

# A1-A01-A02-A03 series

Industrial controls

*Distinctive features*

The A01 and A02 series offer ranges of :

- pushbutton switches, illuminated or not
- indicators
- 2 or 3 position keylock switches
- 2 or 3 position rotary lever switches
- emergency stop switches

with rectangular, square or round operators.

- New!**
- Custom engraved aluminium pushbutton switches, A1 series
- Switch enclosures
- Pushbutton switches and indicators, A03 series

- Environmental protection : IP65
- Modular construction
- Electrical life : 50.000 cycles min.
- Screen engraving or insertable legends on request
- Approvals



BS RIA 20 Shock & Vibration



Each sub-assembly has to be ordered separately.

## A01 - A1 - A03 series

- Panel cut-out :
  - Ø 16 mm (.630), except :
    - flush mount round : Ø 22 mm (.866)
    - flush mount rectangular : 20.60 x 26.70 mm
    - flush mount square : 20.60 x 20.60 mm
  - A1 series : Ø 22 mm (.866)
  - A03 series : round or square Ø 22 (.866) flush mount : Ø 30 mm (1.378)
- 1, 2, 3 and 4 poles
- Solder lug/quick-connect terminals
- Contacts : silver, gold plated
- Current/voltage rating :  
6A 250VAC max. - 10mA 5VAC min.
- Lamp : filament, neon or LED

## A02 series

- Panel cut-out :
  - round or square : Ø 22 mm (.866)
  - rectangular : 29,5 x 21,5 mm (1.160x.846)
  - flush mount : Ø 30 mm (1.378)
- 1 and 2 poles
- Screw terminals (optional : quick-connect term.)
- Contacts : silver
- Current/voltage rating : 12A 380VAC  
16A 250VAC max. - 25mA 5VAC min.
- Lamp : filament, neon, LED  
or special multi-LED array
- Option : end cap terminal guard. Order separately (see end of A02 series).

**Packaging unit :**

A1 : 25 pieces - A01 : 20 pieces (except pushbuttons: 25 pieces) - A02 : 25 pieces - A03 : 10 pieces.

**Dimensions :** first dimensions are in mm while inches are shown as bracketted numbers.

# A1-A01-A02-A03 series

## Industrial controls

Specifications for pushbutton, keylock and rotary switches

ELECTRICAL SPECIFICATIONS		
	<b>A01 - A1 - A03</b>	<b>A02</b>
<ul style="list-style-type: none"> <li>• <b>Function :</b></li> <li>• <b>Current/voltage rating :</b></li> <li>• <b>Contact gap</b></li> <li>• <b>Initial contact resistance :</b></li> <li>• <b>Insulation resistance :</b></li> <li>• <b>Dielectric strength :</b></li> <li>• <b>Electrical life (resistive load) :</b></li> <li>• <b>Insulation :</b></li> <li>• <b>Lamp life :</b></li> </ul>	<p>Momentary or maintained action</p> <p>10mA 5VAC min. 6A 250VAC max. - 6A 12VDC max.</p> <p>&gt; 1 mm (.039)</p> <p>10mΩ max. at 1A 4VDC</p> <p>50 MΩ min.</p> <p>750V between open contacts 5KV live to accessible</p> <p>50.000 cycles</p> <p>Class 2</p> <p>LED : 60.000 h min. to 75% relative luminosity - Filament : approx. 5.000 h Neon : approx. 10.000 h</p>	<p>Momentary or maintained action</p> <p>25mA 5VAC min. 12A 380VAC - 16A 250VAC max. 12A 12VDC max.</p> <p>Double break 2 x 1,5 mm (.059)</p> <p>10mΩ max. at 1A 4VDC</p> <p>50 MΩ min.</p> <p>2KV between open contacts 4KV live to accessible</p> <p>50.000 cycles</p> <p>Class 2</p> <p>LED : 60.000 h min. to 75 % relative luminosity - Filament : approx. 5.000 h Neon : approx. 10.000 h</p>
• <b>Lamp circuit diagrams</b>		
GENERAL SPECIFICATIONS		
	<b>A01 - A1 - A03</b>	<b>A02</b>
<ul style="list-style-type: none"> <li>• <b>Min. mechanical life :</b></li> <li>• <b>Panel thickness</b></li> <li>• <b>Operating temperature :</b></li> <li>• <b>Solder heat resistance :</b> (IEC 68-2-20Tb, method 2)</li> <li>• <b>Degree of environmental protection (IEC 529 )</b></li> <li>• <b>Lamps :</b></li> <li>• <b>Switch terminals :</b></li> <li>• <b>Lamp terminals :</b></li> </ul>	<p>Pushb. momentary : 1 million cycles Pushb. maintained : 100.000 cycles Keylock and rotary : 100.000 cycles</p> <p>8 mm (.315) max.</p> <p>-20°C to +55°C</p> <p>350°C, 5 sec.</p> <p>IP 65 front of panel IP 40 back of panel</p> <p>Midget Grooved T1<sub>3/4</sub>, filament, LED or neon</p> <p>Solder/quick-connect 2,8 mm (.110)</p> <p>Solder/quick-connect 2,8 mm (.110)</p>	<p>Pushb. momentary: 1 million cycles Pushb. maintained : 100.000 cycles Keylock and rotary : 100.000 cycles</p> <p>8 mm (.315) max.</p> <p>-20°C to +85°C</p> <p>350°C, 5 sec.</p> <p>IP 65 front of panel IP 40 back of panel</p> <p>Midget Grooved T1<sub>3/4</sub>, filament, LED or neon Special multi-LED array</p> <p>M3 screws - wire 2 x 0,75 mm<sup>2</sup> max.</p> <p>M3 screws Flexible wire 2 x 2,5 mm<sup>2</sup> max. Rigid wire 4 mm<sup>2</sup> max.</p>

Specifications for emergency stop switches : see pages 10 and 22.

For screen engraving or film legends, contact APEM.

# A1 series

## Engraved aluminium flush mounting pushbuttons and indicators

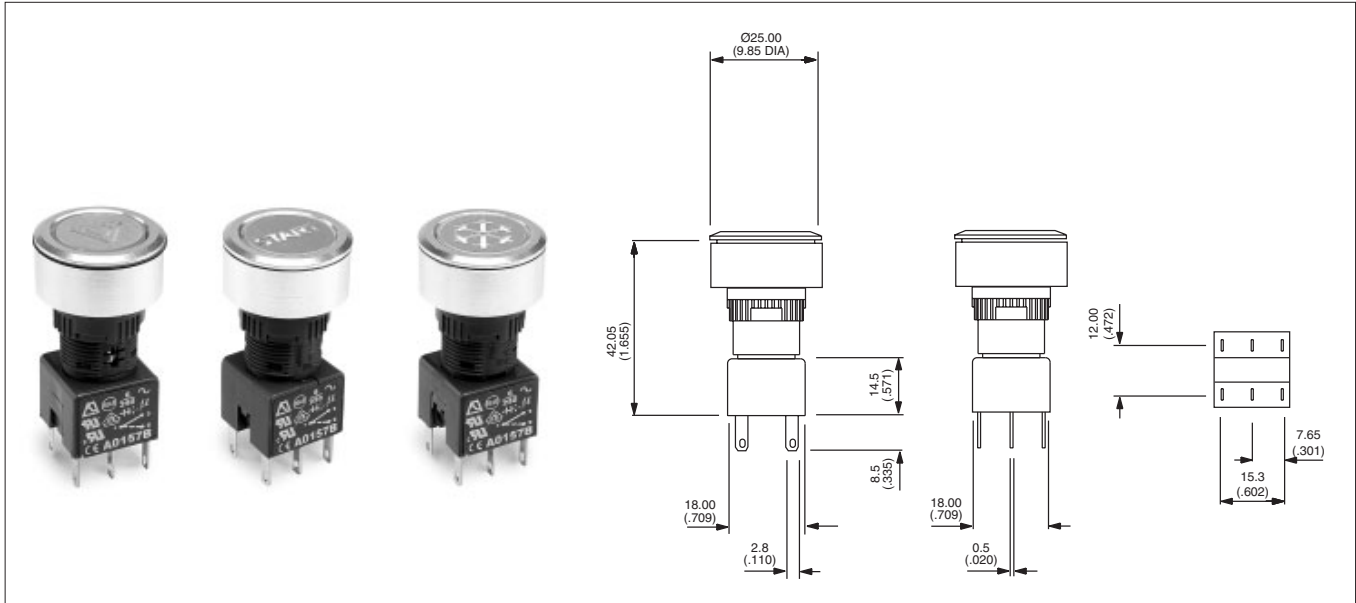
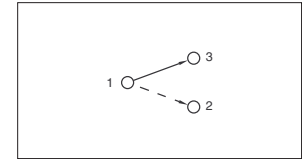
Panel cut-out Ø 22 (.866)

