

c3controls offers the best selection of Illuminated and Non-Illuminated push buttons and selector switches on the market today. We also have a full-line of unibody and modular pilot lights, all engineered for superior durability and long life. Check out our multi-voltage LED light module that can be operated at any voltage from 20V to 240V AC or DC. Their modular design and easy-to-create assemblies offer convenience in ordering and assembly.

22MM IEC PILOT DEVICES

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NOTE: The scope (range, description, price, specifications, dimensions, etc.) of the product featured in this section is subject to change without notice. Refer to www.c3controls.com for product updates.

Conformity to Standards:

UL 508
CSA C22.2 No. 14
IEC 60947-1, 60947-5-1

Certifications:

UL File #: E68568 (Guide NKCR, NKCR7)
CE Marked (per EU Low Voltage Directive 2006/95/EC and 93/68/EEC)
Demko Certificate #: 135545-01



Visit www.c3controls.com to download product certifications.

SELECT YOUR CONTACT BLOCK

MODULAR CONTACT BLOCK CONFIGURATION

CODE	DESCRIPTION	CONTACT SYMBOL	COLOR	PRICE
SILVER CONTACTS				
WNO	Normally Open Contact Block		Green	\$2.50
WNC	Normally Closed Contact Block		Red	\$2.50
WEM	Early Make Contact Block		White	\$2.50
WDB	Delayed Break Contact Block		Black	\$2.50
GOLD PLATED CONTACTS				
WNOG	Normally Open Contact Block		Green	\$6.80
WNCG	Normally Closed Contact Block		Red	\$6.80
WEMG	Early Make Contact Block		White	\$6.80
WDBG	Delayed Break Contact Block		Black	\$6.80

STANDARD RATING DESIGNATIONS

A600 (AC) RATING DESIGNATION

A600 (7,200 VA Make and 720 VA Break),
600V AC Maximum
Maximum Continuous Thermal Current, Ith: 10A

Q600 (DC) RATING DESIGNATION

Q600 (69 VA Make and 69 VA Break),
600V DC Maximum
Maximum Continuous Thermal Current, Ith: 2.5A

DISCOUNT
SCHEDULE **C**



Simple, Fast and Time Saving. c3controls 22mm IEC modular contact blocks are constructed out of the finest materials ensuring secure assembly at every “snap”. Our contact blocks can be stacked 2 deep and up to 3 across for a total of 6 circuits. 35 degree angled terminal screws with captive pressure plates make wiring fast and easy. Also, our contact blocks are color coded for quick circuit identification.

AVAILABLE CONTACT BLOCKS FOR ORDINARY LOCATIONS



WNO



WNC



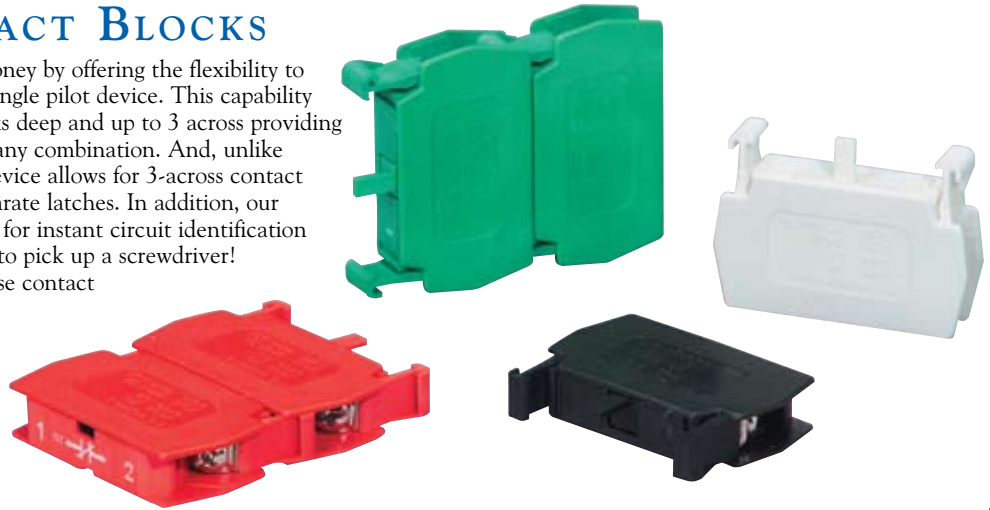
WEM



WDB

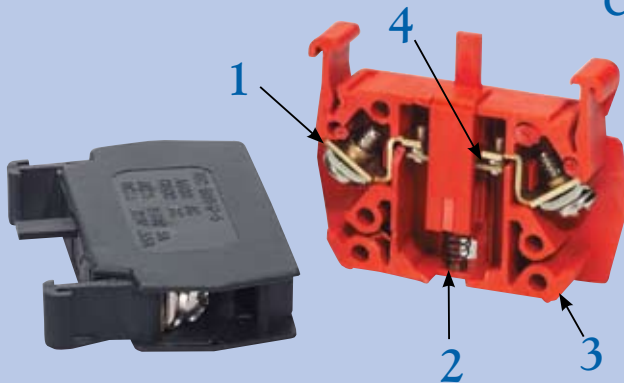
22MM IEC CONTACT BLOCKS

Our contact blocks save you time and money by offering the flexibility to operate multiple control circuits from a single pilot device. This capability includes stacking up to two contact blocks deep and up to 3 across providing a total of 6 circuits on most operators in any combination. And, unlike the competition, our standard latching device allows for 3-across contact blocks without the hassle of ordering separate latches. In addition, our "snap-on" contact blocks are color coded for instant circuit identification and take less time to install than it takes to pick up a screwdriver! The heavy-duty construction ensures these contact blocks will remain installed. Our contact blocks are rated A600 (AC), Q600 (DC) and IP20 for finger safe terminations.



UNIQUE PRODUCT FEATURES

C3CONTROLS MANUFACTURES THE MOST INNOVATIVE, USER-FRIENDLY LINE OF CONTACT BLOCKS ON THE MARKET TODAY!



1. 35 Degree angle plated steel terminal screws with captive pressure plates facilitate wiring to protect against corrosion.
2. Stainless steel spring for protection against corrosion.
3. Color-coded body for quick circuit identification (green = NO, red = NC, white = EM, black = DB).
4. Built-in self-wiping cleaning action and high contact point pressure for low-level switching. Silver contact rivets provide long life on normal control circuits.



NOTE: Gold plated contacts are available on standard blocks for dry circuit applications.

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Momentary Push Buttons (Non-Illuminated)

W22PB - I - II - III - IV* / V* / VI*

Example: To build one of our most popular Push Buttons, the part number would be **W22PB + II + III + IV + V + VI** or **W22PB-FG-10**

*NOTE: Contact block configurations are based on circuit designation. If only two contact blocks are selected, they will be assembled in the left and right positions.



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22PB	Push Button Operator	\$3.50

II. CAP TYPE

CODE	DESCRIPTION	PRICE
F	Flush Cap	—
E	Extended Cap	—
G	Guarded Cap	\$5.40
M	Mushroom Cap	\$3.00
J	Jumbo Mushroom Cap	\$4.10

III. CAP COLOR

CODE	DESCRIPTION
K	Black
B	Blue
G	Green
E	Grey
R	Red
W	White
Y	Yellow

IV. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$2.50
01	1 Normally Closed Contact Block	\$2.50
E	1 Early Make Contact Block	\$2.50
D	1 Delayed Break Contact Block	\$2.50
20	2 Normally Open Contact Blocks	\$5.00
02	2 Normally Closed Contact Blocks	\$5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$5.00

V. CONTACT BLOCK CONFIGURATION (CENTER)

(USE CHART IV FROM ABOVE)

VI. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART IV FROM ABOVE)

LEGEND PLATES in almost any size & color are available for same day shipping. See pages 216-217 for complete selection.



SOME OF OUR POPULAR CONFIGURATIONS:

MOMENTARY NON-ILLUMINATED PUSH BUTTON OPERATORS

		FLUSH CAP		EXTENDED CAP	
	CAP COLOR	CATALOG NUMBER	PRICE	CATALOG NUMBER	PRICE
1 NO	Black	W22PB-FK-10	\$6.00	W22PB-EK-10	\$6.00
	Green	W22PB-FG-10	\$6.00	W22PB-EG-10	\$6.00
	Red	W22PB-FR-10	\$6.00	W22PB-ER-10	\$6.00
1 NC	Black	W22PB-FK-01	\$6.00	W22PB-EK-01	\$6.00
	Green	W22PB-FG-01	\$6.00	W22PB-EG-01	\$6.00
	Red	W22PB-FR-01	\$6.00	W22PB-ER-01	\$6.00
1 NO & 1 NC	Black	W22PB-FK-10/01	\$8.50	W22PB-EK-10/01	\$8.50
	Green	W22PB-FG-10/01	\$8.50	W22PB-EG-10/01	\$8.50
	Red	W22PB-FR-10/01	\$8.50	W22PB-ER-10/01	\$8.50

DISCOUNT SCHEDULE **C**

MIX AND MATCH ANY COLOR AND MOMENTARY NON-ILLUMINATED PUSH BUTTON CAP



Flush Cap



Extended Cap



Extended Cap



Guarded Cap



Mushroom Cap
(40mm (1-9/16") dia.)



Mushroom Cap
(40mm (1-9/16") dia.)



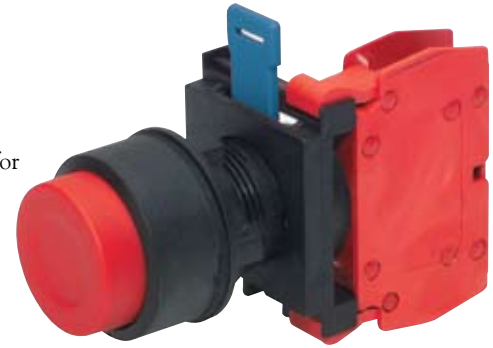
Jumbo Mushroom Cap
(60mm (2-3/8") dia.)

22MM IEC MOMENTARY NON-ILLUMINATED PUSH BUTTONS

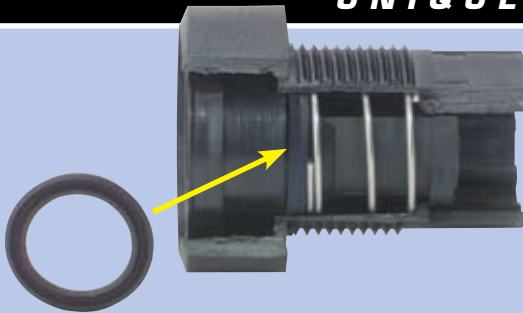
Our line of 22mm IEC Momentary Non-Illuminated Push Buttons feature contact blocks that are stackable up to 2 deep and 3 across for a total of 6 circuits per operator. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Seven color options are available in five different cap types.
- Modular contact blocks use #6 plated steel terminal screws with self lifting captive wire clamps that accommodate 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal).
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.



UNIQUE PRODUCT FEATURES



Our revolutionary U-cup seal is infused with a Teflon coating to eliminate cracking when exposed to harsh conditions such as heat, dryness and sunlight. The U-Cup seal rides easily along the stroker and keeps water, oils, dust and other corrosive particles in the air away from the contact blocks. The U-Cup seal also acts like a squeegee and forms a permanent watertight seal that meets or exceeds Type 4/4X.

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Maintained Push Buttons (Non-Illuminated)

2-Position Push-Pull

W22PP - - / /

I II III IV* V* VI*

Example: To build one of our most popular Push Buttons, the part number would be **W22PP + II + III + IV + V + VI** or **W22PPM-G-10**

*NOTE: Contact block configurations are based on circuit designation. If only two contact blocks are selected, they will be assembled in the left and right positions.



I. OPERATOR TYPE/FUNCTION

CODE	DESCRIPTION	PRICE
W22PP	Push-Pull Maintained Operator	\$ 8.40

II. CAP TYPE

CODE	DESCRIPTION	PRICE
M	Mushroom Cap	—
J	Jumbo Mushroom Cap	\$ 1.40

III. CAP COLOR

CODE	DESCRIPTION
K	Black
B	Blue
G	Green
E	Grey
R	Red
W	White
Y	Yellow

IV. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

The 2-Position Push-Pull is maintained in both the push and pull positions. The primary application is "push" to "stop" and "pull" to "start".

O = OPEN X = CLOSED

MAINTAINED IN/MAINTAINED OUT								
1 CIRCUIT (01)			2 CIRCUIT (11)			2 CIRCUIT (02)		
OUT	IN		OUT	IN		OUT	IN	
NC	X	O	NC	X	O	NC	X	O
			NO	O	X	NC	X	O

V. CONTACT BLOCK CONFIGURATION (CENTER)

(USE CHART IV FROM ABOVE)

VI. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART IV FROM ABOVE)

DISCOUNT
SCHEDULE **C**

MIX AND MATCH ANY COLOR AND PUSH-PULL MAINTAINED NON-ILLUMINATED CAP



22MM IEC MAINTAINED NON-ILLUMINATED PUSH BUTTONS

THE MOST RUGGED EMERGENCY STOP AVAILABLE IN THE INDUSTRY!

