

# "ILLUMINATER™ " SERIES SEALED ROCKER SWITCHES

## DESCRIPTION

The new Illuminater series of front panel mounted rocker switches are sealed to meet the watertight requirements of MIL-STD-108E. Product variations are with standard or locking rocker Actuator, and single or double pole switching with multi-circuits. A variety of accessory items are also available. This product is ideally suited for use in harsh environmental applications.

## DESIGN FEATURES

- Front panel mounted
- Totally sealed switching chamber
- Various circuit variations
- Keyed assembly - actuator to bezel and base to connector
- Removable rocker button
- One or two lamp capability
- Full size clear lens with non-glare surface
- Icons located beneath lens surface (high wearability)
- Diffusion lens alters icon background lighting
- Minimum light leakage
- Various locking styles available
- Matte black textured finish on bezel/actuator
- Molded-in terminal identification
- Molded-in orientation mark

## SPECIFICATIONS

- Watertight per MIL-STD-108E
- Temperature range: -40°F to +160°F (-40°C to +71°C)
- Dielectric strength 1800 V RMS @ sea level
- Life: 50,000 cycles min. electrical; 100,000 cycles min. mechanical
- Silver plated contact - standard
- Flame retardant thermoplastic bezel and base
- Stainless steel mounting clips



## ACCESSORIES

- Indicator light assembly (see page C7)
- Filler plug (see page C6)
- Connector (see page C7)
- Gang mounting system

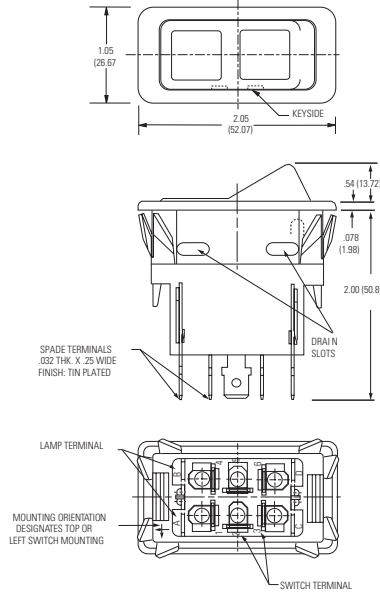
## OPTIONS

- Non-Illuminated switch
- Gold plated contacts

# "ILLUMINATER™" SERIES ENGINEERING DATA

| SINGLE POLE ELECTRICAL RATINGS |                |                |           |                |                |           | DOUBLE POLE ELECTRICAL RATINGS |                |                |           |                |                |           |
|--------------------------------|----------------|----------------|-----------|----------------|----------------|-----------|--------------------------------|----------------|----------------|-----------|----------------|----------------|-----------|
| Type of Operation              | 6 & 14VDC      |                |           | 28VDC          |                |           | Type of Operation              | 6 & 14VDC      |                |           | 28VDC          |                |           |
|                                | Resistive Load | Inductive Load | Lamp Load | Resistive Load | Inductive Load | Lamp Load |                                | Resistive Load | Inductive Load | Lamp Load | Resistive Load | Inductive Load | Lamp Load |
| Maintained                     | 25             | 15             | 75        | 20             | 15             | 5         | Maintained                     | 30             | 20             | 10        | 20             | 15             | 7         |
| Momentary                      | 20             | 10             | 6         | 15             | 10             | 4         | Momentary                      | 25             | 15             | 75        | 18             | 10             | 5         |

## DIMENSIONS



W/O Panel Seal

Note: For recommended panel cutout dimensions, see page C7.