### A pushbutton assembly requires :

engraved screen + lamp (if illuminated) + operator + switch block + flush mount bezel.

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

**Example :** pushbutton, round, illuminated, sealed to IP65, latching, single pole with "start" engraving, 24V blue LED and flush mounting bezel = A1PCA1X103K403.



<b>A1</b>									
<b>Switch Type</b> P - pushbutton I - indicator	<b>Bezel</b> C - round	<b>Illumination</b> A - illuminated B - non-illum.	<b>Sealing</b> 0 - unsealed 1 - sealed IP65	<b>Function</b> 0 - indicator X - latching Y - momentary	<b>Switch block</b> 0 - indicator 1 - single pole 2 - double pole 5 - three pole 3 - four pole	<b>Accessories</b> 03 - flushmount			
<b>Bulb</b>									

A1 - filament 6.3V
B1 - filament 14V
C1 - filament 28V
D1 - filament 36V
E1 - filament 48V
F1 - filament 60V
G1 - Neon 110V
H1 - Neon 220V
I1 - Led 6V red
I2 - Led 6V green
I3 - Led 6V amber
J1 - Led 12V red
J2 - Led 12V green
J3 - Led 12V amber
J4 - Led 12V blue
J5 - Led 12V white
K1 - Led 24V red
K2 - Led 24V green
K3 - Led 24V amber
K4 - Led 24V blue
K5 - Led 24V white
L1 - Led 48V red
L2 - Led 48V green
L3 - Led 48V amber

Engraved Screen Options	
01 - Front Fog Lights	11 - 'Lock'
02 - Rear Fog Lights	12 - 'Unlock'
03 - 'Start'	13 - Rear Window Heating
04 - Interior Light	14 - Cooling
05 - Boot Release	15 - Wipers
06 - Hazard Warning	16 - Washers
07 - Lights	17 - Fan
08 - Heating & Ventilation	18 - Horn
09 - Map Lights	19 - Air recirculation
10 - Side Lights	20 - Blank

**OTHER SCREEN ENGRAVING OPTIONS :**  
contact APEM.



# A01 series

## Illuminated or non-illuminated pushbutton switches

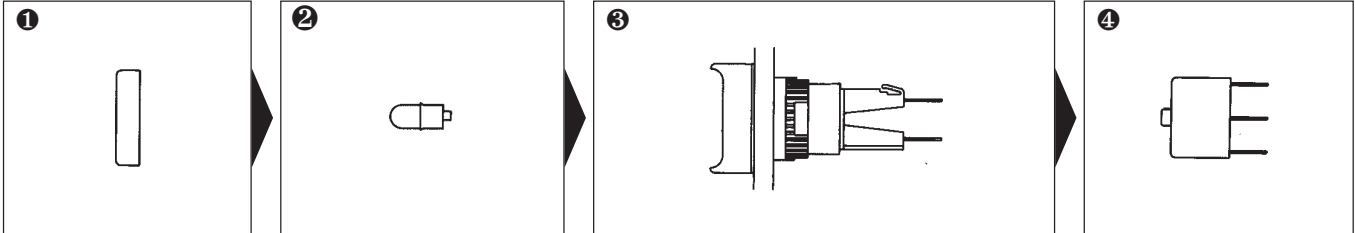
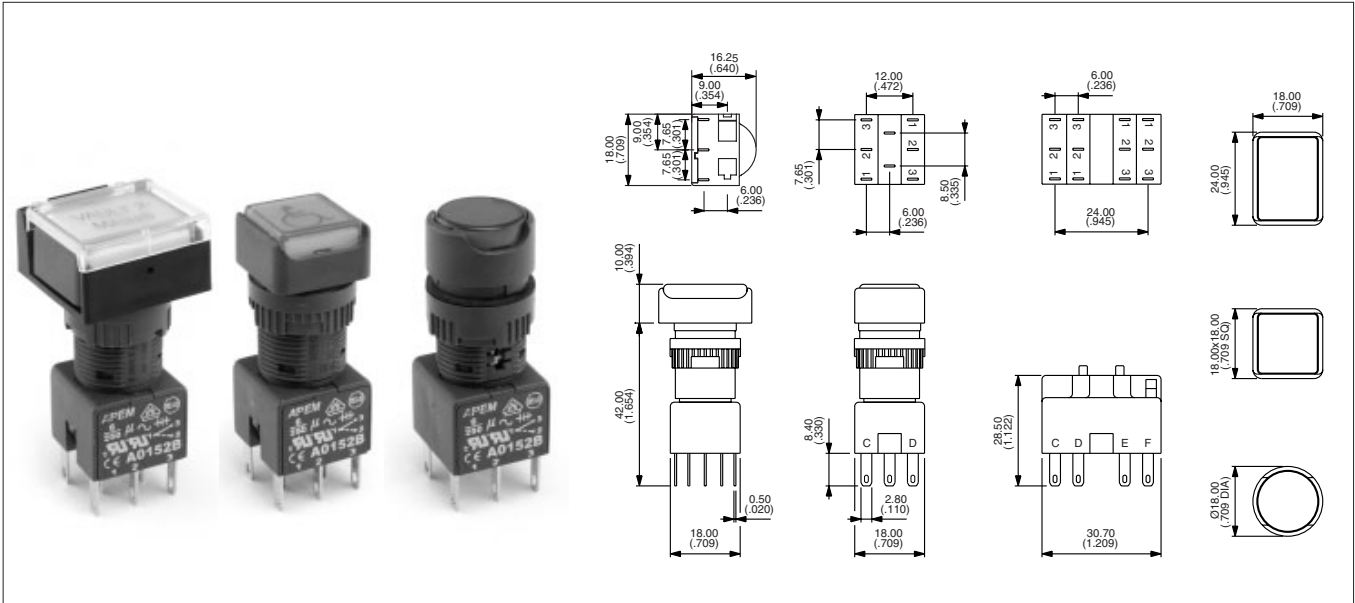
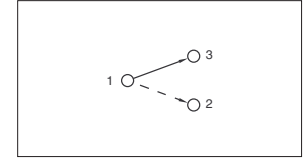
Panel cut-out Ø 16 (.630)

