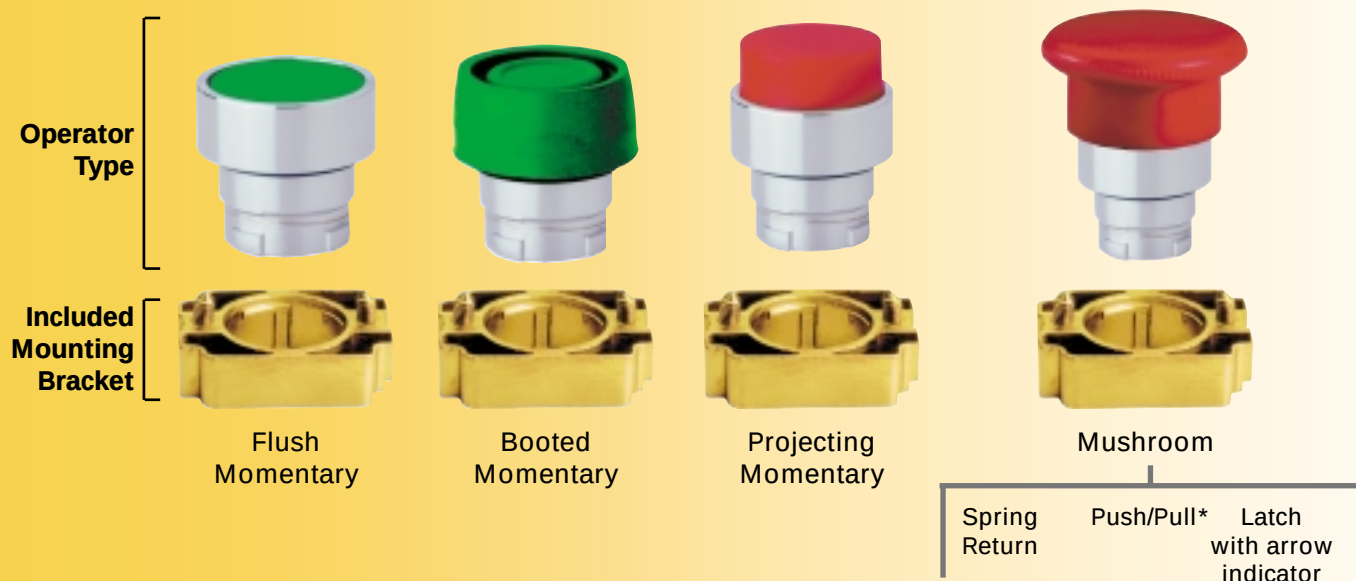


**High Quality Metal  
and Long Life LEDs**



Altech Corp. can provide other push button and actuator options. If your requirement calls for a 22 mm operator which is not shown, please do not hesitate to call.

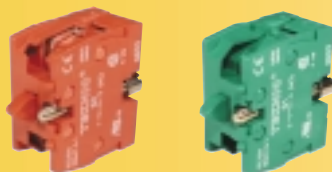


### Push buttons

| Color  | Cat. No. | Cat. No. | Cat. No. | Cat. No. |
|--------|----------|----------|----------|----------|
| White  | 2AF1     | 2AB1     | 2AP1     | 2AM2     |
| Black  | 2AF2     | 2AB2     | 2AP2     | 2AMPP2   |
| Green  | 2AF3     | 2AB3     | 2AP3     | 2AML2    |
| Red    | 2AF4     | 2AB4     | 2AP4     | 2AM3     |
| Blue   | 2AF6     | 2AB6     | 2AP6     | 2AM4     |
| Yellow | 2AF8     | 2AB8     | 2AP8     | 2AMPP4   |
|        |          |          |          | 2AML4    |
|        |          |          |          | 2AM6     |
|        |          |          |          | 2AM8     |

For push button and selector switch dimensions see page 7.

\*Illuminated available, please contact Altech.



#### Switch Contacts

##### Panel Mount

|                        |    |
|------------------------|----|
| Normally Open Silver   | S1 |
| Normally Closed Silver | S2 |
| Normally Open Gold     | S3 |
| Normally Closed Gold   | S4 |

##### Base Mount

(for use with thermoplastic enclosures listed on page 5)

|                        |    |
|------------------------|----|
| Normally Open Silver   | S5 |
| Normally Closed Silver | S6 |
| Normally Open Gold     | S7 |
| Normally Closed Gold   | S8 |



Certified for type 4X, 12 environment.

S2 normally closed contact shown.

S1 normally open contact shown.