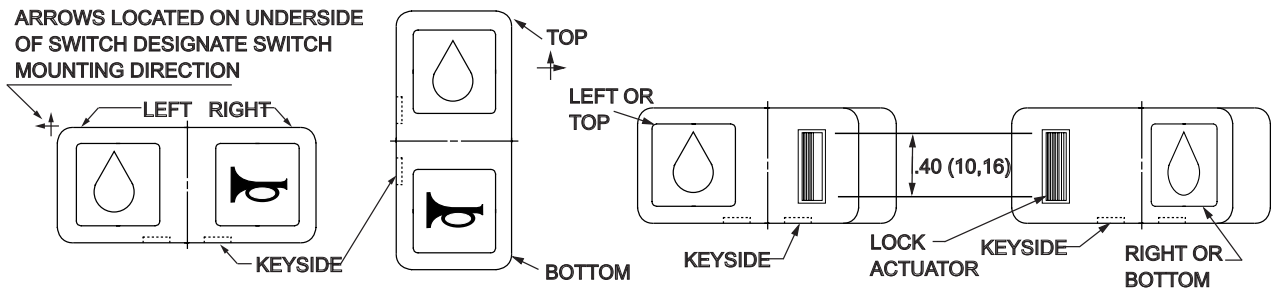


FIGURE 1  
Horizontal Mount

FIGURE 2  
Vertical Mount

FIGURE 3  
Locking Actuator Styles 4, 5, Y, & T

FIGURE 4  
Locking Actuator Styles 6, 7, W, & S

# "ILLUMINATER™" SERIES PART NUMBERING SYSTEM

### ACTUATOR STYLE (See Page C3, Figs 1-4)

| Code | Style  |
|------|--|
| 1    | (1) Lens Top or Left   |
| 2    | (1) Lens Bottom or Right   |
| 3    | (2) Lenses   |
| 4    | Lock in both End Positions w/ Lens (or Plain Surface) Top or Left  |
| 5    | Lock in Center Position w/ Lens (or Plain Surface) Top or Left   |
| 6    | Lock in Both End Positions w/ Lens (or Plain Surface) Bottom or Right  |
| 7    | Lock in Center Position w/Lens (or Plain Surface) Bottom or Right  |
| A    | Plain Rocker Button (No Lenses)  |
| S    | Lock in (1) End Position w/ Lens (or Plain Surface) Bottom or Right (Lens or Plain Surface Locked in "UP" Position)  |
| T    | Lock in (1) End Position w/ Lens (or Plain Surface) Top or Left (Lens or Plain Surface Locked in "UP" Position)      |
| W    | Lock in (1) End Position w/ Lens (or Plain Surface) Bottom or Right (Lens or Plain Surface Locked Actuated Position) |
| Y    | Lock in (1) End Position w/ Lens (or Plain Surface) Top or Left (Lens or Plain Surface Locked Actuated Position)     |

### ICON (Location - Top or Left "only") (See Page C8 for Icon Selection Table)

| Code DF | Function |
|---------|----------|
|         | Oil      |

(Code "ZZ" = No Icon)

### ICON (Location - Bottom or Right "only") (See Page C8 for Icon Selection Table)

| Code BF | Function |
|---------|----------|
|         | Horn     |

(Code "ZZ" = No Icon)

### DIFFUSION LENS COLOR (Location - Top or Left "only")

| Code | Color |
|------|-------|
| 0    | None  |
| 1    | Amber |
| 2    | Blue  |
| 3    | Green |
| 4    | Red   |
| 5    | White |
| 6    | Clear |

### DIFFUSION LENS COLOR (Location - Bottom or Right "only")

| Code | Color |
|------|-------|
| 0    | None  |
| 1    | Amber |
| 2    | Blue  |
| 3    | Green |
| 4    | Red   |
| 5    | White |
| 6    | Clear |

### BAFFLE (Light Intensity Deflector)

| Code | Color               |
|------|---------------------|
| A    | (1) Top or Left     |
| B    | (1) Bottom or Right |
| C    | (2) Baffles         |
| Z    | None                |

### ACTUATOR MOUNTING POSITION & COLOR

| Code | Orientation                                 |
|------|---|
| F    | Optional / Black (Plain Actuator no Lenses) |
| H    | Horizontal / Black                          |
| V    | Vertical / Black                            |

**B 01 A 5 J H 3 DF 2 ZZ 3 Z = B01A5JH3DF2ZZ3Z**

### NO. OF POLES

| Code | Selection |
|------|-----------|
| A    | Single    |
| B    | Double    |

### OPTIONAL FEATURES

| Code | Option          |
|------|-----------------|
| A    | Silver Contacts |
| G    | Gold Contacts   |

