

# A01 series

## Illuminated or non-illuminated pushbutton switches

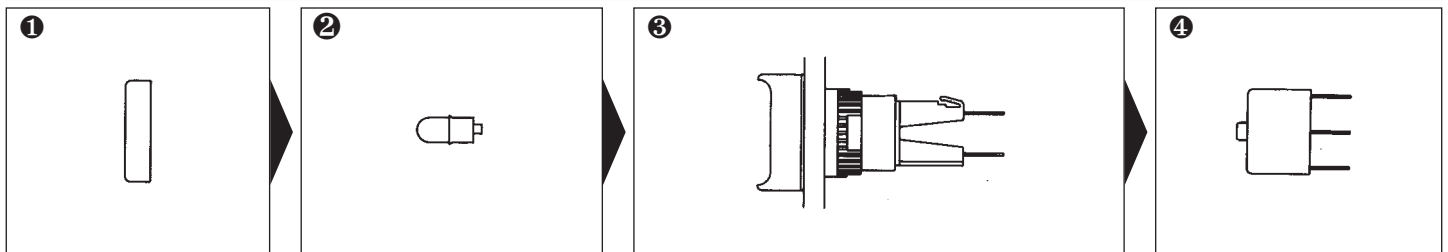
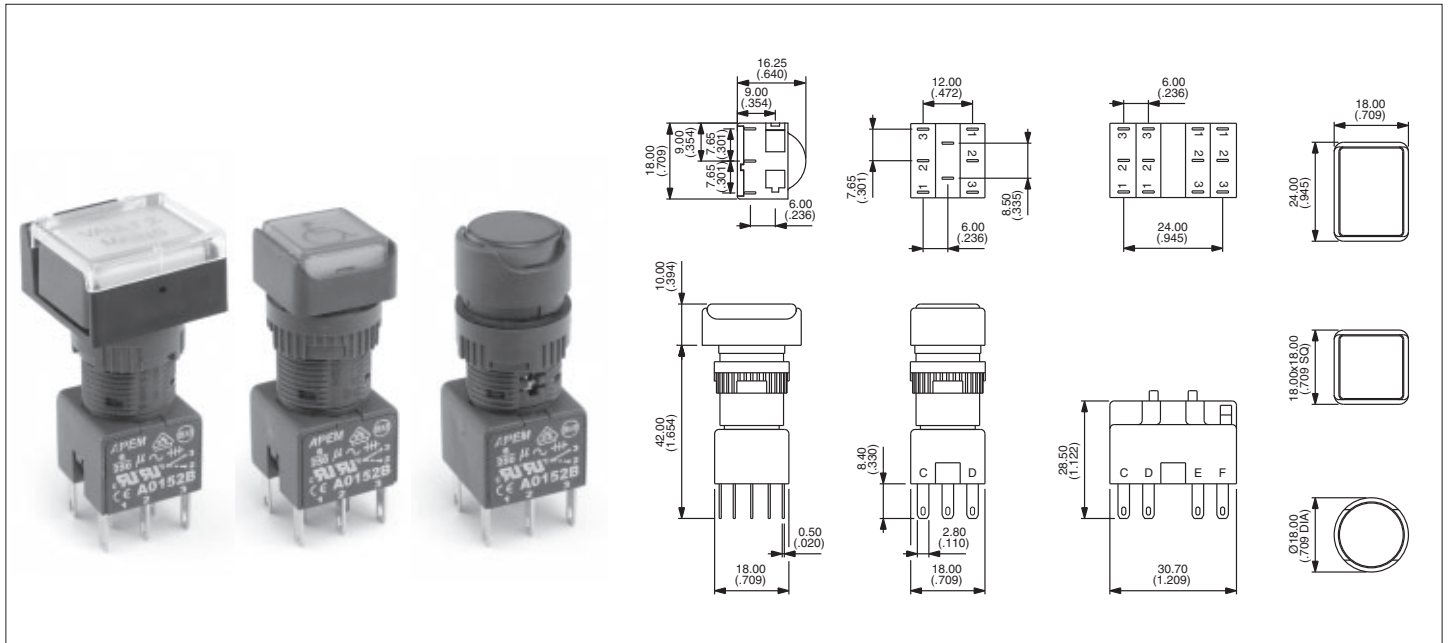
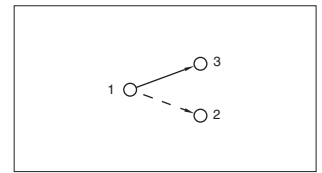
Panel cut-out Ø 16 (.630)

### A pushbutton assembly requires :

screen + lamp (if illuminated) + operator + switch block.

To order these elements, select desired model numbers from tables below.

**Example :** IP65 rectangular pushbutton, single pole, maintained, red screen and 12V red LED = A0161B, A0142M1, A0101X and A0151BUL.



### Screen

| Bezel | Colour | Part No |
|-------|--------|---------|
| □     | black  | A0161A  |
| □     | red    | A0161B  |
| □     | amber  | A0161C  |
| □     | yellow | A0161D  |
| □     | green  | A0161E  |
| □     | blue   | A0161F  |
| □     | clear  | A0161G  |
| □     | white  | A0161J  |
| □     | black  | A0162A  |
| □     | red    | A0162B  |
| □     | amber  | A0162C  |
| □     | yellow | A0162D  |
| □     | green  | A0162E  |
| □     | blue   | A0162F  |
| □     | clear  | A0162G  |
| □     | white  | A0162J  |
| ○     | black  | A0163A  |
| ○     | red    | A0163B  |
| ○     | amber  | A0163C  |
| ○     | yellow | A0163D  |
| ○     | green  | A0163E  |
| ○     | blue   | A0163F  |
| ○     | clear  | A0163G  |
| ○     | white  | A0163J  |

### Lamp

| Lamp     | Voltage   | Part No |
|----------|-----------|---------|
| Filament | 6.3V      | A0141A  |
| Filament | 14V       | A0141B  |
| Filament | 28V       | A0141C  |
| Filament | 36V       | A0141D  |
| Filament | 48V       | A0141E  |
| Filament | 60V       | A0141F  |
| Neon     | 110V      | A0143G  |
| Neon     | 220V      | A0143H  |
| LED      | 6V red    | A0142L1 |
| LED      | 6V green  | A0142L2 |
| LED      | 6V amber  | A0142L3 |
| LED      | 12V red   | A0142M1 |
| LED      | 12V green | A0142M2 |
| LED      | 12V amber | A0142M3 |
| LED      | 12V blue  | A0142M4 |
| LED      | 12V white | A0142M5 |
| LED      | 24V red   | A0142N1 |
| LED      | 24V green | A0142N2 |
| LED      | 24V amber | A0142N3 |
| LED      | 24V blue  | A0142N4 |
| LED      | 24V white | A0142N5 |
| LED      | 48V red   | A0142P1 |
| LED      | 48V green | A0142P2 |
| LED      | 48V amber | A0142P3 |