### 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	□	llum, momentary	A0101Y
1 or 2	□	llum, maintained	A0101X
1 or 2	□	Non-illum, momentary	A0102Y
1 or 2	□	Non-illum, maintained	A0102X
3 or 4	□	llum, momentary	A0103Y
3 or 4	□	llum, maintained	A0103X
3 or 4	□	Non-illum, momentary	A0104Y
3 or 4	□	Non-illum, maintained	A0104X
1 or 2	□	llum, momentary	A0105Y
1 or 2	□	llum, maintained	A0105X
1 or 2	□	Non-illum, momentary	A0106Y
1 or 2	□	Non-illum, maintained	A0106X
3 or 4	□	llum, momentary	A0107Y
3 or 4	□	llum, maintained	A0107X
3 or 4	□	Non-illum, momentary	A0108Y
3 or 4	□	Non-illum, maintained	A0108X
1 or 2	○	llum, momentary	A0109Y
1 or 2	○	llum, maintained	A0109X
1 or 2	○	Non-illum, momentary	A0110Y
1 or 2	○	Non-illum, maintained	A0110X
3 or 4	○	llum, momentary	A0111Y
3 or 4	○	llum, 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, 'llum' - illuminated, 'Non-illum' - non illuminated

# A01 series

## Indicators

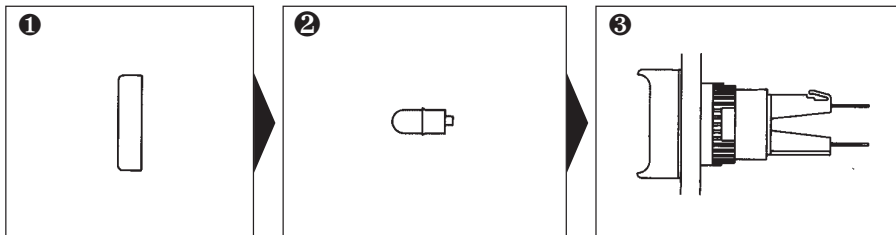
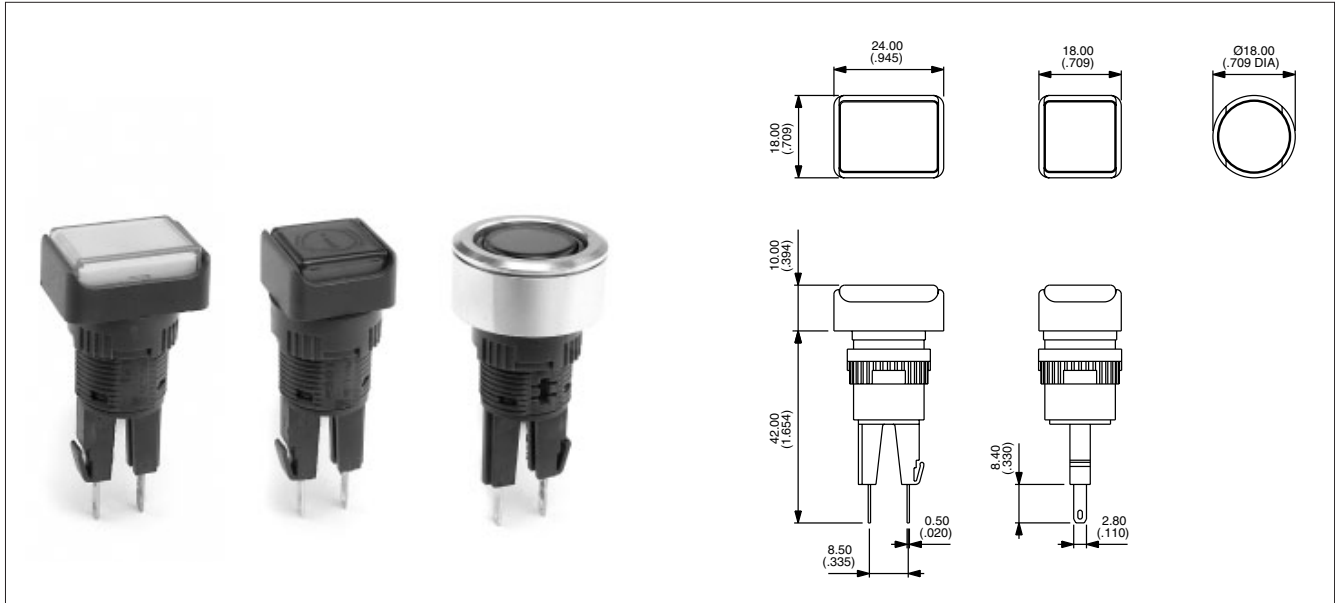
Panel cut-out Ø 16 (.630)

### 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

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

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

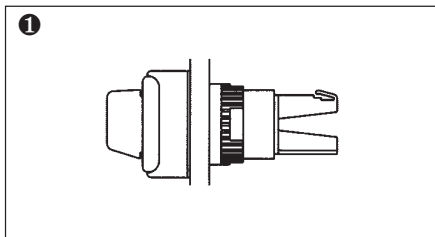
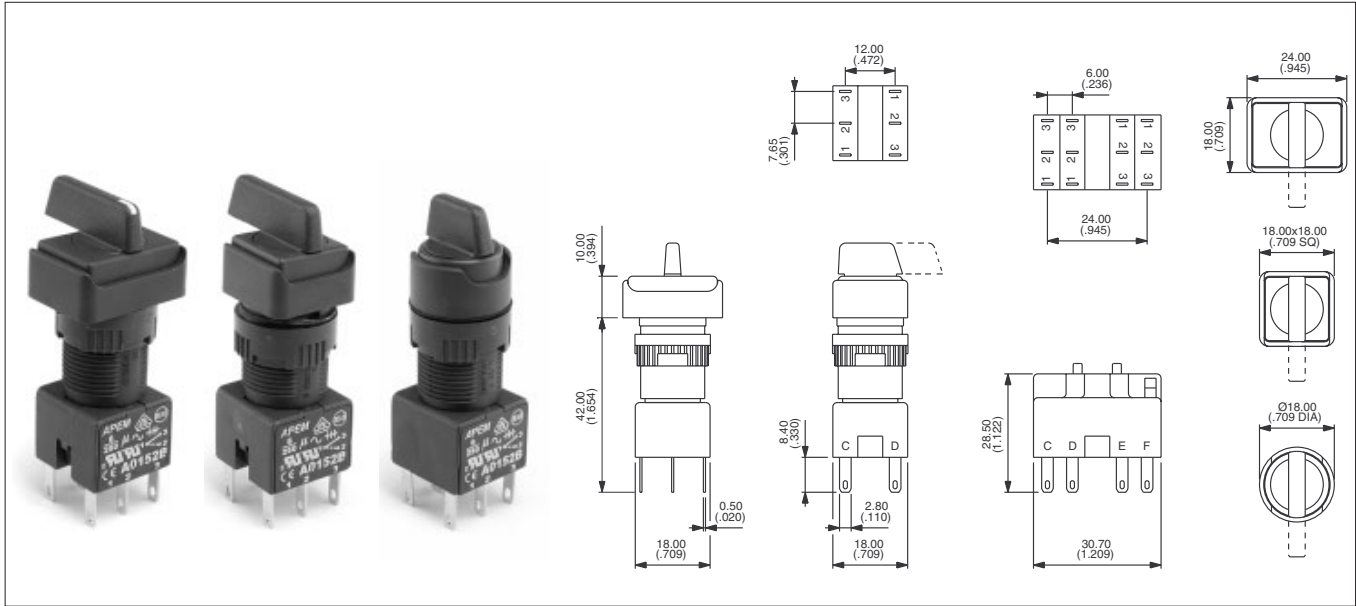
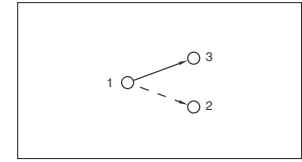
Panel cut-out Ø 16 (.630)

**A rotary lever switch assembly requires :**

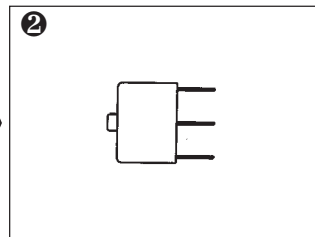
operator + switch block.