### ROCKER TYPE

| Code | Type                            |
|------|---------------------------------|
| 5    | Illuminated                     |
| 6    | Non - Illuminated               |
| 7    | Locking Feature Illuminated     |
| 8    | Locking Feature Non-Illuminated |

### LAMP SELECTION

| Code | Voltage | No. Lamps | Location           |
|------|---------|-----------|--------------------|
| D    | 14VDC   | 1         | Top or Left        |
| E    | 14VDC   | 1         | Bottom or Right    |
| F    | 14VDC   | 2         | Both Locations     |
| G    | 28VDC   | 1         | Top or Left        |
| H    | 28VDC   | 1         | Bottom or Right    |
| J    | 28VDC   | 2         | Both Locations     |
| K    | See⓪    | 1         | Top or Left        |
| L    | See⓪    | 1         | Bottom or Right    |
| M    | See⓪    | 2         | Both Locations     |
| Z    |         |           | Non - Illuminating |

⓪ Furnished without lamps. Provisions for lamp available as indicated under location.

### CIRCUIT ARRANGEMENT

| Code | Top or Left |         |                 | Available Locking Configuration | Code | Bottom or Right |         |                 | Available Locking Configuration |
|------|-------------|---------|-----------------|---------------------------------|------|-----------------|---------|-----------------|---------------------------------|
|      | Top or Left | Center  | Bottom or Right |                                 |      | Top or Left     | Center  | Bottom or Right |                                 |
| 01   | On          | Off     | On              | 4,5,6,7,Y,T,S                   | * 15 | On              | On      | Mom On          | 5,7,Y,S                         |
| 02   | Mom On      | Off     | Mom On          | 5,7                             | * 16 | Mom On          | On      | Mom On          | 5,7                             |
| 03   | On          | Off     | Mom On          | 5,7,Y,S                         | 50   | Mom On          | Off     | On              | 5,7,W,T                         |
| 04   | On          | None    | On              | 4,6,Y,W,T,S                     | 51   | Mom On          | None    | On              | W,T                             |
| 05   | On          | None    | Mom On          | Y,S                             | 52   | None            | Off     | On              | 7,W                             |
| 06   | On          | Off     | None            | 5,Y                             | 53   | Mom On          | Off     | None            | 5                               |
| 07   | None        | Off     | Mom On          | 7                               | 54   | None            | Mom Off | On              | W                               |
| 08   | On          | Mom Off | None            | Y                               | 55   | Off             | None    | On              | 4,6,Y,W,T,S                     |
| 09   | On          | None    | Off             | 4,6,Y,W,T,S                     | 56   | Mom Off         | None    | On              | W,T                             |
| 10   | On          | None    | Mom Off         | Y,S                             | 57   | Mom On          | None    | Off             | W,T                             |
| 11   | Off         | None    | Mom On          | Y,S                             | 58   | None            | On      | Mom On          | 7                               |
| 12   | Mom On      | On      | None            | 5                               | 59   | None            | On      | On              | 7,W                             |
| 13   | On          | On      | None            | 5,Y                             | * 60 | Mom On          | On      | On              | 5,7,W,T                         |
| * 14 | On          | On      | On              | 4,5,6,7,Y,W,T,S                 |      |                 |         |                 |                                 |

\* Double pole switches only

### PART NUMBER WORKSHEET

|              |                     |             |             |                |                   |                |                    |                      |                        |                      |                      |
|--------------|---------------------|-------------|-------------|----------------|-------------------|----------------|--------------------|----------------------|------------------------|----------------------|----------------------|
| No. of Poles | Circuit Arrangement | Bezel Color | Bezel Style | Lamp Selection | Mounting Position | Actuator Style | Icon - Top or Left | Diffusion Lens Color | Icon - Bottom or Right | Diffusion Lens Color | Diffusion Lens Color |
| B            | 01                  | A           | 5           | J              | H                 | 3              | DF                 | 2                    | ZZ                     | 3                    | Z                    |
|              |                     |             |             |                |                   |                |                    |                      |                        |                      |                      |
|              |                     |             |             |                |                   |                |                    |                      |                        |                      |                      |

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# "ILLUMINATER™ " SERIES INDICATOR AND ACCESSORIES

## DESCRIPTION

Along with this new line of illuminated rocker switches, we also offer a line of accessories. General styling and appearance match those of the basic switch, with design features as stated.

