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# INDUSTRIAL CONTROLS

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## INDUSTRIAL CONTROLS SELECTION GUIDE

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# A01 & A02 SERIES

## INDUSTRIAL CONTROLS

### PRODUCTS & FEATURES

#### The A01 and A02 Series consist of:

- ◆ non-illuminated pushbutton switches
- ◆ illuminated pushbutton switches
- ◆ indicators
- ◆ 2 and 3 position keylock switches
- ◆ 2 and 3 position rotary lever switches
- ◆ emergency stop switches

... with rectangular, square or round operators.

#### Key features include:

- Environmental protection to IP65
- Totally modular construction
- 50,000 cycles min. electrical life
- Screen engraving or insertable legends on request
- Numerous agency approvals & markings -



Sub-assembly shows modular construction.



#### A01 Series

- ❑ Panel cut-out: .630" (16mm) dia.
- ❑ 1, 2, 3 and 4 poles
- ❑ Solder lug/quick connect terminals
- ❑ Gold plated silver contacts
- ❑ Current/voltage rating:  
6A 250 VAC max. - 10 mA 5 VAC min.
- ❑ Lamp: filament, neon or multi-chip LED

#### A02 Series

- ❑ Panel cut-outs: .866" (22mm) dia. round or square and 1.160" x .846" (29.5mm x 21.5mm) rectangular
- ❑ 1 and 2 poles
- ❑ Screw terminals
- ❑ Silver contacts
- ❑ Current/voltage rating:  
12 A 380 VAC - 16 A 250 VAC max.  
25 mA 5 VAC min.
- ❑ Lamp: filament, neon or multi-chip LED or special multi-LED assembly

For back of panel safety, this series has a unique covered cable connection guard (see accessories).

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# A01 & A02 SERIES

## INDUSTRIAL CONTROLS

### SPECIFICATIONS

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<b>ELECTRICAL</b>	<b>A01 Series</b>	<b>A02 Series</b>
<b>Function:</b> <b>Current/voltage rating:</b>  <b>Contact gap:</b>  <b>Initial contact resistance:</b> <b>Insulation resistance:</b> <b>Dielectric strength:</b>  <b>Electrical life:</b> <b>Insulation:</b> <b>Lamp life:</b>	Momentary or maintained action 10 mA 5 VAC min. - 6 A 250 VAC max.  .040" (1mm) double break 10 mΩ max. at 1 A 4 VDC 50 mΩ min. 750 V between open contacts 5,000 V live to accessible 50,000 cycles min. Class 2 LED: 60,000 hrs. min. to relative luminosity. Filament: approx 5,000 hrs. Neon: approx. 10,000 hrs.	Momentary or maintained action 25mA 5 VAC min. - 12 A 380 VAC or 16 A 250 VAC max. .040" (1mm)- 2 contact pairs w/  10 mΩ max. at 1 A 4 VDC 50 mΩ min. 2,000 V between open contacts 4,000 V live to accessible 50,000 cycles min. Class 2 LED: 60,000 hrs. min. to relative luminosity. Filament: approx 5,000 hrs. Neon: approx. 10,000 hrs.
<b>GENERAL</b> <b>Mechanical life (min.):</b>  <b>Operating temperature:</b> <b>Solder heat resistance:</b> (IEC 68-2-20Tb, method 2): <b>Degree of environmental</b> <b>protection (IEC 529):</b>  <b>Shock &amp; vibration (optional):</b> <b>Lamps:</b>  <b>Switch terminals:</b>  <b>Lamp terminals:</b>	Momentary: 1 million cycles Maintained action: 100,000 cycles  -20°C to +55°C 350°C, 5 seconds  IP 65 front of panel IP 40 back of panel BS R1A 20 Midget grooved T1 3/4, filament, multi-chip LED or neon  Solder/quick connect .110" (2.8mm)  Solder/quick connect .110" (2.8mm)	Momentary: 1 million cycles Maintained action: 100,000 cycles Keylock & rotary: 100,000 cycles Keylock & rotary: 100,000 cycles -20°C to +85°C 350°C, 5 seconds  IP 65 front of panel IP 40 back of panel BS R1A 20 Midget grooved T1 3/4, filament, multi-chip LED or neon or special multi-LED assembly M3 screws - wire 2 x .030" (0.75mm) - 2 max. M3 screws - flexible wire 2 x .098" <sup>2</sup> (mm <sup>2</sup> ) max. Rigid wire .157" <sup>2</sup> (2mm <sup>2</sup> ) max.
<b>MATERIALS</b> <b>Operator body &amp; parts:</b> <b>Switch body &amp; cover:</b> <b>Actuator:</b> <b>Seals:</b> <b>Contacts:</b> <b>Contact carriers:</b> <b>Reflector, diffuser &amp; screen:</b> <b>Retaining nut:</b> <b>Screws and clamps:</b>	Flame retardant PBT Flame retardant PBT Flame retardant PBT Silicon rubber or Nitrile Gold plated silver Brass with silver plate and gold flash Flame retardant polycarbonate ABS -	Flame retardant polyetherimide Flame retardant PBT Flame retardant PBT Silicon rubber or Nitrile Silver Brass with silver plate Flame retardant polycarbonate ABS Zinc plated steel w/clear passivation

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# A01 SERIES

## PUSHBUTTON SWITCHES, ILLUMINATED OR NON-ILLUMINATED

Panel cut-out .630" (16mm)

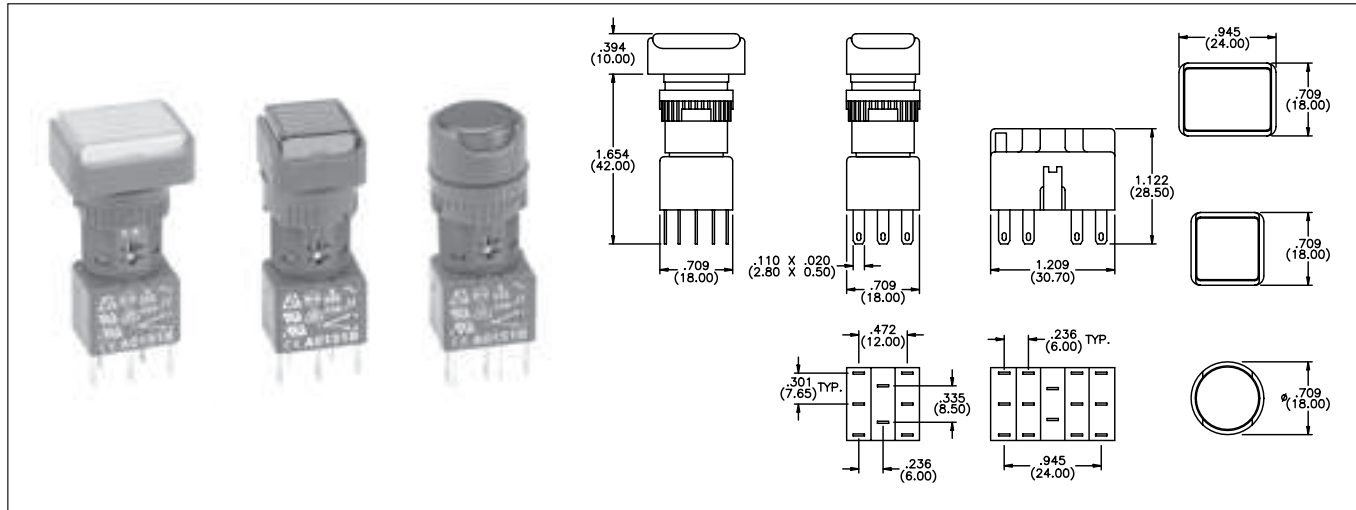
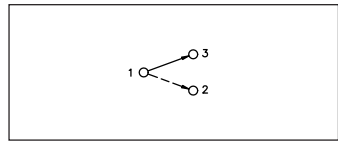
A pushbutton assembly requires:

Screen + Lamp (if illuminated) + Operator + Switchblock

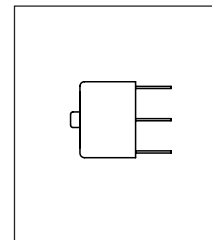
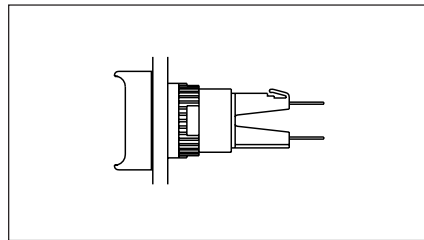
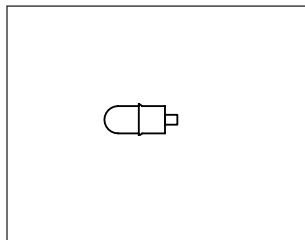
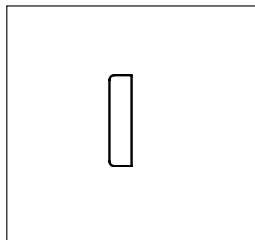
To order, select desired model numbers from tables below.

Example: IP65 rectangular pushbutton, single pole, maintained, red screen and 12V red LED = **A0161B, A0142M1, A0101X and A0151B**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



### SCREEN

Bezel	Color	Part no.
■	black	<b>A0161A</b>
■	red	<b>A0161B</b>
■	amber	<b>A0161C</b>
■	yellow	<b>A0161D</b>
■	green	<b>A0161E</b>
■	blue	<b>A0161F</b>
■	clear	<b>A0161G</b>
■	white	<b>A0161J</b>
■	black	<b>A0162A</b>
■	red	<b>A0162B</b>
■	amber	<b>A0162C</b>
■	yellow	<b>A0162D</b>
■	green	<b>A0162E</b>
■	blue	<b>A0162F</b>
■	clear	<b>A0162G</b>
■	white	<b>A0162J</b>
●	black	<b>A0163A</b>
●	red	<b>A0163B</b>
●	amber	<b>A0163C</b>
●	yellow	<b>A0163D</b>
●	green	<b>A0163E</b>
●	blue	<b>A0163F</b>
●	clear	<b>A0163G</b>
●	white	<b>A0163J</b>
●	Aluminum	<b>A0163AL</b>
●	Aluminum	<b>*A0163AL1</b>

### LAMP

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

### OPERATOR

Poles	Bezel	Description	Part no.
1 or 2	■	illum, momentary	<b>A0101Y</b>
1 or 2	■	illum, maintained	<b>A0101X</b>
1 or 2	■	non-illum, momentary	<b>A0102Y</b>
1 or 2	■	non-illum, maintained	<b>A0102X</b>
3 or 4	■	illum, momentary	<b>A0103Y</b>
3 or 4	■	illum, maintained	<b>A0103X</b>
3 or 4	■	non-illum, momentary	<b>A0104Y</b>
3 or 4	■	non-illum, maintained	<b>A0104X</b>
1 or 2	■	illum, momentary	<b>A0105Y</b>
1 or 2	■	illum, maintained	<b>A0105X</b>
1 or 2	■	non-illum, momentary	<b>A0106Y</b>
1 or 2	■	non-illum, maintained	<b>A0106X</b>
3 or 4	■	illum, momentary	<b>A0107Y</b>
3 or 4	■	illum, maintained	<b>A0107X</b>
3 or 4	■	non-illum, momentary	<b>A0108Y</b>
3 or 4	■	non-illum, maintained	<b>A0108X</b>
1 or 2	●	illum, momentary	<b>A0109Y</b>
1 or 2	●	illum, maintained	<b>A0109X</b>
1 or 2	●	non-illum, momentary	<b>A0110Y</b>
1 or 2	●	non-illum, maintained	<b>A0110X</b>
3 or 4	●	illum, momentary	<b>A0111Y</b>
3 or 4	●	illum, maintained	<b>A0111X</b>
3 or 4	●	non-illum, momentary	<b>A0112Y</b>
3 or 4	●	non-illum, maintained	<b>A0112X</b>

### SWITCH BLOCK

No. of poles	Part no.
Single pole	<b>A0151B</b>
Double pole	<b>A0152B</b>
Three pole	<b>A0155B</b>
Four pole	<b>A0153B</b>

**FOR UNSEALED SWITCHES (IP40):**  
Add '01' to end of OPERATOR model number.

**FOR SCREEN ENGRAVING OR INSERTABLE LEGENDS:**  
Contact factory.

\*- screen has center hole for illumination.

