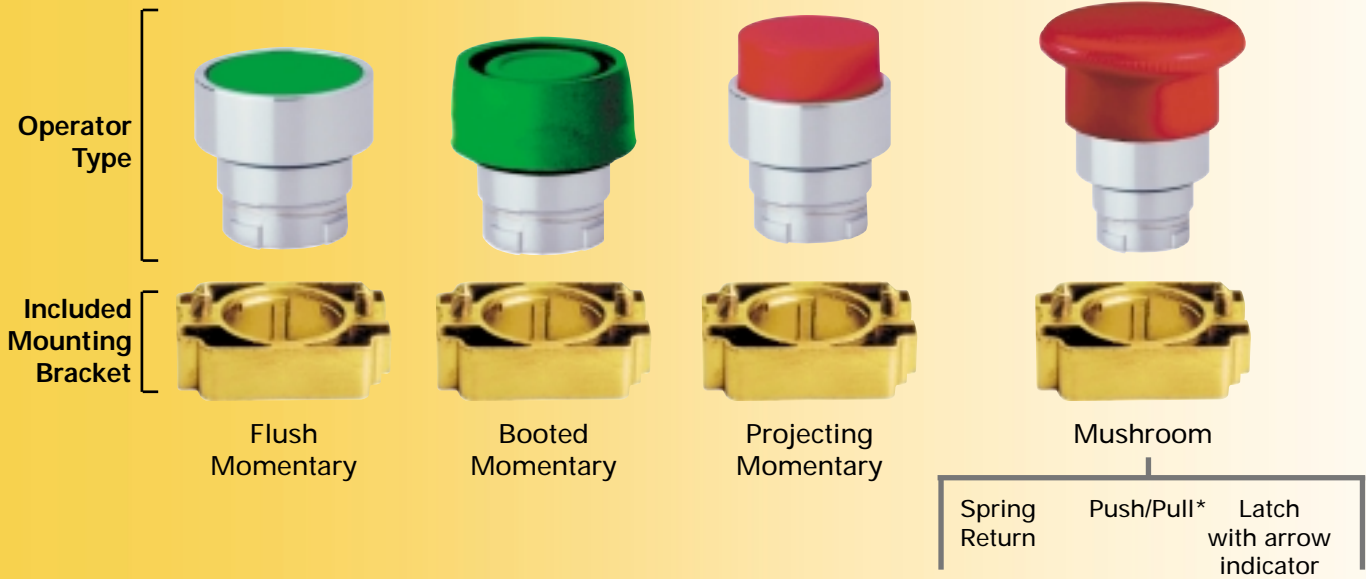


22 & 30mm
Push Buttons,
Selector Switches
& LED Pilot Lights

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 | 2AM3 |
| Red | 2AF4 | 2AB4 | 2AP4 | 2AM4 |
| Blue | 2AF6 | 2AB6 | 2AP6 | 2AM6 |
| Yellow | 2AF8 | 2AB8 | 2AP8 | 2AM8 |
| | | | | 2AML2 |
| | | | | 2AMP4 |
| | | | | 2AML4 |

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.