## DESIGN FEATURES

### Indicator

- Front panel mounted
- Keyed assembly
  - indicator lens assembly to bezel
  - connector to bezel superstructure
- Removable indicator lens assembly
- One or two lamp capability
- Full size clear lens with non-glare surface
- Icons located beneath lens surface
- Diffusion lens alters icon background lighting
- Matte black textured finish on indicator assembly
- Molded-in terminal identification
- Molded-in orientation mark

## SPECIFICATIONS / MATERIALS

- Temperature range: -40°F to +160°F (-40°C to +71°C)
- Flame retardant thermoplastic bezel and base
- Stainless steel mounting clips



## OTHER ACCESSORIES

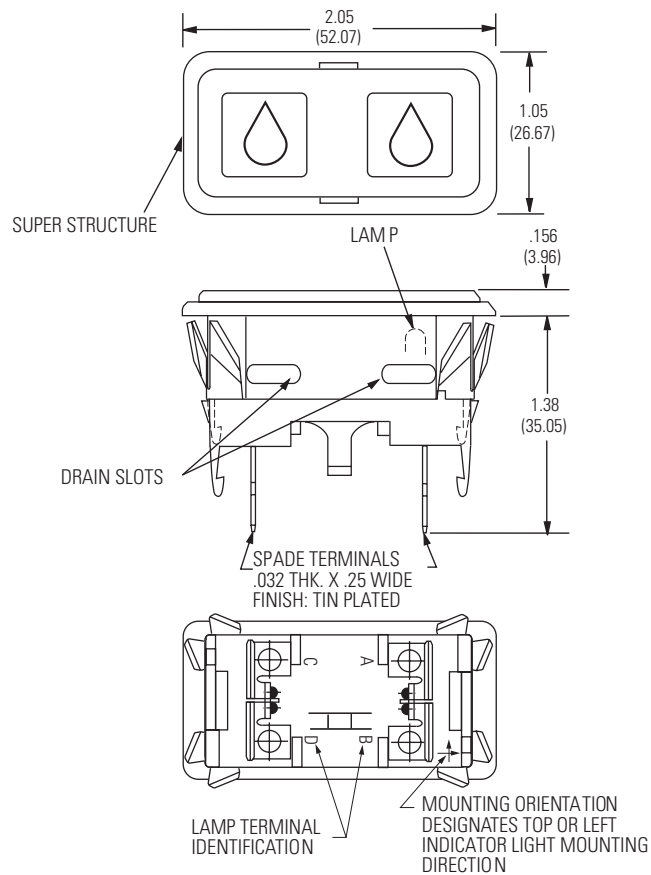
- Connector (see page C7)

## FILLER PLUG

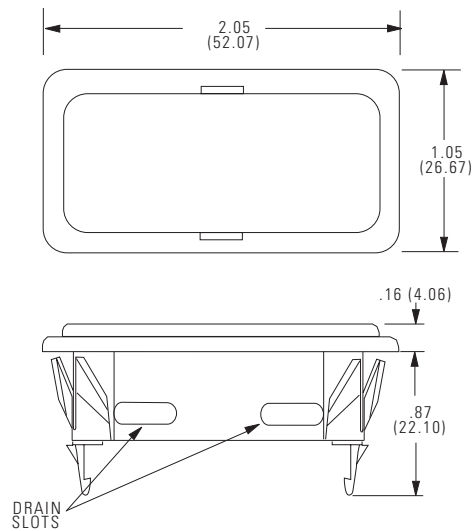
- Front panel mounted
- Accepts - connector/harness assembly
- Matte black textured finish