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.

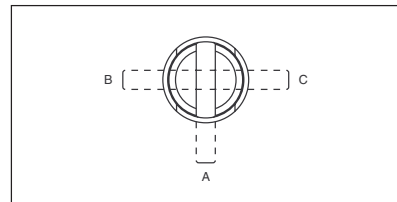


**Operator**



**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

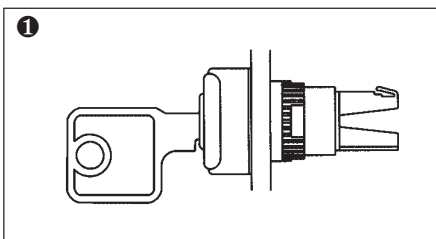
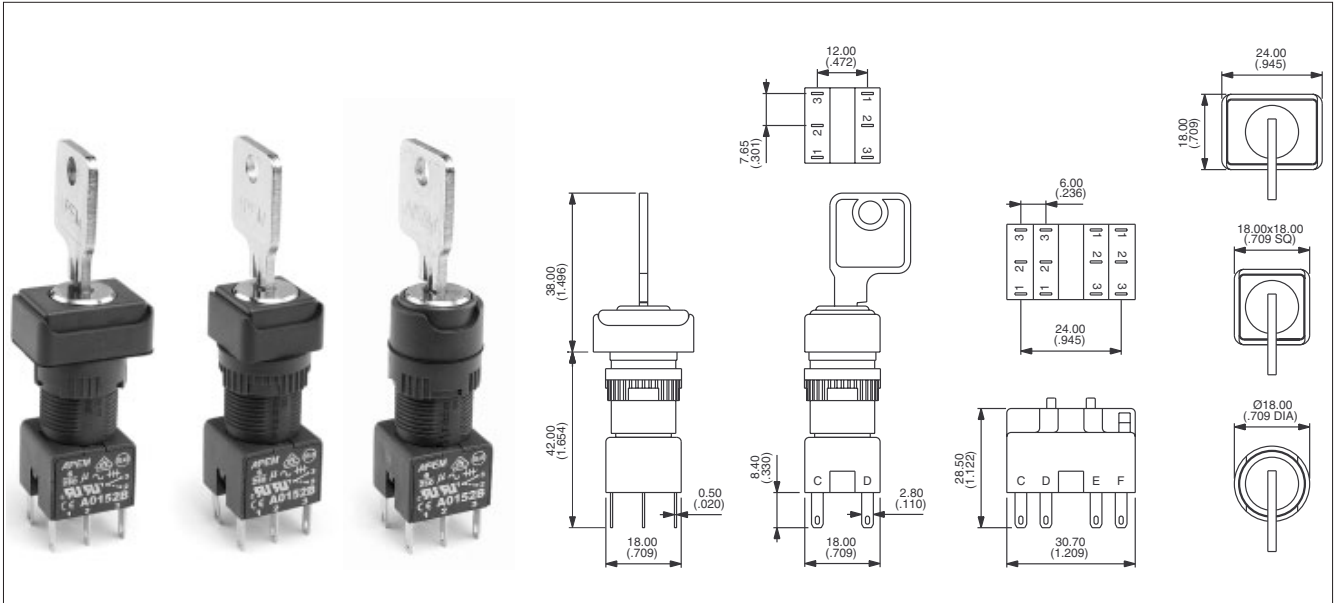
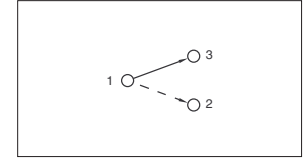
## Keylock switches

Panel cut-out Ø 16 (.630)

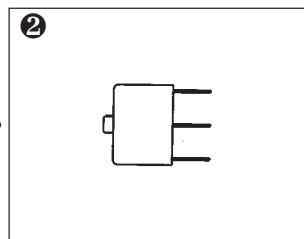
**A keylock switch assembly requires :**  
operator + switch block.

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.

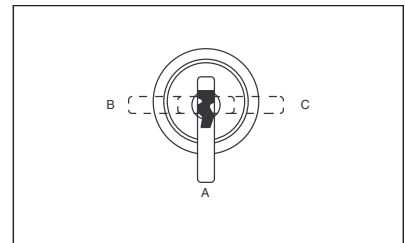


**Operator**



**Switch block**

### Key Positions



Pole	Bezel	Description	Part No	Key removable
1 or 2	□	2 pos. maintained	<b>A018123</b>	A
1 or 2	□	2 pos. maintained	<b>A018125•</b>	A-B
1 or 2	□	2 pos. momentary	<b>A018124•</b>	A
3 or 4	□	2 pos. maintained	<b>A018127•</b>	A-B
3 or 4	□	2 pos. momentary	<b>A018128•</b>	A
1 or 2	□	3 pos. maintained	<b>A018105</b>	A-B-C
1 or 2	□	3 pos. momentary	<b>A018106</b>	A
1 or 2	□	3 pos. mainL, momR	<b>A018107</b>	A-B
1 or 2	□	3 pos. momL, mainR	<b>A018108</b>	A-C
1 or 2	□	2 pos. maintained	<b>A018223</b>	A
1 or 2	□	2 pos. maintained	<b>A018225•</b>	A-B
1 or 2	□	2 pos. momentary	<b>A018224•</b>	A
3 or 4	□	2 pos. maintained	<b>A018227•</b>	A-B
3 or 4	□	2 pos. momentary	<b>A018228•</b>	A
1 or 2	□	3 pos. maintained	<b>A018205</b>	A-B-C
1 or 2	□	3 pos. momentary	<b>A018206</b>	A
1 or 2	□	3 pos. mainL, momR	<b>A018207</b>	A-B
1 or 2	□	3 pos. momL, mainR	<b>A018208</b>	A-C
1 or 2	○	2 pos. maintained	<b>A018323</b>	A
1 or 2	○	2 pos. maintained	<b>A018325•</b>	A-B
1 or 2	○	2 pos. momentary	<b>A018324•</b>	A
3 or 4	○	2 pos. maintained	<b>A018327•</b>	A-B
3 or 4	○	2 pos. momentary	<b>A018328•</b>	A
1 or 2	○	3 pos. maintained	<b>A018305</b>	A-B-C
1 or 2	○	3 pos. momentary	<b>A018306</b>	A
1 or 2	○	3 pos. mainL, momR	<b>A018307</b>	A-B
1 or 2	○	3 pos. momL, mainR	<b>A018308</b>	A-C

No of poles	Part No
Single pole	<b>A0151BUL</b>
Double pole	<b>A0152BUL</b>
Three pole	<b>A0155BUL</b>
Four pole	<b>A0153BUL</b>