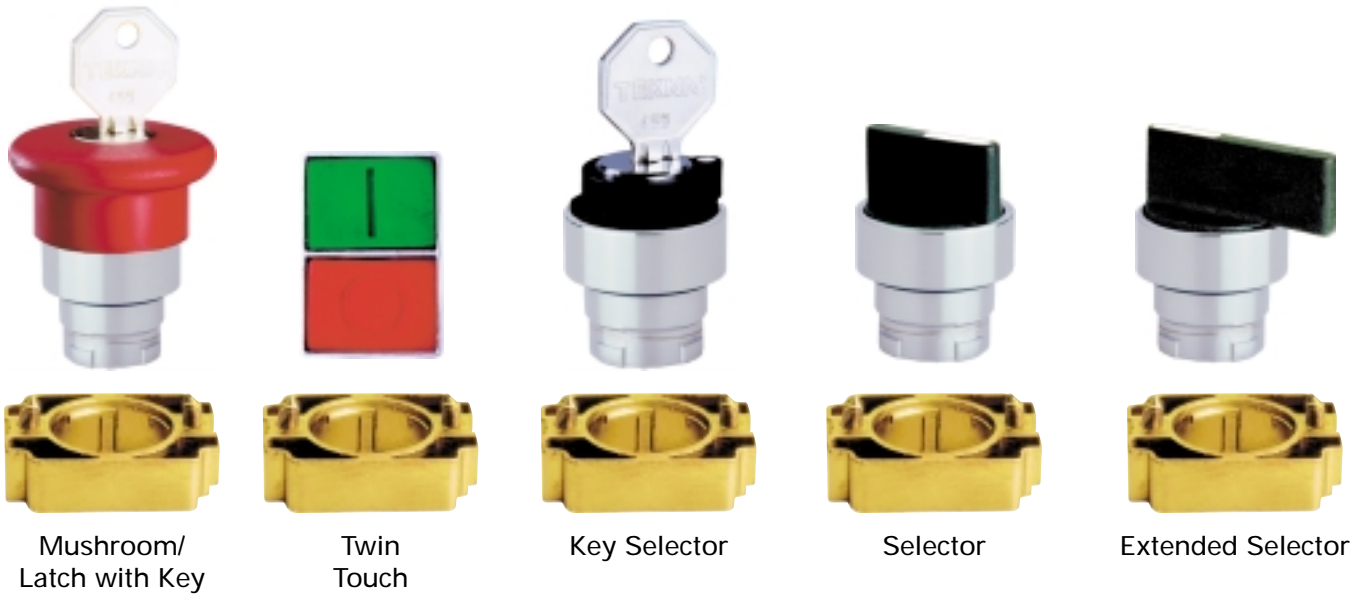


Notes:

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

Selector Switches

Cat. No.

Cat. No.

Cat. No.

Cat. No.

Cat. No.

■ 2AMLKB2



Green/Red
2ATF3-F4-IO

■ 2AMLKB4

■ Green/ ExtendedRed
2ATF3P4

■ 2AK2-XX

■ 2AS2-X

■ 2AS2E-X

Key
Selector

2AK2-XX

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

2AS2-X

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

2AS2E-X

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

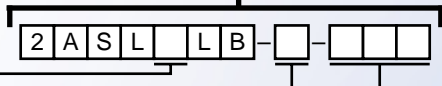


LED Pilot Light

| 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 | Green/Red 2ATL5LB F3F4-XXX | 2PLB1LB-XXX |
| Green | 2ASL3LB-X-XXX | 2ALP3LB-XXX | 2ALF3LB-XXX | | 2PLB3LB-XXX |
| Red | 2ASL4LB-X-XXX | 2ALP4LB-XXX | 2ALF4LB-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 | |
|-------------|--------|
| No. | Color |
| 1 | White |
| 3 | Green |
| 4 | Red |
| 5 | Amber |
| 6 | Blue |
| 7 | Clear |
| 8 | Yellow |

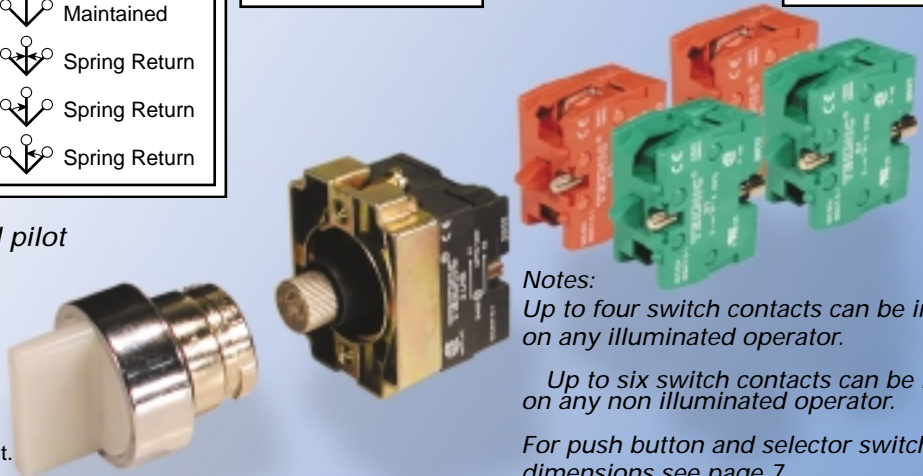
| Function Codes | | |
|----------------|---------------|--|
| Ser. No. | Function | |
| 1 | Maintained | |
| 2 | Spring Return | |
| 3 | Maintained | |
| 4 | Spring Return | |
| 5 | Spring Return | |
| 6 | Spring Return | |