# "ILLUMINATER™ " SERIES INDICATOR AND ACCESSORIES ENGINEERING DATA

## INDICATOR

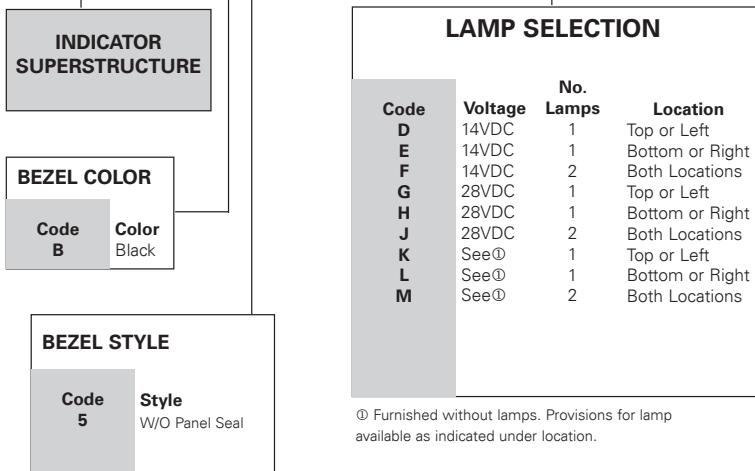
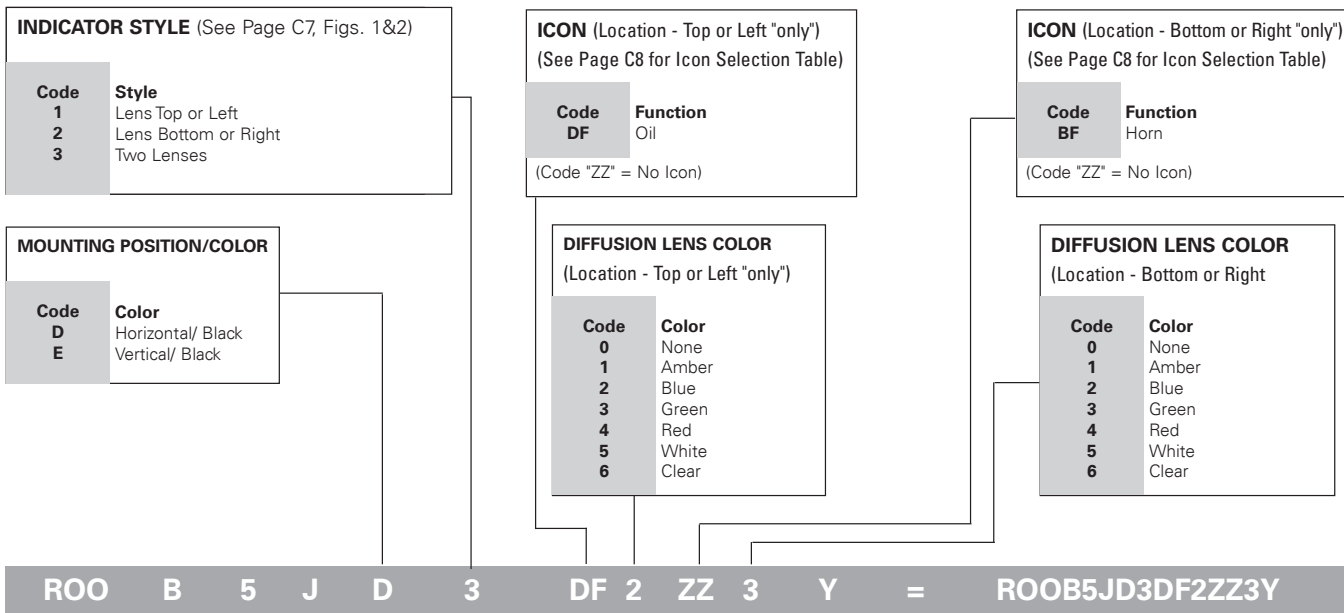


## FILLER PLUG - P/N P24010



Note: For recommended panel cutout dimensions, see page C7.