If you are looking for a 22mm heavy-duty emergency stop, look no further. The c3controls 22mm IEC Emergency Stop Push Button is the best in the industry. These operators are manufactured with polyester construction for superior corrosion resistance, moisture rejection and electrical insulation. The solid brass detent mechanism ensures safe circuit interruption every time. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Optional contact blocks utilize #6 terminal screws with self lifting captive wire clamps to accommodate 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal) and are stackable up to 2 deep and 3 across for a total of 6 circuits per operator.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
- Direct drive contacts feature a mechanical linkage from the operator to ensure contact separation when actuated, even if the contacts have lightly welded.



UNIQUE PRODUCT FEATURES



We Put The Metal On The Inside — Where It Counts!

c3controls Emergency Stops contain a solid brass detent mechanism and are the best-engineered, most reliable heavy-duty emergency stop buttons in the world. This rugged design ensures reliable operation in emergency applications, providing safe interruption of circuits, and much longer life when compared to any competitor's product.

SOME OF OUR POPULAR CONFIGURATIONS:

2-POSITION PUSH-PULL MAINTAINED NON-ILLUMINATED OPERATORS

	CAP COLOR	MUSHROOM CAP		JUMBO MUSHROOM CAP	
		CATALOG NUMBER	PRICE	CATALOG NUMBER	PRICE
1 NO	Green	W22PPM-G-10	\$10.90	W22PPJ-G-10	\$12.30
1 NC	Black	W22PPM-K-01	\$10.90	W22PPJ-K-01	\$12.30
	Red	W22PPM-R-01	\$10.90	W22PPJ-R-01	\$12.30

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Maintained Push Buttons (Non-Illuminated) 3-Position Push-Pull

W22PP - - / /
I II III IV V VI VII

Example: To build one of our most popular Push Buttons, the part number would be **W22PP + II + III + IV + V + VI + VII** or **W22PP3A-MR-10/01**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22PP	Push-Pull Maintained Operator	\$ 8.40

II. OPERATOR FUNCTION

CODE	DESCRIPTION
3A	Momentary Out, Maintained Center, Maintained In
3B	Momentary Out, Maintained Center, Momentary In

The 3-Position Push-Pull device is available in two basic styles. One version features the "out" position as momentary, the "center" as maintained, and the "in" position as maintained. The other version features the "center" as maintained while the "out" and "in" positions are momentary.

O = OPEN X = CLOSED

MOMENTARY OUT, MAINTAINED CENTER, MAINTAINED IN			MOMENTARY OUT, MAINTAINED CENTER, MOMENTARY IN		
OUT	CENTER	IN	OUT	CENTER	IN
NC	X	O	O	X	O
DB	X	X	O	X	O
NO	O	O	X	O	X
EM	O	X	X	X	X

III. CAP TYPE

CODE	DESCRIPTION	PRICE
M	Mushroom Cap	—
J	Jumbo Mushroom Cap	\$ 1.40

IV. CAP COLOR

CODE	DESCRIPTION
K	Black
B	Blue
G	Green
E	Grey
R	Red
W	White
Y	Yellow

V. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

VI. CONTACT BLOCK CONFIGURATION (CENTER)

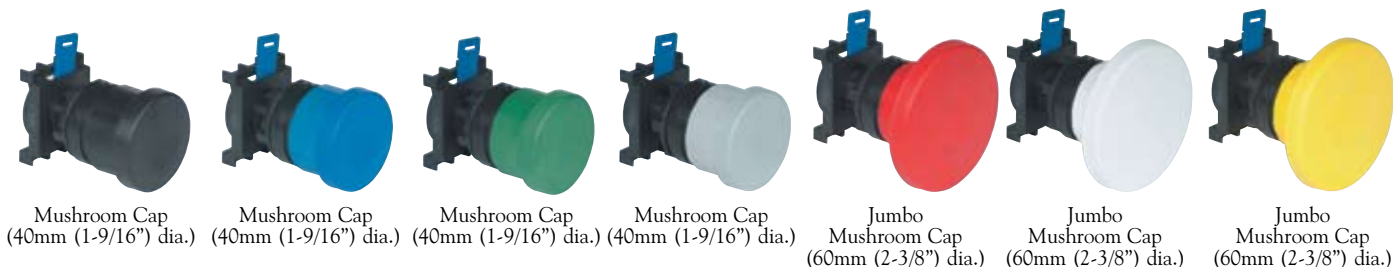
(USE CHART V FROM ABOVE)

VII. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART V FROM ABOVE)

DISCOUNT
SCHEDULE **C**

AVAILABLE CAP COLORS FOR 3-POSITION MAINTAINED NON-ILLUMINATED PUSH BUTTONS



22MM IEC MAINTAINED NON-ILLUMINATED PUSH BUTTONS

THE MOST RUGGED EMERGENCY STOP IN THE INDUSTRY!

All c3controls 22mm IEC operators are UL Listed and are Rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12 and 13, and IP65 and meet global standards requirements.

Product features include:

- Heavy-duty polyester construction for excellent durability, superior corrosion resistance, moisture rejection, and electrical insulation.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
- IP20 guarded terminals to prevent accidental contact with live parts.
- Contact blocks include self-lifting captive wire clamps.
- Terminals accept one or two 0.5 ~ 4mm² (#22 ~ 12 AWG) wires.
- Wide variety of operator types and colors, and contact block configurations are available for configuring products for any application.



UNIQUE PRODUCT FEATURES



WE PUT THE METAL ON THE INSIDE WHERE IT COUNTS - FOR SUPERIOR PERFORMANCE IN EMERGENCY STOP CIRCUIT APPLICATIONS!

c3controls Emergency Stops contain a solid brass detent mechanism and are the best-engineered, most reliable heavy-duty emergency stop buttons in the world. This rugged design ensures reliable operation in emergency applications, providing safe interruption of circuits, and much longer life when compared to any competitor's product. Direct drive contacts feature a mechanical linkage from the operator to ensure contact separation when actuated, even if the contacts have lightly welded.

SOME OF OUR POPULAR CONFIGURATIONS:

3-POSITION PUSH-PULL MAINTAINED NON-ILLUMINATED OPERATORS WITH POLYESTER CLAMP RING (TYPE 4X)

	MOMENTARY OUT, MAINTAINED CENTER, MAINTAINED IN		MOMENTARY OUT, MAINTAINED CENTER MOMENTARY IN	
COLOR	CATALOG NUMBER	PRICE	CATALOG NUMBER	PRICE
Black	W22PP3A-MK-01/10	\$13.40	W22PP3B-MK-01/10	\$13.40
Green	W22PP3A-MG-01/10	\$13.40	W22PP3B-MG-01/10	\$13.40
Red	W22PP3A-MR-01/10	\$13.40	W22PP3B-MR-01/10	\$13.40
Yellow	W22PP3A-MY-01/10	\$13.40	W22PP3B-MY-01/10	\$13.40

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Maintained Push Buttons (Non-Illuminated) 2-Position Push-Twist Release

W22PTR - I - II - III / IV* / V* / VI*

*NOTE: Contact block configurations are based on circuit designation. If only two contact blocks are selected, they will be assembled in the left and right positions.

Example: To build one of our most popular Push Buttons, the part number would be **W22PTR + II + III + IV + V + VI** or **W22PTR-MR-01/D**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22PTR	Push-Twist Release	\$ 9.50

II. CAP TYPE

CODE	DESCRIPTION	PRICE
M	Mushroom Cap	—
J	Jumbo Mushroom Cap	\$ 1.40

The linear push-off twist-to-release style operator requires a “twist” for the “out” or “on” position and a linear “push” for the “in” or “off” position. The twist mushroom cap is marked with arrows identifying the direction for the twist release.

O = OPEN X = CLOSED

MAINTAINED IN/MAINTAINED OUT					
1 CIRCUIT (01)		2 CIRCUIT (11)		2 CIRCUIT (02)	
OUT	IN	OUT	IN	OUT	IN
NC	X O	NC	X O	NC	X O
		NO	O X	NC	X O

III. CAP COLOR

CODE	DESCRIPTION
K	Black
B	Blue
G	Green
E	Grey
R	Red
W	White
Y	Yellow

IV. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

V. CONTACT BLOCK CONFIGURATION (CENTER)

(USE CHART IV FROM ABOVE)

VI. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART IV FROM ABOVE)

DISCOUNT
SCHEDULE **C**

MIX AND MATCH ANY COLOR AND PUSH-TWIST RELEASE MAINTAINED NON-ILLUMINATED CAP



Twist Mushroom Cap
(40mm (1-9/16") dia.)

Twist Mushroom Cap
(40mm (1-9/16") dia.)

Twist Mushroom Cap
(40mm (1-9/16") dia.)

Twist Mushroom Cap
(40mm (1-9/16") dia.)

Twist Mushroom Cap
(40mm (1-9/16") dia.)

Jumbo Twist
Mushroom Cap
(60mm (2-3/8") dia.)

Jumbo Twist
Mushroom Cap
(60mm (2-3/8") dia.)

22MM IEC MAINTAINED NON-ILLUMINATED PUSH BUTTONS

Our 22mm IEC Maintained Non-Illuminated Push-Twist Release Push Buttons' rugged design ensures reliable operation in emergency stop applications, providing safe interruption of circuits. Contact blocks can be stacked up to 2 deep and 3 across for a total of 6 circuits per operator. All c3controls 22mm IEC operators are UL Listed and CE marked and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Seven color options are available in both mushroom and jumbo mushroom cap (40mm and 60mm diameters).
- Modular contact blocks use #6 plated steel terminal screws with self lifting captive wire clamps that accept 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal) and have IP20 guarded terminals to prevent accidental contact with live parts.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.



UNIQUE PRODUCT FEATURES



- Ergonomically designed cone shaped head with knurls fit easily into your hand for a comfortable operation.
- Molded bold white arrows (black arrows on yellow and white caps) indicate the 45° twist-to-release operation for easy visibility over the life of the product.
- Color and appearance, including red mushroom operators with yellow legend plates, clearly indicate this is an emergency stop operator.
- Direct drive contacts feature a mechanical linkage from the operator to ensure contact separation when actuated, even if the contacts have lightly welded.



SOME OF OUR POPULAR CONFIGURATIONS:

2-POSITION PUSH-TWIST RELEASE MAINTAINED NON-ILLUMINATED OPERATORS					
		MUSHROOM CAP		JUMBO MUSHROOM CAP	
	CAP COLOR	CATALOG NUMBER	PRICE	CATALOG NUMBER	PRICE
1 NC	Black	W22PTR-MK-01	\$12.00	W22PTR-JK-01	\$13.40
	Green	W22PTR-MG-01	\$12.00	W22PTR-JG-01	\$13.40
	Red	W22PTR-MR-01	\$12.00	W22PTR-JR-01	\$13.40
	Yellow	W22PTR-MY-01	\$12.00	W22PTR-JY-01	\$13.40
1 NO & 1 NC	Black	W22PTR-MK-11	\$14.50	W22PTR-JK-11	\$15.90
	Green	W22PTR-MG-11	\$14.50	W22PTR-JG-11	\$15.90
	Red	W22PTR-MR-11	\$14.50	W22PTR-JR-11	\$15.90
	Yellow	W22PTR-MY-11	\$14.50	W22PTR-JY-11	\$15.90
1 NC & 1 DB	Black	W22PTR-MK-01/D	\$14.50	W22PTR-JK-01/D	\$15.90
	Green	W22PTR-MG-01/D	\$14.50	W22PTR-JG-01/D	\$15.90
	Red	W22PTR-MR-01/D	\$14.50	W22PTR-JR-01/D	\$15.90
	Yellow	W22PTR-MY-01/D	\$14.50	W22PTR-JY-01/D	\$15.90

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Momentary Push Buttons (Illuminated)

W22IPB - - - - - /

I II III IV V VI* VII*

Example: To build one of our most popular Push Buttons, the part number would be **W22IPB + II + III + IV + V + VI + VII** or **W22IPB-EG-FM120LG-10**

*NOTE: Contact block configurations are based on circuit designation and light module unit.

NEW
EXPANDED
PRODUCT
OFFERING!



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22IPB	Illuminated Push Button	\$ 1.55

II. LENS TYPE

CODE	DESCRIPTION	PRICE
F	Flush Lens	\$ 0.60
E	Extended Lens	—
M	Mushroom Lens	\$ 2.95
J	Jumbo Mushroom Lens	\$ 3.40

III. LENS COLOR

CODE	DESCRIPTION
A	Amber
B	Blue
C	Clear
G	Green
R	Red
W	White
Y	Yellow

IV. LIGHT MODULE/VOLTAGE

CODE	DESCRIPTION	PRICE
FULL VOLTAGE		
FM6	6V AC/DC	\$ 5.75
FM12	12V AC/DC	\$ 5.75
FM24	24V AC/DC	\$ 5.75
FM120	120V AC/DC	\$ 5.75
TRANSFORMER (50/60 Hz)		
TM120	120V AC	\$14.10
TM240	240V AC	\$14.10
TM480	480V AC	\$14.10
RESISTOR		
RM120	120V AC/DC	\$ 7.70
RM240	240V AC/DC	\$ 7.70
MULTI-VOLTAGE, NON-RELAMPABLE (LED ONLY)		
MVD	20-240V AC or DC (Standard)	\$15.75
MVF	20-240V AC or DC (Flashing)	\$24.75
MULTI-VOLTAGE, RELAMPABLE (LED ONLY)		
RMVD	20-240V AC or DC (Standard)	\$17.00
RMVF	20-240V AC or DC (Flashing)	\$26.00

V. LAMP TYPE/COLOR

CODE	DESCRIPTION	PRICE
LED		
LA	Amber	\$ 7.00
LB	Blue	\$ 7.00
LG	Green	\$ 7.00
LR	Red	\$ 7.00
LW	White	\$ 7.00
LED MULTI-VOLTAGE, NON-RELAMPABLE		
LW	White	—
LED MULTI-VOLTAGE, RELAMPABLE		
LA	Amber	\$ 4.00
LB	Blue	\$ 4.00
LG	Green	\$ 4.00
LR	Red	\$ 4.00
LT	Translucent White	\$ 4.00
LW	White	\$ 4.00
INCANDESCENT		
I	Clear	—
F	Clear Flashing Bulb*	\$ 4.00
*NOTE: Incandescent flashing bulbs available for any 6V full voltage or transformer application.		
NL	No Lamp	— \$ 1.00

VI. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

NOTE: When using a 240V or 480V transformer light module or 240V resistor light module, you are limited to two contact blocks on one side (left side).