### • Key Rotation - 2 position switches

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

For anticlockwise rotation, replace :

<b>25</b>	with	<b>01</b>
<b>24</b>	with	<b>02</b>
<b>27</b>	with	<b>03</b>
<b>28</b>	with	<b>04</b>

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



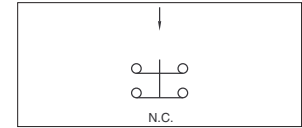
# A01 series

## 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.

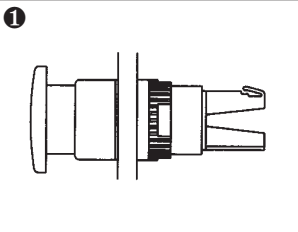
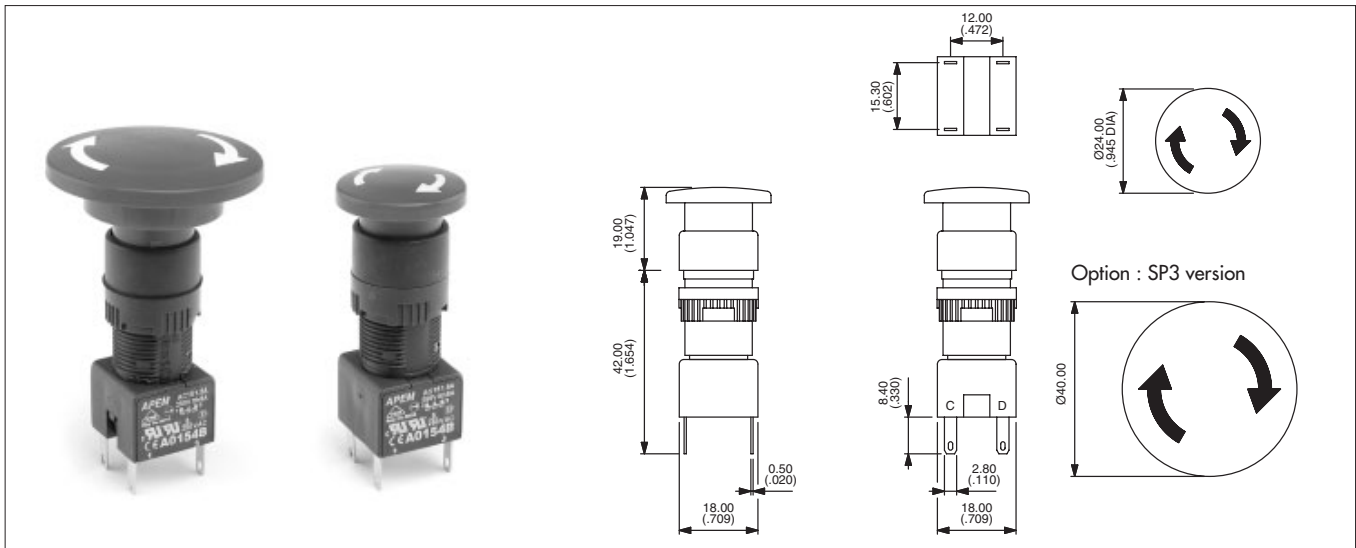


### General specifications

- 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)

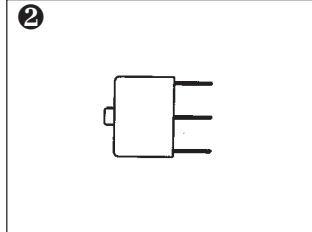
### Electrical specifications

- 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

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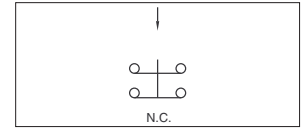


# A01 series

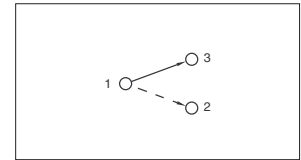
## Emergency stop switches/mushroom head pushbutton switches

*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

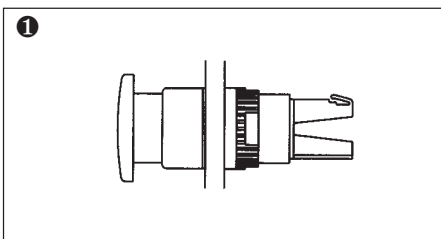
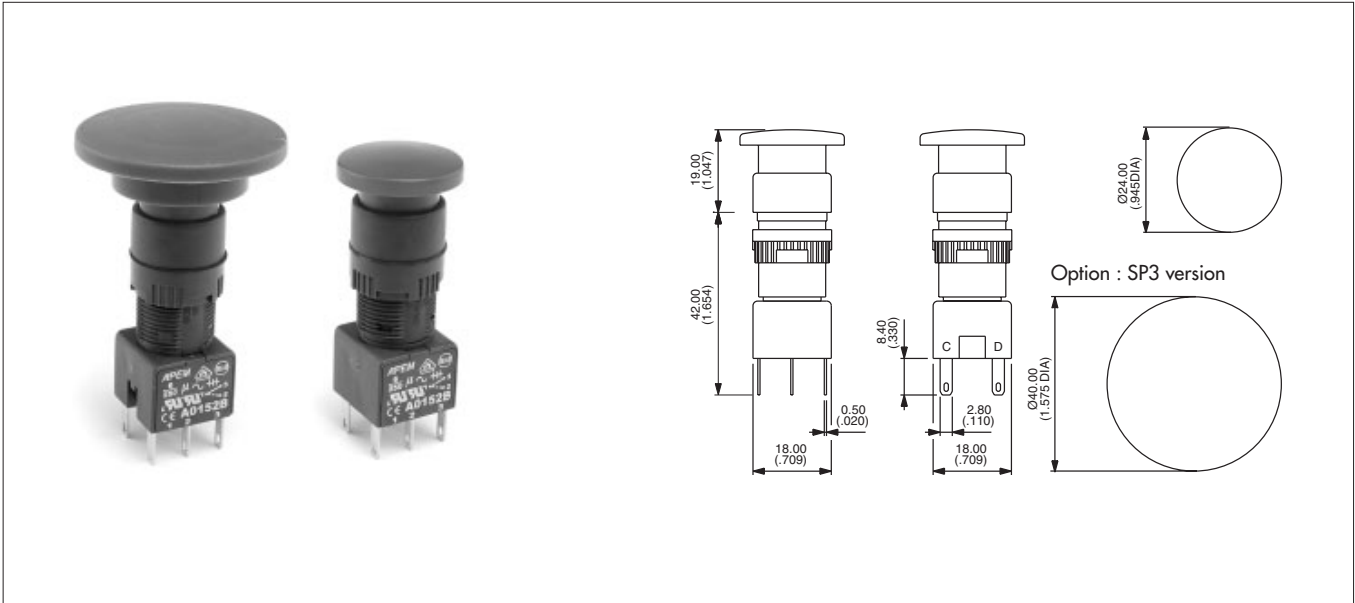
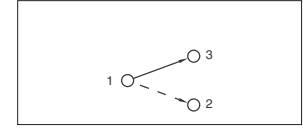
12A 250V versions or custom printing on mushroom head actuators : contact APEM.