Bezel: ■ rectangular ■ square ● round 'illum' - illuminated 'non-illum' - non-illuminated

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# A01 SERIES INDICATORS

Panel cut-out .630" (16mm)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

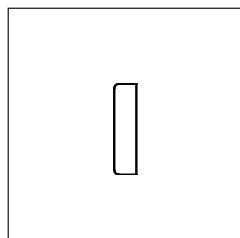
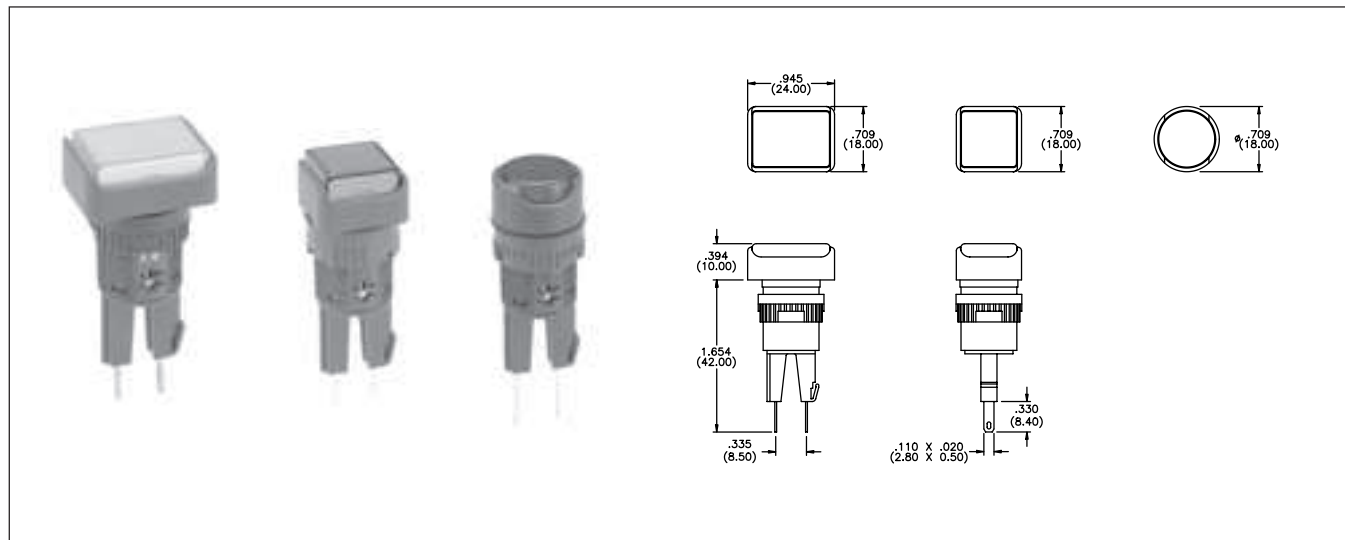
**An indicator assembly requires:  
Screen + Lamp + Operator**

To order, select desired model numbers from tables below.

**Example:** IP65 rectangular indicator with red screen and 12V red LED =

**A0161B, A0142M1 and A0171**

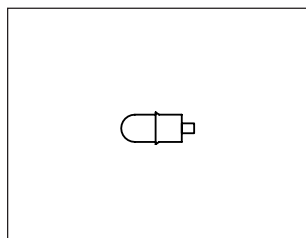
Indicators are normally shipped unassembled. Consult factory if factory assembly is required.



**SCREEN**

Bezel	Color	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

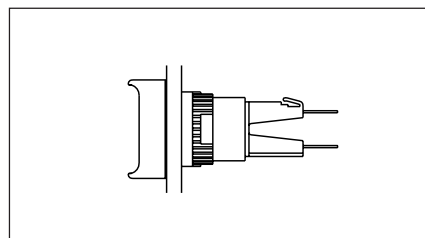
Bezel: ■ rectangular



**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

■ square



**OPERATOR**

Bezel	Description	Part no.
■	indicator	A0171
■	indicator	A0172
●	indicator	A0173

**FOR UNSEALED INDICATORS (IP40):  
Add '01' to end of OPERATOR model number.**

**FOR SCREEN ENGRAVING OR INSERTABLE LEGENDS:  
Contact factory.**



# A01 SERIES

## ROTARY LEVER SWITCHES

Panel cut-out .630" (16mm)

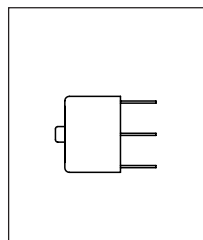
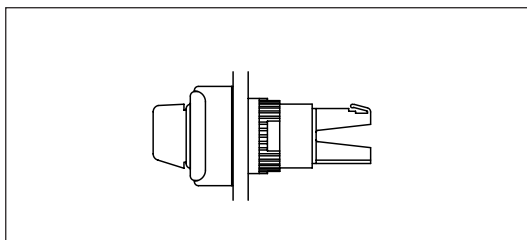
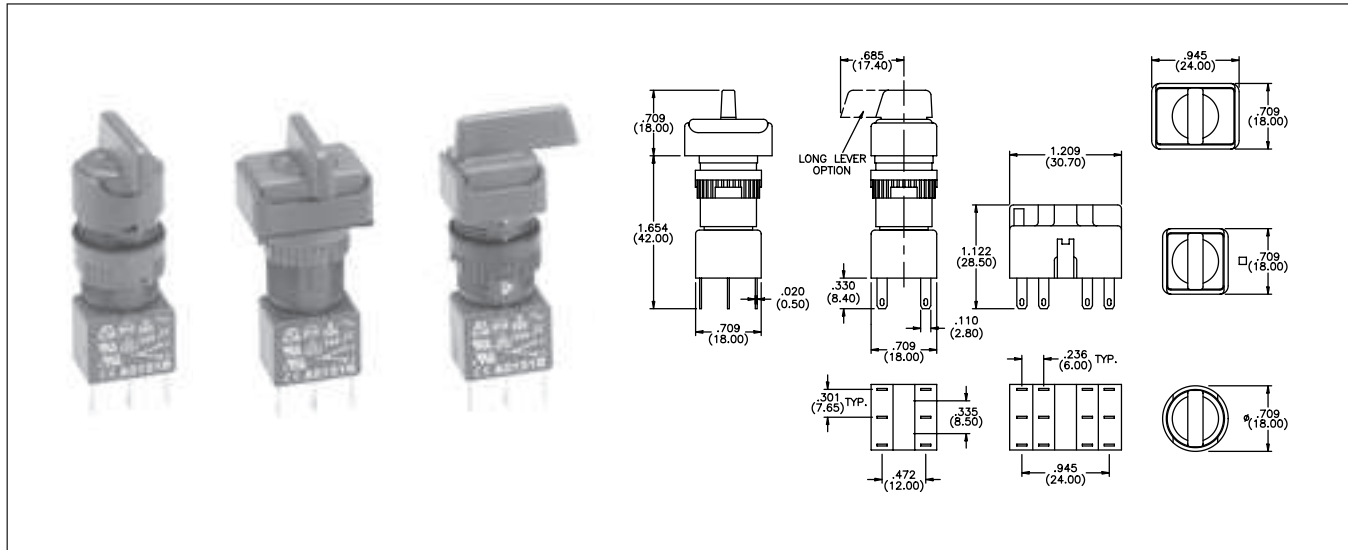
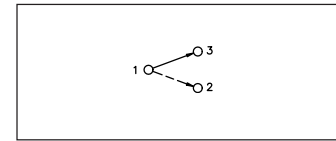
**A rotary lever switch assembly requires:**

**Operator + Switchblock**

To order, select desired model numbers from tables below.

**Example:** IP65 rectangular rotary switch with long lever, single pole, 2 positions maintained = **A019101 and A0151B**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



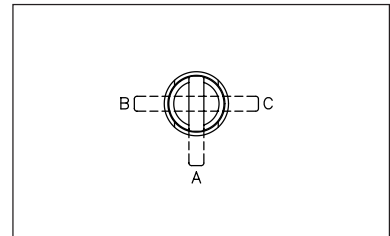
### OPERATOR

Poles	Bezel	Description	Short lever	Long lever
1 or 2	■	2 pos, maintained	A019201	A019101
1 or 2	■	2 pos, momentary	A019202	A019102
3 or 4	■	2 pos, maintained	A019203	A019103
3 or 4	■	2 pos, momentary	A019204	A019104
1 or 2	■	3 pos, maintained	A019205	A019105
1 or 2	■	3 pos, momentary	A019206	A019106
1 or 2	■	3 pos, mainB, momC	A019207	A019107
1 or 2	■	3 pos, mainC, momB	A019208	A019108
1 or 2	■	2 pos, maintained	A019401	A019301
1 or 2	■	2 pos, momentary	A019402	A019302
3 or 4	■	2 pos, maintained	A019403	A019303
3 or 4	■	2 pos, momentary	A019404	A019304
2	■	3 pos, maintained	A019405	A019305
2	■	3 pos, momentary	A019406	A019306
2	■	3 pos, mainB, momC	A019407	A019307
2	■	3 pos, mainC, momB	A019408	A019308
1 or 2	●	2 pos, maintained	A019601	A019501
1 or 2	●	2 pos, momentary	A019602	A019502
3 or 4	●	2 pos, maintained	A019603	A019503
3 or 4	●	2 pos, momentary	A019604	A019504
2	●	3 pos, maintained	A019605	A019505
2	●	3 pos, momentary	A019606	A019506
2	●	3 pos, mainB, momC	A019607	A019507
2	●	3 pos, mainC, momB	A019608	A019508

### SWITCH BLOCK

No. of poles	Part no.
Single pole	A0151B
Double pole	A0152B
Three pole	A0155B
Four pole	A0153B

### LEVER POSITIONS



### Lever rotation - 2 position switches

The model numbers shown are for switches with counterclockwise lever rotation. For clockwise rotation, replace:

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

at the end of the model number.