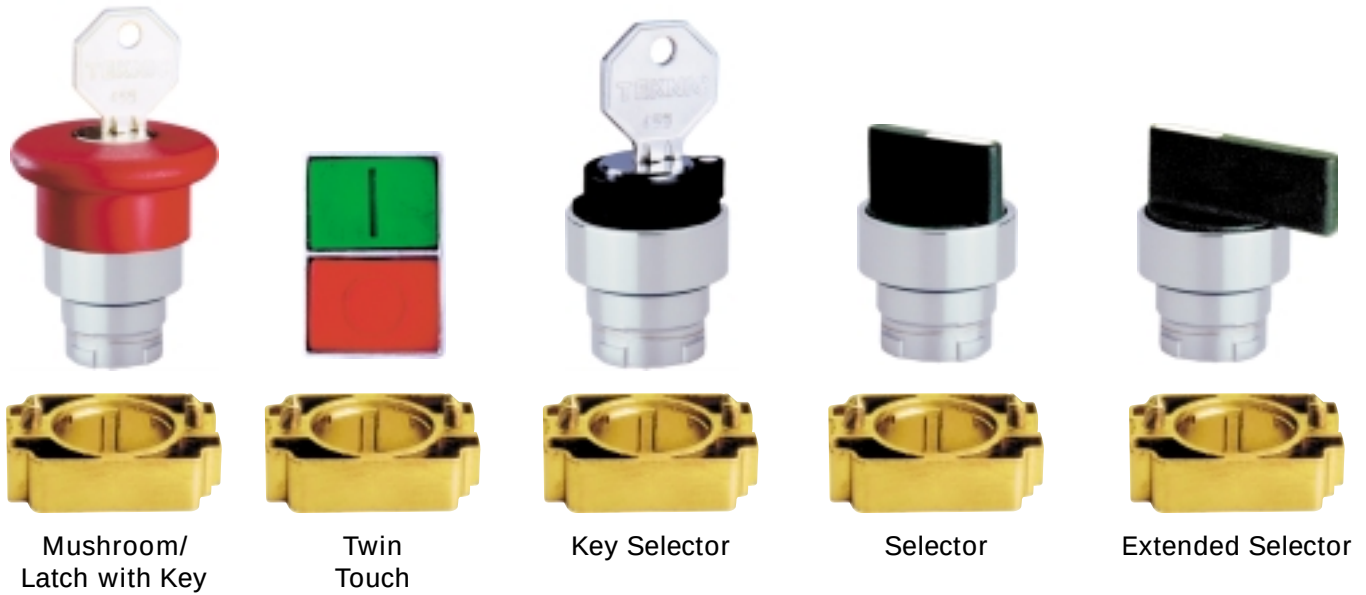


#### Notes:

Up to six switch contacts can be installed on any non illuminated operator.

Up to four switch contacts can be installed on any illuminated operator.

## 22mm Non Illuminated Metal Operators



### Push buttons

Cat. No.

■ 2AMLKB2

■ 2AMLKB4

Cat. No.

■ Green/Red  
2ATF3-F4-IO  
 ■ Green/ ExtendedRed  
2ATF3P4

### Selector Switches

Cat. No.

■ 2AK2-XX

Cat. No.

■ 2AS2-X

Cat. No.

■ 2AS2E-X

Key  
Selector

2 A K 2 -

#### Function Codes

#### Key Removal

| Ser. No. | Function          | Left | Center | Right |
|----------|-------------------|------|--------|-------|
| 01       | Maintained .....  | ✓    |        | ✓     |
| 02       | Maintained .....  | ✓    |        |       |
| 03       | Maintained .....  |      |        | ✓     |
| 04       | Spring Return ... | ✓    |        |       |
| 05       | Maintained .....  | ✓    |        | ✓     |
| 06       | Maintained .....  | ✓    | ✓      | ✓     |
| 07       | Maintained .....  |      | ✓      |       |
| 08       | Spring Return ... |      | ✓      |       |
| 09       | Spring Return ... |      | ✓      |       |
| 10       | Spring Return ... |      | ✓      |       |

Non  
Illuminated  
Selector

2 A S 2 -

#### Function Codes

| Ser. No. | Function      |
|----------|---------------|
| 1        | Maintained    |
| 2        | Spring Return |
| 3        | Maintained    |
| 4        | Spring Return |
| 5        | Spring Return |
| 6        | Spring Return |

Non Illuminated  
Extended  
Selector

2 A S 2 E -

#### Function Codes

| Ser. No. | Function      |
|----------|---------------|
| 1        | Maintained    |
| 2        | Spring Return |
| 3        | Maintained    |
| 4        | Spring Return |
| 5        | Spring Return |
| 6        | Spring Return |



## 22mm LED Illuminated Operators & Pilot Lights



Included  
LED Bulb,  
Bulb Holder,  
Mounting  
Hardware



Selector



Projecting  
Momentary



Flush  
Momentary



Twin  
Touch



LED Pilot Light

### Selector Switch

### Push buttons

### LED Pilot Lights

| Color  | Cat. No.       | Cat. No.     | Cat. No.     | Cat. No.         | Cat. No.     |
|--------|----------------|--------------|--------------|------------------|--------------|
| White  | 2ASL1LB-X-XXX  | 2ALP1LB-XXX  | 2ALF1LB-XXX  |                  | 2PLB1LB-XXX  |
| Green  | 2ASL3LB-X-XXX  | 2ALP3LB-XXX  | 2ALF3LB-XXX  | Green/Red        | 2PLB3LB-XXX  |
| Red    | 2ASL4LB-X-XXX  | 2ALP4LB-XXX  | 2ALF4LB-XXX  | 2ATL5LB F3F4-XXX | 2PLB4LB-XXX  |
| Amber  | 2ASL5LB-X-XXX  | 2ALP5LB-XXX  | 2ALF5LB-XXX  |                  | 2PLB5LB-XXX  |
| Blue   | 2ASL6LB-X-XXX  | 2ALP6LB-XXX  | 2ALF6LB-XXX  |                  | 2PLB6LB-XXX  |
| Clear* | 2ASL7LB-X-XXX* | 2ALP7LB-XXX* | 2ALF7LB-XXX* |                  | 2PLB7LB-XXX* |
| Yellow | 2ASL8LB-X-XXX  | 2ALP8LB-XXX  | 2ALF8LB-XXX  |                  | 2PLB8LB-XXX  |

\*Supplied with yellow LED

| Color Codes |        | Function Codes |               | Voltage Codes |             |
|-------------|--------|----------------|---------------|---------------|-------------|
| No.         | Color  | Ser. No.       | Function      |               |             |
| 1           | White  | 1              | Maintained    | 012           | = 12VAC/DC  |
| 3           | Green  | 2              | Spring Return | 024           | = 24VAC/DC  |
| 4           | Red    | 3              | Maintained    | 048           | = 48VAC/DC  |
| 5           | Amber  | 4              | Spring Return | 110           | = 110VAC/DC |
| 6           | Blue   | 5              | Spring Return | 230           | = 230VAC/DC |
| 7           | Clear  | 6              | Spring Return |               |             |
| 8           | Yellow |                |               |               |             |