### Operator

| Pole   | Bezel | Description           | Part No |
|--------|-------|-----------------------|---------|
| 1 or 2 | □     | illum, momentary      | A0101Y  |
| 1 or 2 | □     | illum, maintained     | A0101X  |
| 1 or 2 | □     | Non-illum, momentary  | A0102Y  |
| 1 or 2 | □     | Non-illum, maintained | A0102X  |
| 3 or 4 | □     | illum, momentary      | A0103Y  |
| 3 or 4 | □     | illum, maintained     | A0103X  |
| 3 or 4 | □     | Non-illum, momentary  | A0104Y  |
| 3 or 4 | □     | Non-illum, maintained | A0104X  |
| 1 or 2 | □     | illum, momentary      | A0105Y  |
| 1 or 2 | □     | illum, maintained     | A0105X  |
| 1 or 2 | □     | Non-illum, momentary  | A0106Y  |
| 1 or 2 | □     | Non-illum, maintained | A0106X  |
| 3 or 4 | □     | illum, momentary      | A0107Y  |
| 3 or 4 | □     | illum, maintained     | A0107X  |
| 3 or 4 | □     | Non-illum, momentary  | A0108Y  |
| 3 or 4 | □     | Non-illum, maintained | A0108X  |
| 1 or 2 | ○     | illum, momentary      | A0109Y  |
| 1 or 2 | ○     | illum, maintained     | A0109X  |
| 1 or 2 | ○     | Non-illum, momentary  | A0110Y  |
| 1 or 2 | ○     | Non-illum, maintained | A0110X  |
| 3 or 4 | ○     | illum, momentary      | A0111Y  |
| 3 or 4 | ○     | illum, maintained     | A0111X  |
| 3 or 4 | ○     | Non-illum, momentary  | A0112Y  |
| 3 or 4 | ○     | Non-illum, maintained | A0112X  |

### Switch block

| No of poles | Part No  |
|-------------|----------|
| Single pole | A0151BUL |
| Double pole | A0152BUL |
| Three pole  | A0155BUL |
| Four pole   | A0153BUL |

**UNSEALED SWITCHES (IP40) :** add "01" to end of operator model number.

**BI-COLOUR LED's optional.**

SCREEN ENGRAVING/INSERTABLE LEGENDS : contact APEM

Bezel: □ rectangular, □ square, ○ round, 'illum' - illuminated, 'Non-illum' - non illuminated

# A01 series

## Indicators

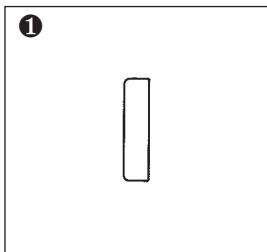
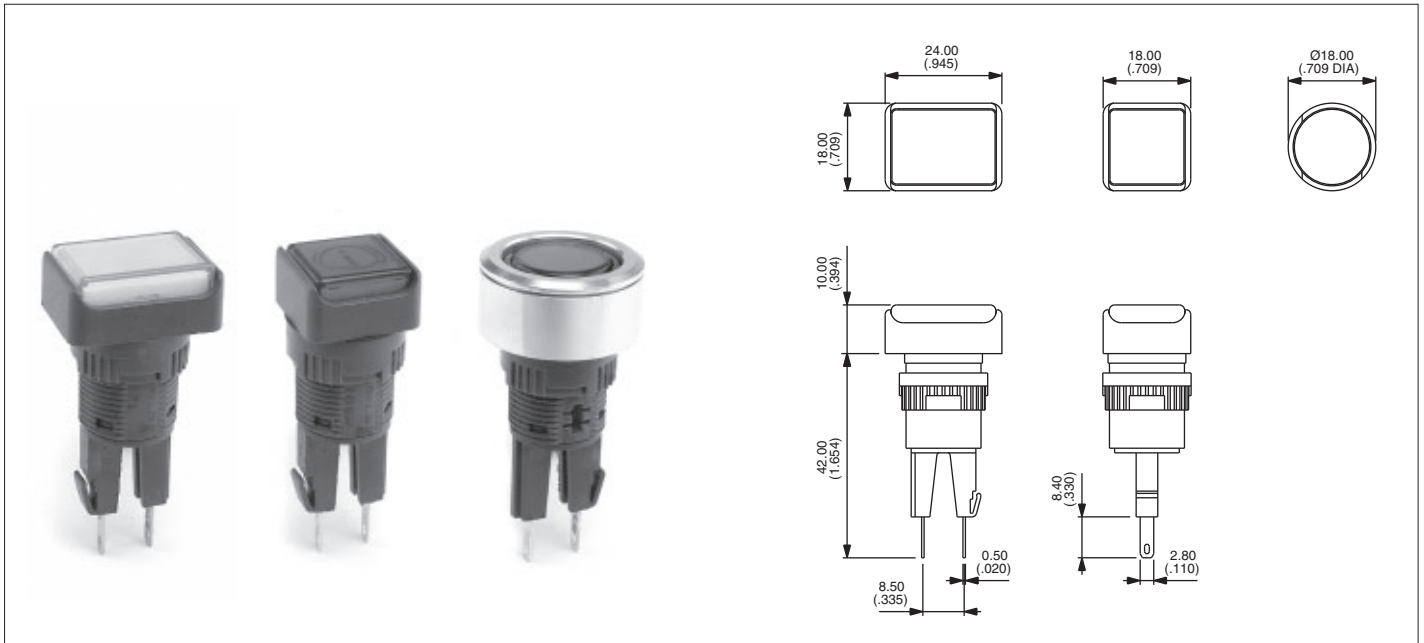
Panel cut-out Ø 16 (.630)

### An indicator assembly requires :

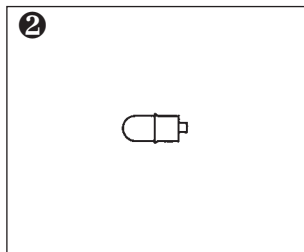
screen + lamp + operator.

To order these elements, select desired model numbers from tables below.

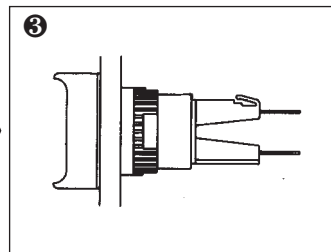
**Example :** IP65 rectangular indicator with red screen and 12V red LED = A0161B, A0142M1 and A0171.



**Screen**



**Lamp**



**Operator**

| Bezel | Colour | Part No |
|-------|--------|---------|
| □     | black  | A0161A  |
| □     | red    | A0161B  |
| □     | amber  | A0161C  |
| □     | yellow | A0161D  |
| □     | green  | A0161E  |
| □     | blue   | A0161F  |
| □     | clear  | A0161G  |
| □     | white  | A0161J  |
| □     | black  | A0162A  |
| □     | red    | A0162B  |
| □     | amber  | A0162C  |
| □     | yellow | A0162D  |
| □     | green  | A0162E  |
| □     | blue   | A0162F  |
| □     | clear  | A0162G  |
| □     | white  | A0162J  |
| ○     | black  | A0163A  |
| ○     | red    | A0163B  |
| ○     | amber  | A0163C  |
| ○     | yellow | A0163D  |
| ○     | green  | A0163E  |
| ○     | blue   | A0163F  |
| ○     | clear  | A0163G  |
| ○     | white  | A0163J  |