**FOR UNSEALED SWITCHES (IP40):**  
Add '01' to end of OPERATOR model number.

Bezel: ■ rectangular ■ square ● round 'pos' - position 'mainB' - maintained position B 'momC' - momentary position C

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



# A01 SERIES

## KEYLOCK SWITCHES

Panel cut-out .630" (16mm)

**A keylock switch assembly requires:**

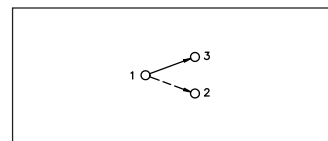
**Operator + Switchblock**

To order, select desired model numbers from tables below.

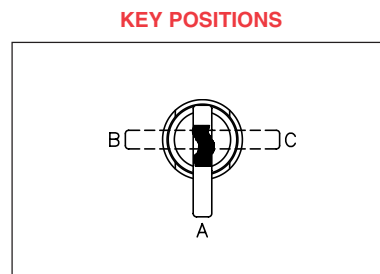
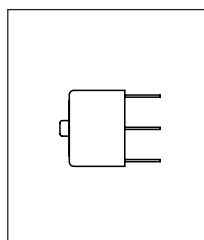
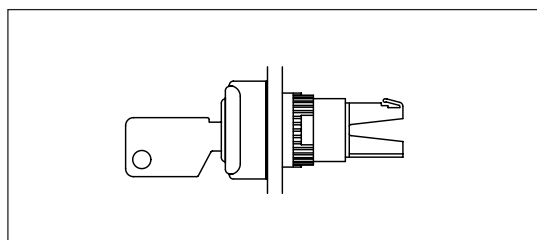
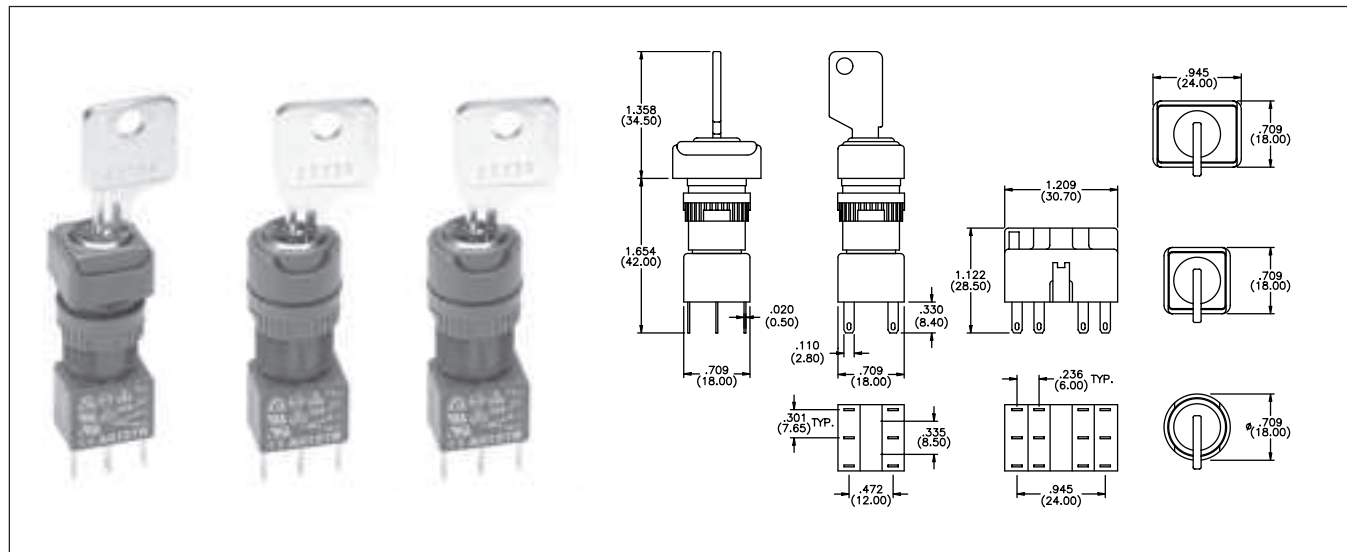
**Example:** Rectangular keylock switch, single pole, 2 positions maintained =

**A018101 and A0151B**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



**OPERATOR**

Poles	Bezel	Description	Part no.	Key removable
1 or 2	■	2 pos, maintained	<b>A018101</b>	A - C
1 or 2	■	2 pos, momentary	<b>A018102</b>	A
3 or 4	■	2 pos, maintained	<b>A018103</b>	A - C
3 or 4	■	2 pos, momentary	<b>A018104</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, mainB, momC	<b>A018107</b>	A - B
1 or 2	■	3 pos, mainC, momB	<b>A018108</b>	A - C
1 or 2	■	2 pos, maintained	<b>A018201</b>	A - C
1 or 2	■	2 pos, momentary	<b>A018202</b>	A
3 or 4	■	2 pos, maintained	<b>A018203</b>	A - C
3 or 4	■	2 pos, momentary	<b>A018204</b>	A
2	■	3 pos, maintained	<b>A018205</b>	A - B - C
2	■	3 pos, momentary	<b>A018206</b>	A
2	■	3 pos, mainB, momC	<b>A018207</b>	A - B
2	■	3 pos, mainC, momB	<b>A018208</b>	A - C
1 or 2	●	2 pos, maintained	<b>A018301</b>	A - C
1 or 2	●	2 pos, momentary	<b>A018302</b>	A
3 or 4	●	2 pos, maintained	<b>A018303</b>	A - C
3 or 4	●	2 pos, momentary	<b>A018304</b>	A
2	●	3 pos, maintained	<b>A018305</b>	A - B - C
2	●	3 pos, momentary	<b>A018306</b>	A
2	●	3 pos, mainC, momB	<b>A018307</b>	A -

**SWITCH BLOCK**

No. of poles	Part no.
Single pole	<b>A0151B</b>
Double pole	<b>A0152B</b>
Three pole	<b>A0155B</b>
Four pole	<b>A0153B</b>

**FOR UNSEALED SWITCHES (IP40):**  
Add '01' to end of OPERATOR model number.

**NON-REMOVABLE KEY POSITIONS:**  
Contact factory.

**Key rotation - 2 position switches**

The model numbers shown are for switches with counterclockwise key rotation. For clockwise rotation, replace:

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

at the end of model number.

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

Bezel: ■ rectangular ■ square ● round 'pos' - position 'mainB' - maintained position B 'momC' - momentary position C



# A01 SERIES

## EMERGENCY STOP SWITCHES & MUSHROOM HEAD PUSHBUTTONS

Panel cut-out .630" (16mm)

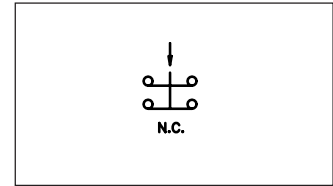
### EMERGENCY STOP SWITCHES

- Highly visible .944" (24mm) dia. red mushroom actuator
- Highly reliable positive break switch
- Push to shut switch 'off', twist to reset to 'on'

An emergency stop switch assembly requires: **Operator + Switch block**

To order, specify with single pole or double pole switch block. **Approved to UL1054/EN 60947**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



A01ES

A01ES SP3

A01ES

A01ES SP3

A01ES

A01ES SP3

**OPERATOR**

Bezel	Description	Part no.
●	Emergency stop	<b>A01ES</b>
●	Emergency stop	<b>A01ES SP3</b>

**SWITCH BLOCK**

No. of poles	Part no.
Single pole	<b>A0150B</b>
Double pole	<b>A0154B</b>

**ACCESSORY: 2.362" (60mm) dia. self adhesive label**

Description	Part no.
Yellow label with text	<b>A01YL1</b>
Yellow label	<b>A01YL2</b>

### MUSHROOM HEAD PUSHBUTTONS

OPERATOR			SWITCH BLOCK	
Bezel	Description	Part no.	No. of poles	Part no.
●	Red momentary operator	<b>A01MMB</b>	Single pole	<b>A0151B</b>
●	Black momentary operator	<b>A01MMA</b>	Double pole	<b>A0152B</b>
●	Red maintained operator	<b>A01MXB</b>	Three pole	<b>A0155B</b>
●	Black maintained operator	<b>A01MXA</b>	Four pole	<b>A0153B</b>

For other colors, contact factory.  
 Note: actuator on momentary version is un-marked.  
 Dimensions of mushroom head actuator is the same as A01ES (above).  
 Note that mushroom head switches, although similar in appearance to emergency stop switches, do not have fast break contacts. Therefore, they should not be used in an emergency stop application

**Mushroom head pushbutton assembly requires: Operator + Switchblock**

**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**

Bezel: ● round

### PUSHBUTTON CONTROL STATION



**A01PEESSP34L** Available for either emergency stop or mushroom head switches. Note: 'L' in part number indicates emergency stop label. Omit 'L' for mushroom head switch application. Sold without switch - Order separately

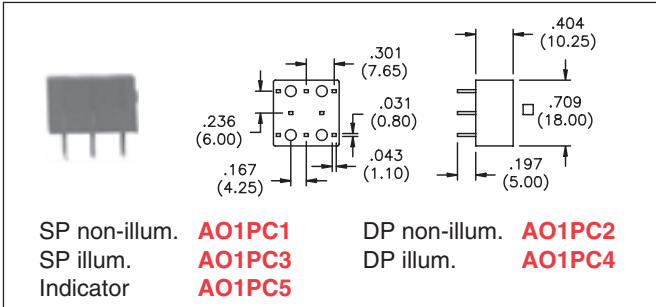
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

# A01 SERIES

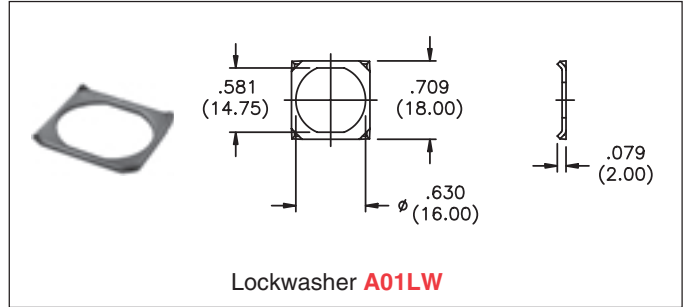
## ACCESSORIES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