VII. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART VI FROM ABOVE)

SEE PAGE 219 FOR LAMP REPLACEMENT CHART AND PAGE 220 FOR LAMP TECHNICAL DATA.

DISCOUNT
SCHEDULE **C**

MIX AND MATCH ANY COLOR AND MOMENTARY ILLUMINATED PUSH BUTTON LENS



Flush Lens



Flush Lens



Extended Lens



Extended Lens



Extended Lens



Mushroom Lens
(40mm (1-9/16") dia.)



Jumbo Mushroom Lens
(60mm (2-3/8") dia.)

22MM IEC MOMENTARY ILLUMINATED PUSH BUTTONS

Our 22mm IEC Momentary Illuminated Push Buttons feature contact blocks that are stackable up to 2 deep and 2 across for a total of 4 circuits per operator, depending on the light unit module. Please note when using a transformer light module or 240V resistor light module, the operator is limited to two contact blocks. Devices are available with either incandescent or our LED lamps with leakage protection. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Available state-of-the-art non-relampable and relampable multi-voltage light module with super-bright LED can be operated at any voltage from 20V to 240V AC or DC.
- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Seven color options are available in four different lens types.
- Modular contact blocks use #6 plated steel terminal screws with self lifting captive wire clamps that accommodate 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal).
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
- All lights with replaceable lamps use miniature bayonet base lamps to provide reliable lamp secureness.
- c3controls LED lamp design life is 100,000 hours – that's 11.4 years!



UNIQUE PRODUCT FEATURES



- Our rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments, even in high temperature ambients.
- Our lenses feature a diffuser insert that provides outstanding light output from all angles, along with a thin O-ring which provides a watertight seal to meet Type 4/4X standards.
- Multi-Voltage, Full Voltage, Transformer and Resistor light units available in a wide range of voltages to meet your specific needs.

SOME OF OUR POPULAR CONFIGURATIONS:

MOMENTARY ILLUMINATED PUSH BUTTON OPERATORS					
		FLUSH LENS		MUSHROOM LENS	
	LENS COLOR	CATALOG NUMBER	PRICE	CATALOG NUMBER	PRICE
Full Voltage	Amber	W22IPB-FA-FM120LA-11	\$19.90	W22IPB-MA-FM120LA-11	\$22.75
	Green	W22IPB-FG-FM120I-10	\$10.40	W22IPB-MG-FM120I-10	\$12.70
	Red	W22IPB-FR-FM120I-01	\$10.40	W22IPB-MR-FM120I-01	\$12.70
Transformer	Amber	W22IPB-FA-TM120I-11	\$21.25	W22IPB-MA-TM120I-11	\$23.60
	Green	W22IPB-FG-TM120LG-10	\$25.75	W22IPB-MG-TM120LG-10	\$28.10
	Red	W22IPB-FR-TM120I-01	\$21.25	W22IPB-MR-TM120I-01	\$21.10
Resistor	Amber	W22IPB-FA-RM120I-11	\$14.85	W22IPB-MA-RM120I-11	\$17.20
	Green	W22IPB-FG-RM120I-10	\$12.75	W22IPB-MG-RM120I-10	\$14.70
	Red	W22IPB-FR-RM120LR-01	\$19.35	W22IPB-MR-RM120LR-01	\$21.70
Multi-Voltage	Amber	W22IPB-FA-MVDLW-11	\$22.90	W22IPB-MA-MVDLW-11	\$25.25
	Green	W22IPB-FG-MVDLW-10	\$20.40	W22IPB-MG-MVDLW-10	\$22.75
	Red	W22IPB-FR-MVDLW-01	\$20.40	W22IPB-MR-MVDLW-01	\$22.75

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

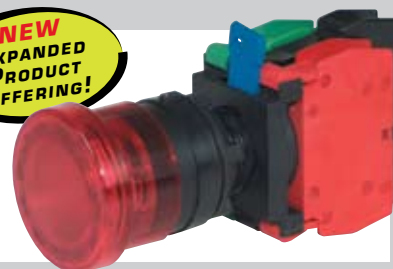
Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Maintained Push Buttons (Illuminated) 2 & 3-Position Push-Pull Release

W22IPP - - - - - /
I II III IV V VI VII VIII

Example: To build one of our most popular Push Buttons, the part number would be **W22IPP + II + III + IV + V + VI + VII + VIII** or **W22IPP2-MR-FM24LR-10/01**

NEW
EXPANDED
PRODUCT
OFFERING!



I. OPERATOR TYPE		
CODE	DESCRIPTION	PRICE
W22IPP	Push-Pull Maintained Operator	\$ 6.30

II. OPERATOR FUNCTION	
CODE	DESCRIPTION
2	2 Position
3A	3 Position Momentary Out, Maintained Center, Maintained In
3B	3 Position Momentary Out, Maintained Center, Momentary In

III. LENS TYPE		
CODE	DESCRIPTION	PRICE
M	Mushroom Cap	—
J	Jumbo Mushroom Cap	\$ 1.40

IV. LENS COLOR	
CODE	DESCRIPTION
A	Amber
B	Blue
C	Clear
G	Green
R	Red
W	White
Y	Yellow

SEE PAGE 219 FOR LAMP
REPLACEMENT CHART AND PAGE 220
FOR LAMP TECHNICAL DATA.

V. LIGHT MODULE/VOLTAGE		
CODE	DESCRIPTION	PRICE
FULL VOLTAGE		
FM6	6V AC/DC	\$ 5.75
FM12	12V AC/DC	\$ 5.75
FM24	24V AC/DC	\$ 5.75
FM120	120V AC/DC	\$ 5.75
TRANSFORMER (50/60 H_z)		
TM120	120V AC	\$14.10
TM240	240V AC	\$14.10
TM480	480V AC	\$14.10
RESISTOR		
RM120	120V AC/DC	\$ 7.70
RM240	240V AC/DC	\$ 7.70
MULTI-VOLTAGE, NON-RELAMPABLE (LED ONLY)		
MVD	20-240V AC or DC (Standard)	\$15.75
MVF	20-240V AC or DC (Flashing)	\$24.75
MULTI-VOLTAGE, RELAMPABLE (LED ONLY)		
RMVD	20-240V AC or DC (Standard)	\$17.00
RMVF	20-240V AC or DC (Flashing)	\$26.00

VI. LAMP TYPE/COLOR		
CODE	DESCRIPTION	PRICE
LED		
LA	Amber	\$ 7.00
LB	Blue	\$ 7.00
LG	Green	\$ 7.00
LR	Red	\$ 7.00
LW	White	\$ 7.00
LED MULTI-VOLTAGE, NON-RELAMPABLE		
LW	White	—
LED MULTI-VOLTAGE, RELAMPABLE		
LA	Amber	\$ 4.00
LB	Blue	\$ 4.00
LG	Green	\$ 4.00
LR	Red	\$ 4.00
LT	Translucent White	\$ 4.00
LW	White	\$ 4.00
INCANDESCENT		
I	Clear	—
F	Clear Flashing Bulb*	\$ 4.00
*NOTE: Incandescent flashing bulbs available for any 6V full voltage or transformer application.		
NL	No Lamp	— \$ 1.00

VII. CONTACT BLOCK CONFIGURATION (LEFT SIDE)		
CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00
NOTE: When using a 240V or 480V transformer light module or 240V resistor light module, you are limited to two contact blocks on one side (left side).		

VIII. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)		
(USE CHART VII FROM ABOVE)		

The Push-Pull Illuminated devices are available in three basic styles. The two position push-pull is maintained in both the push and pull positions. The primary application is "push" to "stop" and "pull" to "start". The three position has two options. One features the "out" position as momentary, the "center" as maintained, and the "in" position as maintained. The other version features the "center" as maintained while the "out" and "in" positions are momentary.

DISCOUNT
SCHEDULE **C**

0 = OPEN X = CLOSED

MAINTAINED IN/MAINTAINED OUT					
1 CIRCUIT (01)		2 CIRCUIT (11)		2 CIRCUIT (02)	
OUT	IN	OUT	IN	OUT	IN
NC	X	NC	X	NC	X
	O		O		O
		NO	O	NC	X
			X		O

MOMENTARY OUT, MAINTAINED CENTER, MAINTAINED IN					
OUT	CENTER	IN	OUT	CENTER	IN
NC	X	O	NC	X	O
DB	X	X	DB	X	X
NO	O	O	NO	O	O
EM	O	X	EM	O	X

22MM IEC MAINTAINED ILLUMINATED PUSH BUTTONS

Our 22mm IEC Maintained Illuminated 2 & 3-Position Push Buttons feature contact blocks that are stackable up to 2 deep and 2 across for a total of 4 circuits per operator, depending on your light unit module. Please note when using a transformer light module or 240V resistor light module, you are limited to two contact blocks. Devices are available with either incandescent or our LED lamps with leakage protection. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Available state-of-the-art non-relampable and relampable multi-voltage light modules with super-bright LEDs can be operated at any voltage from 20V to 240V AC or DC.
- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Wide variety of operator types and colors, and contact block configurations are available to meet your specific application needs.
- Modular contact blocks use #6 plated steel terminal screws with self lifting captive wire clamps that accommodate 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal).
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
- All lights with replaceable lamps use miniature bayonet base lamps to provide reliable lamp secureness.
- c3controls LED lamp design life is 100,000 hours – *that's 11.4 years!*



UNIQUE PRODUCT FEATURES

WE PUT THE METAL ON THE INSIDE — WHERE IT COUNTS!



- The solid brass detent mechanism is the best engineered, most reliable heavy-duty emergency stop button in the world. This rugged design ensures reliable operation in emergency applications, providing safe interruption of circuits, and much longer life when compared to any competitor's product.
- Rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments – even high temperature ambients.
- Our 22mm IEC Illuminated Push Buttons can be utilized with our state-of-the-art super bright LED multi-voltage light modules.

SOME OF OUR POPULAR CONFIGURATIONS:

2 & 3-POSITION PUSH-PULL MAINTAINED OPERATORS WITH POLYESTER CLAMP RING (TYPE 4X)				
	MOMENTARY OUT, MAINTAINED CENTER, MAINTAINED IN		MOMENTARY OUT, MAINTAINED CENTER, MOMENTARY IN	
TYPE	CATALOG NUMBER	PRICE	CATALOG NUMBER	PRICE
Transformer	W22IPP3A-MR-TM120LR-10/01	\$32.40	W22IPP3B-MR-TM120LR-10/01	\$32.40
Full Voltage	W22IPP3A-MR-FM120LR-10/01	\$24.05	W22IPP3B-MR-FM120LR-10/01	\$24.05
Resistor	W22IPP3A-MR-RM120LR-10/01	\$26.00	W22IPP3B-MR-RM120LR-10/01	\$26.00
Multi-Voltage	W22IPP3A-MR-MVDLW-10/01	\$27.05	W22IPP3B-MR-MVDLW-10/01	\$27.05

AVAILABLE LENS COLORS FOR 2 & 3 POSITION MAINTAINED ILLUMINATED PUSH BUTTONS



Mushroom Lens (40mm (1-9/16") dia.) Mushroom Lens (40mm (1-9/16") dia.) Mushroom Lens (40mm (1-9/16") dia.) Mushroom Lens (40mm (1-9/16") dia.) Jumbo Mushroom Lens (60mm (2-3/8") dia.) Jumbo Mushroom Lens (60mm (2-3/8") dia.) Jumbo Mushroom Lens (60mm (2-3/8") dia.)

IT'S EASY TO BUILD YOUR OWN POTENTIOMETER

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Potentiometer Operators

22POTO - -

I II III IV

Example: To build one of our most popular Potentiometer Operators, the part number would be **22POTO + II + III + IV** or **22POTO5K-TBW**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
22POTO	Potentiometer Operator	\$36.00

II. RESISTANCE

CODE	DESCRIPTION	PRICE
(Blank)	Operator only	—
1k	1k Potentiometer	\$14.00
2.5k	2.5k Potentiometer	\$14.00
5k	5k Potentiometer	\$14.00
10k	10k Potentiometer	\$14.00

Special order values available — please consult factory (not available for guaranteed same day shipping).