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

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

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

All illuminated operators and pilot lights are supplied with LED.



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.

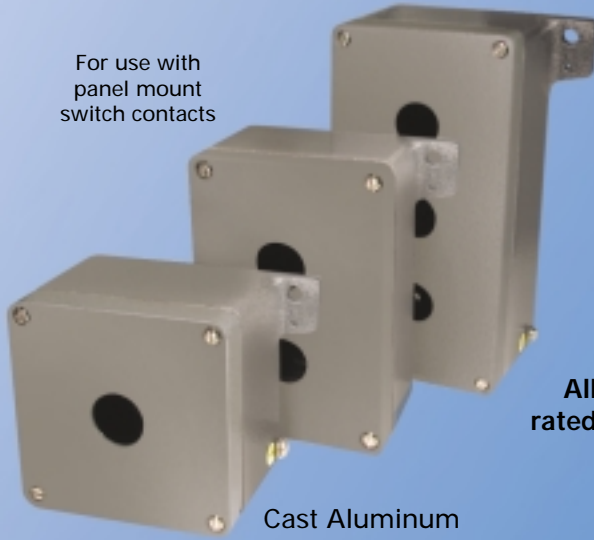


Certified for type 4X, 12 environment.

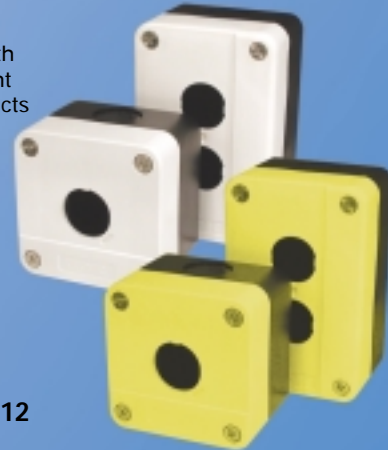
22mm Enclosures

For use with
panel mount
switch contacts

For use with
base mount
switch contacts



Cast Aluminum
Series



Thermoplastic
Series



All enclosures
rated NEMA 4X, 12

| 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 | - |

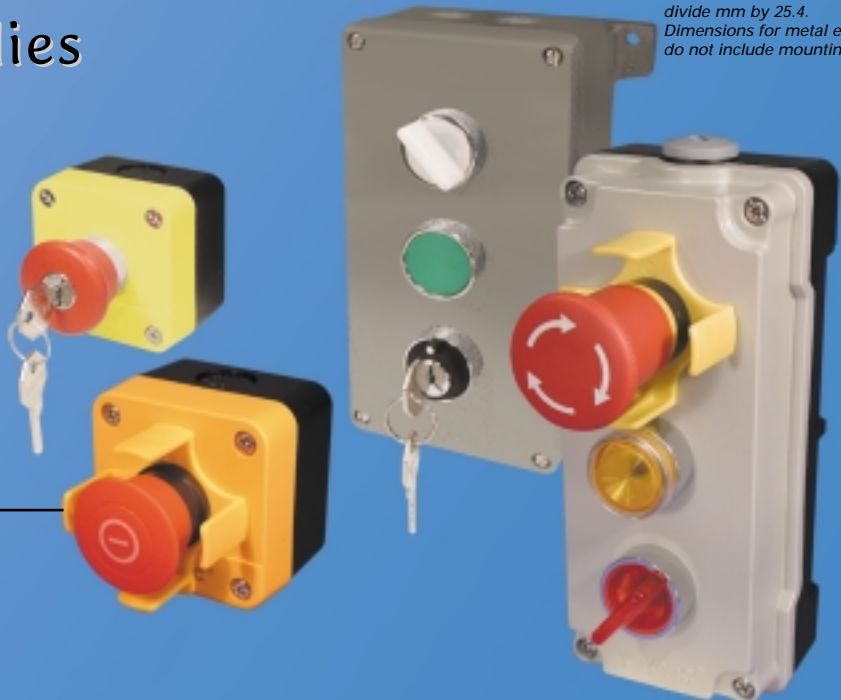
* To convert mm to inches, divide mm by 25.4.
Dimensions for metal enclosures do not include mounting ears.