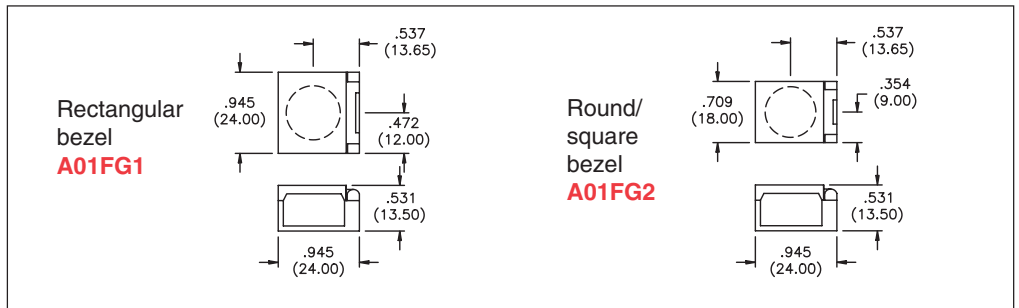
### PRINTED CIRCUIT BOARD SOCKET



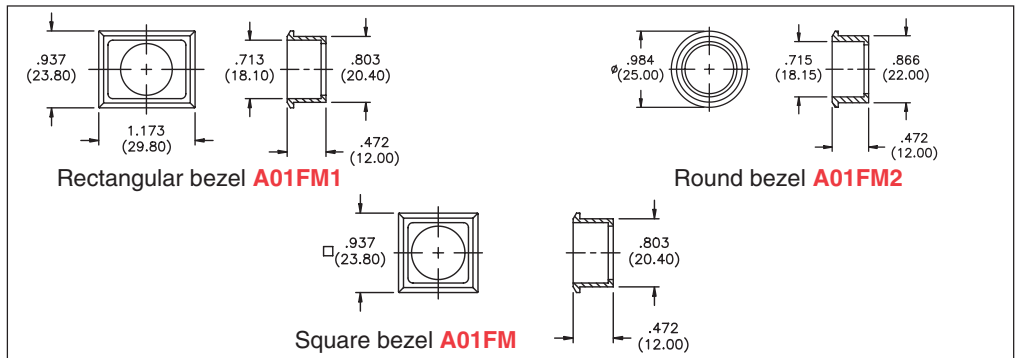
### ANTI-ROTATION RING



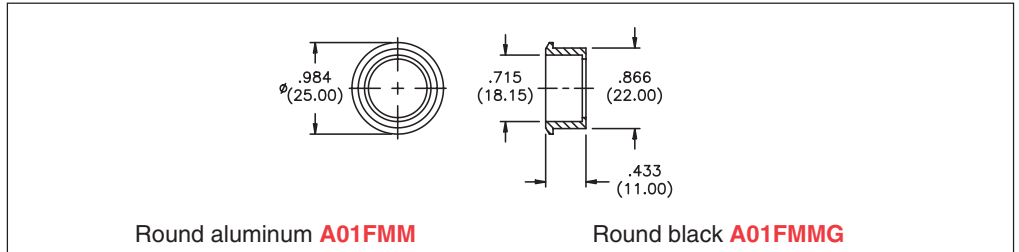
### FLAPGUARDS



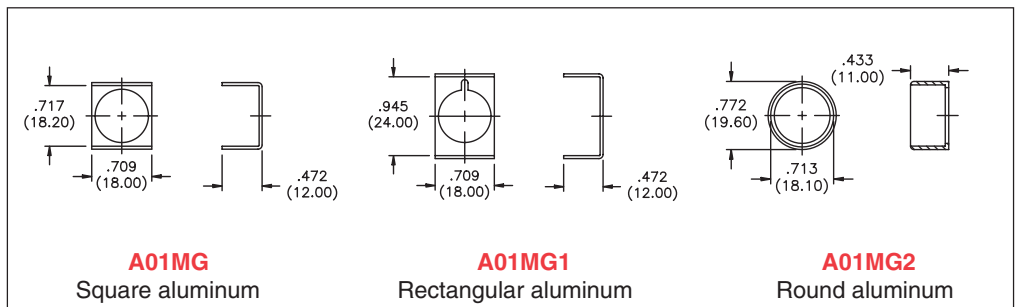
### FLUSH MOUNTING BEZELS, PLASTIC



### FLUSH MOUNTING BEZELS, METAL, IP65 SEALED



### METAL GUARDS



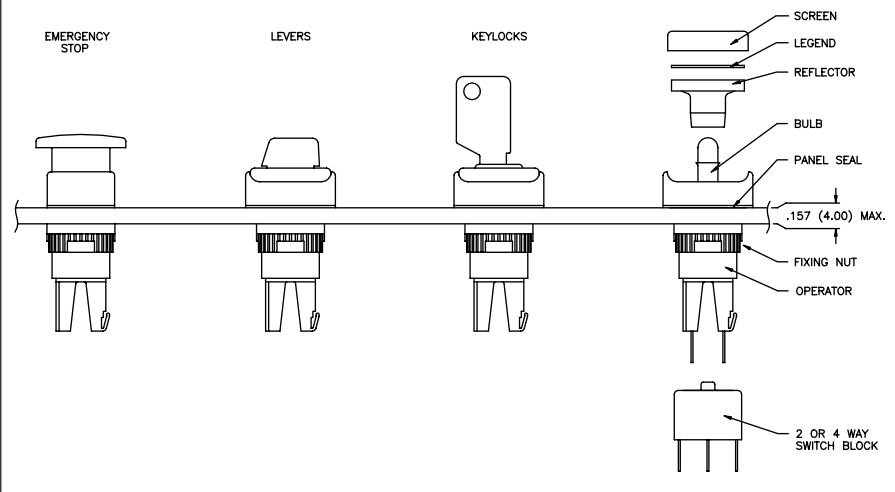
**K**

# A01 SERIES

## INDUSTRIAL CONTROLS

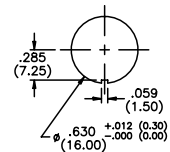
### INSTALLATION & TOOLS

#### MODULAR CONSTRUCTION

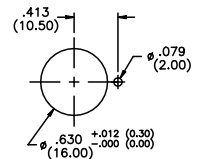


#### PANEL CUT-OUTS

Round & square operators



Rectangular operators



Max. panel thickness: .156" (4mm)

#### PANEL MOUNTING ASSEMBLY

- Drill or punch hole per panel cut-outs above.
- Assemble front operator through hole and assemble fixing nut finger tight.
- Wire switch block as required and slide onto operator until latch engages.
- Assemble bulb, if required, using tool number 30-0002.
- Snap the screen onto the reflector assembly with legend in between, if required. Then snap onto front of operator, taking care to line up the locating slot with the polarizing dot to prevent damaging the seal.

#### TO REMOVE BULB

Remove reflector/screen assembly by inserting tool number 30-0006 between the bezel finger guard and the screen to engage the slot and pulling. Use the bulb extractor to remove the bulb.

#### TO ASSEMBLE SWITCH BLOCK

Carefully line up switch block with operator then slide onto front of operator. Insure the latch is fully engaged correctly onto the switch block.

#### TO REMOVE SWITCH BLOCK

Depress the latch and slide the switch block off the operator.

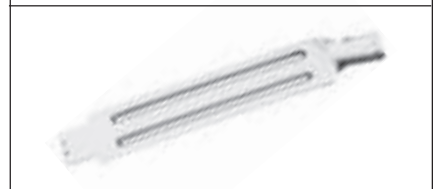
**FIXING NUT KEY 30-0001**



**BULB REMOVER 30-0002**



**SCREEN REMOVER 30-0006**



K

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

# A02 SERIES

## PUSHBUTTON SWITCHES, ILLUMINATED OR NON-ILLUMINATED

Panel cut-out .866" (22mm) or 1.161" x .846" (29.5mm x 21.5mm)

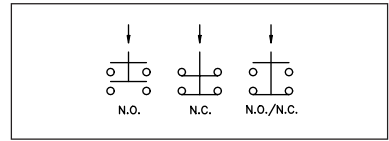
### A pushbutton assembly requires:

Screen + Lamp (if illuminated) + Operator + one or two Switchblocks

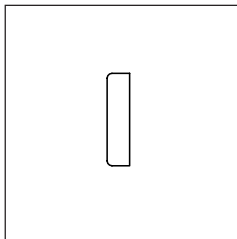
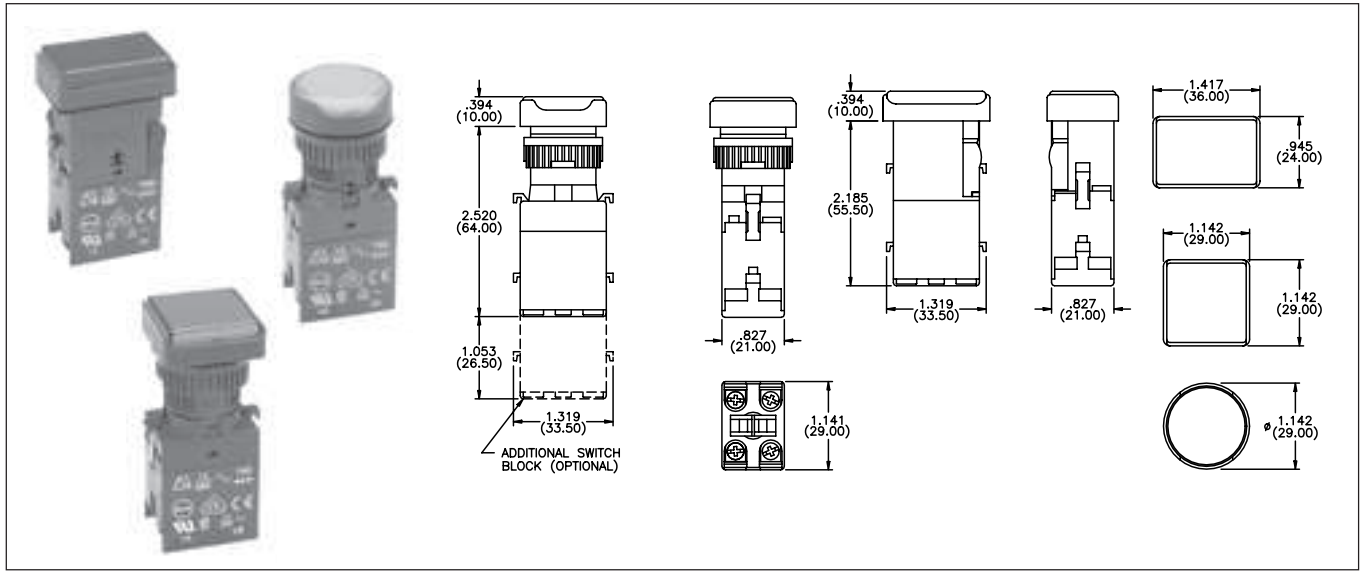
To order, select desired model numbers from tables below.

Example: IP65 rectangular maintained pushbutton, switch blocks with 2 N.O. contacts, red screen and 12V red LED = **A0261B, A0242J1, A0201X and A02503**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.