# A01 series

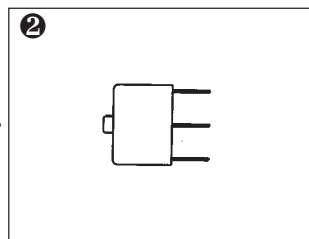
## Mushroom head pushbutton switches

Panel cut-out  $\varnothing$  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
24mm $\varnothing$	Black momentary	A01MMA	Single pole	A0151BUL
24mm $\varnothing$	Red momentary	A01MMB	Double pole	A0152BUL
24mm $\varnothing$	Yellow momentary	A01MMD	Three pole	A0155BUL
24mm $\varnothing$	Green momentary	A01MME	Four pole	A0153BUL
24mm $\varnothing$	Blue momentary	A01MMF		
24mm $\varnothing$	Black maintained	A01MXA		
24mm $\varnothing$	Red maintained	A01MXB		
24mm $\varnothing$	Yellow maintained	A01MXD		
24mm $\varnothing$	Green maintained	A01MXE		
24mm $\varnothing$	Blue maintained	A01MXF		
40mm $\varnothing$	Black momentary	A01MMA SP3		
40mm $\varnothing$	Red momentary	A01MMB SP3		
40mm $\varnothing$	Yellow momentary	A01MMD SP3		
40mm $\varnothing$	Green momentary	A01MME SP3		
40mm $\varnothing$	Blue momentary	A01MMF SP3		
40mm $\varnothing$	Black maintained	A01MXA SP3		
40mm $\varnothing$	Red maintained	A01MXB SP3		
40mm $\varnothing$	Yellow maintained	A01MXD SP3		
40mm $\varnothing$	Green maintained	A01MXE SP3		
40mm $\varnothing$	Blue maintained	A01MXF SP3		

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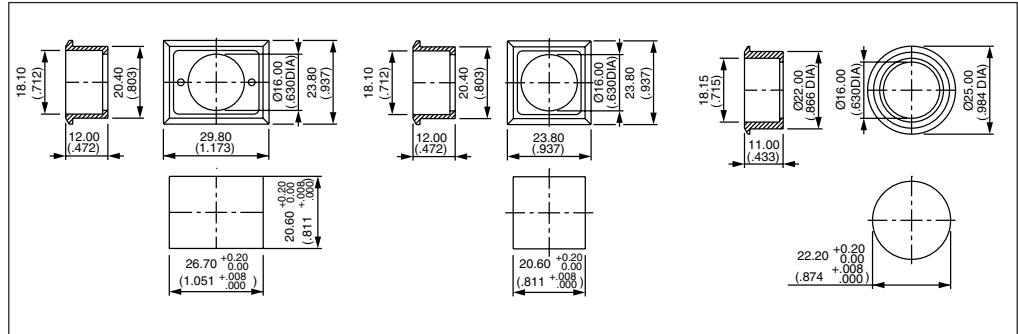
# A1-A01 series

## Industrial controls

### Accessories

#### FLUSH MOUNTING BEZELS

Dark grey plastic material - supplied with sealing washer



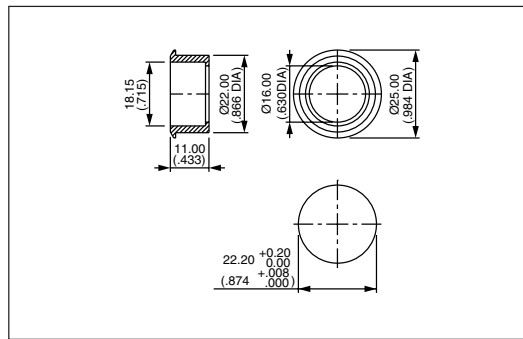
Rectangular A01FM1

Square A01FM

Round A01FM2

#### FLUSH MOUNTING BEZELS

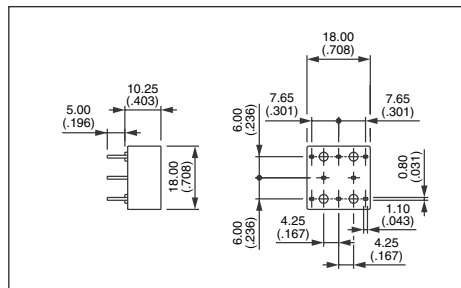
Metal versions



Round, anodised aluminium A01FMM

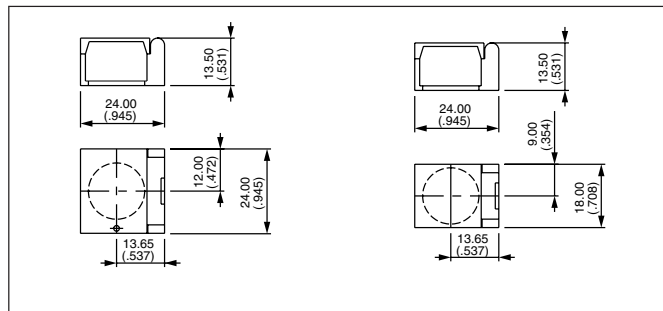
Round, matt black A01FMMG

#### 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

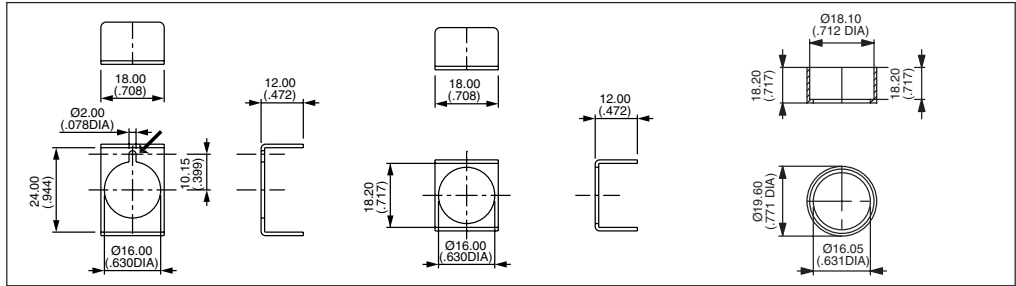
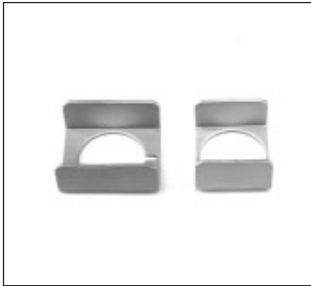
# A1-A01 series

## Industrial controls

### Accessories

#### METAL GUARDS

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



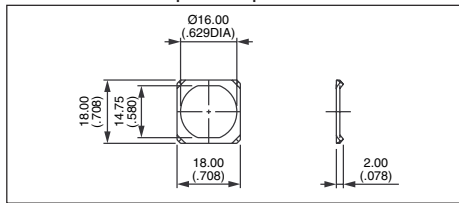
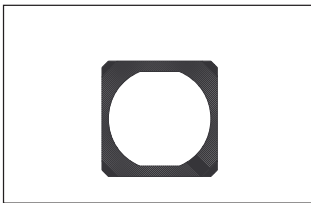
Rectangular **A01MG1**

Square **A01MG**

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

#### ANTI ROTATION RING

Recommended to prevent product rotation

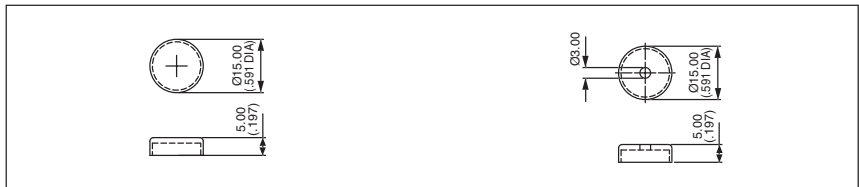
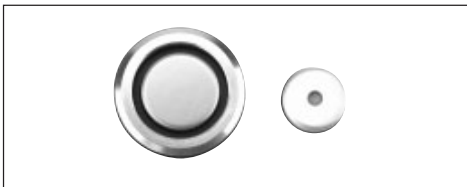