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

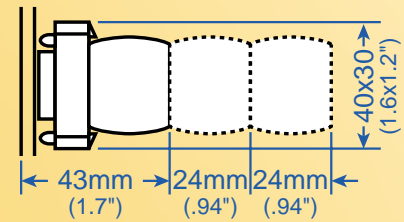
The circular actuators have chrome plated metal bezels, and are interchangeable on the different types of contact elements.

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.



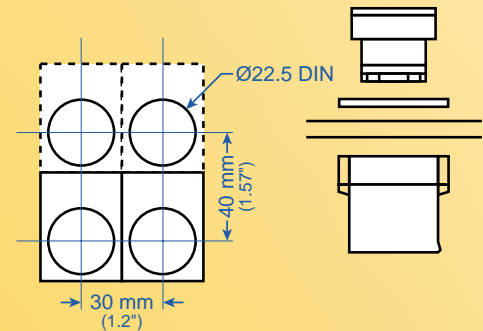
Terminals

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.

Fixing Arrangement



Electrical and Mechanical Characteristics Environment

Standard conformity:

Approvals:

Degree of protection:

Ambient :

Operating position:

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

Contact Block

Rated insulation voltage:

Rated thermal current:

Contact operation:

Make and break capacity

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

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 mm² (20 AWG), maximum 2 x 1.5² mm² (2x16 AWG) or 1 x 2.5 mm² (1x14 AWG)

1-2 for NC, 3-4 for NO

10A cartridge fuse HRC type, rated for resistive loading

Over 1 million operations

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)

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

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:

max. 20 mA

max. 15 mA

max. 10 mA

100,000 hours

<20% of rated voltage>

on specific request

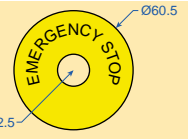
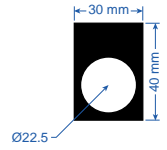
min. 1 x 0.5 mm² (20 AWG), max. 2 x 1.5 mm² (2x16 AWG) or 1 x 2.5 mm² (1x14 AWG)

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

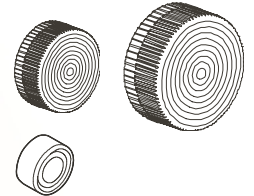


Custom Legends per customer specifications - 2LPXX

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

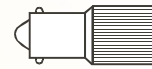
Lenses and Replacement Boots

| 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 |



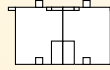
Replacement LED Bulbs

| 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 |



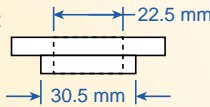
Push Push mechanism for converting spring return actuator into maintained

Type No.: 2PPM



Adapter for fixing Ø 22.5 devices in Ø 30.5 cutout

Type No.: 2ADP



Mounting Bracket

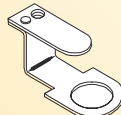
Type No.: 2BRK



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)