III. CLAMP RING

CODE	DESCRIPTION	PRICE
(Blank)	Polyester (Type 4X)	—
PM	Aluminum (Type 4)	\$ 2.00

IV. TERMINAL BLOCK

CODE	DESCRIPTION	PRICE
(Blank)	Operator only	—
TBW	Terminal Block installed and wired	\$10.00

Terminal block kit may be ordered separately (part number TBK, price \$6.00) or installed and wired at the factory to the potentiometer operator. Discount Schedule A applies.

**DISCOUNT
SCHEDULE B**

Discount Schedule B does not apply to Terminal Block Kit.

SEE PAGE 224 FOR WIRING DIAGRAM.

UNIQUE PRODUCT FEATURES

Our single-turn Potentiometer Operators utilize standard 2 watt potentiometers with 6.4mm (1/4") bushing and 22.5mm (7/8") long slotted shafts. A 5/64" allen wrench is required for installation. All c3controls 22mm operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12 and 13, and meet global standards requirements.

Product features include:

- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Optional polyester or polished aluminum clamp rings.
- Three point terminal block and hardware.
- Standard 2 watt potentiometer.
- All frictional parts are molded with an internal self-lubricant to provide outstanding wear without troublesome greases used by others that attracts dust and other particles in the area.
- Our revolutionary U-Cup seal is infused with a Teflon coating to eliminate cracking when exposed to harsh conditions such as heat, dryness and sunlight.
- #6 terminal screws with self-lifting captive wire clamps accommodate 0.5 - 4mm² (#22 through two #12 AWG) wires per terminal.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units.



LEGEND PLATES FOR POTENTIOMETER OPERATORS are available for same day shipping. See pages 216-217 for complete selection.

IT'S EASY TO BUILD YOUR OWN PUSH BUTTON

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Momentary Reset Push Buttons (Non-Illuminated)

W22RPB - I II III IV - PK

Example: To build one of our most popular Push Buttons, the part number would be **W22RPB + II + III + IV + PK** or **W22RPB-FB18-PK**



I. OPERATOR TYPE		
CODE	DESCRIPTION	PRICE
W22RPB	Reset Push Button Operator	\$ 3.50

II. CAP TYPE	
CODE	DESCRIPTION
F	Flush Cap
E	Extended Cap

III. CAP COLOR	
CODE	DESCRIPTION
K	Black
B	Blue
E	Grey
R	Red
W	White

IV. CAP MARKING		
CODE	DESCRIPTION	PRICE
(Blank)	No Marking	—
18	RESET	\$ 1.00
102	R	\$ 1.00
107	0	\$ 1.00

V. ROD TYPE		
CODE	DESCRIPTION	PRICE
PK	178mm (7") Plastic Rod	\$ 1.50

DISCOUNT
SCHEDULE **C**

UNIQUE PRODUCT FEATURES

1. Designed to actuate the reset function of a Series 320 Overload Relay from outside of the enclosure.
2. For use in an enclosure up to 254mm (10") deep when used with our Series 320 Overload Relays, providing superior performance in high shock and vibration applications. Refer to page 60 for our complete selection of Bimetallic Overload Relays.
3. The rod can be easily cut to the desired length for use in a wide range of enclosure depths.
4. Heavy-duty polyester construction for superior corrosion resistance and moisture rejection.
5. Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
6. Flush and extended cap types in a wide variety of colors are available for configuring products for any application.
7. UL Listed and Rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12 and 13, and IP65 and meet global standards requirements.



SOME OF OUR POPULAR CONFIGURATIONS:

MOMENTARY NON-ILLUMINATED RESET PUSH BUTTON OPERATORS				
CATALOG NUMBER	CAP TYPE	CAP COLOR	CAP MARKING	PRICE
W22RPB-FK102-PK	Flush	Black	R	\$ 6.00
W22RPB-FB18-PK	Flush	Blue	RESET	\$ 6.00
W22RPB-EE18-PK	Extended	Grey	RESET	\$ 6.00
W22RPB-ER107-PK	Extended	Red	0	\$ 6.00

MIX AND MATCH ANY COLOR AND MOMENTARY NON-ILLUMINATED RESET PUSH BUTTON CAP



IT'S EASY TO BUILD YOUR OWN PILOT LIGHT

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Unibody Pilot Lights (Relampable)

W22U - - -

I II III IV

Example: To build one of our most popular Pilot Lights, the part number would be **W22U + II + III + IV** or **W22U-120LR-WLR**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22U	Unibody Light Unit	\$ 4.50

II. VOLTAGE

CODE	DESCRIPTION
	FULL VOLTAGE
6	6V AC/DC
12	12V AC/DC
24	24V AC/DC
120	120V AC/DC

c3controls LED lamp design life is 100,000 hours – that's 11.4 years!

III. LAMP TYPE/COLOR

CODE	DESCRIPTION	PRICE
	LED	
LA	Amber	\$ 7.00
LB	Blue	\$ 7.00
LG	Green	\$ 7.00
LR	Red	\$ 7.00
LW	White	\$ 7.00
	INCANDESCENT	
I	Clear	—
F	Clear Flashing Bulb*	\$ 4.00
*NOTE: Incandescent flashing bulbs available for any 6V full voltage application.		
NL	No Lamp	— \$ 1.00

IV. LENS/COLOR

CODE	DESCRIPTION	PRICE
WLA	Amber	\$ 1.00
WLB	Blue	\$ 1.00
WLC	Clear	\$ 1.00
WLG	Green	\$ 1.00
WLR	Red	\$ 1.00
WLW	White	\$ 1.00
WLY	Yellow	\$ 1.00

SEE PAGE 219 FOR LAMP REPLACEMENT CHART AND PAGE 220 FOR LAMP TECHNICAL DATA.

DISCOUNT SCHEDULE **C**

22MM IEC UNIBODY RELAMPABLE PILOT LIGHTS

Our 22mm IEC Unibody Pilot Lights were designed with simplicity in function to save you valuable time and money. This full voltage light unit is available in 6, 12, 24 and 120 volts using either Incandescent or our LED lamps with leakage protection. We offer seven different lens color options to add to your flexibility. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Vibration resistant compact design.
- Our seal is infused with a coating to eliminate cracking when exposed to harsh conditions such as heat, dryness and sunlight. This seal also acts as a light reflector because it is white which increases light output and improves visibility from all angles.
- Our rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments, even in high temperature ambients.
- Wiring is made easy by utilizing rear access captive mounting screws with side wire entry.
- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.



SOME OF OUR POPULAR CONFIGURATIONS:

UNIBODY PILOT LIGHTS		
CATALOG NUMBER	DESCRIPTION	PRICE
W22U-120LA-WLA	120V Full Voltage Light w/Amber LED & Lens	\$12.50
W22U-120LG-WLG	120V Full Voltage Light w/Green LED & Lens	\$12.50
W22U-120LR-WLR	120V Full Voltage Light w/Red LED & Lens	\$12.50
W22U-120I-WLR	120V Full Voltage Light w/Incan. Lamp & Red Lens	\$ 5.50

AVAILABLE LENS COLORS FOR UNIBODY PILOT LIGHTS



IT'S EASY TO BUILD YOUR OWN PILOT LIGHT

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Unibody Pilot Lights (Non-Relampable)

W22UNR - I II III - WNL IV V

Example: To build one of our most popular pilot lights, the part number would be **W22UNR + II + III + WNL + V** or **W22UNR-120LR-WNLR**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22UNR	Unibody Light Unit, Non-Relampable	\$5.00

II. VOLTAGE

CODE	DESCRIPTION
	FULL VOLTAGE
24	24V AC/DC
120	110 – 130V AC/DC
240	220 – 240V AC

III. LED COLOR

CODE	DESCRIPTION
LA	Amber
LB	Blue
LG	Green
LR	Red
LW	White

c3controls integral LED lamps last 60,000 hours — that's 6.8 years!

DISCOUNT SCHEDULE **C**

IV. LENS TYPE

CODE	DESCRIPTION
WNL	Pilot Light Lens, Non-Relampable

V. LENS COLOR

CODE	DESCRIPTION
A	Amber
B	Blue
C	Clear
G	Green
R	Red

SEE PAGE 220 FOR LAMP TECHNICAL DATA.

22MM IEC UNIBODY NON-RELAMPABLE PILOT LIGHTS

Our 22mm IEC Non-Relampable Unibody Pilot Lights were designed with simplicity in function to save you valuable time and money. This full voltage light features integral LED lamps that provide great light output and leakage protection. Available in 24, 120 and 240 volts and five lens color options. Wiring is made easy by utilizing rear access captive mounting screws with side wire entry. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13, IP65, and meet global standards requirements.

Product features include:

- High-tech integral LED lamps offer the latest and most current technology providing leakage protection, great light output and increased visibility from side views – and lasts up to 60,000 hours!
- Vibration resistant compact, low power consumption energy saving design.
- DC devices are bi-polar design, functionality is independent of which lead is connected to each terminal.
- Rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments – even in high temperature ambients.
- Low behind the panel depth (35.7mm [1-13/32"]) to allow mounting into shallow enclosures.
- IP20 guarded terminals prevent accidental contact with live parts.
- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Terminal screws with self-lifting captive wire clamps accommodate 0.5 – 4mm² (#22 through two #12 AWG) wires per terminal.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.

SOME OF OUR POPULAR CONFIGURATIONS:

UNIBODY PILOT LIGHTS, NON-RELAMPABLE		
CATALOG NUMBER	DESCRIPTION	PRICE
W22UNR-24LR-WNL	22mm Unibody Non-Relampable LED Pilot Light, 24V AC/DC, Red LED, Red Lens	\$5.00
W22UNR-24LG-WNL	22mm Unibody Non-Relampable LED Pilot Light, 24V AC/DC, Green LED, Green Lens	\$5.00
W22UNR-120LR-WNL	22mm Unibody Non-Relampable LED Pilot Light, 120V AC/DC, Red LED, Red Lens	\$5.00
W22UNR-120LG-WNL	22mm Unibody Non-Relampable LED Pilot Light, 120V AC/DC, Green LED, Green Lens	\$5.00
W22UNR-120LA-WNL	22mm Unibody Non-Relampable LED Pilot Light, 120V AC/DC, Amber LED, Amber Lens	\$5.00

AVAILABLE LENS COLORS FOR NON-RELAMPABLE UNIBODY PILOT LIGHTS



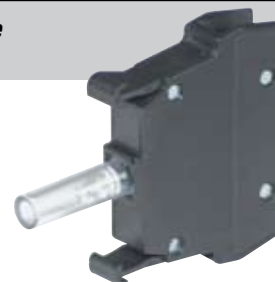
IT'S EASY TO BUILD YOUR OWN LIGHT MODULE

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

20-240V AC/DC Multi-Voltage Light Module (Non-Relampable)

W22  LW
/ // ///

Example: To build one of our most popular Pilot Lights, the part number would be **W22 + II + LW** or **W22MVDLW**



I. BASIC OPERATOR

CODE	DESCRIPTION
W22	Light Accessory Module

c3controls LED lamps last 100,000 hours
— that's 11.4 years!

II. LIGHT MODULE/VOLTAGE

CODE	DESCRIPTION	PRICE
MVD	Multi-Voltage 20-240V AC/DC Standard	\$15.75
MVF	Multi-Voltage 20-240V AC/DC Flashing	\$24.75

III. LED LAMP COLOR

CODE	DESCRIPTION
LW	White

SEE PAGE 220 FOR LAMP TECHNICAL DATA.

DISCOUNT
SCHEDULE **C**

UNIQUE PRODUCT FEATURES

c3
Exclusive!

ELIMINATE THE HEADACHE OF MATCHING SPECIFIC LAMPS WITH LIGHT UNITS!

With our state-of-the art integral super-bright white LEDs and printed circuit boards, this c3controls indicating light unit can be operated at any voltage from 20V to 240V AC or DC without losing light intensity. All you have to do is pick your lens color. An optional flashing unit is also available. All of this is achieved with just one light unit, reducing your inventory!



Optional
Lexan™ Lens

Optional Seal/
Light Reflector

- Low power consumption energy saving design.
- Multi-voltage module can be used with modular pilot lights, illuminated push buttons, push-to-test lights, and illuminated selector switches.
- Bi-polar design, functionality is independent of which lead is connected to each terminal.
- Our rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments, even high temperature ambients.
- Heavy-duty polyester construction for excellent durability, superior corrosion resistance, moisture rejection, and electrical insulation.
- IP20 guarded terminals to prevent accidental contact with live parts.

IT'S EASY TO BUILD YOUR OWN LIGHT MODULE

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

20-240V AC/DC Multi-Voltage Light Module (Relampable)

W22
I II III

Example: To build one of our most popular Pilot Lights, the part number would be **W22 + II + III** or **W22RMVDLG**

**NEW
PRODUCT
OFFERING!**

**I. BASIC OPERATOR**

CODE	DESCRIPTION
W22	Light Accessory Module

c3controls LED lamps last 100,000 hours
— that's 11.4 years!

DISCOUNT
SCHEDULE **C**

II. LIGHT MODULE/VOLTAGE

CODE	DESCRIPTION	PRICE
RMVD	Relampable Multi-Voltage 20-240V AC/DC Standard	\$17.00
RMVF	Relampable Multi-Voltage 20-240V AC/DC Flashing	\$26.00

SEE PAGE 219 FOR LAMP REPLACEMENT
CHART AND PAGE 220 FOR LAMP
TECHNICAL DATA.