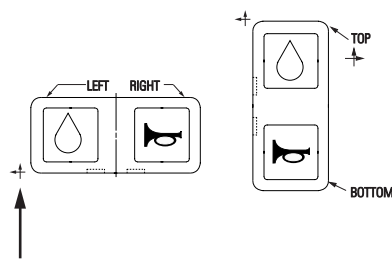
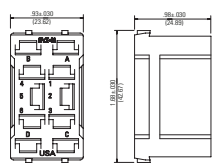
# "ILLUMINATER™" SERIES INDICATOR PART NUMBERING SYSTEM



**PART NUMBER WORKSHEET**

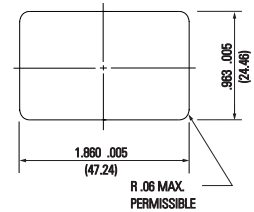
| Indicator Superstructure | Bezel Color | Bezel Style | Lamp Selection | Mounting Position | Indicator Style | Icon - Top or Left | Diff. Lens Color | Icon - Bot. or Right | Diff. Lens Color | Lamp Selection |
|--------------------------|-------------|-------------|----------------|-------------------|-----------------|--------------------|------------------|----------------------|------------------|----------------|
| ROO                      | B           | 5           | J              | K                 | 3               | DF                 | 2                | ZZ                   | 3                | Y              |
| ROO                      |             |             |                |                   |                 |                    |                  |                      |                  | Y              |
| ROO                      |             |             |                |                   |                 |                    |                  |                      |                  | Y              |
| ROO                      |             |             |                |                   |                 |                    |                  |                      |                  | Y              |

## ACCESSORY ITEM      INDICATOR STYLE      RECOMMENDED PANEL CUTOUT



Mounting orientation shown on bottom of base designates top or left indicator light mounting direction.

## DIMENSIONS AND PANEL THICKNESS



Recommended Metal Panel Thickness .040 (1.02) to .140 (3.56)

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# "ILLUMINATER™ " SERIES ICON SELECTION TABLE

| Code |   | Description   | SAE Spec. No. J1632 | Code |   | Description                     | SAE Spec. No. J1632 |
|------|---|---|---------------------|------|---|---------------------------------|---------------------|
| -DF  |    | Oil   | 1056                | -AX  |    | Headlights - High/Upper Beam    | 0082                |
| -CW  |    | Level Indicator                                       | 0159                | -AY  |    | Headlights - Low/Dipped Beam    | 0083                |
| -DG  |    | Temperature   | 0034                | -AZ  |    | Work Light                      | 1204                |
| -DA  |    | On/Start  | 5007                | -DK  |    | Parking Lights                  | 0240                |
| -DB  |    | Off/Stop  | 5008                | -CJ  |    | Hazard Warning Lights           | 0085                |
| -BF  |    | Horn  | 0244                | -BB  |    | Interior Dome Light             | 1421                |
| -BT  |    | Fast  | None                | -BC  |    | Beacon                          | 1141                |
| -BV  |   | Slow  | None                | -DL  |    | Turn Signals                    | 0084                |
| -CN  |  | Lock  | 1656                | -DM  |   | Front Fog Lights                | 0633                |
| -CR  |  | Unlock  | None                | -CE  |  | Rear Fog Lights                 | 0634                |
| -DH  |  | Rearward Moving Machine Alarm                         | None                | -BA  |  | Instrument Illumination         | 1556                |
| -DJ  |  | Rearward Moving Machine Alarm-CANCEL                  | None                | -BG  |  | Windshield-Wiper                | 0086                |
| -BU  |  | Engine-Basic Symbol                                   | 1156                | -BH  |  | Windshield Washer               | 0088                |
| -CK  |  | Engine-Electrical Preheat (Low Temperature Start Aid) | 1704                | -CU  |  | Windshield - Washer & Wiper     | 0087                |
| -AJ  |  | Engine-Gas Injection (Low Temperature Start Aid)      | 1547                | -BJ  |  | Rear Window - Wiper             | 0097                |
| -BZ  |  | Transmission-Basic Symbol                             | 1166                | -BK  |  | Rear Window - Washer            | 0099                |
| -BL  |  | Fuel or Fuel System Basic Symbol                      | 0245                | -DN  |  | Rear Window - Washer & Wiper    | 0098                |
|      |   |   |                     | -AA  |  | Heater/Interior Heating         | 0637                |
|      |   |   |                     | -BE  |  | Air Conditioning/Cooling System | 0027                |
|      |   |   |                     | -BD  |  | Ventilating/Air Circulating Fan | 0089                |

Typical icons illustrated are per SAE Pub No.s: J-107, J-1048, and J-1449. Additional icons are available upon request.

**Note: If no icon is required, enter code "ZZ".**