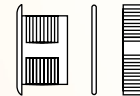
2ATLBT7 (illuminated)



Blanking plug for 22.5 mm holes

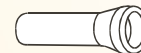
Color: Black

Type No.: 2BP2



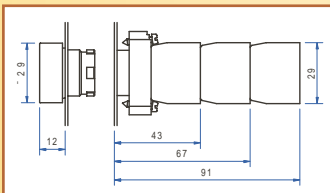
Bulb Extractor

Type No.: 2BA9SE

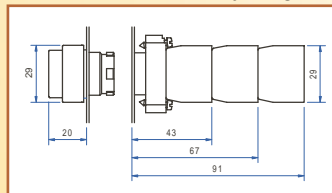


Push button Diagrams (to convert to inches multiply by 0.03937)

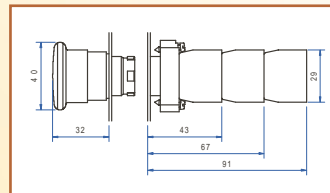
Non-Illuminated Flush



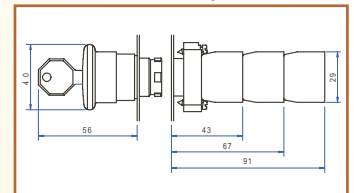
Non-Illuminated Projecting



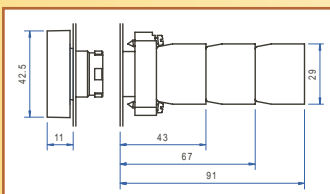
Non-Illuminated Mushroom



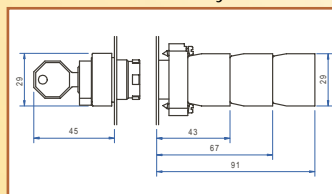
Non-Illuminated Key Mushroom



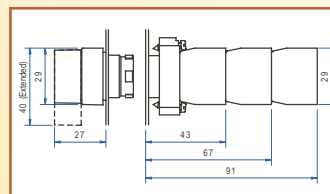
Non-Illuminated Double Head Flush



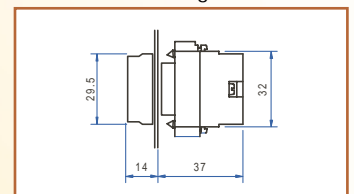
Non-Illuminated Key Selector



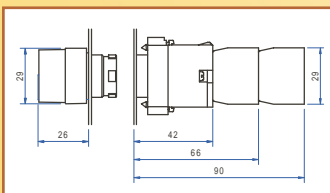
Non-Illuminated Selector & Extended



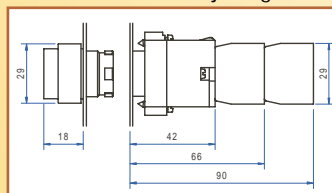
Pilot Light



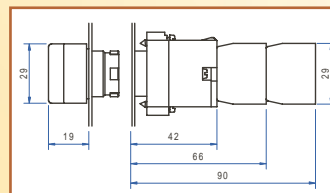
Illuminated Selector



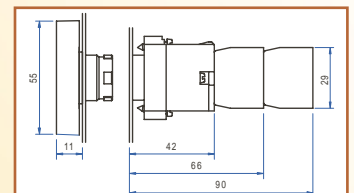
Illuminated Projecting



Illuminated Flush



Illuminated Double Head Flush



30 mm Push Buttons



Flush
Non Illuminated
Momentary



Flush
Illuminated
Momentary



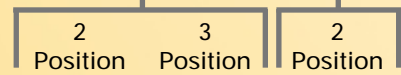
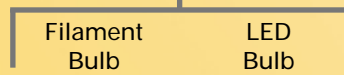
Booted
Momentary



Projecting
Momentary



Selector
Maintained
Momentary



| Color | Cat. No. | Cat. No. | Cat. No. | Cat. No. | Cat. No. | Cat. No. | Cat. No. | Cat. No. |
|--------|----------|----------|-------------|----------|----------|----------|----------|----------|
| 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