| Lamp     | Voltage   | Part No |
|----------|-----------|---------|
| Filament | 6.3V      | A0141A  |
| Filament | 14V       | A0141B  |
| Filament | 28V       | A0141C  |
| Filament | 36V       | A0141D  |
| Filament | 48V       | A0141E  |
| Filament | 60V       | A0141F  |
| Neon     | 110V      | A0143G  |
| Neon     | 220V      | A0143H  |
| LED      | 6V red    | A0142L1 |
| LED      | 6V green  | A0142L2 |
| LED      | 6V amber  | A0142L3 |
| LED      | 12V red   | A0142M1 |
| LED      | 12V green | A0142M2 |
| LED      | 12V amber | A0142M3 |
| LED      | 12V blue  | A0142M4 |
| LED      | 12V white | A0142M5 |
| LED      | 24V red   | A0142N1 |
| LED      | 24V green | A0142N2 |
| LED      | 24V amber | A0142N3 |
| LED      | 24V blue  | A0142N4 |
| LED      | 24V white | A0142N5 |
| LED      | 48V red   | A0142P1 |
| LED      | 48V green | A0142P2 |
| LED      | 48V amber | A0142P3 |

| Bezel | Description | Part No |
|-------|-------------|---------|
| □     | Indicator   | A0171   |
| □     | Indicator   | A0172   |
| ○     | Indicator   | A0173   |

**UNSEALED INDICATORS (IP40) :**  
add "01" to end of operator model number.

SCREEN ENGRAVING / INSERTABLE LEGENDS : contact APEM

Bezel: □ rectangular, □ square, ○ round

# A01 series

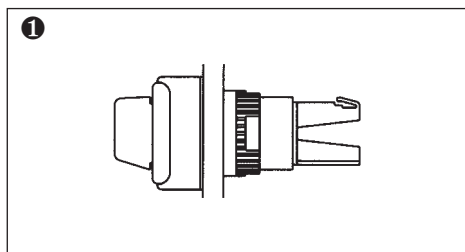
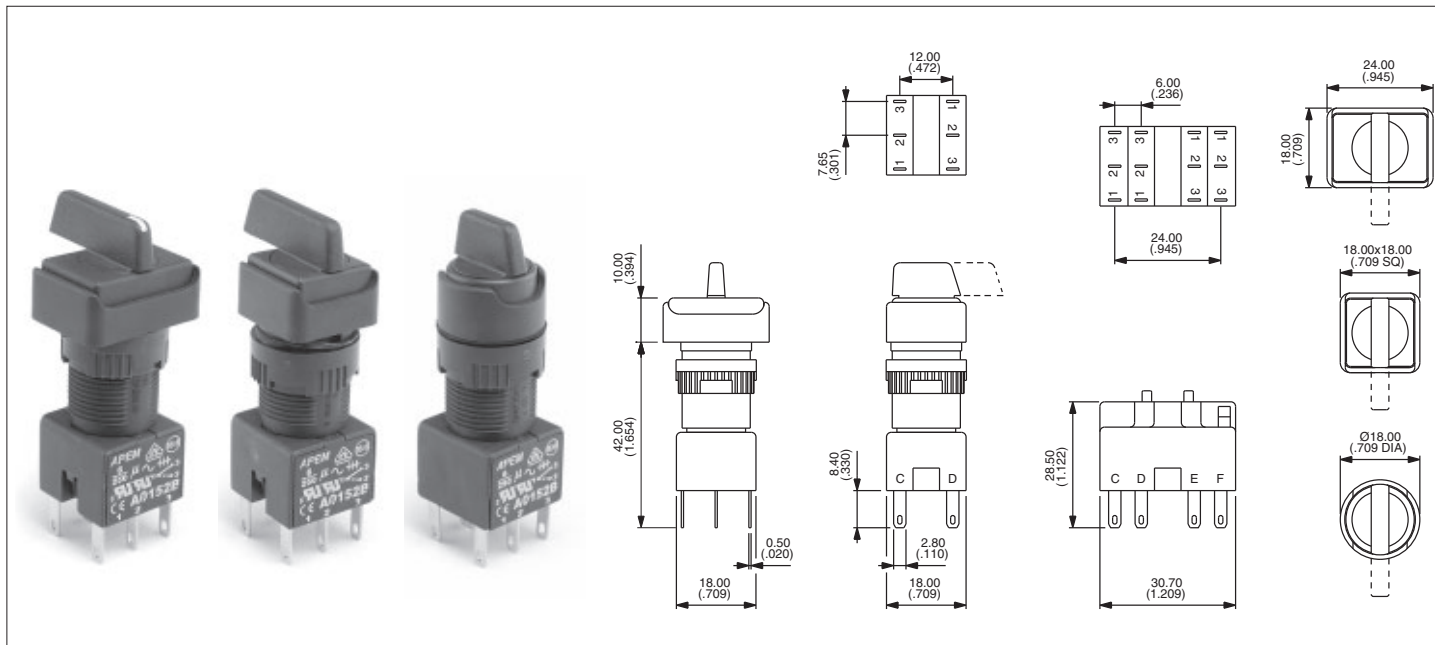
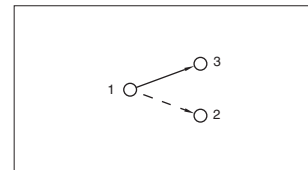
## Rotary lever switches

Panel cut-out  $\varnothing$  16 (.630)

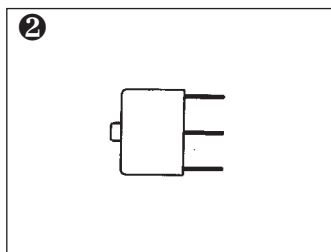
**A rotary lever switch assembly requires :**  
operator + switch block.

To order these elements, select desired model numbers from tables below.

**Example :** IP65 rectangular rotary switch with long lever, clockwise rotation, single pole, 2 positions, maintained = A019109 and A0151BUL.

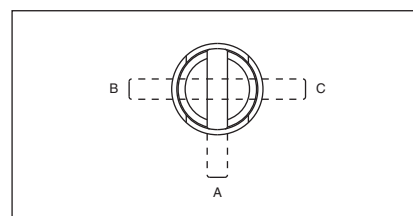


**Operator**



**Switch block**

### Lever Positions



#### • Lever Rotation - 2 position switches

The model numbers shown are for switches with clockwise lever rotation.

For anticlockwise rotation, replace :

|    |      |    |
|----|------|----|
| 09 | with | 01 |
| 10 | with | 02 |
| 11 | with | 03 |
| 12 | with | 04 |

at the end of the model number.

### Optional Engraving on Lever end

See above photo left.

To order, add "WL" to the end of the operator part No.