III. LED LAMP COLOR

CODE	DESCRIPTION	PRICE
LA	Amber	\$ 4.00
LB	Blue	\$ 4.00
LG	Green	\$ 4.00
LR	Red	\$ 4.00
LT	Translucent White	\$ 4.00
LW	White	\$ 4.00

UNIQUE PRODUCT FEATURES

**c3
Exclusive!**

ELIMINATE THE HEADACHE OF MATCHING MULTIPLE LIGHTS TO MATCH MULTIPLE VOLTAGES!

Take all the great benefits of c3controls known multi-voltage light and add the convenience of being able to replace the lamp from the front of the panel and you have c3controls *New Relampable Multi-Voltage Light!* With our state-of-the-art, super-bright LEDs and printed circuit boards, this c3controls indicating light unit can be operated at any voltage from 20V to 240V AC or DC without losing light intensity. An optional flashing unit is also available.

- Relampable, LED lamps available in six colors; amber, blue, green, red, translucent white, and white.
- Bi-polar design, functionality is independent of which lead is connected to each terminal.

- Our rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments, even high temperature ambients.
- Superior performance even in applications with shock and vibration.
- Heavy-duty polyester construction for excellent durability, superior corrosion resistance, moisture rejection, and electrical insulation.
- Low power consumption energy saving design.
- IP20 guarded terminals to prevent accidental contact with live parts.
- Relampable multi-voltage module can be used with 22mm IEC modular pilot lights, illuminated push buttons, push-to-test lights, and illuminated selector switches.

AVAILABLE LED LAMP COLORS FOR RELAMPABLE MULTI-VOLTAGE LIGHT MODULES



IT'S EASY TO BUILD YOUR OWN PILOT LIGHT

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Modular Pilot Lights

W22PL - - - -

I II III IV

Example: To build one of our most popular Pilot Lights, the part number would be **W22PL + II + III + IV** or **W22PL-FM120LR-WLR**

NEW
EXPANDED
PRODUCT
OFFERING!



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22PL	Pilot Light	\$ 3.90

II. LIGHT MODULE/VOLTAGE

CODE	DESCRIPTION	PRICE
FULL VOLTAGE		
FM6	6V AC/DC	\$ 5.75
FM12	12V AC/DC	\$ 5.75
FM24	24V AC/DC	\$ 5.75
FM120	120V AC/DC	\$ 5.75
TRANSFORMER (50/60 Hz)		
TM120	120V AC	\$14.10
TM240	240V AC	\$14.10
TM480	480V AC	\$14.10
RESISTOR		
RM120	120V AC/DC	\$ 7.70
RM240	240V AC/DC	\$ 7.70
MULTI-VOLTAGE, NON-RELAMPABLE (LED ONLY)		
MVD	20-240V AC or DC (Standard)	\$15.75
MVF	20-240V AC or DC (Flashing)	\$24.75
MULTI-VOLTAGE, RELAMPABLE (LED ONLY)		
RMVD	20-240V AC or DC (Standard)	\$17.00
RMVF	20-240V AC or DC (Flashing)	\$26.00

III. LAMP TYPE/COLOR

CODE	DESCRIPTION	PRICE
LED		
LA	Amber	\$ 7.00
LB	Blue	\$ 7.00
LG	Green	\$ 7.00
LR	Red	\$ 7.00
LW	White	\$ 7.00
LED MULTI-VOLTAGE, NON-RELAMPABLE		
LW	White	—
LED MULTI-VOLTAGE, RELAMPABLE		
LA	Amber	\$ 4.00
LB	Blue	\$ 4.00
LG	Green	\$ 4.00
LR	Red	\$ 4.00
LT	Translucent White	\$ 4.00
LW	White	\$ 4.00
INCANDESCENT		
I	Clear	—
F	Clear Flashing Bulb*	\$ 4.00
*NOTE: Incandescent flashing bulbs available for any 6V full voltage or transformer application.		
NL	No Lamp	— \$ 1.00

IV. LENS COLOR

CODE	DESCRIPTION	PRICE
WLA	Amber	\$ 1.00
WLB	Blue	\$ 1.00
WLC	Clear	\$ 1.00
WLG	Green	\$ 1.00
WLR	Red	\$ 1.00
WLW	White	\$ 1.00
WLY	Yellow	\$ 1.00

SEE PAGE 219 FOR LAMP
REPLACEMENT CHART AND
PAGE 220 FOR LAMP
TECHNICAL DATA.

DISCOUNT
SCHEDULE **C**

Push-To-Test Pilot Lights

W22PTT - - - - -

I II III IV V

Example: To build one of our most popular Pilot Lights, the part number would be **W22PTT + II + III + IV + V** or **W22PTT-FM120LG-EG**

I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22PTT	Push-To-Test	\$10.95

II. VOLTAGE

(USE CHART II FROM ABOVE)

Push-To-Test Pilot Lights combine an illuminated push button with normally open and normally closed contact blocks factory wired for three-point wiring in standard push-to-test circuits.

III. LAMP TYPE/COLOR

(USE CHART III FROM ABOVE)

IV. LENS TYPE

CODE	DESCRIPTION	PRICE
F	Flush Lens	\$ 0.60
E	Extended Lens	—
M	Mushroom Lens	\$ 2.95
J	Jumbo Mushroom Lens	\$ 3.40

SEE PAGE 219 FOR LAMP
REPLACEMENT CHART AND PAGE 220
FOR LAMP TECHNICAL DATA.

V. LENS COLOR

CODE	DESCRIPTION	PRICE
A	Amber	\$ 1.00
B	Blue	\$ 1.00
C	Clear	\$ 1.00
G	Green	\$ 1.00
R	Red	\$ 1.00
W	White	\$ 1.00
Y	Yellow	\$ 1.00

DISCOUNT
SCHEDULE **C**



NEW
EXPANDED
PRODUCT
OFFERING!

22MM IEC MODULAR & PUSH-TO-TEST PILOT LIGHTS

Our 22mm IEC Modular and Push-To-Test Pilot Lights are designed to offer flexibility by offering light units in Multi-Voltage, Full Voltage, Transformer and Resistor packages, all available in a wide range of voltages. Modular and Push-To-Test pilot lights are available with either incandescent or our LED lamps with leakage protection. The modules meet IP20 standards for finger-safe terminations. Wiring is made easy by utilizing self lifting captive mounting terminal screws that accommodate 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal). We offer seven different color lenses to add to your flexibility. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

Product features include:

- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
- All lights with replaceable lamps use miniature bayonet base lamps to provide reliable lamp secureness.
- c3controls LED lamp design life is 100,000 hours – that's 11.4 years!



UNIQUE PRODUCT FEATURES



1. Compact, thin design is also vibration resistant.
2. Multi-Voltage, Full Voltage, Transformer and Resistor light units available in a wide range of voltages and can be used with Incandescent or our LED lamps with leakage protection.
3. Heavy duty polyester construction for excellent durability and corrosion resistance.
4. Our seal is infused with a coating to eliminate cracking when exposed to harsh conditions such as heat, dryness and sunlight. This seal also acts as a light reflector because it is white which increases light output and improves visibility from all angles.
5. Our rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments, even in high temperature ambients.
6. State-of-the-art non-relampable and relampable multi-voltage light modules with super-bright LEDs can be operated at any voltage from 20V to 240V AC or DC.

SOME OF OUR POPULAR CONFIGURATIONS:

MODULAR PILOT LIGHTS

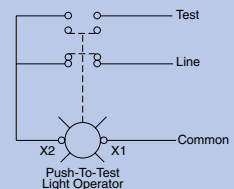
CATALOG NUMBER	DESCRIPTION	PRICE
W22PL-TM240LA-WLA	240V Transformer w/Amber LED & Lens	\$26.00
W22PL-TM120LR-WLR	120V Transformer w/Red LED & Lens	\$26.00
W22PL-RM240LG-WLG	240V Resistor w/Green LED & Lens	\$19.60
W22PL-MVDLW-WLR	Multi-Voltage w/White LED & Red Lens	\$20.65

PUSH-TO-TEST PILOT LIGHTS

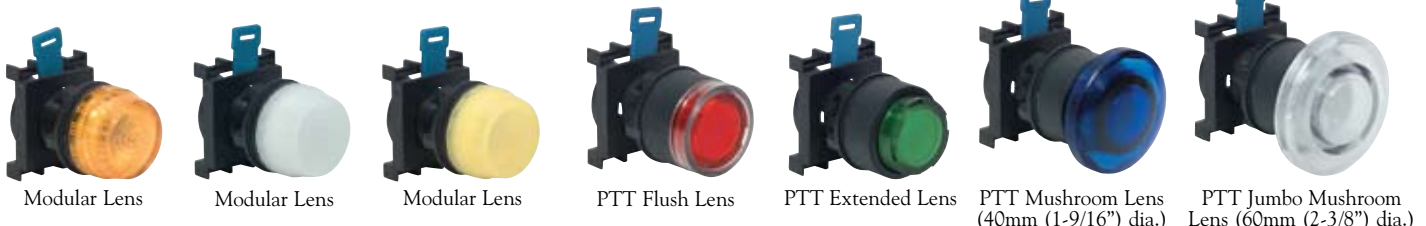
CATALOG NUMBER	DESCRIPTION	PRICE
W22PTT-FM120LA-EA	Full Voltage 120V w/Amber LED and Amber Extended Lens	\$24.70
W22PTT-FM120LG-FG	Full Voltage 120V w/Green LED and Green Flush Lens	\$25.30
W22PTT-FM120LR-ER	Full Voltage 120V w/Red LED and Red Extended Lens	\$24.70
W22PTT-MVDLW-ER	Multi-Voltage w/White LED and Red Extended Lens	\$27.70

PTT WIRING DIAGRAM

Customer connections of line and test power supplies. Light unit is powered by the line circuit. Depressing the lens cap will disconnect the line and connect the test supply, confirming bulb status.



AVAILABLE LENS COLORS FOR MODULAR & PUSH-TO-TEST PILOT LIGHTS



IT'S EASY TO BUILD YOUR OWN SELECTOR SWITCH

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Selector Switches (Illuminated)

W22I - - - - - / - - - - -
/ II III IV V VI VII* VIII*

Example: To build one of our most popular Selector Switches, the part number would be **W22I + II + III + IV + V + VI + VII + VIII** or **W22ISRC-IHG-FM24LG-10**

*NOTE: Contact block configurations are based on circuit designations (see page 213 for circuit designation charts).



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22I	Illuminated Selector Switch	\$ 4.00

II. ILLUMINATED SELECTOR SWITCH OPERATOR FUNCTION

CODE	POS./FUNCTION	PRICE
S2	2/Maintained	—
SRL	2/Spring Return, R to L	\$ 1.00
SLR	2/Spring Return, L to R	\$ 1.00
S3	3/Maintained	—
SLC	3/Spring Return, L to C	\$ 1.00
SRC	3/Spring Return, R to C	\$ 1.00
SAC	3/Spring Return, L & R to C	\$ 1.00

III. HANDLE TYPE

CODE	DESCRIPTION	PRICE
IH	Illuminated Standard Handle	\$ 1.75
IL	Illuminated Lever Handle	\$ 1.75

IV. HANDLE/INSERT COLOR

CODE	HANDLE COLOR	INSERT COLOR
A	Amber	White
B	Blue	White
C	Clear	Black
G	Green	White
R	Red	White
W	White	Black

V. VOLTAGE

CODE	DESCRIPTION	PRICE
FULL VOLTAGE		
FM6	6V AC/DC	\$ 5.75
FM12	12V AC/DC	\$ 5.75
FM24	24V AC/DC	\$ 5.75
FM120	120V AC/DC	\$ 5.75
TRANSFORMER (50/60 Hz)		
TM120	120V AC*	\$14.10
TM240	240V AC*	\$14.10
TM480	480V AC*	\$14.10
RESISTOR		
RM120	120V AC/DC	\$ 7.70
RM240	240V AC/DC*	\$ 7.70
MULTI-VOLTAGE, NON-RELAMPABLE (LED ONLY)		
MVD	20-240V AC or DC (Standard)	\$15.75
MVF	20-240V AC or DC (Flashing)	\$24.75
MULTI-VOLTAGE, RELAMPABLE (LED ONLY)		
RMVD	20-240V AC or DC (Standard)	\$17.00
RMVF	20-240V AC or DC (Flashing)	\$26.00

*NOTE: A 3-position operator function is not an option for TM120, TM240, TM480 and RM240.

VI. LAMP TYPE/COLOR

CODE	DESCRIPTION	PRICE
LED		
LA	Amber	\$ 7.00
LB	Blue	\$ 7.00
LG	Green	\$ 7.00
LR	Red	\$ 7.00
LW	White	\$ 7.00
LED MULTI-VOLTAGE, NON-RELAMPABLE		
LW	White	—
LED MULTI-VOLTAGE, RELAMPABLE		
LA	Amber	\$ 4.00
LB	Blue	\$ 4.00
LG	Green	\$ 4.00
LR	Red	\$ 4.00
LT	Translucent White	\$ 4.00
LW	White	\$ 4.00
INCANDESCENT		
I	Clear	—
F	Clear Flashing Bulb*	\$ 4.00
*NOTE: Incandescent flashing bulbs available for any 6V full voltage or transformer application.		
NL	No Lamp	—\$ 1.00

VII. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

NOTE: When using a transformer light module or 240V resistor light module, you are limited to two contact blocks on one side (left side).