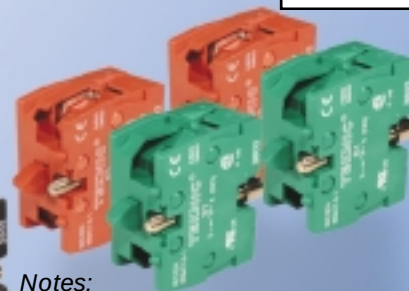
Note:  
All LED pilot lights  
and illuminated  
actuators at a  
specified voltage  
will operate on  
either AC or DC.

| Voltage Codes |             |
|---------------|-------------|
| 012           | = 12VAC/DC  |
| 024           | = 24VAC/DC  |
| 048           | = 48VAC/DC  |
| 110           | = 110VAC/DC |
| 230           | = 230VAC/DC |

All illuminated operators and pilot  
lights are supplied with LED.



Certified for type 4X, 12 environment.



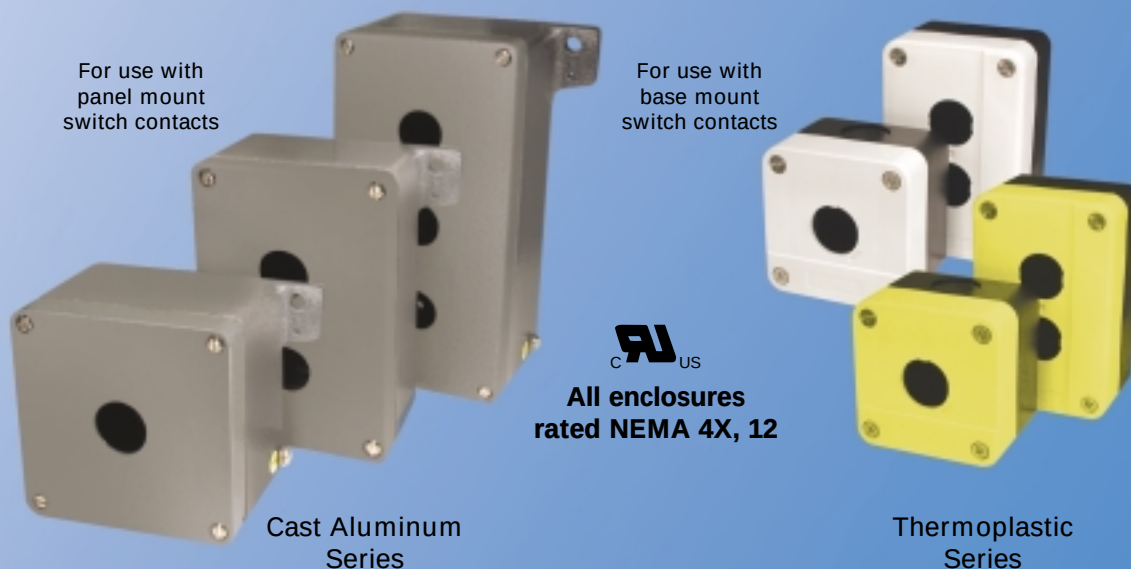
Notes:

Up to four switch contacts can be installed  
on any illuminated operator.

Up to six switch contacts can be installed  
on any non illuminated operator.

For push button and selector switch  
dimensions see page 7.

## 22mm Enclosures



| Cat. No.   | Operator Capacity | Color Top/ Bottom | Construction  | Dimensions (LxWxH) mm* | Cable Entry Size | No. of Knockouts | Mounting Hole Dia. |
|------------|-------------------|-------------------|---------------|------------------------|------------------|------------------|--------------------|
| 2-004-A-12 | 1                 | Gray              | Cast Aluminum | 70 x 90 x 90           | 1 x M20 x 1.5mm  | –                | 8 mm               |
| 2-005-C-12 | 2                 | Gray              | Cast Aluminum | 70 x 90 x 135          | 2 x M20 x 1.5mm  | –                | 8 mm               |
| 2-006-E-12 | 3                 | Gray              | Cast Aluminum | 70 x 90 x 180          | 2 x M20 x 1.5mm  | –                | 8 mm               |
| 2-004-A-12 | 1                 | Gray              | Cast Aluminum | 52 x 80 x 90           | 2 x M20 x 1.5mm  | –                | 6 mm               |
| 2-005-C-12 | 2                 | Gray              | Cast Aluminum | 52 x 80 x 135          | 2 x M20 x 1.5mm  | –                | 6 mm               |
| 2-006-E-12 | 3                 | Gray              | Cast Aluminum | 52 x 80 x 180          | 2 x M20 x 1.5mm  | –                | 6 mm               |
| 3-001-Q-11 | 1                 | White/ Black      | Thermoplastic | 50.5 x 68 x 68         | 2 x 21mm         | 2                | –                  |
| 4-001-Q-10 | 1                 | Yellow/ Black     | Thermoplastic | 50.5 x 68 x 68         | 2 x 21mm         | 2                | –                  |
| 3-001-R-11 | 2                 | White/ Black      | Thermoplastic | 50.5 x 68 x 104        | 2 x 21mm         | 2                | –                  |
| 4-001-R-10 | 2                 | Yellow/ Black     | Thermoplastic | 50.5 x 68 x 104        | 2 x 21mm         | 2                | –                  |

\* To convert mm to inches, divide mm by 25.4.  
Dimensions for metal enclosures do not include mounting ears.

## Custom assemblies available.

Contact Altech for custom imprinting, enclosure color options, custom legend plates and prewired push button stations.