Example : A019609WL..

| Pole   | Bezel | Description        | Short lever | Long lever | No of poles | Part No  |
|--------|-------|--------------------|-------------|------------|-------------|----------|
| 1 or 2 | □     | 2 pos. maintained  | A019209     | A019109•   | Single pole | A0151BUL |
| 1 or 2 | □     | 2 pos. momentary   | A019210     | A019110•   | Double pole | A0152BUL |
| 3 or 4 | □     | 2 pos. maintained  | A019211     | A019111•   | Three pole  | A0155BUL |
| 3 or 4 | □     | 2 pos. momentary   | A019212     | A019112•   | Four pole   | A0153BUL |
| 1 or 2 | □     | 3 pos. maintained  | A019205     | A019105    |             |          |
| 1 or 2 | □     | 3 pos. momentary   | A019206     | A019106    |             |          |
| 1 or 2 | □     | 3 pos. mainL, momR | A019207     | A019107    |             |          |
| 1 or 2 | □     | 3 pos. momL, mainR | A019208     | A019108    |             |          |
| 1 or 2 | □     | 2 pos. maintained  | A019409     | A019309•   |             |          |
| 1 or 2 | □     | 2 pos. momentary   | A019410     | A019310•   |             |          |
| 3 or 4 | □     | 2 pos. maintained  | A019411     | A019311•   |             |          |
| 3 or 4 | □     | 2 pos. momentary   | A019412     | A019312•   |             |          |
| 1 or 2 | □     | 3 pos. maintained  | A019405     | A019305    |             |          |
| 1 or 2 | □     | 3 pos. momentary   | A019406     | A019306    |             |          |
| 1 or 2 | □     | 3 pos. mainL, momR | A019407     | A019307    |             |          |
| 1 or 2 | □     | 3 pos. momL, mainR | A019408     | A019308    |             |          |
| 1 or 2 | ○     | 2 pos. maintained  | A019609     | A019509•   |             |          |
| 1 or 2 | ○     | 2 pos. momentary   | A019610     | A019510•   |             |          |
| 3 or 4 | ○     | 2 pos. maintained  | A019611     | A019511•   |             |          |
| 3 or 4 | ○     | 2 pos. momentary   | A019612     | A019512•   |             |          |
| 1 or 2 | ○     | 3 pos. maintained  | A019605     | A019505    |             |          |
| 1 or 2 | ○     | 3 pos. momentary   | A019606     | A019506    |             |          |
| 1 or 2 | ○     | 3 pos. mainL, momR | A019607     | A019507    |             |          |
| 1 or 2 | ○     | 3 pos. momL, mainR | A019608     | A019508    |             |          |

Bezel: □ rectangular, □ square, ○ round, 'pos' - position, 'mainL' - maintained left, 'momR' - momentary right, etc

# A01 series

## Keylock switches

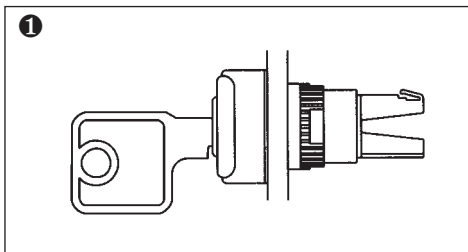
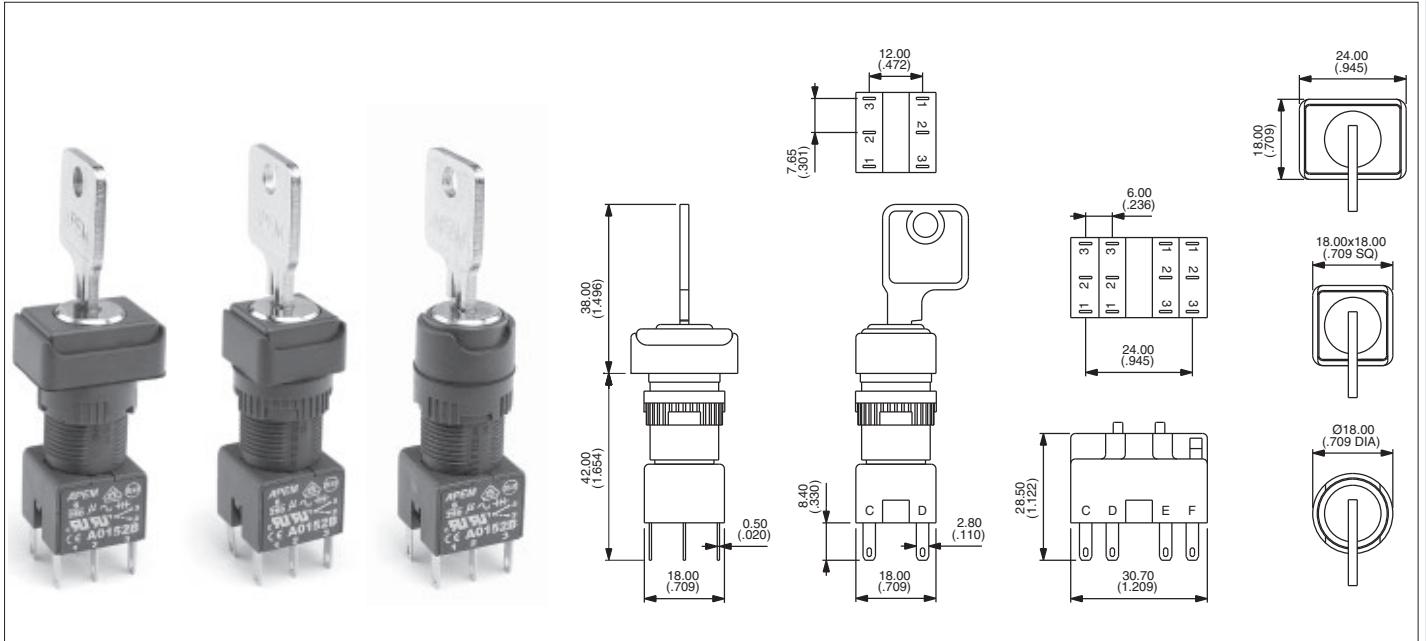
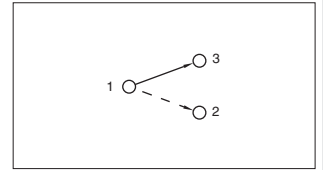
Panel cut-out Ø 16 (.630)

### A keylock switch assembly requires :

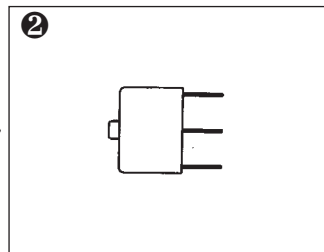
operator + switch block.

To order these elements, select desired model numbers from tables below.

**Example :** IP65 rectangular keyswitch, clockwise rotation, single pole, 2 positions, maintained = A018125 and A0151BUL.