VIII. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART VII FROM ABOVE)

SEE PAGE 219 FOR LAMP REPLACEMENT CHART AND PAGE 220 FOR LAMP TECHNICAL DATA.

DISCOUNT SCHEDULE **C**

SOME OF OUR POPULAR CONFIGURATIONS:

2-POSITION ILLUMINATED SELECTOR SWITCH OPERATORS

CONTACT SYMBOL	CONTACT BLOCK MOUNTING POS. <small>Viewed from front of operator</small>	HANDLE POSITION O=OPEN X=CLOSED			TYPE OF OPERATOR	MAINTAINED POSITION		SPRING RETURN FROM RIGHT TO LEFT		SPRING RETURN FROM LEFT TO RIGHT	
		LEFT	CENTER	RIGHT		CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE
	Either	O	N/A	X	IH	W22IS2-IHW-FM120I-10	\$14.00	W22ISRL-IHW-FM120I-10	\$15.00	W22ISLR-IHW-FM120I-10	\$15.00

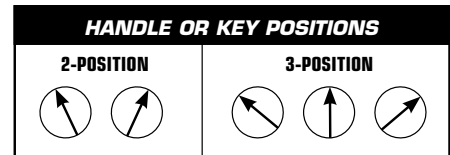
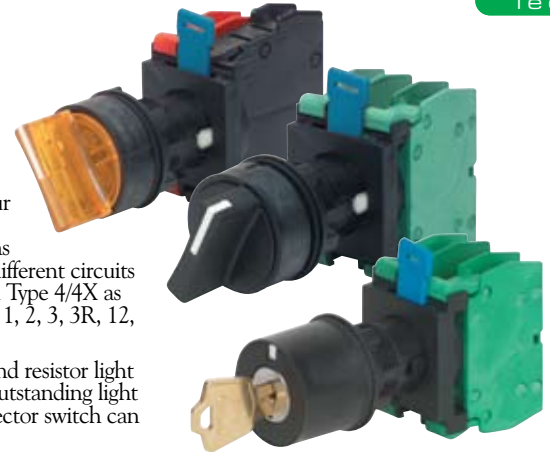
22MM IEC ILLUMINATED, NON-ILLUMINATED AND KEYED SELECTOR SWITCHES

c3controls 22mm IEC Selector Switches come standard in two and three positions in either spring return or maintained in non-illuminated, illuminated and keyed versions. Each joins our 30mm and 22mm NEMA style family with a unique universal cam design. Our one cam and proper contact block sequence can perform the same functions as it takes for up to seven cams from our competitors units. Add our snap-on contact blocks and you can control up to four different circuits with just one selector switch. All c3controls 22mm IEC operators are UL Listed and are rated Type 4/4X as standard for watertight and corrosion resistance. In addition, operators are also listed for Type 1, 2, 3, 3R, 12, 13 and IP65 applications, and meet global standards requirements.

The c3controls Illuminated Selector Switches utilize multi-voltage, full voltage, transformer and resistor light units that come standard in a wide range of voltages. Incandescent lamps offer long life and outstanding light output while our LED lamps offer the same, and leakage protection. Using an illuminated selector switch can free up valuable space on a control panel by eliminating the need for an additional pilot light. Additionally, our illuminated handles are available in two styles and six different colors.

Product features include:

- Our rugged Lexan™ lenses provide better visibility and can resist high impact for reliable performance in most environments, even in high temperature ambients.
- Polyester construction for superior corrosion resistance, moisture rejection and electrical insulation.
- Modular contact blocks use #6 plated steel terminal screws with self lifting captive wire clamps that accommodate 0.5 - 4mm² (#22 to #12 AWG) wires (one or two wires per terminal).
- Operators conveniently mount in a round 22.5mm (7/8") hole that is directly interchangeable with competitors units and eliminates the labor required for notching.
- c3controls LED lamp design life is 100,000 hours – that's 11.4 years!



KEYED SWITCH FEATURES

Alternate Key Combinations: Up to 9 different key combinations (CC series) are available. To order locks keyed differently, please consult factory or specify on order and increase the price \$28.00 per operator.

Master Keys: A master key is available that works in all 9 CC series key combinations. To order, specify part number MK1250 (\$20.00 per set of two master keys). Discount Schedule A applies.

Extra or Replacement Keys: Available for standard keyed selector switches only. To order, specify part number ES201 (\$4.00 per set of two keys). Discount Schedule A applies. NOTE: Two keys come standard with each operator.

UNIQUE PRODUCT FEATURES

SAVE TIME & MONEY - WITH c3CONTROLS, ONE CAM DOES IT ALL!



1. One-Cam does it all vs. our competitors who need up to seven cams to perform the same function. This One-Cam design eliminates the need for multiple cam configurations and selector switch configuration nightmares, saving time, inventory, money, and ensuring 100% cam selection configuration accuracy.
2. Multi-Voltage, Full Voltage, Transformer and Resistor light units available in a wide range of voltages and can be used with LED and Incandescent lamps.
3. Compact, thin design for fitting into tight spaces.

CONTACT BLOCK SELECTION FOR 2-POSITION
(EXCLUDES SLR) SELECTOR SWITCHES

CIRCUIT DESIG.	HANDLE POSITION		BLOCK CATALOG NUMBER	MOUNTING POSITION
	LEFT	RIGHT		
H	O	X	WNO	EITHER
G	X	O	WNC	EITHER

CONTACT BLOCK SELECTION FOR SLR
2-POSITION SELECTOR SWITCHES

CIRCUIT DESIG.	HANDLE POSITION		BLOCK CATALOG NUMBER	MOUNTING POSITION
	LEFT	RIGHT		
H	X	O	WNO	EITHER
G	O	X	WNC	EITHER

O = OPEN X = CLOSED

CONTACT BLOCK SELECTION FOR 3-POSITION SELECTOR SWITCHES

CIRCUIT DESIG.	HANDLE POSITION			BLOCK CATALOG NUMBER	MOUNTING POSITION
	LEFT	CENTER	RIGHT		
A	X	O	O	WNO	LEFT
B	O	X	O	WNC	EITHER
C	O	O	X	WNO	RIGHT
D	O	X	X	WDB	LEFT
E	X	O	X	WEM	EITHER
F	X	X	O	WDB	RIGHT

MIX AND MATCH ANY INSERT COLOR AND ILLUMINATED SELECTOR SWITCH HANDLE



IT'S EASY TO BUILD YOUR OWN SELECTOR SWITCH

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Selector Switches (Non-Illuminated)

W22 - - /
I II III IV V* VI*

*NOTE: Contact block configurations are based on circuit designations (see page 213 for circuit designation charts).

Example: To build one of our most popular Selector Switches, the part number would be **W22 + II + III + IV + V + VI** or **W22S2-HW-10**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22	Selector Switch	\$ 4.00

II. BASIC SELECTOR SWITCH OPERATOR FUNCTION

CODE	POS./FUNCTION	PRICE
S2	2/Maintained, L	—
SRL	2/Spring Return, R to L	\$ 1.00
SLR	2/Spring Return, L to R	\$ 1.00
S3	3/Maintained	—
SLC	3/Spring Return, L to C	\$ 1.00
SRC	3/Spring Return, R to C	\$ 1.00
SAC	3/Spring Return, L & R to C	\$ 1.00

III. HANDLE TYPE

CODE	DESCRIPTION	PRICE
H	Standard Handle	\$ 1.75
L	Lever Handle	\$ 1.75

IV. HANDLE INSERT COLOR

CODE	DESCRIPTION
B	Blue
G	Green
E	Grey
R	Red
W	White
Y	Yellow

V. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

VI. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART V FROM ABOVE)

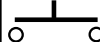

DISCOUNT
SCHEDULE

C


Each operating handle is black with a factory assembled color insert.

SOME OF OUR POPULAR CONFIGURATIONS:

2-POSITION NON-ILLUMINATED SELECTOR SWITCHES

CONTACT SYMBOL	CONTACT BLOCK MOUNTING POS. <small>Viewed from front of operator</small>	HANDLE POSITION O=OPEN X=CLOSED		TYPE OF OPERATOR	MAINTAINED POSITION		SPRING RETURN- RIGHT TO LEFT		SPRING RETURN- LEFT TO RIGHT	
		LEFT	RIGHT		CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE
1 NO 	EITHER	O	X	Standard	W22S2-HW-10	\$ 8.25	W22SRL-HW-10	\$ 9.25	W22SLR-HW-10	\$ 9.25
				Lever	W22S2-LW-10	\$ 8.25	W22SRL-LW-10	\$ 9.25	W22SLR-LW-10	\$ 9.25
1 NC 	EITHER	X	O	Standard	W22S2-HW-01	\$ 8.25	W22SRL-HW-01	\$ 9.25	W22SLR-HW-01	\$ 9.25
				Lever	W22S2-LW-01	\$ 8.25	W22SRL-LW-01	\$ 9.25	W22SLR-LW-01	\$ 9.25

3-POSITION NON-ILLUMINATED SELECTOR SWITCHES

CONTACT SYMBOL	CONTACT BLOCK MOUNTING POS. <small>Viewed from front of operator</small>	HANDLE POSITION O=OPEN X=CLOSED			TYPE OF OPERATOR	MAINTAINED POSITION		SPRING RETURN- LEFT TO CENTER		SPRING RETURN- RIGHT TO CENTER		SPRING RETURN- ALL EITHER TO CENTER	
		LEFT	CENTER	RIGHT		CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE
NO/NO 	LEFT	X	O	O	Standard	W22S3-HW-10/10	\$10.75	W22SLC-HW-10/10	\$11.75	W22SRC-HW-10/10	\$11.75	W22SAC-HW-10/10	\$11.75
	RIGHT	O	O	X									

MIX AND MATCH ANY INSERT COLOR AND NON-ILLUMINATED SELECTOR SWITCH HANDLE



IT'S EASY TO BUILD YOUR OWN SELECTOR SWITCH

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Keyed Selector Switches

W22K - K - /

I II III IV V* VI*

*NOTE: Contact block configurations are based on circuit designations (see page 213 for circuit designation charts).

Example: To build one of our most popular Keyed Selector Switches, the part number would be **W22K + II + K + IV + V + VI** or **W22KS3-KRA-10/10**



I. OPERATOR TYPE

CODE	DESCRIPTION	PRICE
W22K	Keyed Selector Switch	\$ 7.75

II. KEYED SELECTOR SWITCH OPERATOR FUNCTION

CODE	POS./FUNCTION	AVAIL KEY REMOVAL POSITION(S)	PRICE
S2	2/Maintained	RA,RR,RL	\$ 5.50
SRL	2/Spring Return, R to L	RL	\$ 6.25
SLR	2/Spring Return, L to R	RR	\$ 6.25
S3	3/Maintained	RA,RL,RR,RC, RLC,RRC	\$ 6.70
SLC	3/Spring Return, L to C	RC,RR,RRC	\$ 7.75
SRC	3/Spring Return, R to C	RC,RL,RLC	\$ 7.75
SAC	3/Spring Return, L&R to C	RC	\$ 7.75

III. BEZEL/INDICATOR COLOR

CODE	DESCRIPTION
K	Black Bezel/White Indicator

IV. KEY REMOVAL POSITION

CODE	REMOVAL POSITION
RA	All
RL	Left Only
RR	Right Only
RC	Center Only
RLC	Left & Center Only
RRC	Right & Center Only

DISCOUNT
SCHEDULE **C**

Discount Schedule C does not apply to MK1250 and ES201.