E-Stop Shroud for 22 mm

| Cat. No. | Construction    |
|----------|-----------------|
| 2ESS1    | Polimer Plastic |
| 2ESS1-UL | UL Plastic      |



## 22mm LED Illuminated Operators & Pilot Lights

### Control and Signalling devices Ø 22.5

This range of Ø 22.5 push buttons, selector switches, illuminated switches, illuminated selector switches and pilot lights have been designed to provide the following salient features:

- Economy of space
- Self Wiping Contact
- Safe in operation
- Simple to mount (screw driver is all that is required)
- Fixing method unaffected by excessive vibration-unit does not rotate
- Protection against electric shock (unit grounded)
- Aesthetically pleasing
- Heavy duty construction
- Shrouded terminals
- Very good flame resistance
- Use of LEDs for long life and minimum maintenance

### Actuators

The circular actuators have chrome plated metal bezels, and are interchangeable on the different types of contact elements.

### Contact Elements

The contact elements are double break and have self wiping contacts. The elements are interchangeable and can be stacked without additional hardware. 1 to 6 elements (NO or NC) can be used with non illuminated actuators, whereas, 1 to 4 elements (NO or NC) can be used for illuminated actuators. Gold plated NO and NC contact elements for low voltage, low current switching circuits < 25 mA, are available.

### LED Illuminated Actuators and Pilot Lights

LED illuminated actuators & pilot lights are supplied, LED in bayonet cap suitable for operating at various voltages. LED bulbs with bayonet cap are constructed in the standard BA9S design with OAL max. 28 mm.

### Terminals

Contact elements and pilot lights are designed to have shrouded terminals with combination flat/phillip screws.

### Fixing

The control devices Ø 22.5 can be fixed in any position on panels of 1 to 6 mm (.039 - .236 in.) thickness. We recommend minimum fixing centers of 30 x 40 mm (1.2 x 1.57"). However, the dimensions and configuration should be decided on the basis of the application. The actuators and the lens assemblies lock on to the holding bracket using a bayonet type of fixing which enables a simple and fast assembly. The complete assembly is locked into position on the panel by two M4 pointed screws on the bracket, tightened equally from the rear. The screws should be tightened adequately to such an extent as to pierce through the paint on the panel from inside. These screws also ensure the grounding of the unit.

### Electrical and Mechanical Characteristics Environment

Standard conformity:

Approvals:

Degree of protection:

Ambient :

Operating position:

### Contact Block

Rated insulation voltage:

Rated thermal current:

Contact operation:

Make and break capacity

as per IEC 947 - 5 - (1) 1990:

As per CSA - C22.2 No. 14-95, UL508:

Terminal capacity:

Terminal marking:

Short circuit protection:

Mechanical life:

Electric rating (for 1 million operation cycles, operation at 3600 cycles per hour, load factor 0.5)

### Modules for pilot light & illuminated switches with bulb LED

Current consumption (applicable to all colors)

24 VAC/DC, 100 VAC & 240 VAC:

110 VDC:

220 VDC:

Service life (at nominal voltage and at

ambient temperature of 25°C):

Voltage limits (nominal voltage):

Short circuit protection:

Terminal capacity:

IEC 60947-5-1

VDE0660

CSA - C22.2 No. 14-95, UL508, IEC 947 - 5 (1) 1990, IS 13947

ASTA UK certified as per IEC 947 - 5 - (1) 1990

CSA - C22.2 No. 14-95, UL508

IP 65 as per IEC 529, NEMA 4X, 12 as per UL 508

- 25°C to + 70°C

All positions

500V

10A

Self wiping, slow break NO or NC

AC 15 4A, 415V AC

DC 13 0.5A, 110V DC

A600 Q600

minimum 1 x 0.5 mm<sup>2</sup> (20 AWG), maximum 2 x 1.5<sup>2</sup> mm<sup>2</sup> (2x16 AWG) or 1 x 2.5 mm<sup>2</sup> (1x14 AWG)

1-2 for NC, 3-4 for NO

10A cartridge fuse HRC type, rated for resistive loading

Over 1 million operations

| AC 15 | V  |     |     |  | DC 13 | V   |     |  |
|-------|----|-----|-----|--|-------|-----|-----|--|
|       | 24 | 120 | 230 |  |       | 24  | 110 |  |
| A     | 5  | 4   | 3   |  | A     | 0.5 | 0.2 |  |

max. 20 mA

max. 15 mA

max. 10 mA

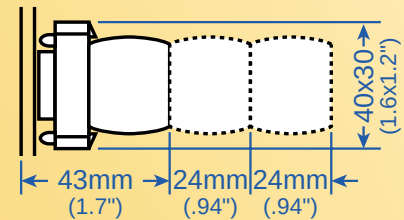
100,000 hours

<20% of rated voltage>

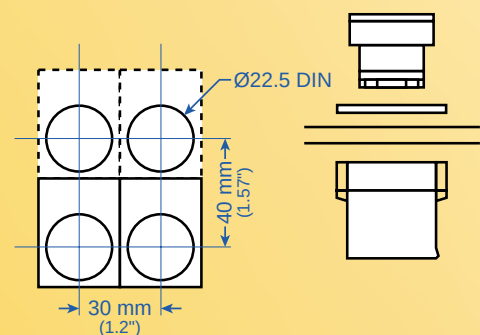
on specific request

min. 1 x 0.5 mm<sup>2</sup> (20 AWG), max. 2 x 1.5 mm<sup>2</sup> (2x16 AWG)

or 1 x 2.5 mm<sup>2</sup> (1x14 AWG)



Fixing Arrangement





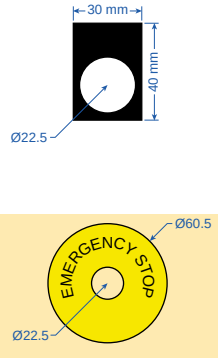
## 22mm LED Illuminated Operators & Pilot Lights