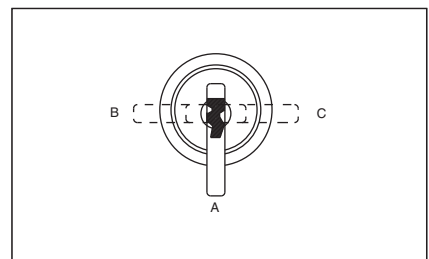


**Operator**



**Switch block**

### Key Positions



| Pole   | Bezel | Description        | Part No | Key removable | No of poles | Part No  |
|--------|-------|--------------------|---------|---------------|-------------|----------|
| 1 or 2 | □     | 2 pos. maintained  | A018123 | A             | Single pole | A0151BUL |
| 1 or 2 | □     | 2 pos. maintained  | A018125 | A-B           | Double pole | A0152BUL |
| 1 or 2 | □     | 2 pos. momentary   | A018124 | A             | Three pole  | A0155BUL |
| 3 or 4 | □     | 2 pos. maintained  | A018127 | A-B           | Four pole   | A0153BUL |
| 3 or 4 | □     | 2 pos. momentary   | A018128 | A             |             |          |
| 1 or 2 | □     | 3 pos. maintained  | A018105 | A-B-C         |             |          |
| 1 or 2 | □     | 3 pos. momentary   | A018106 | A             |             |          |
| 1 or 2 | □     | 3 pos. mainL, momR | A018107 | A-B           |             |          |
| 1 or 2 | □     | 3 pos. momL, mainR | A018108 | A-C           |             |          |
| 1 or 2 | □     | 2 pos. maintained  | A018223 | A             |             |          |
| 1 or 2 | □     | 2 pos. maintained  | A018225 | A-B           |             |          |
| 1 or 2 | □     | 2 pos. momentary   | A018224 | A             |             |          |
| 3 or 4 | □     | 2 pos. maintained  | A018227 | A-B           |             |          |
| 3 or 4 | □     | 2 pos. momentary   | A018228 | A             |             |          |
| 1 or 2 | □     | 3 pos. maintained  | A018205 | A-B-C         |             |          |
| 1 or 2 | □     | 3 pos. momentary   | A018206 | A             |             |          |
| 1 or 2 | □     | 3 pos. mainL, momR | A018207 | A-B           |             |          |
| 1 or 2 | □     | 3 pos. momL, mainR | A018208 | A-C           |             |          |
| 1 or 2 | ○     | 2 pos. maintained  | A018323 | A             |             |          |
| 1 or 2 | ○     | 2 pos. maintained  | A018325 | A-B           |             |          |
| 1 or 2 | ○     | 2 pos. momentary   | A018324 | A             |             |          |
| 3 or 4 | ○     | 2 pos. maintained  | A018327 | A-B           |             |          |
| 3 or 4 | ○     | 2 pos. momentary   | A018328 | A             |             |          |
| 1 or 2 | ○     | 3 pos. maintained  | A018305 | A-B-C         |             |          |
| 1 or 2 | ○     | 3 pos. momentary   | A018306 | A             |             |          |
| 1 or 2 | ○     | 3 pos. mainL, momR | A018307 | A-B           |             |          |
| 1 or 2 | ○     | 3 pos. momL, mainR | A018308 | A-C           |             |          |

### • Key Rotation - 2 position switches

The model numbers shown are for switches with clockwise key rotation.

For anticlockwise rotation, replace :

|    |      |    |
|----|------|----|
| 25 | with | 01 |
| 24 | with | 02 |
| 27 | with | 03 |
| 28 | with | 04 |

at the end of the model number.

2 standard keys are supplied.  
20 key barrel types available from stock.

NON-REMOVABLE KEY POSITIONS / ON-ON-ON FUNCTION : contact APEM.

Bezel: □ rectangular, □ square, ○ round, 'pos' - position, 'mainL' - maintained left, 'momR' - momentary right, etc

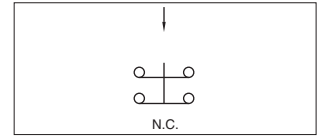
# A01 series

## Emergency stop switches

Panel cut-out Ø 16 (.630)

- Prominent 24 mm (.944) dia. or optional 40 mm (1.575) dia. red mushroom actuator
- Highly reliable positive break switch
- Push to shut off switch, twist to reset to ON
- Approved to UL 1054 / EN 60947-5-1

An emergency stop switch assembly requires : operator + switch block.  
To order, specify with single pole or double pole positive break switch block.

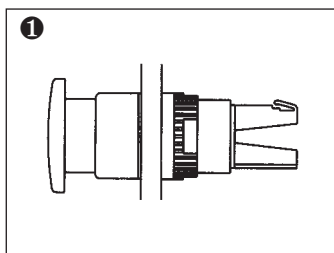
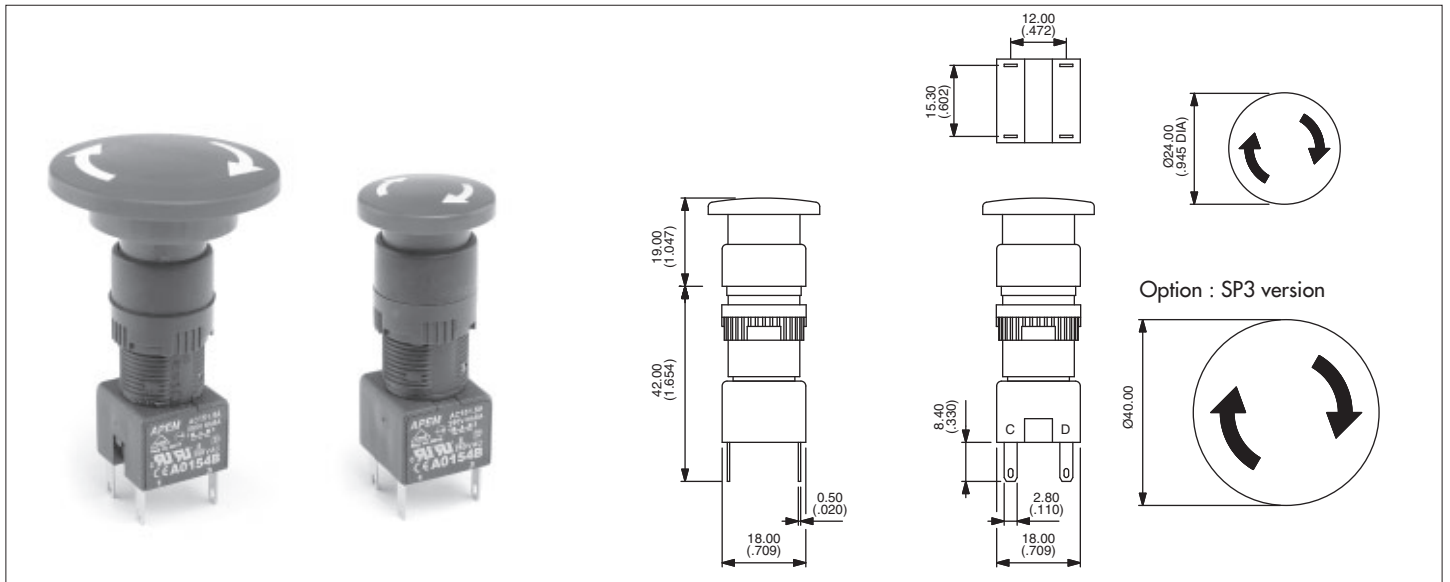


### General specifications

- Min. mechanical life : 6.050 cycles (6 cycles per minute)
- Operating force / torque : 16 N / 0,1 Nm
- Operating temperature : -20°C to +55°C
- Solder heat resistance : 350°C, 5 secs (IEC 68-2-2-20Tb, method 2)
- Degree of environmental protection (IEC 529) : IP65 front of panel, IP40 back of panel
- Switch terminals : solder/quick-connect 2,8 mm (.110) (IEC 68-2-20)

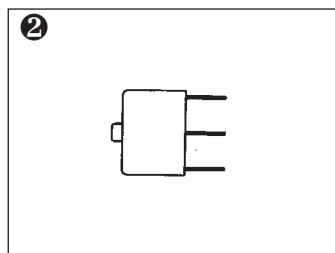
### Electrical specifications

- Current/voltage rating : 1,5A 250VAC AC-15
- Contact gap : > 3 mm (.118)
- Dielectric strength : 2.900V
- Electrical life : 6.050 cycles



