalate (DAP) |
| Lens: | Polycarbonate (PC) |
| Contacts: | Silver plated copper alloy |
| Terminals: | Silver plated copper alloy |

HOW TO ORDER

| SERIES | MECHANICAL CONFIGURATION | PUSHBUTTON HEAD | CIRCUIT | LAMP TYPE & VOLTAGE | LAMP COLOR (WHERE APPLICABLE) | LENS COLOR |
|---|--|--|--|---|---|--|
| D16 = Solder Lug P16 = Socket L16 = Pilot Indicator | EE = Latching OA = Momentary PL* = Pilot Indicator *For L16 (Pilot Indicator) | S1 S2 T1 T2 R* R1 *R (Mushroom Head) Available for D16 & P16 Only. | 0* = Pilot Ind. 1**= SPDT 2 = DPDT 3 = 3PDT 4 = 4PDT *For L16 only (Pilot Indicator) **P16 available SPDT only | 0 = None A B C F G H J K M N L D E | F Red G Grn H Red J Grn K Yel | RED= Red GRN= Green BLU= Blue* WHT= White* ORG= Orange* YEL= Yellow* *Not Available For 'R' Mushroom Head. |

▶ ▶ ▶ **Example Ordering Number**
D16-EE-R1-3-A-BLU

Specifications subject to change without notice.



SERIES D16 SWITCHES

PUSHBUTTON SWITCHES - ILLUMINATED

D16 (SOLDER LUG)

R

MUSHROOM



D16 (SOLDER LUG)

R1

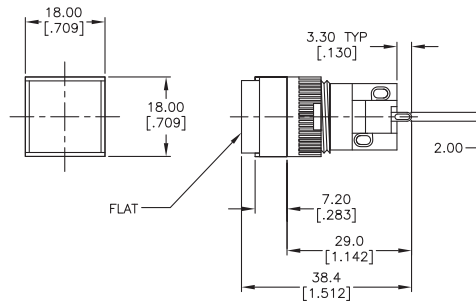
ROUND



D16 (SOLDER LUG)

S1

SQUARE



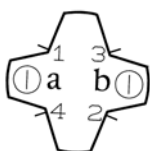
D16 (SOLDER LUG)

T1

RECTANGULAR



BOTTOM VIEW



SCHEMATIC



MOUNTING LENGTH

| | Mounting Length (A) |
|------|---------------------|
| SPDT | 29.0 mm |
| DPDT | 36.5 mm |
| 3PDT | 44.0 mm |
| 4PDT | 51.5 mm |

SERIES P16 SWITCHES

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CAP OPTIONS

P16 (SOCKET)

R

MUSHROOM



PANEL MOUNTING

P16 (SOCKET)

R1

ROUND



PANEL MOUNTING

P16 (SOCKET)

S1

SQUARE



PANEL MOUNTING

P16 (SOCKET)

T1

RECTANGULAR



PANEL MOUNTING

BOTTOM VIEW



SCHEMATIC





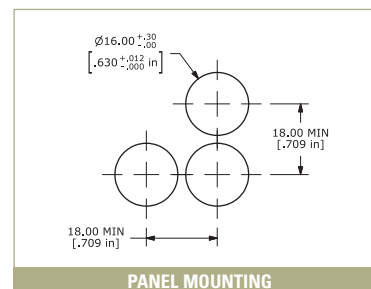
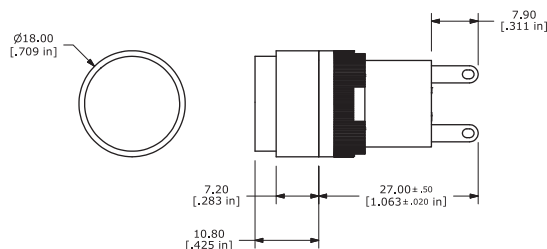
SERIES L16 SWITCHES

PUSHBUTTON SWITCHES - ILLUMINATED

L16 (PILOT INDICATOR)

R1

ROUND

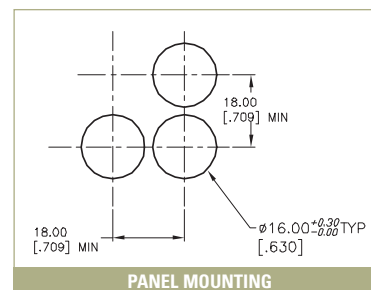
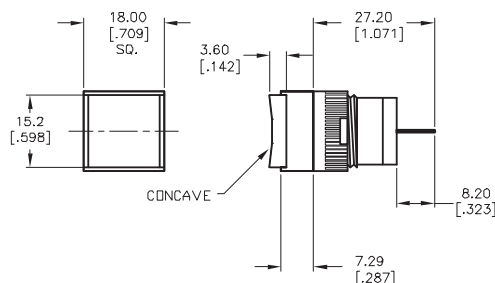


PANEL MOUNTING

L16 (PILOT INDICATOR)