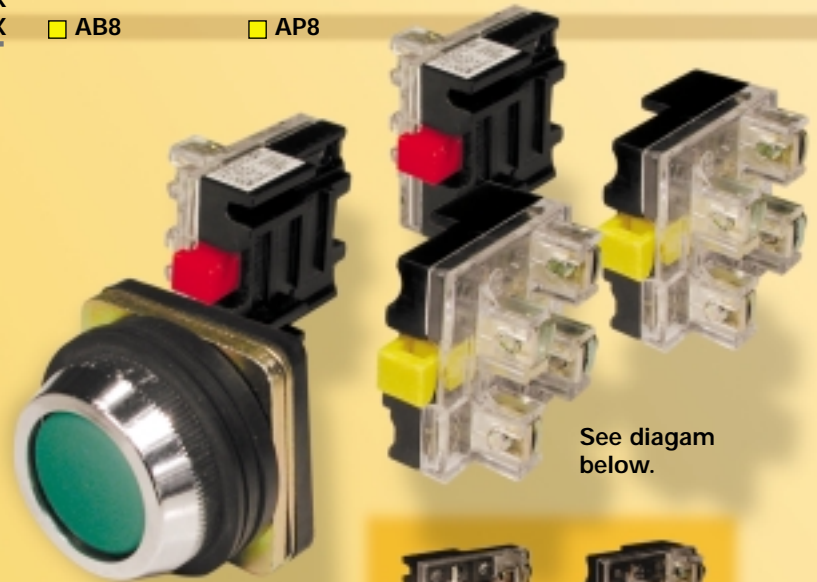
Note:
All LED pilot lights and illuminated actuators at a specified voltage will operate on either AC or DC.

| 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

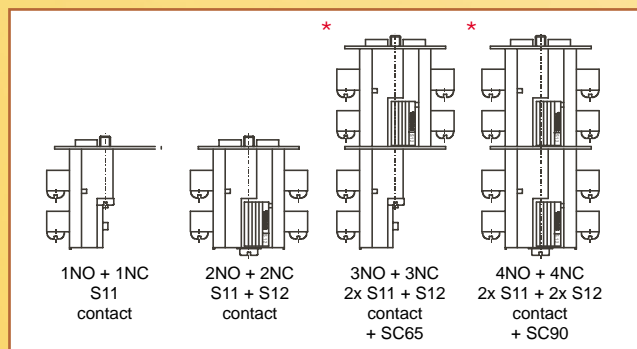
30 mm Contact Elements

| 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

■ AK2-XXXXX

■ AMLKB4

■ AMKB4

■ AML4

■ AM3

■ AM4

■ AM6

■ AM8

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 Changing NO state 4.3mm Travel 8.7mm |
| Terminal Capacity | Cablings | 2x1.5 sq.mm (2x16 AWG) or 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 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.



Pilot Lights

Color

Filament Cat. No.

LED Cat. No.

- [X] [X] [X]

- White
- Green
- Red
- Amber
- Blue
- Clear
- Yellow

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

- PLB1LB-XXX
- PLB3LB-XXX
- PLB4LB-XXX
- PLB5LB-XXX
- PLB6LB-XXX
- PLB7LB-XXX*
- PLB8LB-XXX

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:

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

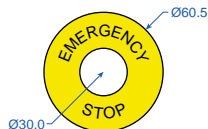


Legend plate 60mm diameter yellow with black characters for EMERGENCY STOP

Padlock

For mushroom actuator:
For projecting actuator:

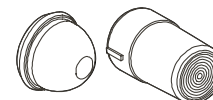
Type No.: PAM
Type No.: PAP



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 |

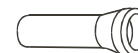


Spare LED Bulbs

| | | | | |
|--------------|------------------|------------------|-------------------|-------------------|
| 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