### Accessories and Spares

Legend plates 30 x 40 mm (1.2 x 1.6") (black with white characters) are supplied with the following standard texts:

|                      |                        |                 |                      |               |                    |                |                       |                         |                   |
|----------------------|------------------------|-----------------|----------------------|---------------|--------------------|----------------|-----------------------|-------------------------|-------------------|
| START<br>2LP01       | FORWARD<br>2LP03       | UP<br>2LP05     | OPEN<br>2LP07        | AUTO<br>2LP09 | SLOW<br>2LP11      | RESET<br>2LP13 | ON<br>2LP15           | RIGHT<br>2LP17          | TRIP<br>2LP19     |
| STOP<br>2LP02        | REVERSE<br>2LP04       | DOWN<br>2LP06   | CLOSE<br>2LP08       | HAND<br>2LP10 | FAST<br>2LP12      | INCH<br>2LP14  | OFF<br>2LP16          | LEFT<br>2LP18           | POWER ON<br>2LP20 |
| START/STOP<br>2LP28  | UP/DOWN<br>2LP29       | ON/OFF<br>2LP30 | REV/FWD<br>2LP31     |               | AUTO/HAND<br>2LP32 |                | LOCAL/REMOTE<br>2LP33 | I/II<br>2LP34           | O/I<br>2LP35      |
| HAND/O/AUTO<br>2LP36 | SLOW/OFF/FAST<br>2LP37 |                 | UP/OFF/DOWN<br>2LP38 |               | I/O/II<br>2LP39    |                | BLANK<br>2LP40        | EMERGENCY STOP<br>2LP41 |                   |

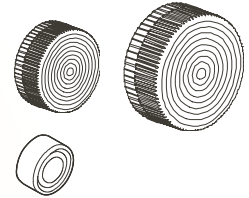
**Custom Legends per customer specifications - 2LPXX**



Legend plate Ø 60 mm  
yellow with black characters  
for EMERGENCY STOP.

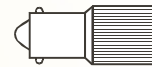
### Lenses and Replacement Boots

| Color                                                        | White  | Green  | Red    | Amber  | Blue   | Clear  | Yellow |
|--------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Lenses for pilot lights with LED                             | 2PLL1L | 2PLL3L | 2PLL4L | 2PLL5L | 2PLL6L | 2PLL7L | 2PLL8L |
| Lenses for illuminated actuators with LED (flush/projecting) | 2LAL1L | 2LAL3L | 2LAL4L | 2LAL5L | 2LAL6L | 2LAL7L | 2LAL8L |
| Boots for booted actuators                                   | 2BT2   | 2BT3   | 2BT4   | -      | 2BT6   | -      | 2BT8   |



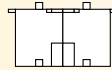
### Replacement LED Bulbs

| Color    | White    | Green    | Red      | Amber    | Blue     | Yellow   | Voltage |
|----------|----------|----------|----------|----------|----------|----------|---------|
| Type No. | MCB9124  | MCB9324  | MCB9424  | MCB9524  | MCB9624  | MCB9824  | 24      |
|          | MCB91110 | MCB93110 | MCB94110 | MCB95110 | MCB96110 | MCB98110 | 110     |
|          | MCB91230 | MCB93230 | MCB94230 | MCB95230 | MCB96230 | MCB98230 | 230     |



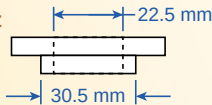
**Push Push mechanism for converting spring return actuator into maintained**

Type No.: 2PPM



**Adapter for fixing Ø 22.5 devices in Ø 30.5 cutout**

Type No.: 2ADP



**Mounting Bracket**

Type No.: 2BRK



Type No.: 2BKKT (Thin Bracket for Plastic Enclosure)

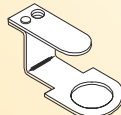
**Padlock**

For mushroom actuator:

Type No.: 2PAM

For projecting actuator:

Type No.: 2PAP



**Transparent Silicone Rubber Boot for Flush Actuators**

Color: Clear

Type No.: 2BT7



**Rubber Boot for Twin Actuator**

Color: Clear

Type No.: 2ATBT7 (non illuminated)

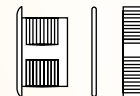
2ATLBT7 (illuminated)