S1

SQUARE

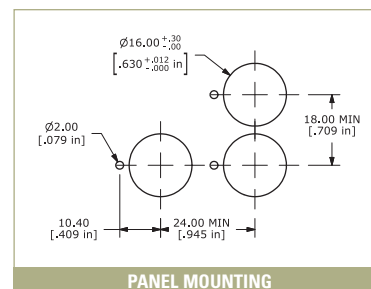
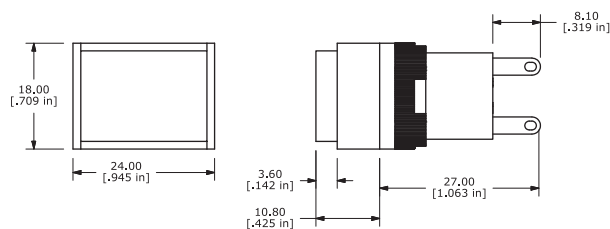


PANEL MOUNTING

L16 (PILOT INDICATOR)

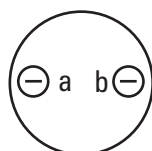
T1

RECTANGULAR

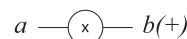


PANEL MOUNTING

BOTTOM VIEW



SCHEMATIC



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MECHANICAL CONFIGURATION & CIRCUIT OPTIONS

0 PILOT INDICATOR

Available 'L16' Pilot Indicator Type



SCHEMATIC

1 SPDT**

Available for 'P16' Socket Type and 'D16' Solder Lug



SCHEMATIC

2 DPDT

Available for 'D16' Solder Lug



SCHEMATIC

3 3PDT

Available for 'D16' Solder Lug



SCHEMATIC

4 4PDT

Available for 'D16' Solder Lug



SCHEMATIC

Mechanical Configuration Code

| | |
|----|------------------|
| EE | Latching |
| OA | Momentary |
| PL | Pilot Indicator* |

*L16' Series only

LAMP TYPE & VOLTAGE OPTIONS

| ILLUSTRATION | CATEGORY | DESCRIPTION | COLOR | PART NO. |
|--------------------|--------------|---------------------|----------------|-----------|
| | Incandescent | A = 6V AC/DC 200 mA | Not Applicable | 50-004-02 |
| | | B = 14V AC/DC 80 mA | | 50-004-04 |
| | | C = 28V AC/DC 40 mA | | 50-004-05 |
| | | D = 48V AC/DC 25 mA | | 50-004-06 |
| | | E = 60V AC/DC 20 mA | | 50-004-07 |
| | | L = 33V AC/DC 35 mA | | 50-004-08 |
| | | N = 14V AC/DC 40 mA | | 50-004-03 |
| M = 6V AC/DC 40 mA | 50-004-01 | | | |
| | Neon | F = 110V AC | green | 50-004-11 |
| | | | red | 50-004-12 |
| | | G = 220V AC | green | 50-004-13 |
| | | | red | 50-004-14 |
| | LED | H = 6V DC | green | 50-004-16 |
| | | | red | 50-004-17 |
| | | | yellow | 50-004-18 |
| | | J = 12V DC | green | 50-004-19 |
| | | | red | 50-004-20 |
| | | | yellow | 50-004-21 |
| K = 24V DC | green | 50-004-22 | | |
| | red | 50-004-23 | | |
| | yellow | 50-004-24 | | |



| ILLUSTRATION | | STYLE | SHAPE | COLOR | PART NO. |
|---|--|---------------|---------|---|--|
|  | Available Color Lens (Acrylic Resin) | Round | Concave | blue green orange red white yellow | 50-001-01 50-001-02 50-001-03 50-001-04 50-001-05 50-001-06 |
|  | | Rectangular | Concave | blue green orange red white yellow | 50-002-01 50-002-02 50-002-03 50-002-04 50-002-05 50-002-06 |
|  | | Square | Concave | blue green orange red white yellow | 50-003-01 50-003-02 50-003-03 50-003-04 50-003-05 50-003-06 |
|  | | Mushroom Head | Convex | green red | 50-012-01 50-012-02 |
|  | | Round | Flat | blue green orange red white yellow | 50-001-11 50-001-12 50-001-13 50-001-14 50-001-15 50-001-16 |
|  | | Rectangular | Flat | blue green orange red white yellow | 50-002-11 50-002-12 50-002-13 50-002-14 50-002-15 50-002-16 |
|  | | Square | Flat | blue green orange red white yellow | 50-003-11 50-003-12 50-003-13 50-003-14 50-003-15 50-003-16 |

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| ILLUSTRATION | CATEGORY | DESCRIPTION | PART NO. |
|---|---|---|--|
|  | Lamp Extractor * Also available for LA Series | Lamp removing tool | 50-005-01 |
|  | Blanking Plate Block | PVC stopper to stuff the superfluous hole of the panel board | 50-013-01 |
|  | Connector * Also available for LA Series | Insulation Socket 2.8 x 0.5 mm | 50-014-01 |
|  | PCB Mounting Socket |  | 50-015-01 |
|  | Mounting Wrench * Also available for LA Series | Use this for tightening the switch in the mounting hole | 50-006-01 |
|  | Lens Removing Tool | Use this for replacing the fitted color lens | 50-007-01 |
|  | Spray Cover | Meets requirement of IP65, two pieces of transparent plastic, rectangular head | 50-010-01 |
|  | Protection Cap | To avoid faulty operation, housing for locking, transparent For square head (90°) For square head (180°) For rectangular head (90°) For rectangular head (180°) | 50-011-01 50-011-11 50-011-02 50-011-12 |