V. CONTACT BLOCK CONFIGURATION (LEFT SIDE)

CODE	DESCRIPTION	PRICE
(Blank)	Operator without Contact Blocks	—
10	1 Normally Open Contact Block	\$ 2.50
01	1 Normally Closed Contact Block	\$ 2.50
E	1 Early Make Contact Block	\$ 2.50
D	1 Delayed Break Contact Block	\$ 2.50
20	2 Normally Open Contact Blocks	\$ 5.00
02	2 Normally Closed Contact Blocks	\$ 5.00
11	1 Normally Open and 1 Normally Closed Contact Blocks	\$ 5.00

VI. CONTACT BLOCK CONFIGURATION (RIGHT SIDE)

(USE CHART V FROM ABOVE)

SOME OF OUR POPULAR CONFIGURATIONS:

2-POSITION KEYED SELECTOR SWITCH OPERATORS

CONTACT SYMBOL	CONTACT BLOCK MOUNTING POS. <small>Viewed from front of operator</small>	HANDLE POSITION O=OPEN X=CLOSED		TYPE OF OPERATOR	MAINTAINED POSITION		SPRING RETURN- RIGHT TO LEFT		SPRING RETURN- LEFT TO RIGHT	
		LEFT	RIGHT		CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE
1 NO 	EITHER	O	X	Key Removal Pos. LEFT RIGHT ALL	W22KS2-KRL-10 W22KS2-KRR-10 W22KS2-KRA-10	\$15.75 \$15.75 \$15.75	W22KSRL-KRL-10 — —	\$16.50 — —	— W22KSRL-KRR-10 —	— \$16.50 —
1 NC 	EITHER	X	O	Key Removal Pos. LEFT RIGHT ALL	W22KS2-KRL-01 W22KS2-KRR-01 W22KS2-KRA-01	\$15.75 \$15.75 \$15.75	W22KSRL-KRL-01 — —	\$16.50 — —	— W22KSRL-KRR-01 —	— \$16.50 —

3-POSITION KEYED SELECTOR SWITCH OPERATORS

CONTACT SYMBOL	CONTACT BLOCK MOUNTING POS. <small>Viewed from front of operator</small>	HANDLE POSITION O=OPEN X=CLOSED			TYPE OF OPERATOR	MAINTAINED POSITION		SPRING RETURN- LEFT TO CENTER		SPRING RETURN- RIGHT TO CENTER		SPRING RETURN- ALL EITHER TO CENTER	
		LEFT	CENTER	RIGHT		CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE	CATALOG #	PRICE
NO/NO 	LEFT	X	O	O	Key Rem Pos.	W22KS3-KRL-10/10	\$19.45	—	—	W22KSRC-KRL-10/10	\$20.50	—	—
	RIGHT	O	O	X	LEFT	W22KS3-KRR-10/10	\$19.45	W22KSLC-KRR-10/10	\$20.50	—	—	—	—
					RIGHT	W22KS3-KRC-10/10	\$19.45	W22KSLC-KRC-10/10	\$20.50	W22KSRC-KRC-10/10	\$20.50	W22KSAC-KRC-10/10	\$20.50
					Key Rem Pos.	W22KS3-KRLC-10/10	\$19.45	—	—	W22KSRC-KRLC-10/10	\$20.50	—	—
					R & C	W22KS3-KRRC-10/10	\$19.45	W22KSLC-KRRC-10/10	\$20.50	—	—	—	—

IT'S EASY TO BUILD YOUR OWN LEGEND PLATE

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Legend Plates



Legend plates feature 2 lines of text with approximately 16 characters per line. Uppercase is standard unless specified. *The short legend plate (22LPS) features 1 line of text with approximately 16 characters and the Potentiometer legend plate comes standard with a scale and one or two lines of text, see chart D below.



I. STANDARD LEGEND PLATE TYPE

CODE	DESCRIPTION	PRICE
22LP	Standard 1-3/4" h x 1-3/4" w	\$2.00
22LPN	Narrow 1-3/4" h x 1-1/2" w	\$2.00
22LPS	*Short 1-1/2" h x 1-3/4" w	\$2.00
22LPT	Tall 2" h x 1-3/4" w	\$2.50
22LPJ	Jumbo 2" h x 2" w	\$2.50
22LPR	Standard Round 2-13/32" Dia.	\$4.50
22LPRM	Medium Round 2-3/4" Dia.	\$5.25
22LPRJ	Jumbo Round 3-3/4" Dia.	\$6.00

II. FACE AND LETTER COLOR

CODE	FACE COLOR	LETTER COLOR
AL	Aluminum	Black
(Blank)	Black	White
BE	Blue	White
GN	Green	White
RD	Red	White
WE	White	Black
YW	Yellow	Black

III. LEGEND DESIGNATION

A. PUSH BUTTONS AND LIGHTS

CODE	DESCRIPTION
00	(Blank)
01	AUTO
02	CLOSE
31	CYCLE START
100	CYCLE STOP
03	DOWN
102	EMERGENCY
04	EMERGENCY STOP
06	FAST
101	FAULT
07	FORWARD
08	HAND
32	HIGH
33	IN
09	INCH
10	JOG
38	JOG FORWARD
39	JOG REVERSE
34	LOW
35	LOWER
11	MANUAL
26	MOTOR RUN
12	OFF
13	ON
14	OPEN
36	OUT
27	OVERLOAD
15	POWER OFF
16	POWER ON
30	PUSH TO RESET
17	PUSH TO TEST
37	RAISE
18	RESET
19	REVERSE
20	RUN
21	SLOW
22	START
23	STOP
24	TEST
29	TRIP
25	UP

B. 2-POSITION SELECTOR

CODE	LEGEND LEFT	LEGEND RIGHT
00	(Blank)	(Blank)
50	AUTO	HAND
68	AUTO	MANUAL
51	DOWN	UP
63	FAST	SLOW
52	FWD	REV
53	HAND	AUTO
73	HIGH	LOW
54	INCH	RUN
75	LEFT	RIGHT
70	LOCAL	REMOTE
55	MANUAL	AUTO
56	OFF	ON
57	ON	OFF
58	OPEN	CLOSE
65	PULL START	PUSH STOP
66	PUSH OFF	PULL ON
64	PUSH ON	PUSH OFF
67	PUSH TO STOP	PULL TO START
71	RAISE	LOWER
59	REV	FWD
60	RUN	JOG
69	SLOW	FAST
61	START	STOP
62	STOP	START
74	SUMMER	WINTER
72	UP	DOWN

C. 3-POSITION SELECTOR

CODE	LEGEND LEFT	LEGEND CENTER	LEGEND RIGHT
00	(Blank)	(Blank)	(Blank)
92	AUTO	OFF	HAND
93	AUTO	MAN	OFF
80	DOWN	OFF	UP
81	FWD	AUTO	REV
82	FWD	OFF	REV
83	HAND	OFF	AUTO
94	HIGH	OFF	LOW
99	JOG	OFF	AUTO
90	LOCAL	OFF	REMOTE
84	MANUAL	OFF	AUTO
89	OFF	RUN	START
85	OFF	START	RUN
86	OFF	1	2
95	OPEN	OFF	CLOSE
91	RAISE	OFF	LOWER
96	SLOW	OFF	FAST
97	SUMMER	OFF	WINTER
98	UP	OFF	DOWN
87	1	OFF	2
88	1	2	3

D. POTENTIOMETER

CODE	DESCRIPTION
40	Blank Legend 0 - 10
41	"SPEED" 0 - 10
43	Blank Legend 0 - 100
44	"SPEED" 0 - 100

NOT FINDING WHAT YOU NEED IN A STANDARD PLATE?

We offer Special and Custom Engraving up to 12" x 24" (304.8mm x 609.6mm). Please consult factory or see page 217 for details. While our standard legend plates are available for same day shipping, our special and custom legend plates are not.

DISCOUNT
SCHEDULE **C**

POPULAR CONFIGURATIONS:

LEGEND PLATES

CATALOG NO.	DESIGNATION	PRICE
22LPRYW-04	EMERGENCY STOP	\$4.50
22LPT-83	HAND OFF AUTO	\$2.50
22LP-41	SPEED 0 - 10	\$2.00

FEATURE BENEFITS

All Legend Plates are a 2-ply laminated plastic, laser engraved for a permanent and quality appearance and feature 2 lines of text with approximately 16 characters per line. Uppercase is standard unless specified. The Potentiometer legend plate comes standard with a scale and one or two lines of text.

IT'S EASY TO BUILD YOUR OWN LEGEND PLATE

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Special Legend Plates



I. STANDARD LEGEND PLATE TYPE

CODE	DESCRIPTION	PRICE
22LP	Standard 1-3/4" h x 1-3/4" w	\$2.00
22LPN	Narrow 1-3/4" h x 1-1/2" w	\$2.00
22LPS	*Short 1-1/2" h x 1-3/4" w	\$2.00
22LPT	Tall 2" h x 1-3/4" w	\$2.50
22LPJ	Jumbo 2" h x 2" w	\$2.50
22LPR	Standard Round 2-13/32" Dia.	\$4.50
22LPRM	Medium Round 2-3/4" Dia.	\$5.25
22LPRJ	Jumbo Round 3-3/4" Dia.	\$6.00

*The short legend plate (22LPS) features 1 line of text with 16 characters.

DISCOUNT
SCHEDULE **C**

II. FACE AND LETTER COLOR

CODE	FACE COLOR	LETTER COLOR
AL	Aluminum	Black
(Blank)	Black	White
BE	Blue	White
GN	Green	White
RD	Red	White
WE	White	Black
YW	Yellow	Black

III. LEGEND DESIGNATION

CODE	DESCRIPTION	PRICE
SP	Special Legend	\$7.00

NOTE: \$3.00 each when ordering 3 or more of the same exact legend plate.

Upon receipt of your order, legend plates will be set up as specified and a proof will be sent to you prior to production to ensure accuracy.

While our standard legend plates are available for same day shipping, our special and custom legend plates are not.

To order, submit your drawing to:

Mail: c3controls
Attn: Customer Care
P.O. Box 496
Beaver, PA 15009

Fax: 724.775.5283

Email: legendplates@c3controls.com

TO HELP SIMPLIFY YOUR ORDER PROCESS, TEMPLATES ARE AVAILABLE BY CALLING OUR FACTORY AT 724.775.7926 OR REFERENCE ONE OF THE DRAWINGS ON PAGE 228.



(Sample custom plate)

CUSTOM LEGEND PLATES

- Available in 2-ply 304.8mm x 609.6mm (12" x 24") sheets of laminated plastic for custom laser engraving.
- Add your Corporate Logo!** Send us your corporate logo electronically to promote your company image in a clean professional legend plate.
- Initial Set-Up Fee Per Legend Plate: \$25/hour (minimum fee \$25.00).
- \$1.00/Square Inch (minimum \$9.00).
- Design services available. Consult factory for details and hourly rate.
- While our standard legend plates are available for same day shipping, our special and custom legend plates are not.

To order, submit your drawing to:

Mail: c3controls
Attn: Customer Care
P.O. Box 496
Beaver, PA 15009

Fax: 724.775.5283

Email: legendplates@c3controls.com

HORIZONTAL THRUST & TRIM WASHERS



For mounting contact blocks in the horizontal position. NOTE: Trim washer is not necessary when using a legend plate.

CODE	DESCRIPTION	PRICE
W22TWH	Thrust Washer Horizontal	\$ 1.00

LATCHING DEVICE

A latching device to mount contact blocks for up to three across. Fits all 22mm IEC operators (except Unibody Lights).



CODE	DESCRIPTION	PRICE
W22-LD	Latching Device	\$ 2.30

LAMP REMOVAL TOOL



Used to facilitate the removal of lamps particularly in illuminated push buttons and push-to-test operators.

CODE	DESCRIPTION	PRICE
LRT	Lamp Removal Tool	\$ 4.00

VERTICAL THRUST & TRIM WASHERS



For mounting contact blocks in the vertical position. NOTE: Trim washer is not necessary when using a legend plate.

CODE	DESCRIPTION	PRICE
W22TWV	Thrust Washer Vertical	\$ 1.00

CLAMP RING WRENCH



To simplify tightening and loosening of polyester clamp rings. Won't scratch your panel.

CODE	DESCRIPTION	PRICE
W22CRW	Clamp Ring Wrench	\$12.50

ILLUMINATED LENS CAP REMOVAL TOOL



For tightening or removal of illuminated lenses. Won't scratch your lens or panel.

CODE	DESCRIPTION	PRICE
W22CRT	Lens Cap Removal Tool	\$10.30

MOUNTING ADAPTER KITS

MAK-30/22

MAK-1/22



Our mounting adapter kits offer the ability to conveniently mount 22mm pilot devices in either a round 30.5mm (1-13/64") hole or a 25.4mm (1") hole.

CODE	DESCRIPTION	PRICE
MAK-30/22	Converts 30mm Hole to a 22mm Hole Size. (Kit consists of a molded ring with a 1.6mm (1/16") gasket.)	\$ 5.00
MAK-1/22	Converts a 1" Hole to a 22mm Hole Size. (No gasket is required.)	\$ 5.00

HOLE PLUGS



Use to close and seal unused 22.5mm (7/8") panel holes. Manufactured with integral "O" ring seal molded on both sides to provide Type 4X rating.

CODE	DESCRIPTION	PRICE
HP22BK	Black Hole Plug	\$ 3.80
HP22GY	Grey Hole Plug	\$ 3.80
HP22YW	Yellow Hole Plug	\$ 3.80

LED & INCANDESCENT REPLACEMENT LAMPS

c3controls offers a full range of lamp options in a miniature bayonet base for direct interchangeability which provides flexibility in choosing the best lamp for each installation application. Multiple voltage options in Incandescent and LED lamps are available. Please refer to the chart below to determine the appropriate replacement lamp based on your operator voltage. For lamp technical data, see page 220.

LED Lamps (for use with 22mm IEC illuminated pilot devices and pilot lights)

LED 
I II III

To order LED Lamps, the part number would be LED + II + III



I. LAMP TYPE

CODE	DESCRIPTION	PRICE
LED	LED Lamp	\$14.00

NOTE: Not for use with W22RMVD and W22RMVF relampable multi-voltage pilot lights.

DISCOUNT
SCHEDULE **A**

II. VOLTAGE

CODE	DESCRIPTION
6	6V
12	12V
24	24V
130	130V

Our LED lamps feature built-in leakage protection.