**Blanking plug for 22.5 mm holes**

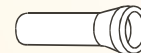
Color: Black

Type No.: 2BP2



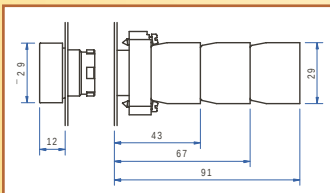
**Bulb Extractor**

Type No.: 2BA9SE

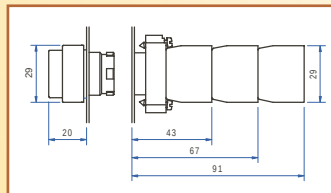


**Push button Diagrams** (to convert to inches multiply by 0.03937)

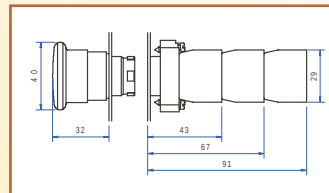
Non-Illuminated Flush



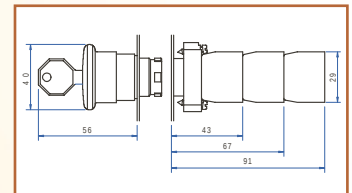
Non-Illuminated Projecting



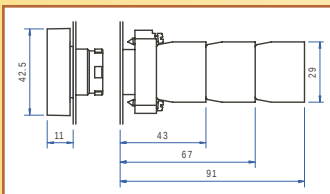
Non-Illuminated Mushroom



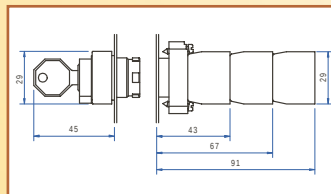
Non-Illuminated Key Mushroom



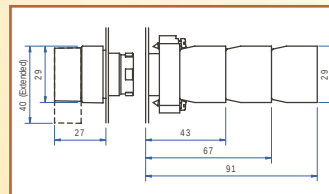
Non-Illuminated Double Head Flush



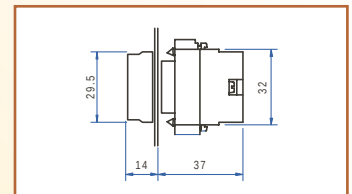
Non-Illuminated Key Selector



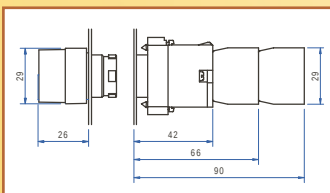
Non-Illuminated Selector & Extended



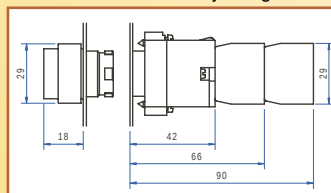
Pilot Light



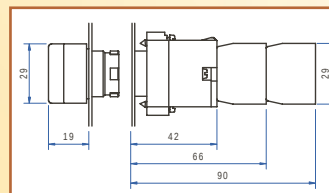
Illuminated Selector



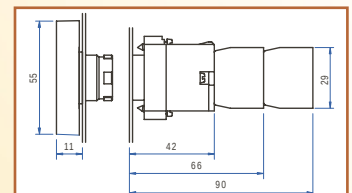
Illuminated Projecting



Illuminated Flush



Illuminated Double Head Flush





| Color  | Cat. No. | Filament Bulb | LED Bulb    |     |     | 2 Position | 3 Position | 2 Position |
|--------|----------|---------------|-------------|-----|-----|------------|------------|------------|
| White  | AF1      | ALF1-XXX      | ALF1LB-XXX  | AB1 | AP1 | AS2-2P     | AS2-3P     | AS2-2PSR   |
| Black  | AF2      |               |             | AB2 | AP2 |            |            |            |
| Green  | AF3      | ALF3-XXX      | ALF3LB-XXX  | AB3 | AP3 |            |            |            |
| Red    | AF4      | ALF4-XXX      | ALF4LB-XXX  | AB4 | AP4 |            |            |            |
| Amber  |          | ALF5-XXX      | ALF5LB-XXX  |     |     |            |            |            |
| Blue   | AF6      | ALF6-XXX      | ALF6LB-XXX  | AB6 | AP6 |            |            |            |
| Clear* |          | ALF7-XXX      | ALF7LB-XXX* |     |     |            |            |            |
| Yellow | AF8      | ALF8-XXX      | ALF8LB-XXX  | AB8 | AP8 |            |            |            |

\* ALF7LB-XXX supplied with yellow LED

Note:  
All LED pilot lights and illuminated actuators at a specified voltage will operate on either AC or DC.

### Voltage Codes

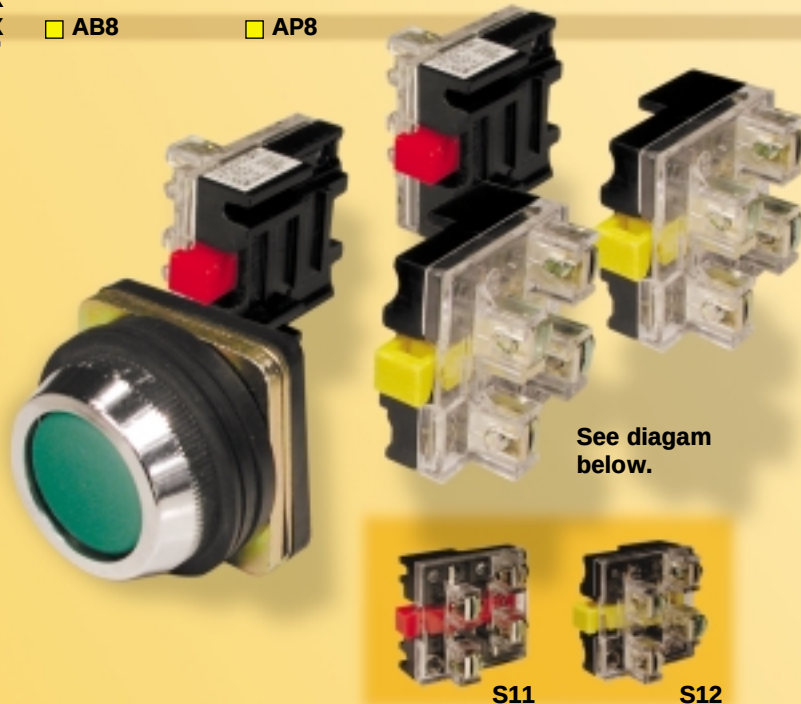
|     |              |
|-----|--------------|
| 024 | = 24V AC/DC  |
| 048 | = 48V AC/DC  |
| 110 | = 110V AC/DC |
| 230 | = 230V AC/DC |



Certified for type 4X, 12 environment.

Note:

Up to 4 contact blocks may be installed on any non illuminated actuator. This will give the user up to 4 NO and 4 NC contacts. With an illuminated actuator (ALF series), 2 contact blocks may be installed.



See diagram below.