**A01LW**

#### ALUMINIUM SCREENS

For non-illuminated pushbuttons

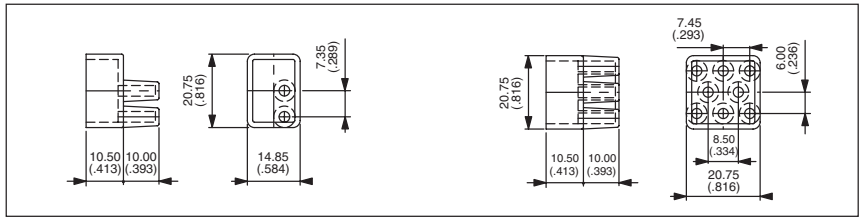
For illuminated pushbuttons



**A0163AL**

**A0163A1**

#### SWITCHBLOCK TERMINAL GUARDS

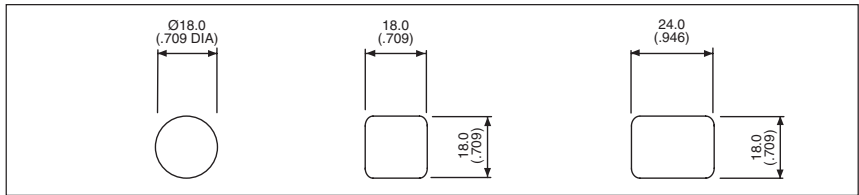


2 way **A01RTC2**

8 way **A01RTC8**

**G**

#### BLANKING PLUGS



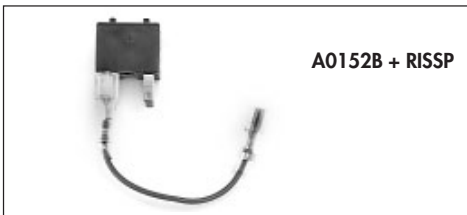
Round **A0133**

Square **A0132**

Rectangular **A0131**

#### RESISTOR ASSEMBLY

Resistor assembly - 2 stage illumination



**A0152B + RISSP**



(DIM) normally closed

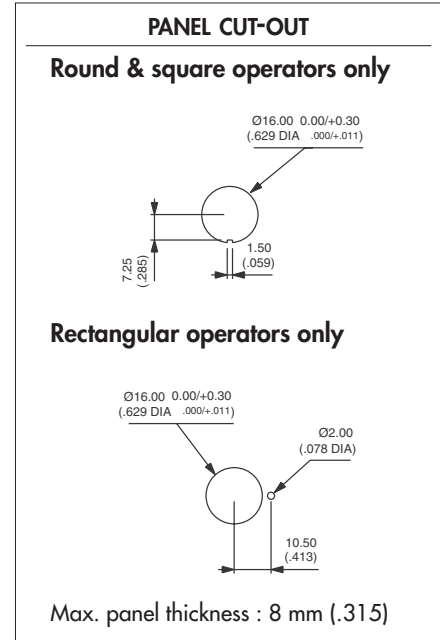
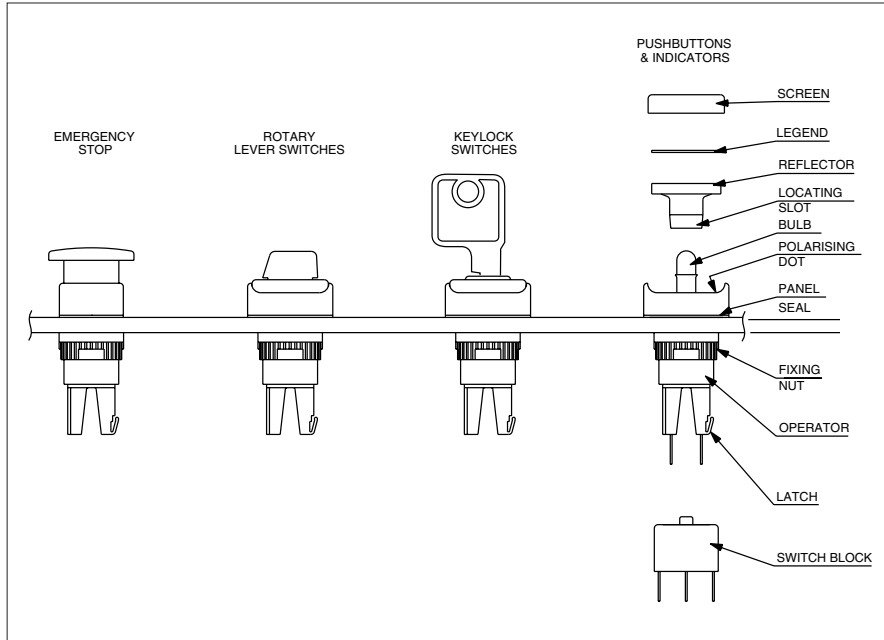
(BRIGHT) normally open

# 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



BULB REMOVER

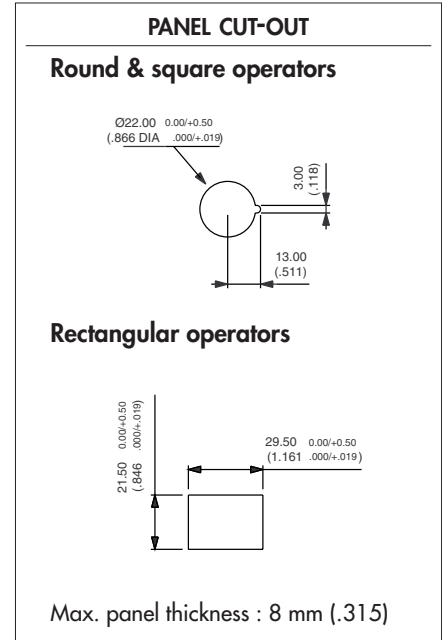
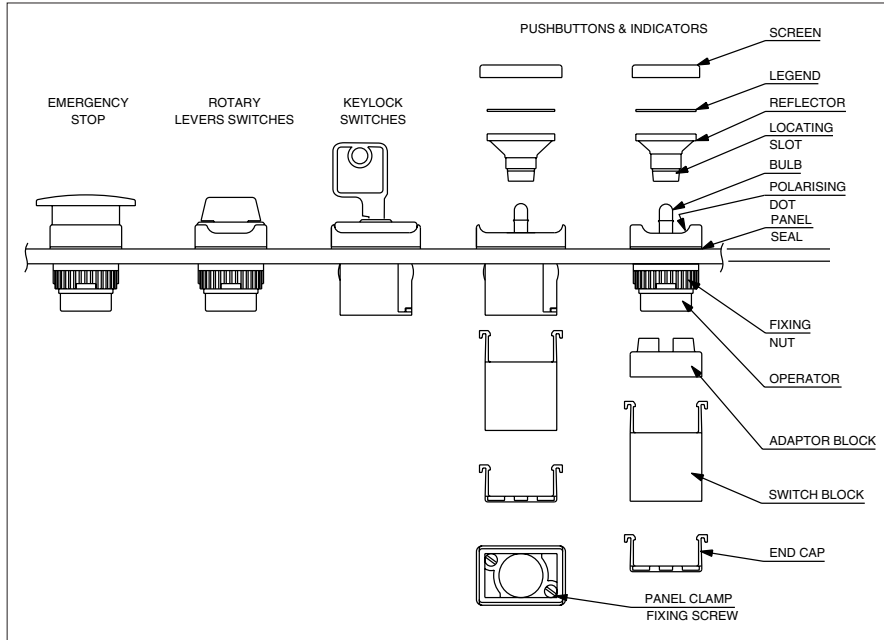