### Operator

| Description            | Part No   |
|------------------------|-----------|
| 24 mm Ø Emergency stop | A01ES     |
| 40 mm Ø Emergency stop | A01ES SP3 |



### Switch block

| No of poles | Part No  |
|-------------|----------|
| Single pole | A0150BUL |
| Double pole | A0154BUL |

### Accessory



### 60 mm Ø Self Adhesive Label

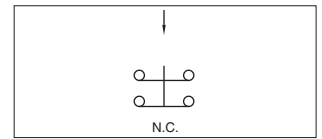
| Description            | Part No |
|------------------------|---------|
| Yellow label with text | A01YL1  |
| Yellow label           | A01YL2  |

# A01 series

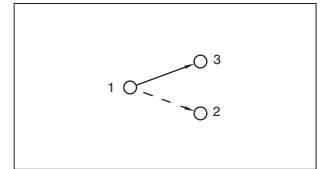
## Emergency stop switches/mushroom head pushbutton switches

*Fitted in enclosures*

- Prominent 40 mm (1.575) dia. mushroom actuator, twist to release
- Highly reliable positive break switching on E-Stop
- Sealed to IP65
- 6A current rating
- Robust polycarbonate enclosures
- Knockouts for popular conduit sizes
- Double pole changeover switch blocks available for momentary/maintained mushroom head pushbuttons.



**Emergency stop**



**Momentary & maintained**

### Technical specifications

- Contact rating : Pushbutton switch : 6A 250VAC - E-Stop : 1,5A 250VAC
- Dimensions : 65 x 65 x 57 mm
- Electrical life : Pushbutton switch : 50 000 cycles - E-Stop : 6 050 cycles
- Operating temperature : -20°C to +55°C



| Description       | Part No              |
|-------------------|----------------------|
| Emergency stop    | A01ESSP354B + PEA01  |
| Black momentary   | A01MMASP352B + PEA01 |
| Red momentary     | A01MMBSP352B + PEA01 |
| Yellow momentary  | A01MMDSP352B + PEA01 |
| Green momentary   | A01MMESP352B + PEA01 |
| Blue momentary    | A01MMFSP352B + PEA01 |
| Black maintained  | A01MXASP352B + PEA01 |
| Red maintained    | A01MXBSP352B + PEA01 |
| Yellow maintained | A01MXDSP352B + PEA01 |
| Green maintained  | A01MXESP352B + PEA01 |
| Blue maintained   | A01MXFSP352B + PEA01 |

### OPTIONS

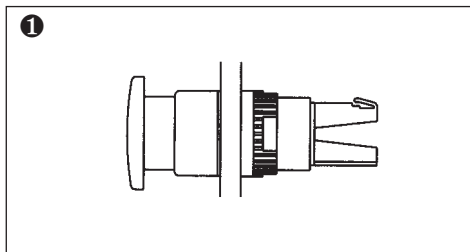
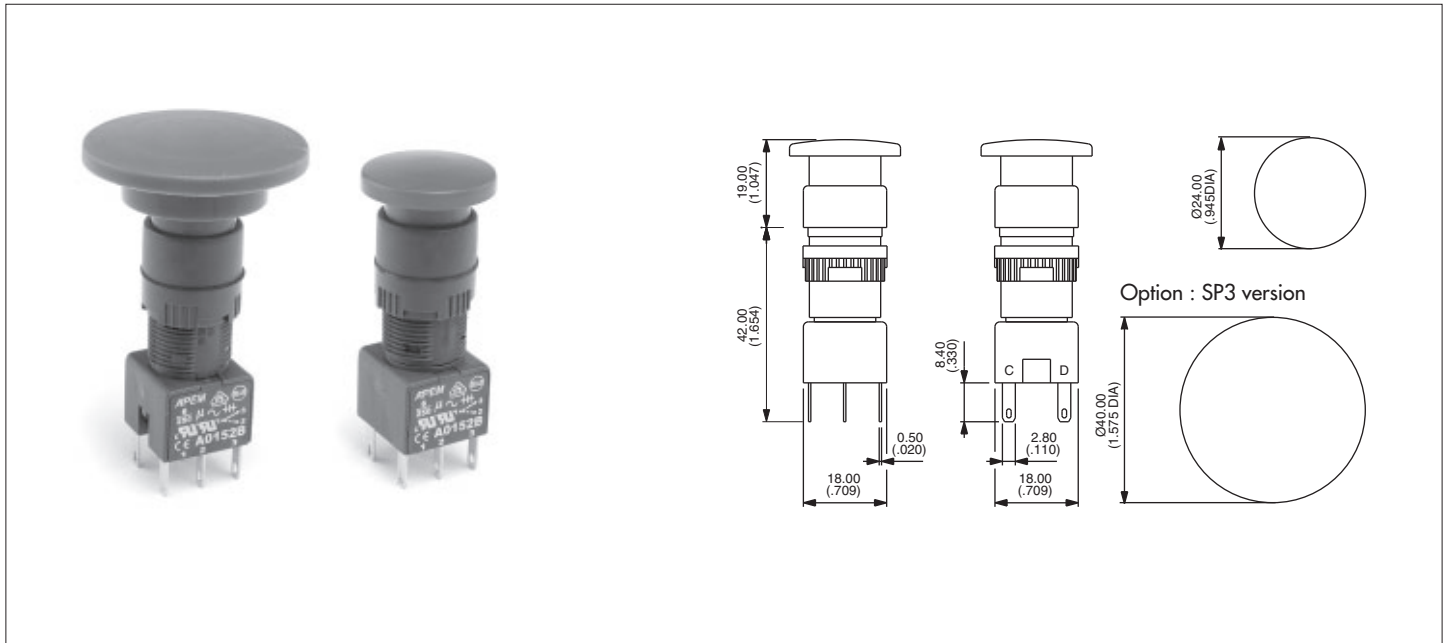
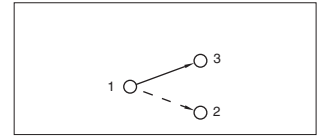
12A 250V versions or custom printing on mushroom head actuators : contact APEM.

# A01 series

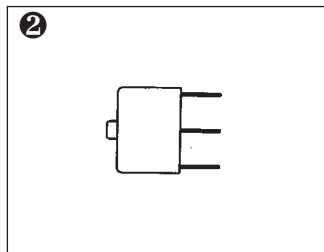
## Mushroom head pushbutton switches

Panel cut-out Ø 16 (.630)

- Prominent 24 mm (.944) dia. or optional 40 mm (1.575) dia. mushroom actuators
- Momentary and maintained functions  
Momentary function versions are unmarked.  
Maintained function versions are twist release (arrows indicate direction of twist)
- Various coloured mushroom actuators are available.