S11

S12

## 30 mm Contact Elements

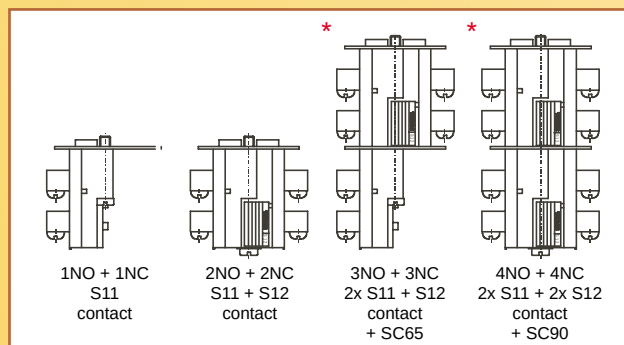
| Description                                         | Cat. No.  |
|-----------------------------------------------------|-----------|
| 1 Normally Open + 1 Normally Closed Silver Contacts | S11       |
| 2 Normally Open + 2 Normally Closed Silver Contacts | S11 + S12 |

For additional contacts, see diagram at right.

\*When using more than two contacts additional screws need to purchased separately (SC45 and SC90).

### Contact Installation Screws

| Type | Dimensions | Used with       |
|------|------------|-----------------|
| SC25 | M4 x 25 mm | S11             |
| SC45 | M4 x 45 mm | S12, S11 + S12  |
| SC65 | M4 x 65 mm | 2x S11 + S12    |
| SC90 | M4 x 90 mm | 2x S11 + 2x S12 |





## 30 mm Push Buttons



Mushroom  
with Key



Mushroom with  
Indicating Arrows

Press to Lock,  
Turn to Release



Mushroom  
Momentary



Key

Press to Lock, Key to Release    Key to Lock, Key to Release

Cat. No.

Cat. No.

Cat. No.

Cat. No.

Cat. No.

■ AMLKB2

■ AMKB2

■ AML2

□ AM1

■ AM2

■ AM3

■ AM4

■ AM6

■ AM8

■ AK2-XXXXX

### Characteristics

#### Environment

|                                                 |                                             |       |            |
|-------------------------------------------------|---------------------------------------------|-------|------------|
| Ambient Temperature                             | Storage                                     | deg C | -25 to +70 |
| Degrees of Protection                           | Conforming to IEC 529                       |       | IP65       |
| Mechanical Life in millions of operating cycles | All push buttons except maintained mushroom |       | 1          |
|                                                 | maintained mushroom                         |       | 0.3        |

#### Mechanical Characteristics of contact elements

|                          |                            |                                                                                                           |
|--------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------|
| Contact Operation        | NC+NO                      | Double break, self wiping                                                                                 |
| Rated Insulation Voltage |                            | 500 V AC                                                                                                  |
| Operating Travel         | Push buttons               | Changing NC state 2.4mm<br>Changing NO state 4.3mm<br>Travel 8.7mm                                        |
| Terminal Capacity        | Cabling                    | 2x1.5 sq.mm (2x16 AWG) or<br>1x2.5 sq.mm (14 AWG)                                                         |
| Contact Material         | Bimetal (Cu/Ag)            | Standard single element                                                                                   |
| Short Circuit Protection | Conforming to IS6875-II    | 10A HRC fuse                                                                                              |
| Rated Make Break         | UL508, A600 Q600, ratings  | standard block with screw clamp terminals 415V, 10A<br>standard block with screw clamp terminals 220V, 2A |
| Dielectric Strength      | Push Buttons, Pilot Lights | 2500V for 1 minute                                                                                        |

A K 2

#### Function Codes

| Ser. No. | Function   |
|----------|------------|
| 2PB      | Maintained |
| 2POSR    | Momentary  |
| 2PI      | Maintained |
| 2PO      | Maintained |
| 3PB      | Maintained |
| 3PC      | Maintained |

#### Key Removal

| Function                |
|-------------------------|
| Both Positions          |
| Left Position           |
| Right Position          |
| Left Position           |
| Left and Right Position |
| Center Position         |



Certified for type 4X,  
12 environment.

Note:  
All LED pilot lights  
and illuminated  
actuators at a  
specified voltage  
will operate on  
either AC or DC.



Color

□ White  
■ Green  
■ Red  
■ Amber  
■ Blue  
□ Clear  
■ Yellow

Filament  
Cat. No.

□ PLB1-XXX  
■ PLB3-XXX  
■ PLB4-XXX  
■ PLB5-XXX  
■ PLB6-XXX  
□ PLB7-XXX  
■ PLB8-XXX

LED  
Cat. No.

□ PLB1LB-XXX  
■ PLB3LB-XXX  
■ PLB4LB-XXX  
■ PLB5LB-XXX  
■ PLB6LB-XXX  
□ PLB7LB-XXX\*  
■ PLB8LB-XXX

X X X

#### Voltage Codes

|     |             |
|-----|-------------|
| 024 | = 24VAC/DC  |
| 048 | = 48VAC/DC  |
| 110 | = 110VAC/DC |
| 230 | = 230VAC/DC |

\* supplied with yellow LED

## 30 mm Push Buttons and LED Pilot Lights

### Accessories and Spares

Legend plates 30 x 40 mm (1.2 x 1.6") (black with white characters) are supplied with the following standard texts:

|                      |                        |                     |                     |                        |                         |                      |
|----------------------|------------------------|---------------------|---------------------|------------------------|-------------------------|----------------------|
| <b>START</b><br>LP01 | <b>FORWARD</b><br>LP03 | <b>UP</b><br>LP05   | <b>OPEN</b><br>LP07 | <b>AUTO</b><br>LP09    | <b>SLOW</b><br>LP11     | <b>RESET</b><br>LP13 |
| <b>ON</b><br>LP15    | <b>RIGHT</b><br>LP17   | <b>TRIP</b><br>LP19 | <b>STOP</b><br>LP02 | <b>REVERSE</b><br>LP04 | <b>DOWN</b><br>LP06     | <b>CLOSE</b><br>LP08 |
| <b>HAND</b><br>LP10  | <b>FAST</b><br>LP12    | <b>INCH</b><br>LP14 | <b>OFF</b><br>LP16  | <b>LEFT</b><br>LP18    | <b>POWER ON</b><br>LP20 |                      |