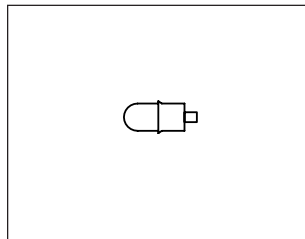


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



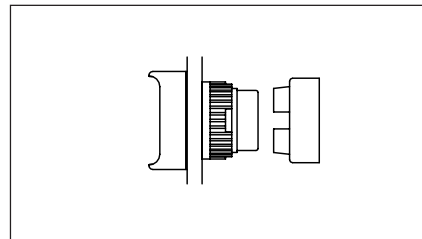
### SCREEN

Bezel	Color	Part no.
■	black	A0261A
■	red	A0261B
■	amber	A0261C
■	yellow	A0261D
■	green	A0261E
■	blue	A0261F
■	clear	A0261G
■	white	A0261J
■	black	A0262A
■	red	A0262B
■	amber	A0262C
■	yellow	A0262D
■	green	A0262E
■	blue	A0262F
■	clear	A0262G
■	white	A0262J
●	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 lamp model no's: see Pgs K5 & K6		
LED assy ■	6V	A0242H*
LED assy ■	12V	A0242J*
LED assy ■	24V	A0242K*
LED assy ■	6V	A0243H*
LED assy ■	12V	A0243J*
LED assy ■	24V	A0243K*
LED assy ●	6V	A0244H*
LED assy ●	12V	A0244J*
LED assy ●	24V	A0244K*
Replace * with color code for LED assemblies: 1: red 2: green 3: amber		

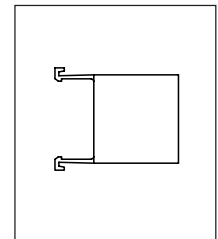


### OPERATOR

Bezel	Description	Lamp type	Part no.
■	illum, mom	lamp/LED	A0201Y
■	illum, maint	lamp/LED	A0201X
■	illum, mom	LED assy	A0202Y
■	illum, maint	LED assy	A0202X
■	non-illum, mom		A0203Y
■	non-illum, maint		A0203X
■	illum, mom	lamp/LED	A0204Y
■	illum, maint	lamp/LED	A0204X
■	illum, mom	LED assy	A0205Y
■	illum, maint	LED assy	A0205X
■	non-illum, mom		A0206Y
■	non-illum, maint		A0206X
●	illum, mom	lamp/LED	A0207Y
●	illum, maint	lamp/LED	A0207X
●	illum, mom	LED assy	A0208Y
●	illum, maint	LED assy	A0208X
●	non-illum, mom		A0209Y
●	non-illum, maint		A0209X

White or blue LED assembly: Contact factory.

**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**



### SWITCH BLOCK

Contacts	Part no.
1 N.O.	A02501
1 N.C.	A02502
2 N.O.	A02503
2 N.C.	A02504
1 N.O./1 N.C.	A02505

### SECOND SWITCH BLOCK

Contacts	Part no.
1 N.O.	A02506
1 N.C.	A02507
2 N.O.	A02508
2 N.C.	A02509
1 N.O./1 N.C.	A02510

To achieve 3 or 4 pole switching, add second switch block, from above table.

**FOR SCREEN ENGRAVING OR INSERTABLE LEGENDS: Contact factory.**

Bezel: ■ rectangular ■ square ● round 'illum' - illuminated 'non-illum' - non-illuminated 'mom' - momentary 'maint' - maintained

# A02 SERIES

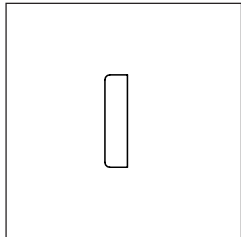
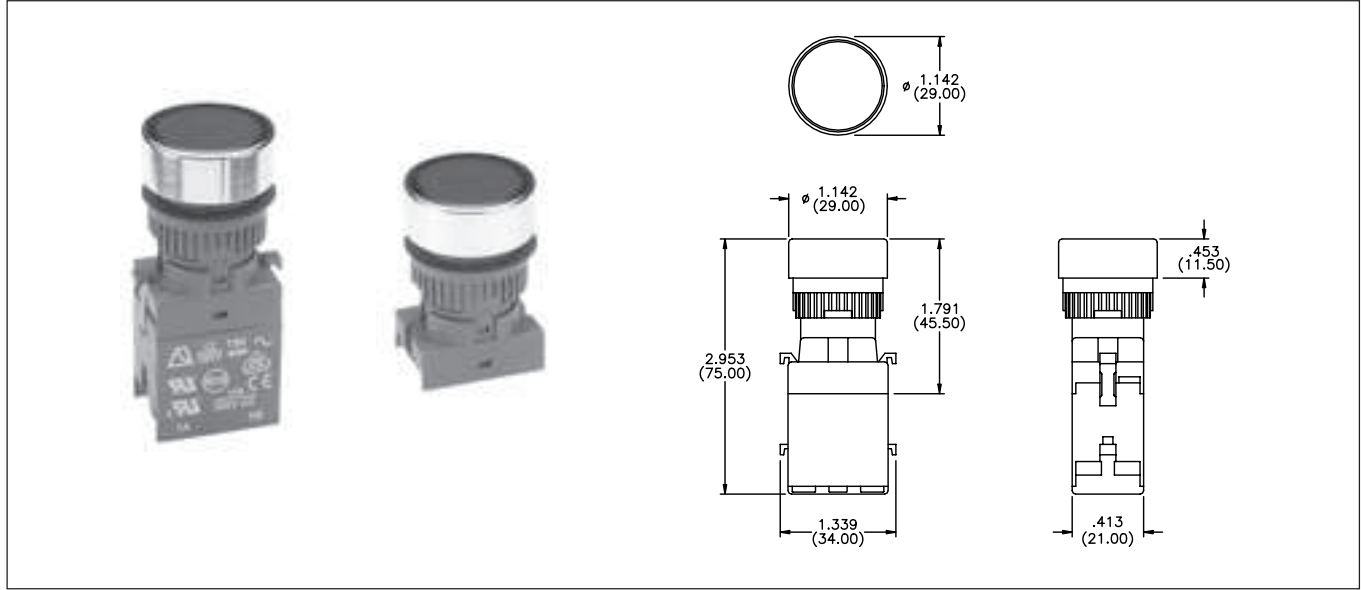
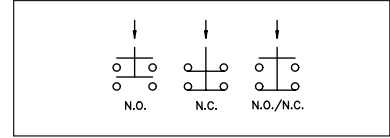
## METAL BEZEL PUSHBUTTON SWITCHES & INDICATORS

Panel cut-out .866" (22mm)

**A pushbutton assembly requires: Screen + Lamp (if illuminated) + Operator + one or two Switchblocks. An indicator assembly requires: Screen + Lamp + Operator.**

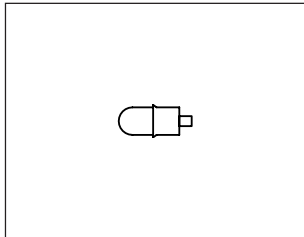
To order, select desired model numbers from tables below. **Example:** IP65 metal bezel maintained pushbutton, switch block with 2 N.O. contacts, red screen and 12V red LED = **A0263B, A0244J1, A0211X and A02503**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



### SCREEN

Bezel	Color	Part no.
●	black	<b>A0263A</b>
●	red	<b>A0263B</b>
●	amber	<b>A0263C</b>
●	yellow	<b>A0263D</b>
●	green	<b>A0263E</b>
●	blue	<b>A0263F</b>
●	clear	<b>A0263G</b>
●	white	<b>A0263J</b>



### LAMP

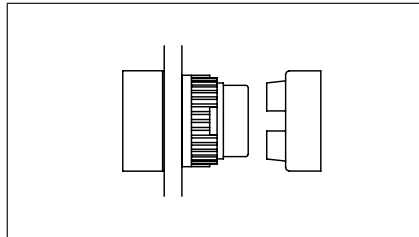
Lamp	Voltage	Part no.
Filament	6.3V	<b>A0141A</b>
Filament	14V	<b>A0141B</b>
Filament	28V	<b>A0141C</b>
Filament	36V	<b>A0141D</b>
Filament	48V	<b>A0141E</b>
Filament	60V	<b>A0141F</b>
Neon	110V	<b>A0143G</b>
Neon	220V	<b>A0143H</b>

LED lamp model no's:  
see Pgs K5 & K6

LED assy ●	6V	<b>A0244H*</b>
LED assy ●	12V	<b>A0244J*</b>
LED assy ●	24V	<b>A0244K*</b>

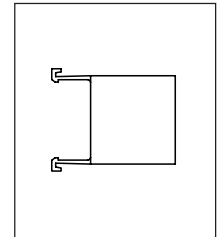
Replace \* with color code for LED assemblies:  
1: red  
2: green  
3: amber

White or blue LED assy: Contact factory.



### OPERATOR

Bezel	Description	Lamp type	Part no.
●	illum, mom	lamp/LED	<b>A0210Y</b>
●	illum, maint	lamp/LED	<b>A0210X</b>
●	illum, mom	LED assy	<b>A0211Y</b>
●	illum, maint	LED assy	<b>A0211X</b>
●	non-illum, mom		<b>A0212Y</b>
●	non-illum, maint		<b>A0212X</b>
●	illum, indicator	lamp/LED	<b>A0277</b>
●	illum, indicator	LED assy	<b>A0278</b>



### SWITCH BLOCK

Contacts	Part no.
1 N.O.	<b>A02501</b>
1 N.C.	<b>A02502</b>
2 N.O.	<b>A02503</b>
2 N.C.	<b>A02504</b>
1 N.O./1 N.C.	<b>A02505</b>

### SECOND SWITCH BLOCK

Contacts	Part no.
1 N.O.	<b>A02506</b>
1 N.C.	<b>A02507</b>
2 N.O.	<b>A02508</b>
2 N.C.	<b>A02509</b>
1 N.O./1 N.C.	<b>A02510</b>

To achieve 3 or 4 pole switching, add second switch block, from above table.