**Operator**



**Switch block**

| Actuator | Description       | Part No    | No of poles | Part No  |
|----------|-------------------|------------|-------------|----------|
| 24mmØ    | Black momentary   | A01MMA     | Single pole | A0151BUL |
| 24mmØ    | Red momentary     | A01MMB     | Double pole | A0152BUL |
| 24mmØ    | Yellow momentary  | A01MMD     | Three pole  | A0155BUL |
| 24mmØ    | Green momentary   | A01MME     | Four pole   | A0153BUL |
| 24mmØ    | Blue momentary    | A01MMF     |             |          |
| 24mmØ    | Black maintained  | A01MXA     |             |          |
| 24mmØ    | Red maintained    | A01MXB     |             |          |
| 24mmØ    | Yellow maintained | A01MXD     |             |          |
| 24mmØ    | Green maintained  | A01MXE     |             |          |
| 24mmØ    | Blue maintained   | A01MXF     |             |          |
| 40mmØ    | Black momentary   | A01MMA SP3 |             |          |
| 40mmØ    | Red momentary     | A01MMB SP3 |             |          |
| 40mmØ    | Yellow momentary  | A01MMD SP3 |             |          |
| 40mmØ    | Green momentary   | A01MME SP3 |             |          |
| 40mmØ    | Blue momentary    | A01MMF SP3 |             |          |
| 40mmØ    | Black maintained  | A01MXA SP3 |             |          |
| 40mmØ    | Red maintained    | A01MXB SP3 |             |          |
| 40mmØ    | Yellow maintained | A01MXD SP3 |             |          |
| 40mmØ    | Green maintained  | A01MXE SP3 |             |          |
| 40mmØ    | Blue maintained   | A01MXF SP3 |             |          |



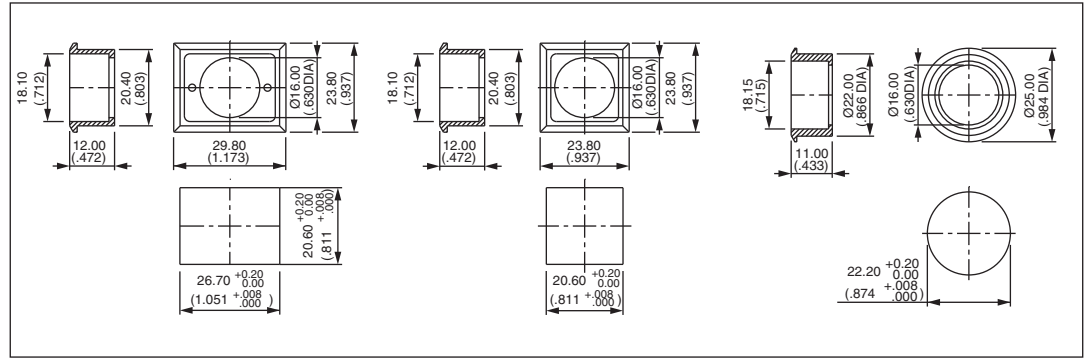
# A1-A01 series

Industrial controls

Accessories

## FLUSH MOUNTING BEZELS

Dark grey plastic material - supplied with sealing washer



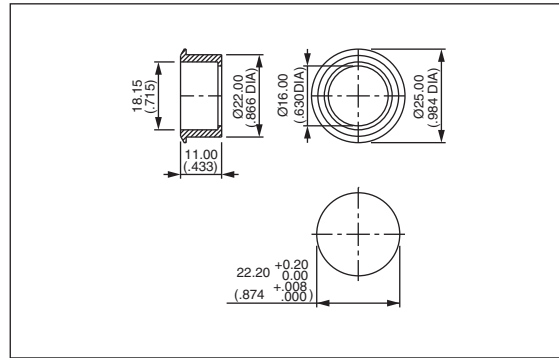
Rectangular **A01FM1**

Square **A01FM**

Round **A01FM2**

## FLUSH MOUNTING BEZELS

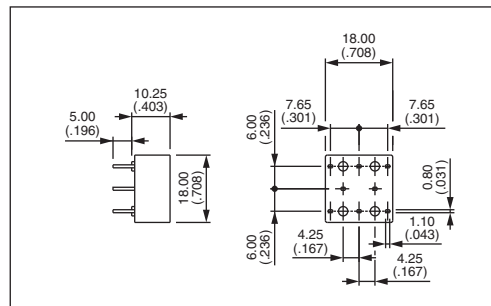
Metal versions



Round, anodised aluminium **A01FMM**

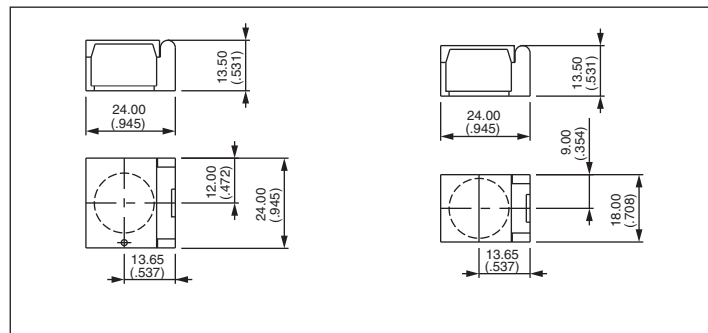
Round, matt black **A01FMMG**

## PCB SOCKET



Single pole, non illuminated **A01PC1**  
 Double pole, non illuminated **A01PC2**  
 Single pole, illuminated **A01PC3**  
 Double pole, illuminated **A01PC4**  
 Indicator **A01PC5**  
 Single pole, E-stop **A01PC6**  
 Double pole, E-stop **A01PC7**

## FLAPGUARDS



Rectangular **A01FG1**

Square/round **A01FG2**



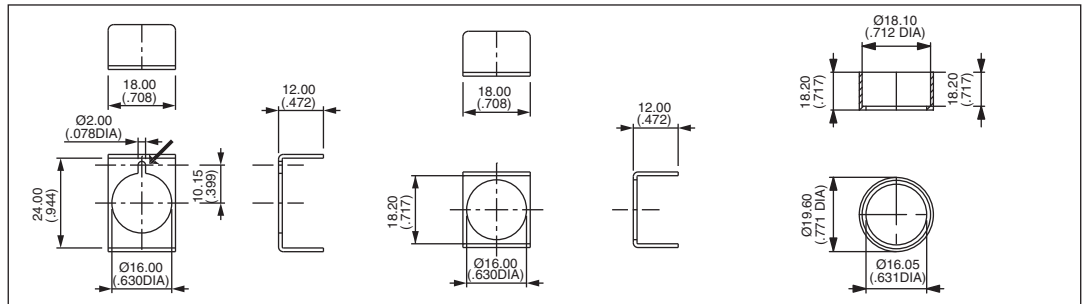
# A1-A01 series

## Industrial controls

### Accessories

#### METAL GUARDS

→ Slot as alternative to Ø 2 mm hole - Material : 1 mm thick aluminium.