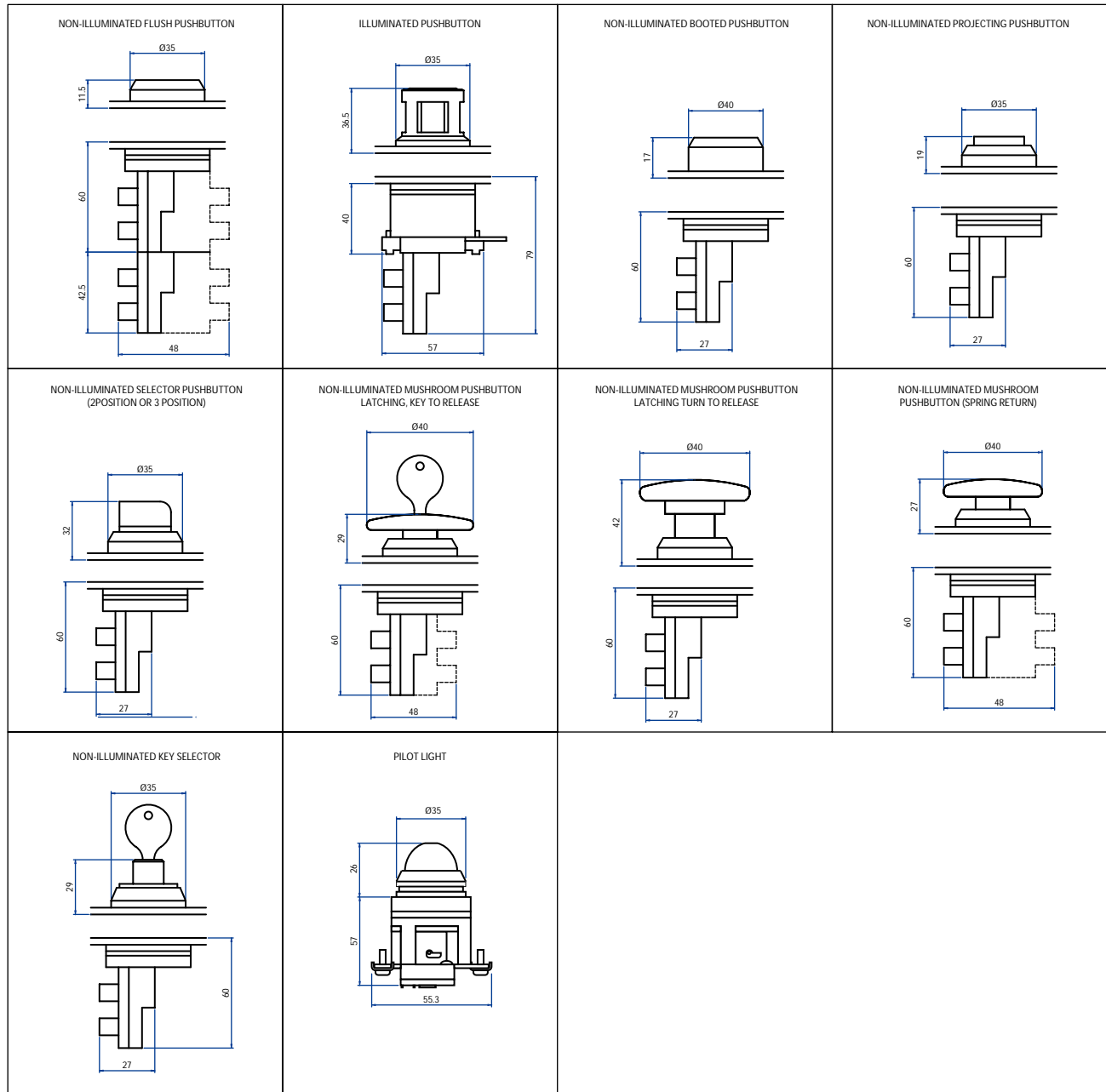


All enclosures
rated NEMA 4X, 12

| 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



(to convert to inches multiply by 0.03937)

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