**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**  
**FOR SCREEN ENGRAVING OR INSERT-ABLE LEGENDS: Contact factory.**

Bezel: ■ rectangular ■ square ● round 'illum' - illuminated 'non-illum' - non-illuminated 'mom' - momentary 'maint' - maintained

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

**K**

# A02 SERIES

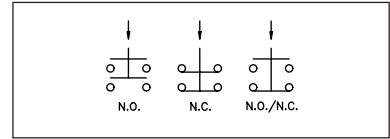
## FLUSH MOUNTING PUSHBUTTON SWITCHES & INDICATORS

Panel cut-out 1.181" (30mm)

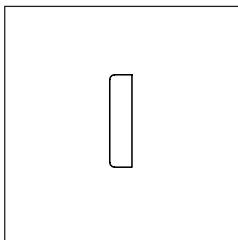
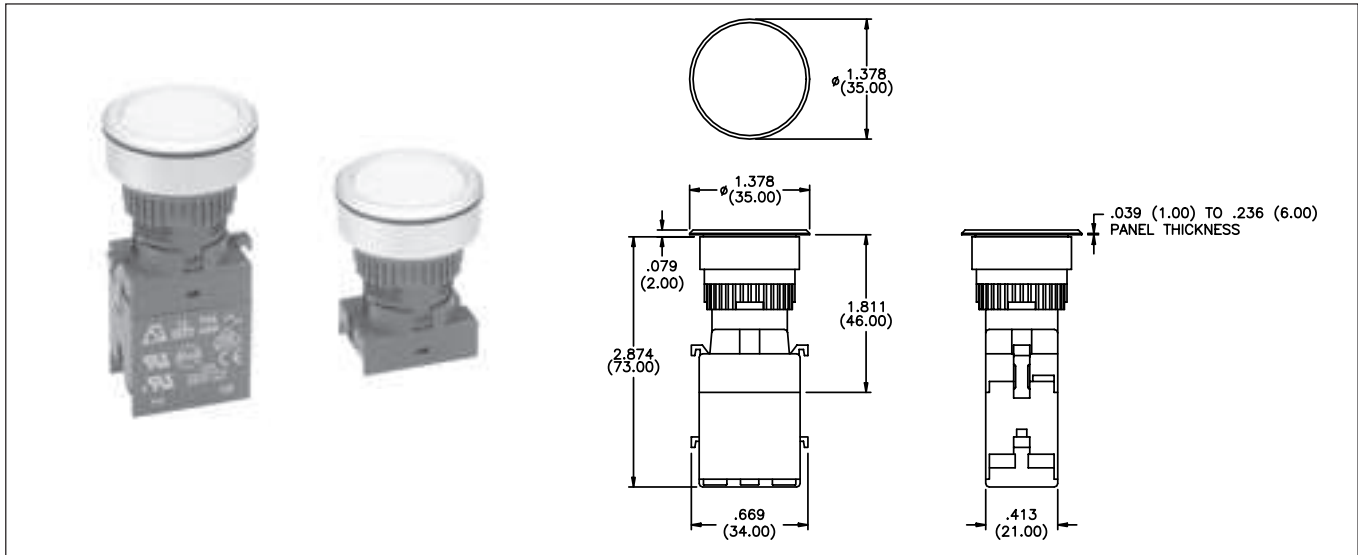
**A pushbutton assembly requires: Screen + Lamp (if illuminated) + Operator + one or two Switchblocks. An indicator assembly requires: Screen + Lamp + Operator.**

**To order**, select desired model numbers from tables below. **Example:** IP65 flush mounting maintained pushbutton, switch block with 2 N.O. contacts, red screen and 12V red LED = **A0263B, A0244J1, A0213X and A02503**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.

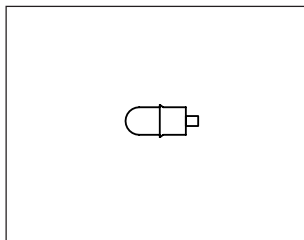


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



### SCREEN

Bezel	Color	Part no.
●	black	<b>A0263A</b>
●	red	<b>A0263B</b>
●	amber	<b>A0263C</b>
●	yellow	<b>A0263D</b>
●	green	<b>A0263E</b>
●	blue	<b>A0263F</b>
●	clear	<b>A0263G</b>
●	white	<b>A0263J</b>



### LAMP

Lamp	Voltage	Part no.
Filament	6.3V	<b>A0141A</b>
Filament	14V	<b>A0141B</b>
Filament	28V	<b>A0141C</b>
Filament	36V	<b>A0141D</b>
Filament	48V	<b>A0141E</b>
Filament	60V	<b>A0141F</b>
Neon	110V	<b>A0143G</b>
Neon	220V	<b>A0143H</b>

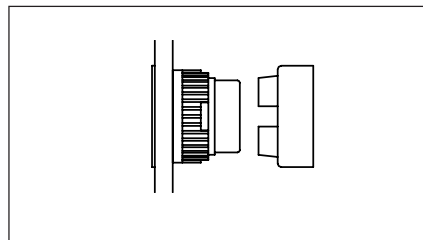
LED lamp model no's:  
see Pgs K5 & K6

LED assy ●	6V	<b>A0244H*</b>
LED assy ●	12V	<b>A0244J*</b>
LED assy ●	24V	<b>A0244K*</b>

Replace \* with color code for LED assemblies:

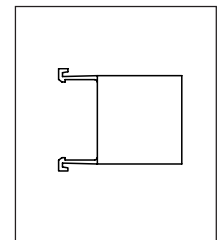
- 1: red
- 2: green
- 3: amber

White or blue LED assy: Contact factory.



### OPERATOR

Bezel	Description	Lamp type	Part no.
●	illum, mom	lamp/LED	<b>A0214Y</b>
●	illum, maint	lamp/LED	<b>A0214X</b>
●	illum, mom	LED assy	<b>A0213Y</b>
●	illum, maint	LED assy	<b>A0213X</b>
●	non-illum, mom		<b>A0215Y</b>
●	non-illum, maint		<b>A0215X</b>
●	illum, indicator	lamp/LED	<b>A02791</b>
●	illum, indicator	LED assy	<b>A02792</b>



### SWITCH BLOCK

Contacts	Part no.
1 N.O.	<b>A02501</b>
1 N.C.	<b>A02502</b>
2 N.O.	<b>A02503</b>
2 N.C.	<b>A02504</b>
1 N.O./1 N.C.	<b>A02505</b>

### SECOND SWITCH BLOCK

Contacts	Part no.
1 N.O.	<b>A02506</b>
1 N.C.	<b>A02507</b>
2 N.O.	<b>A02508</b>
2 N.C.	<b>A02509</b>
1 N.O./1 N.C.	<b>A02510</b>

To achieve 3 or 4 pole switching, add second switch block, from above table.

**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**

**FOR SCREEN ENGRAVING OR INSERT-ABLE LEGENDS: Contact factory.**

Bezel:   ■ rectangular   ■ square   ● round   'illum' - illuminated   'non-illum' - non-illuminated   'mom' - momentary   'maint' - maintained

**K**

# A02 SERIES INDICATORS

Panel cut-out .866" (22mm) or 1.161" x .846" (29.5mm x 21.5mm)

An indicator assembly requires:

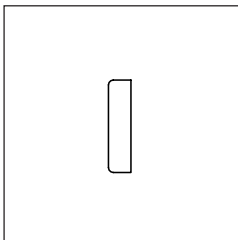
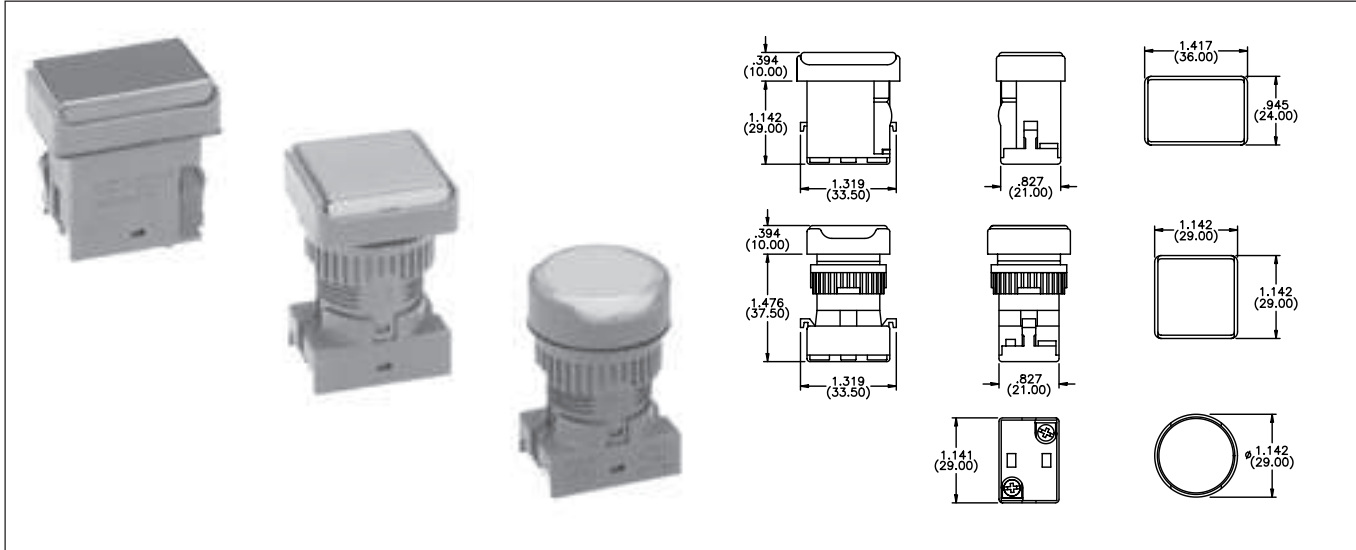
Screen + Lamp (LED or LED assembly) + Operator

To order, select desired model numbers from tables below.

Example: Rectangular indicator with red screen and 12V red LED =

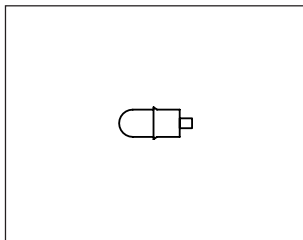
**A0261B, A0242J1 and A0272**

Indicators are normally shipped unassembled. Consult factory if factory assembly is required.



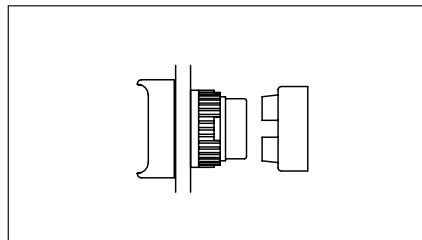
## SCREEN

Bezel	Color	Part no.
■	black	<b>A0261A</b>
■	red	<b>A0261B</b>
■	amber	<b>A0261C</b>
■	yellow	<b>A0261D</b>
■	green	<b>A0261E</b>
■	blue	<b>A0261F</b>
■	clear	<b>A0261G</b>
■	white	<b>A0261J</b>
■	black	<b>A0262A</b>
■	red	<b>A0262B</b>
■	amber	<b>A0262C</b>
■	yellow	<b>A0262D</b>
■	green	<b>A0262E</b>
■	blue	<b>A0262F</b>
■	clear	<b>A0262G</b>
■	white	<b>A0262J</b>
●	black	<b>A0263A</b>
●	red	<b>A0263B</b>
●	amber	<b>A0263C</b>
●	yellow	<b>A0263D</b>
●	green	<b>A0263E</b>
●	blue	<b>A0263F</b>
●	clear	<b>A0263G</b>
●	white	<b>A0263J</b>



## LAMP

Lamp	Voltage	Part no.
Filament	6.3V	<b>A0141A</b>
Filament	14V	<b>A0141B</b>
Filament	28V	<b>A0141C</b>
Filament	36V	<b>A0141D</b>
Filament	48V	<b>A0141E</b>
Filament	60V	<b>A0141F</b>
Neon	110V	<b>A0143G</b>
Neon	220V	<b>A0143H</b>
LED lamp model no's: see Pgs K5 & K6		
LED assy	■ 6V	<b>A0242H*</b>
LED assy	■ 12V	<b>A0242J*</b>
LED assy	■ 24V	<b>A0242K*</b>
LED assy	■ 6V	<b>A0243H*</b>
LED assy	■ 12V	<b>A0243J*</b>
LED assy	■ 24V	<b>A0243K*</b>
LED assy	● 6V	<b>A0244H*</b>
LED assy	● 12V	<b>A0244J*</b>
LED assy	● 24V	<b>A0244K*</b>
Replace * with color code for LED assemblies: 1: red 2: green 3: amber		



## OPERATOR

Bezel	Description	Lamp type	Part no.
■	indicator	lamp/LED	<b>A0271</b>
■	indicator	LED assy	<b>A0272</b>
■	indicator	lamp/LED	<b>A0273</b>
■	indicator	LED assy	<b>A0274</b>
●	indicator	lamp/LED	<b>A0275</b>
●	indicator	LED assy	<b>A0276</b>

White or blue LED assembly: Contact factory.