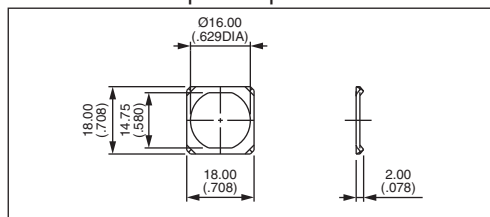
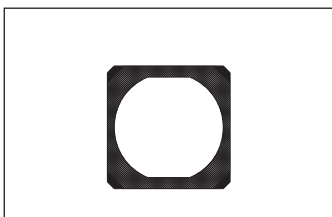
Rectangular **A01MG1**

Square **A01MG**

Round, natural **A01MG2**  
Matt black **A01MG2G**

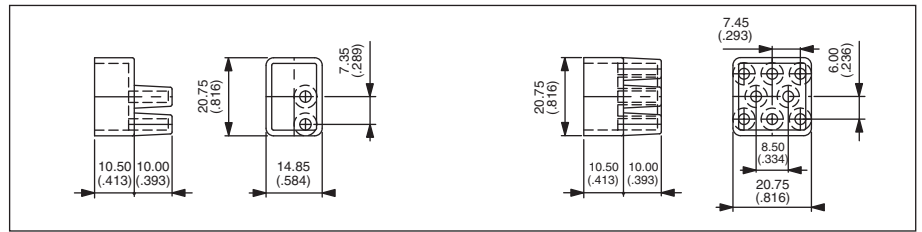
#### ANTI ROTATION RING

Recommended to prevent product rotation



**A01LW**

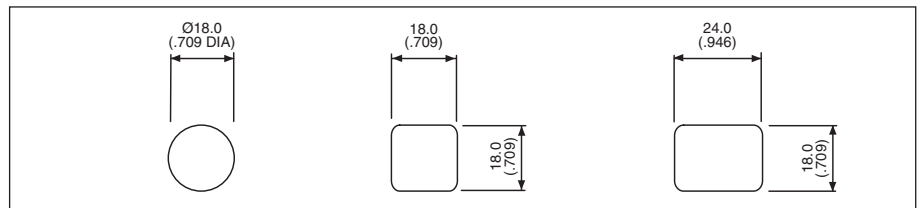
#### SWITCHBLOCK TERMINAL GUARDS



2 way **A01RTC2**

8 way **A01RTC8**

#### BLANKING PLUGS



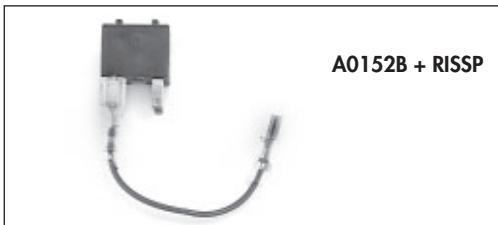
Round **A0133**

Square **A0132**

Rectangular **A0131**

#### RESISTOR ASSEMBLY

Resistor assembly - 2 stage illumination



**A0152B + RISSP**



(DIM) normally closed

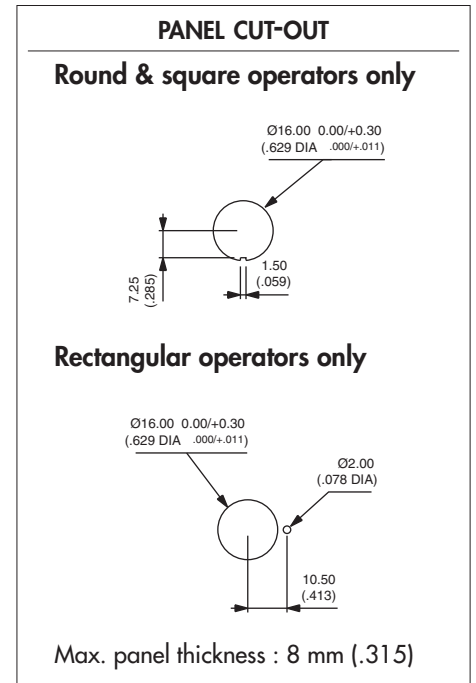
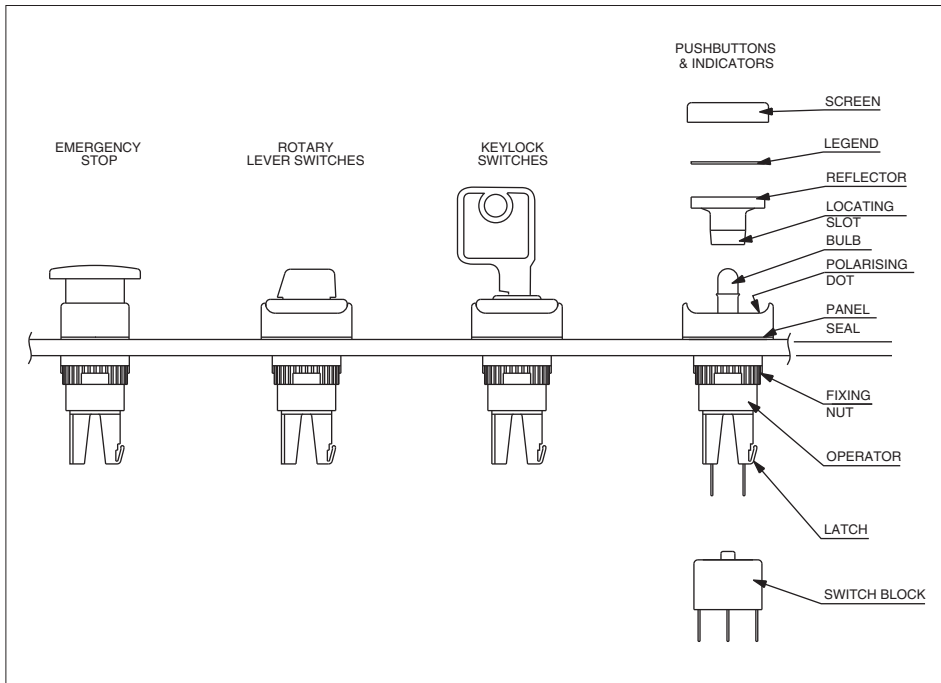
(BRIGHT) normally open

# A1-A01 series

Industrial controls

Installation - tools

## Modular construction / panel mounting



### PANEL MOUNTING ASSEMBLY

- Drill/punch hole shaped as above.
- Assemble front operator through hole, fit fixing nut and tighten to a maximum torque of 0,8Nm using tool No 30-0001.
- Wire chosen switch block as required and slide onto operator until latch engages.
- Fit bulb if required using tool No 30-0002.
- Snap screen onto reflector assembly with legend in between if required and snap onto front operator TAKING CARE TO LINE UP THE LOCATING SLOT WITH THE POLARISING DOT, and not to damage the seal.

### TO REMOVE BULB

Remove reflector/screen assembly. Use the bulb extractor 30-0002 to remove the bulb.

### SWITCH BLOCK

To assemble switch block to front operator, TAKE CARE TO LINE UP SWITCH BLOCK WITH FRONT OPERATOR. Once in position, slide on to front operator. NB. : Ensure latch is fully engaged correctly onto the switch block.

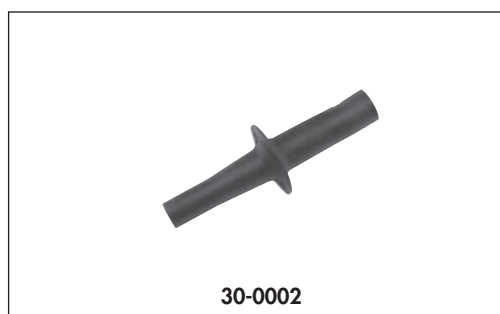
To remove switch block, depress the latch and slide the switch block off the operator.

FIXING NUT KEY



30-0001

BULB REMOVER



30-0002