# A02 series

## Industrial controls

Installation

### Modular construction / panel mounting



#### PANEL MOUNTING ASSEMBLY

- Drill/punch hole in panel as shaped above.
- Assemble front operator through hole and :
  - a/ *Round & square types* : tighten nut to a maximum torque of 0,8Nm using tool No 30-0001. Snap on adaptor block
  - b/ *Rectangular types* : tighten two panel fixing screws in front to a maximum torque of 6cNm.
- Wire chosen switch block as required and snap onto front operator.
- Snap end cap onto switch block.
- Fit bulb if required using tool No 30-0002.
- Snap screen onto reflector assembly with legend in between if required and snap into front operator **TAKING CARE TO LINE UP THE LOCATING SLOT WITH THE POLARISING DOT**, and not to damage the seal.

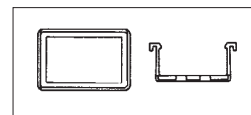
#### TO REMOVE BULB

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

#### TO REMOVE SWITCH BLOCK

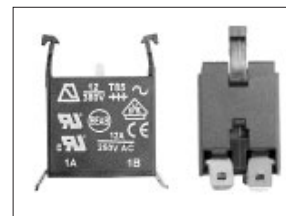
Lever out latches using small screwdriver taking care not to overbend, and pull off the block from the front operator.

#### A02 Accessories



Part No : 14-0005

End cap terminal guard offering unique terminal protection.



6.35 mm push on tab terminals.  
Specify "SP" to the end of the switchblock and operator P/N.  
Example : A02503SP.

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# A03 series

## Illuminated or non-illuminated pushbutton switches and indicators

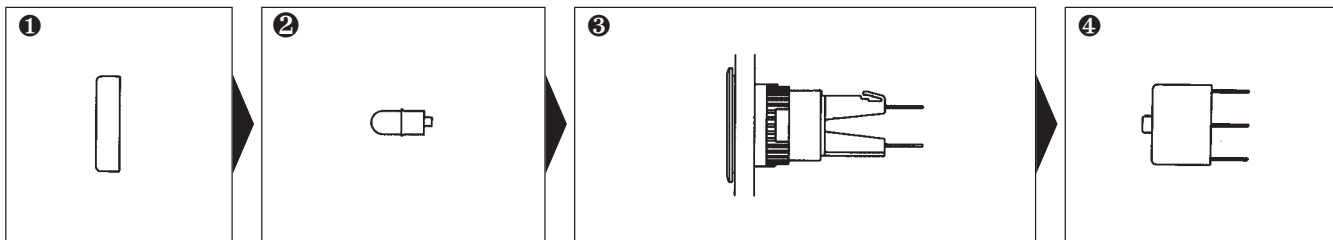
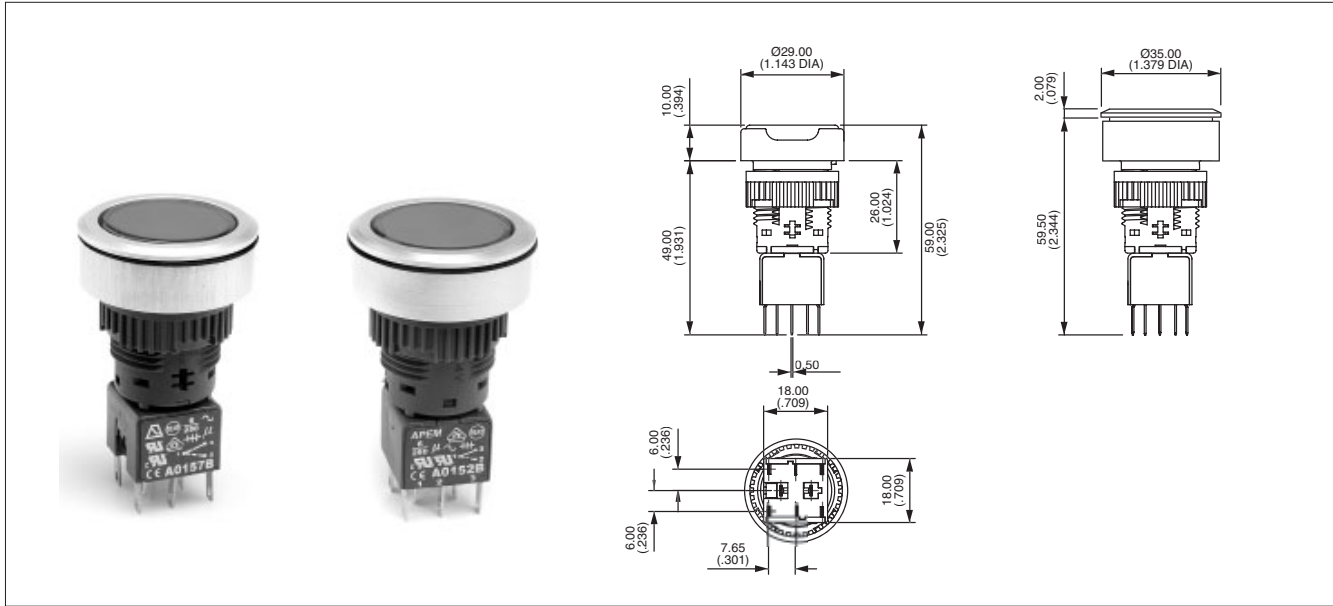
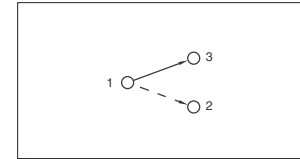
Panel cut-out Ø 22 (.866) or 30 (1.181) - Plastic or metal flush mounting bezel

### A pushbutton assembly requires :

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

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

**Example :** IP65 flush mounting round pushbutton, maintained function, red screen, 12V red LED and single pole switch block = A0314X, A0263B, A0142M1 and A0151BUL.



### Screen

Bezel	Colour	Part No
○	black	A0263A
○	red	A0263B
○	amber	A0263C
○	yellow	A0263D
○	green	A0263E
○	blue	A0263F
○	clear	A0263G
○	white	A0263J

### 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

Bezel	Description	Lamp type	Part No
○	Plastic illum, momentary	Lamp/LED bulb	A0307Y
○	Plastic illum, maintained	Lamp/LED bulb	A0307X
○	Plastic non-illum, momentary		A0309Y
○	Plastic non-illum, maintained		A0309X
○	Metal illum, momentary	Lamp/LED bulb	A0310Y
○	Metal illum, maintained	Lamp/LED bulb	A0310X
○	Metal non-illum, momentary		A0312Y
○	Metal non-illum, maintained		A0312X
○	F/mount illum, momentary	Lamp/LED bulb	A0314Y
○	F/mount illum, maintained	Lamp/LED bulb	A0314X
○	F/mount non-illum, momentary		A0315Y
○	F/mount non-illum, maintained		A0315X
○	Plastic indicator		A0375
○	Metal indicator		A0377
○	F/mount indicator		A0379I

### 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.

SCREEN ENGRAVING / INSERTABLE LEGENDS : contact APEM.

Bezel: ○ round. 'illum' - illuminated, 'Non-illum' - non illuminated