**FOR UNSEALED INDICATORS (IP40): Add '01' to end of OPERATOR model number.**

**FOR SCREEN ENGRAVING OR INSERTABLE LEGENDS: Contact factory.**

Bezel: ■ rectangular ■ square ● round

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# A02 SERIES

## ROTARY LEVER SWITCHES

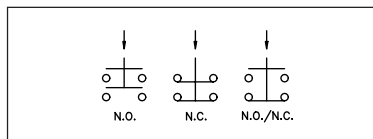
Panel cut-out .866" (22mm)

**A rotary lever assembly requires:  
Operator + one or two Switchblocks**

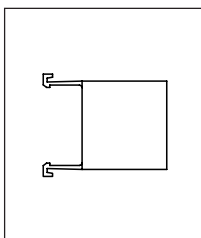
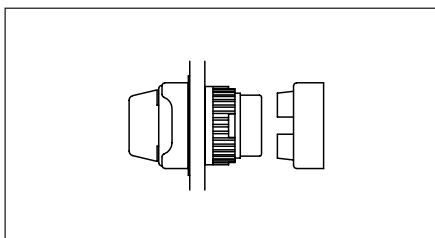
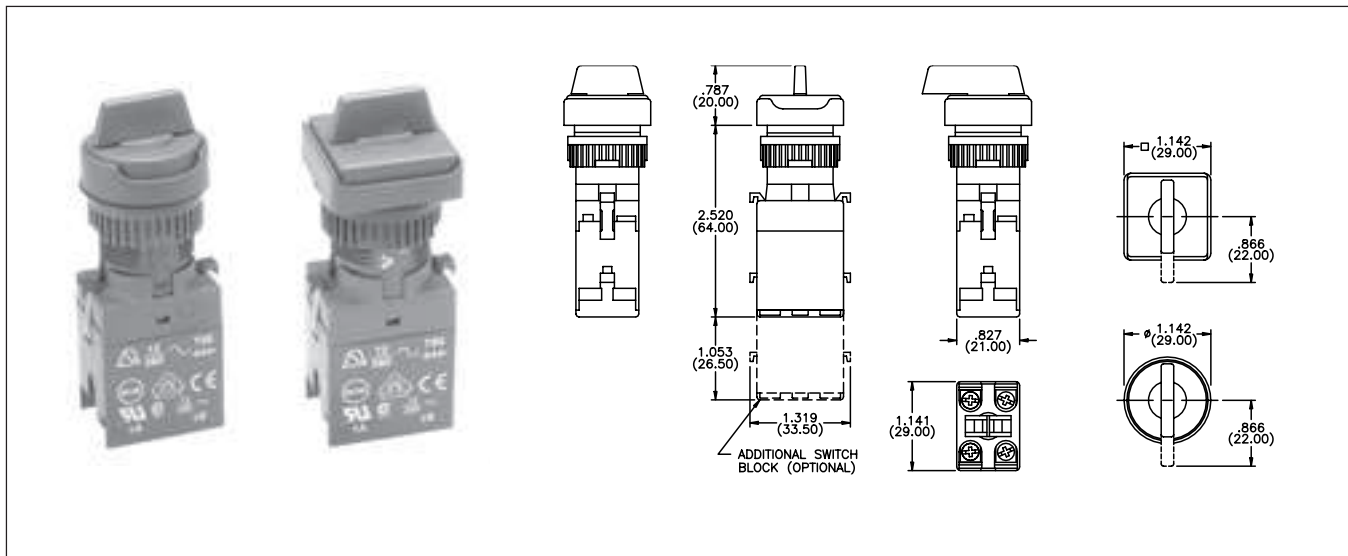
To order, select desired model numbers from tables below.

**Example:** IP65 square 2 position maintained rotary switch with long lever and switch block with 2 N.O. contacts = **A029101** and **A02503**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



### OPERATOR

Bezel	Description	Short lever	Long lever
■	2 pos. maintained	<b>A029201</b>	<b>A029101</b>
■	2 pos. momentary	<b>A029202</b>	<b>A029102</b>
■	3 pos. maintained	<b>A029203</b>	<b>A029103</b>
■	3 pos. momentary	<b>A029204</b>	<b>A029104</b>
■	3 pos. mainB, momC	<b>A029205</b>	<b>A029105</b>
■	3 pos. momB, mainC	<b>A029206</b>	<b>A029106</b>
●	2 pos. maintained	<b>A029401</b>	<b>A029301</b>
●	2 pos. momentary	<b>A029402</b>	<b>A029302</b>
●	3 pos. maintained	<b>A029403</b>	<b>A029303</b>
●	3 pos. momentary	<b>A029404</b>	<b>A029304</b>
●	3 pos. mainB, momC	<b>A029405</b>	<b>A029305</b>
●	3 pos. momB, mainC	<b>A029406</b>	<b>A029306</b>

### SWITCH BLOCK

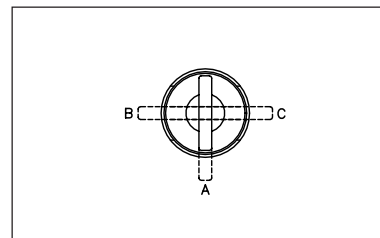
Contacts	Part no.
1 N.O.	<b>A02501</b>
1 N.C.	<b>A02502</b>
2 N.O.	<b>A02503</b>
2 N.C.	<b>A02504</b>
1 N.O./1 N.C.	<b>A02505</b>

### SECOND SWITCH BLOCK

Contacts	Part no.
1 N.O.	<b>A02506</b>
1 N.C.	<b>A02507</b>
2 N.O.	<b>A02508</b>
2 N.C.	<b>A02509</b>
1 N.O./1 N.C.	<b>A02510</b>

To achieve 3 or 4 pole switching, add second switch block, from above table.

### LEVER POSITIONS



### Lever rotation - 2 position switches

The model numbers shown are for switches with counterclockwise lever rotation. For clockwise rotation, replace:

**01 with 07**  
**02 with 08**

at the end of the model number.

**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**

Bezel: ■ rectangular ■ square ● round 'momC' - momentary position C 'mainB' - maintained position B



# A02 SERIES KEYLOCK SWITCHES

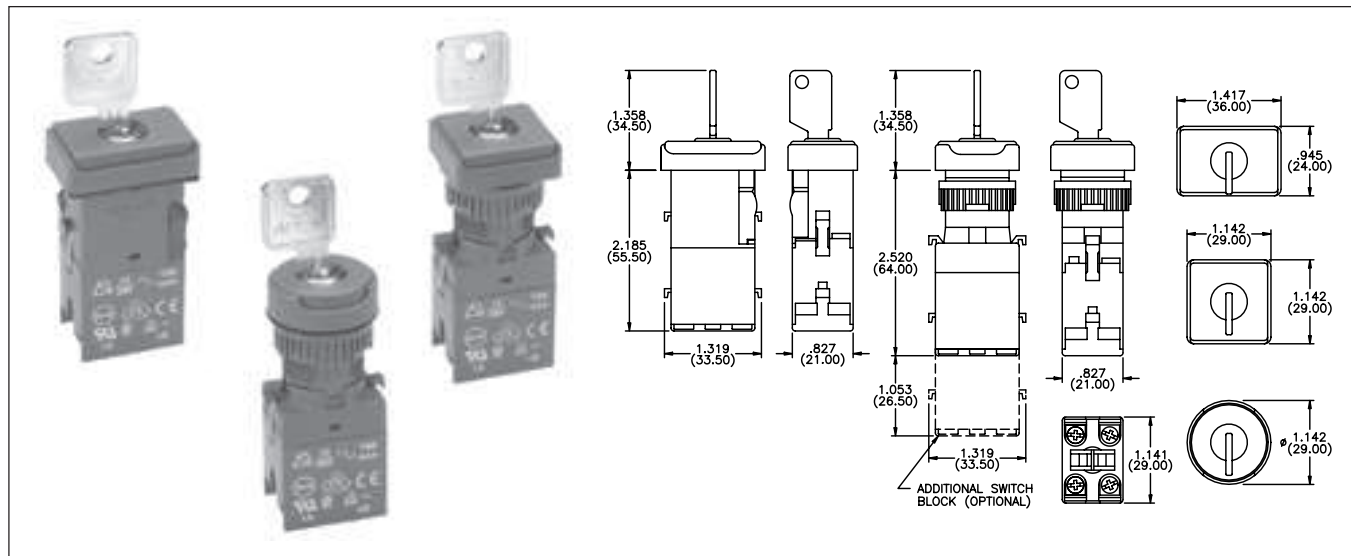
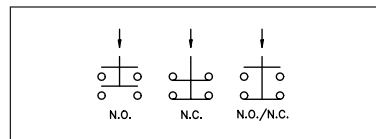
Panel cut-out .866" (22mm) or 1.161" x .846" (29.5mm x 21.5mm)

**A keylock switch assembly requires:  
Operator + one or two Switchblocks**

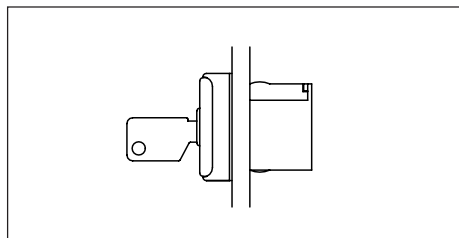
To order, select desired model numbers from tables below.

**Example:** IP65 square 2 position maintained keylock switch with 2 N.O. contacts =  
**A028201 and A02503**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.