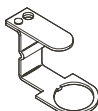


Legend plate 60mm diameter yellow with black characters for EMERGENCY STOP

### Padlock

For mushroom actuator:  
For projecting actuator:

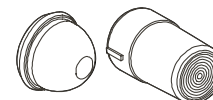
Type No.: PAM  
Type No.: PAP



Type  
LP41

### Lenses and Replacement Boots

| Color                            | Trans/White | Green | Red  | Amber | Blue | Clear | Yellow |
|----------------------------------|-------------|-------|------|-------|------|-------|--------|
| Lenses for pilot lights          | PLL1        | PLL3  | PLL4 | PLL5  | PLL6 | PLL7  | PLL8   |
| Lenses for illuminated actuators | ALL1        | ALL3  | ALL4 | ALL5  | ALL6 | ALL7  | ALL8   |



### Rubber Boots for Booted Actuators

| Color | White | Black | Green | Red | Blue | Yellow |
|-------|-------|-------|-------|-----|------|--------|
| Boot  | BT1   | BT2   | BT3   | BT4 | BT6  | BT8    |



### Spare LED Bulbs

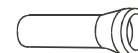
| Color  | 24V AC/DC | 48V AC/DC | 110V AC/DC | 230V AC/DC |
|--------|-----------|-----------|------------|------------|
| White  | MCB15124  | MCB15148  | MCB151110  | MCB151230  |
| Green  | MCB15324  | MCB15348  | MCB153110  | MCB153230  |
| Red    | MCB15424  | MCB15448  | MCB154110  | MCB154230  |
| Amber  | MCB15524  | MCB15548  | MCB155110  | MCB155230  |
| Blue   | MCB15624  | MCB15648  | MCB156110  | MCB156230  |
| Yellow | MCB15824  | MCB15848  | MCB158110  | MCB158230  |

### Bulb Extractor

Type No: 2BA9SE

### Spare Filament Bulbs

| 24V AC/DC | 48V AC/DC | 110V AC/DC | 230V AC/DC |
|-----------|-----------|------------|------------|
| BA15D24   | BA15D48   | BA15D110   | BA15D230   |



### Contact Block Installation Screws

| Type | Dimensions | used with                     |
|------|------------|-------------------------------|
| SC25 | M4 x 25 mm | S11 only                      |
| SC45 | M4 x 45 mm | S12, S11 + S12 (2NO + 2NC)    |
| SC65 | M4 x 65 mm | 2 x S11 + S12 (3NO + 3NC)     |
| SC90 | M4 x 90 mm | 2 x S11 + 2 x S12 (4NO + 4NC) |

## 30mm Enclosures

Cast Aluminum  
Series



All enclosures  
rated NEMA 4X, 12

| Cat. No.   | Operator Capacity | Color Top/ Bottom | Construction  | Dimensions (LxWxH) mm* | Cable Entry Size | Mounting Hole (Dia.) |
|------------|-------------------|-------------------|---------------|------------------------|------------------|----------------------|
| 1-002-A-12 | 1                 | Gray              | Cast Aluminum | 70 x 90 x 90           | 1 x M20 x 1.5 mm | 8 mm                 |
| 1-003-C-12 | 2                 | Gray              | Cast Aluminum | 70 x 90 x 135          | 2 x M20 x 1.5 mm | 8 mm                 |
| 1-004-E-12 | 3                 | Gray              | Cast Aluminum | 70 x 90 x 180          | 2 x M20 x 1.5 mm | 8 mm                 |

\* To convert mm to inches, divide mm by 25.4.

## 30 mm Push Button Diagrams

|                                                                           |                                                                         |                                                                         |                                                                |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|
| <p>NON-ILLUMINATED FLUSH PUSHBUTTON</p>                                   | <p>ILLUMINATED PUSHBUTTON</p>                                           | <p>NON-ILLUMINATED BOOTED PUSHBUTTON</p>                                | <p>NON-ILLUMINATED PROJECTING PUSHBUTTON</p>                   |
| <p>NON-ILLUMINATED SELECTOR PUSHBUTTON<br/>(2 POSITION OR 3 POSITION)</p> | <p>NON-ILLUMINATED MUSHROOM PUSHBUTTON<br/>LATCHING, KEY TO RELEASE</p> | <p>NON-ILLUMINATED MUSHROOM PUSHBUTTON<br/>LATCHING TURN TO RELEASE</p> | <p>NON-ILLUMINATED MUSHROOM<br/>PUSHBUTTON (SPRING RETURN)</p> |
| <p>NON-ILLUMINATED KEY SELECTOR</p>                                       | <p>PILOT LIGHT</p>                                                      |                                                                         |                                                                |

(to convert to inches multiply by 0.03937)





## PRODUCT LINES

- Miniature Circuit Breakers
- DIN Enclosures
- Electronic Enclosures
- European Fuses
- Foot Switches
- Inductive Proximity Sensors
- Industrial Enclosures
- Interface Modules
- Liquid Tight Strain Reliefs
- Metal Detection Systems
- Motor Disconnect Switches
- Pin and Sleeve Devices
- Push Buttons
- Safety Relays
- Terminal Blocks
- Safety Relays

Altech Corporation  
35 Royal Road  
Flemington, NJ 08822-6000  
Phone (908) 806-9400  
Fax (908) 806-9490  
www.altechcorp.com



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.