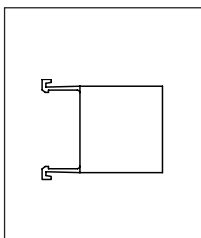


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## OPERATOR

Bezel	Description	Part no.	Key removable
■	2 pos. maintained	<b>A028101</b>	A - C
■	2 pos. momentary	<b>A028102</b>	A
■	3 pos. maintained	<b>A028105</b>	A - B - C
■	3 pos. momentary	<b>A028106</b>	A
■	3 pos. mainB, momC	<b>A028107</b>	A - B
■	3 pos. momB, mainC	<b>A028108</b>	A - C
■	2 pos. maintained	<b>A028201</b>	A - C
■	2 pos. momentary	<b>A028202</b>	A
■	3 pos. maintained	<b>A028205</b>	A - B - C
■	3 pos. momentary	<b>A028206</b>	A
■	3 pos. mainB, momC	<b>A028207</b>	A - B
■	3 pos. momB, mainC	<b>A028208</b>	A - C
●	2 pos. maintained	<b>A028301</b>	A - C
●	2 pos. momentary	<b>A028302</b>	A
●	3 pos. maintained	<b>A028305</b>	A - B - C
●	3 pos. momentary	<b>A028306</b>	A
●	3 pos. mainB, momC	<b>A028307</b>	A - B
●	3 pos. momB, mainC	<b>A028308</b>	A - C



## SWITCH BLOCK

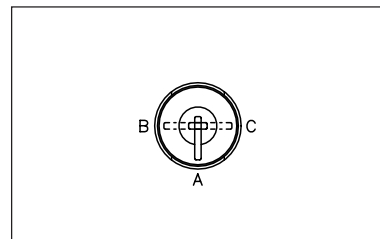
Contacts	Part no.
1 N.O.	<b>A02501</b>
1 N.C.	<b>A02502</b>
2 N.O.	<b>A02503</b>
2 N.C.	<b>A02504</b>
1 N.O./1 N.C.	<b>A02505</b>

## SECOND SWITCH BLOCK

Contacts	Part no.
1 N.O.	<b>A02506</b>
1 N.C.	<b>A02507</b>
2 N.O.	<b>A02508</b>
2 N.C.	<b>A02509</b>
1 N.O./1 N.C.	<b>A02510</b>

To achieve 3 or 4 pole switching, add second switch block, from above table.

## KEY POSITIONS



### Key rotation - 2 position switches

The model numbers shown are for switches with counterclockwise lever rotation. For clockwise rotation, replace:

**01 with 20**  
**02 with 19**

at the end of the model number.

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

**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**

**NON-REMOVABLE KEY POSITIONS: Contact factory.**

Bezel: ■ rectangular ■ square ● round 'momC' - momentary position C 'mainB' - maintained position B

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# A02 SERIES

## EMERGENCY STOP SWITCHES & MUSHROOM HEAD PUSHBUTTONS

Panel cut-out .866" (22mm)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

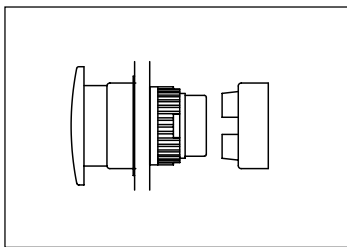
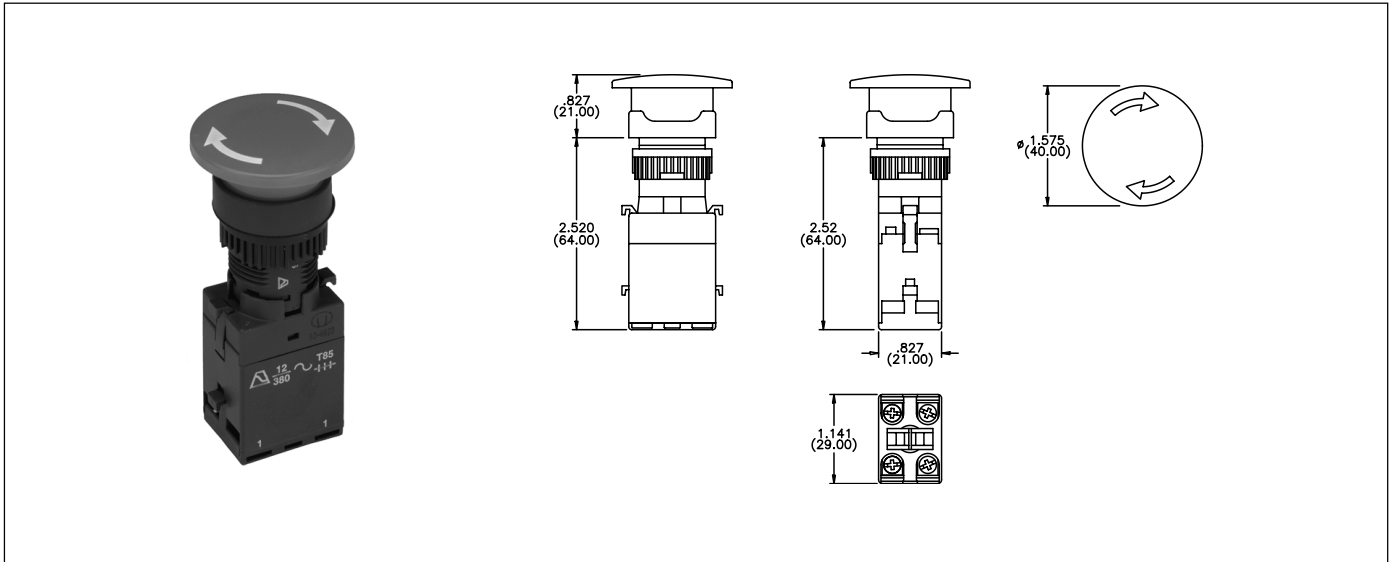
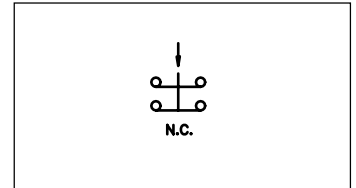
### EMERGENCY STOP SWITCHES

- Highly visible 1.575" (40mm) dia. red mushroom actuator
- Highly reliable positive break switch
- Push to shut switch 'off', twist to reset to 'on'

An emergency stop switch assembly requires: **Operator + Switch block**

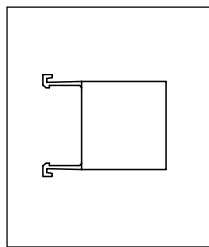
To order, specify with single pole or double pole switch block. **Approved to UL1054/EN 60947**

Switches are normally shipped unassembled. Consult factory if factory assembly is required.



**OPERATOR**

Description	Part no.
Emergency stop	<b>A02ES</b>



**SWITCH BLOCK**

No. of poles	Part no.
Single pole	<b>A02512</b>
Double pole	<b>A02511</b>

**ACCESSORY**

3.543" (90mm) dia.  
Self Adhesive Label



Description	Part no.
Yellow label with text	<b>A02YL1</b>
Yellow label	<b>A02YL2</b>

### MUSHROOM HEAD PUSHBUTTONS

NOTE: Mushroom head models are not approved to UL1054/EN 60947

**OPERATOR**

Bezel	Description	Part no.
●	Red momentary	<b>A02MMB</b>
●	Black momentary	<b>A02MMA</b>
●	Red maintained	<b>A02MXB</b>
●	Black maintained	<b>A02MXA</b>

**SWITCH BLOCK**

Contacts	Part no.
1 N.O.	<b>A02501</b>
1 N.C.	<b>A02502</b>
2 N.O.	<b>A02503</b>
2 N.C.	<b>A02504</b>
1 N.O./1 N.C.	<b>A02505</b>

**SECOND**

**SWITCH BLOCK**

Contacts	Part no.
1 N.O.	<b>A02506</b>
1 N.C.	<b>A02507</b>
2 N.O.	<b>A02508</b>
2 N.C.	<b>A02509</b>
1 N.O./1 N.C.	<b>A02510</b>

To achieve 3 or 4 pole switching, add second switch block, from table at right.

Bezel: ● round

For other colors, contact factory.

Note: actuator on momentary version is un-marked. Dimensions of mushroom head actuator is the same as A02ES (above).

Note that mushroom head switches, although similar in appearance to emergency stop switches, do not have fast break contacts. Therefore, they should not be used in an emergency stop application.

**Mushroom head pushbutton assembly requires: Operator + Switchblock**

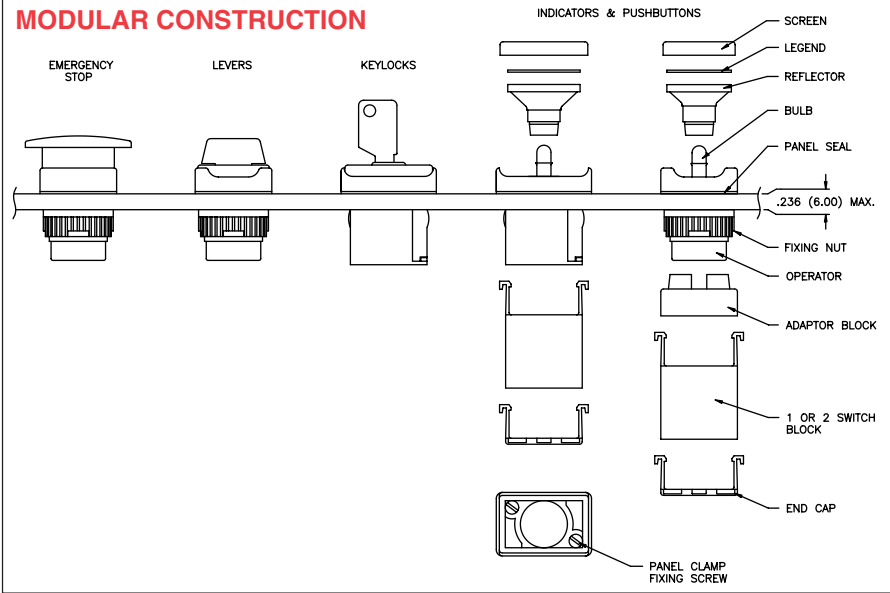
**FOR UNSEALED SWITCHES (IP40): Add '01' to end of OPERATOR model number.**

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# A02 SERIES

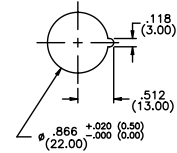
## INDUSTRIAL CONTROLS

### INSTALLATION & TOOLS

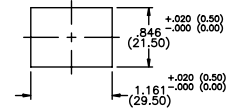


### PANEL CUT-OUTS

Round & square operators



Rectangular operators



Max. panel thickness: .236" (6mm)

### PANEL MOUNTING ASSEMBLY

- Drill or punch hole per panel cut-outs above.
- Assemble front operator through hole and:
  - a. Round & square types: tighten fixing nut finger tight. Then, snap on adaptor block.
  - b. Rectangular types: tighten two panel fixing screws in front to a maximum of 8.5 in-oz. (6 Ncm).
- Wire switch block as required and snap onto front operator.
- Snap end cap onto switch block (optional).
- Assemble bulb, if required, using tool number 30-0002.
- Snap the screen onto the reflector assembly with legend in between, if required. Then snap onto front of operator, taking care to line up the locating slot with the polarizing dot to prevent damaging the seal.

### TO REMOVE BULB

Remove reflector/screen assembly by inserting tool number 30-0006 between the bezel finger guard and the screen to engage the slot and pulling. Use the bulb extractor to remove the bulb.

### TO REMOVE SWITCH BLOCK

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



### END CAP TERMINAL GUARD

(provides unique terminal protection)  
Order separately - part number **14-0005**

**FIXING NUT KEY 30-0001**



**BULB REMOVER 30-0002**



**SCREEN REMOVER 30-0006**



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