III. LAMP COLOR

CODE	DESCRIPTION
AR	Amber
BE	Blue
GN	Green
RD	Red
WE	White

LED Lamps (for use with 22mm IEC relampable multi-voltage pilot lights)

RMVLED1 
I II

To order LED Lamps, the part number would be RMVLED1 + II

**NEW
PRODUCT
OFFERING!**



I. LAMP TYPE

CODE	DESCRIPTION	FOR USE WITH	PRICE
RMVLED1	LED Lamp	W22RMVD and W22RMVF Multi-Voltage Pilot Lights Rated 20-240V AC/DC	\$ 8.00

II. LAMP COLOR

CODE	DESCRIPTION
AR	Amber
BE	Blue
GN	Green
RD	Red
TW	Translucent White
WE	White

DISCOUNT
SCHEDULE **A**

22MM IEC REPLACEMENT LAMP REFERENCE CHART (FOR REFERENCE ONLY - USE CHARTS ABOVE TO ORDER)

OPERATOR CODE	OPERATOR VOLTAGE	LED (ALL COLORS)	INCANDESCENT
FM6	Full Voltage 6V AC/DC	LED6	FVB6 or FVB6F
FM12	Full Voltage 12V AC/DC	LED12	FVB12
FM24	Full Voltage 24V AC/DC	LED24	FVB24
FM120	Full Voltage 120V AC/DC	LED130	FVB120
TM120	Transformer 120V AC	LED6	FVB6 or FVB6F
TM240	Transformer 240V AC	LED6	FVB6 or FVB6F
TM480	Transformer 480V AC	LED6	FVB6 or FVB6F
RM120L	Resistor 120V AC/DC*	LED24	—
RM120I	Resistor 120V AC/DC*	—	FVB55
RM240L	Resistor 240V AC/DC*	LED24	—
RM240I	Resistor 240V AC/DC*	—	FVB120
W22RMVD	Multi-Voltage 20-240V AC/DC	RMVLED1	—
W22RMVF	Multi-Voltage 20-240V AC/DC	RMVLED1	—

*NOTE: Lamps are unique to Resistor Light Units. Refer to side of light unit for correct replacement lamp part number.

Incandescent Lamps



DISCOUNT
SCHEDULE **A**

CODE	VOLTAGE	PRICE
FVB6	6V	\$ 2.00
FVB12	12V	\$ 2.00
FVB24	24V	\$ 2.00
FVB55	55V	\$ 4.00
FVB120	120V	\$ 4.00
FVB6F	*6V Flashing	\$ 6.00

*NOTE: There may be a 5-15 second delay before flashing begins.

22MM INDUSTRIAL IEC PILOT DEVICES

ELECTRICAL RATINGS

Lamp	Industry Number	Rated Volts	Lumens (MSCD)	Design Life (Hrs.)	Current Draw (mA)	Lamp Type	Shock & Vibration	Leakage Protection
FVB6	1866	6.3V	0.65	5,000	250	Incandescent	Very Good	N/A
FVB12	756	14V	0.31	15,000	80	Incandescent	Good	N/A
FVB24	757	28V	0.62	7,500	80	Incandescent	Good	N/A
FVB55	1835	55V	1.1	5,000	50	Incandescent	Good	N/A
FVB120	**	130V	0.36	10,000	20	Incandescent	Good	N/A
LED6	**	6V	Varies w/ Color 2000 mcd Typical	100,000	50	LED*	Excellent	14 mA
LED12	**	12V		100,000	<20	LED*	Excellent	4 mA
LED24	**	24V		100,000	<20	LED*	Excellent	4 mA
LED130	**	120/130V		100,000	<10	LED*	Excellent	2 mA
W22UNR-24L	**	24V AC/DC	Varies w/ Color 2000 mcd Typical	60,000	<18	LED*	Excellent	<3 mA
W22UNR-120L	**	110-130V AC/DC		60,000	<18	LED*	Excellent	<3 mA
W22UNR-24L	**	220-240V AC/DC		60,000	<18	LED*	Excellent	<3 mA
RMVLED1	***	20-240V	Varies w/ Color 2000 mcd Typical	100,000	See Multi-Voltage Chart Below	LED	Excellent	N/A

Transformer Burden 2VA

* Specify Lamp color when ordering

** Designates a lamp design optimized for c3controls Illuminated Devices. See LED replacement lamps on page 219.

*** Specifications for both integral and relampable multi-voltage lights.

MULTI-VOLTAGE POWER CONSUMPTION & CURRENT DRAW

Power consumption for voltage range 20 ~ 240V AC or DC is less than 1/2 watt

System Voltage	AC Current Draw (mA)	DC Current Draw (mA)
24	11.52	10.3
48	6.67	5
120	1.94	2.1
240	1.1	1.2

TRANSFORMER INDICATING LIGHTS

System Voltage	c3 Lamp	Industry Number	Secondary Volts	Expected Lamp Life (Hrs.)	Transformer Burden	Lamp Type	Shock & Vibration
120	FVB6 LED6	1866 †	6.3V 7V	5,000 100,000	2 VA	Incandescent LED	Excellent Excellent
240							
480							

† Designates a "Special Order" lamp that is not readily available on the open market

DIELECTRIC STRENGTH (MECHANICAL CONTACTS) 2200V for 1 Minute

STANDARD CONTACTS	Utilization Category			Make Rating	Break Rating	Ith-Thermal Current
		IEC	UL			
	AC	AC-15	A600	7200VA	720VA	10A
	DC	DC-13	Q600	69VA	69VA	2.5A

NOTE: For AC voltage below 72V AC the max. allowed switching current is 10A=Ith. For DC voltages below 28V DC the max. allowed switching current is 2.5A=Ith.

ENVIRONMENTAL RATINGS

Type 1, 2, 3, 3R, 4/4X, 12, 13 and IP65

IP-65 [per EN 60529], DEMKO/CE

Operating Temperature
-40 to +55° C (-40 to +131° F)

Storage Temperature
-40 to +85° C (-40 to +185° F)

Operating Environments for below freezing temperatures are assumed to be absent of freezing liquids or pollutants.

TERMINAL & WIRING CONSIDERATION

Wire- AWG 22-12 CU
(Copper Only – Solid & Stranded) [.5 ~ 4 mm²]
One or Two wires permitted per termination

Recommended Torque
7 lb-in (+3.0/-0.0 lb-in) — [.8 Nm]

MECHANICAL DESIGN LIFE CYCLES

Pushbuttons	
Momentary	5,000,000
Maintained	1,000,000
Selector Switches	500,000
All Other Devices	250,000
Standard Contact Blocks	5,000,000
Indicating Lights – Refer to the appropriate Lamp Data	

OPERATING FORCES

Pushbuttons (Operator Only)	
Momentary	1.5 lbs. [6.7 N]
Illuminated	1.5 lbs. [6.7 N]
Maintained	13 lbs. [57.8 N]
Illuminated 2 Position (Maintained)	13 lbs. [57.8 N]
Illuminated 3 Position (Maintained Center & Depressed)	10 lbs. [44.5 N]
Illuminated 3 Position (All to Center)	9 lbs. [40 N]
Selector Switches (Operator Only)	
Maintained	3 in-lbs [.34 Nm]
Momentary	3.5 in-lbs [.40 Nm]
Key Operated Maintained	3 in-lbs [.34 Nm]
Key Operated Momentary	3.5 in-lbs [.40 Nm]
Contact Blocks (Single Pole)	1 lb. [4.45 N]
Indicating Lights	Refer to the appropriate Lamp Data

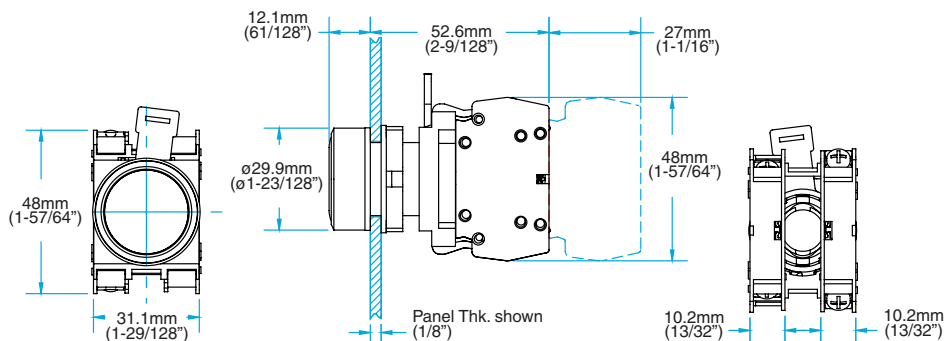
MATERIALS

Thermoplastic Polyester and Polyester Blends (UV Stabilized for outdoor use)
Operator Housings (Glass Reinforced Grades)
Operator Caps and Handles - Non-Illuminated (Glass Reinforced Grades)
Mounting Rings & Nuts (Glass Reinforced Grades)
Thrust Washer
Trim Washer
High Impact Polycarbonate (UV Stabilized for outdoor use)
Pilot Light Lens
Transparent PB and Mushroom Caps
Custom Polymers
Certain CAM and Bearing parts are Teflon, Silicone, & Moly-Disulfide Impregnated for improved wearability
Seals
Neoprene Gaskets
BUNA N – Rubber – Teflon Coated
Thermoplastic – Elastomer Molded Seals
Metal: Brass (Plated and Un-plated)
Push Pull Bushings
Detents for Maintained Devices
Springs (Stainless Steel throughout)
RoHS Compliance: For RoHS compliance documentation by product, refer to www.c3controls.com .

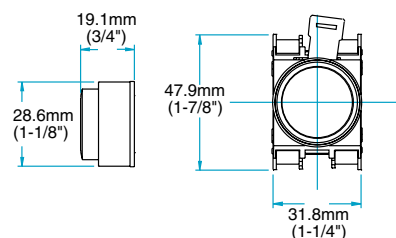
MOMENTARY NON-ILLUMINATED PUSH BUTTONS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

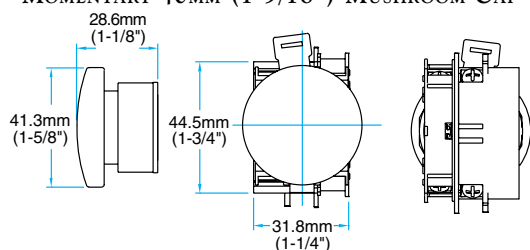
NON-ILLUMINATED OPERATOR (SHOWN WITH FLUSH CAP)



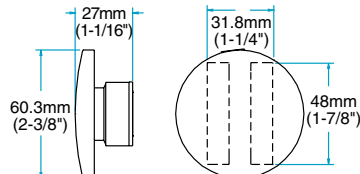
MOMENTARY EXTENDED CAP



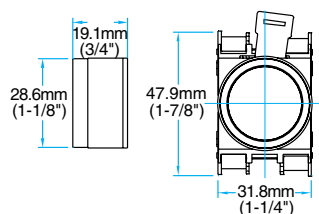
MOMENTARY 40MM (1-9/16") MUSHROOM CAP



MOMENTARY 60MM (2-3/8")
JUMBO MUSHROOM CAP



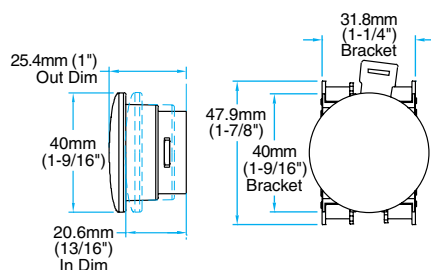
MOMENTARY GUARDED CAP



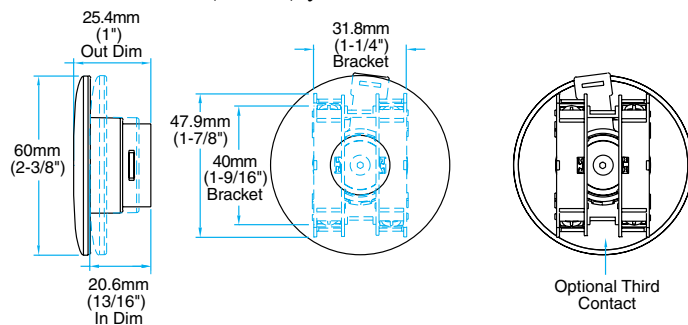
MAINTAINED NON-ILLUMINATED PUSH BUTTONS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

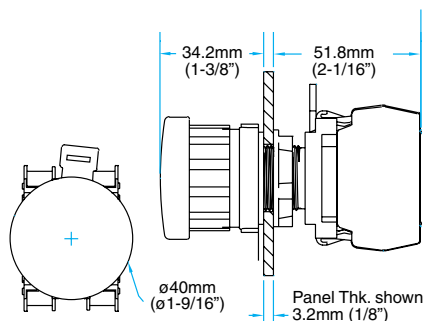
2-POSITION PUSH-PULL MAINTAINED 40MM (1-9/16") MUSHROOM CAP



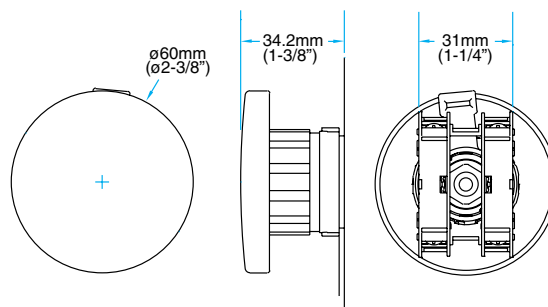
2-POSITION PUSH-PULL MAINTAINED 60MM (2-3/8") JUMBO MUSHROOM CAP



3-POSITION PUSH-PULL MAINTAINED 40MM (1-9/16") MUSHROOM CAP



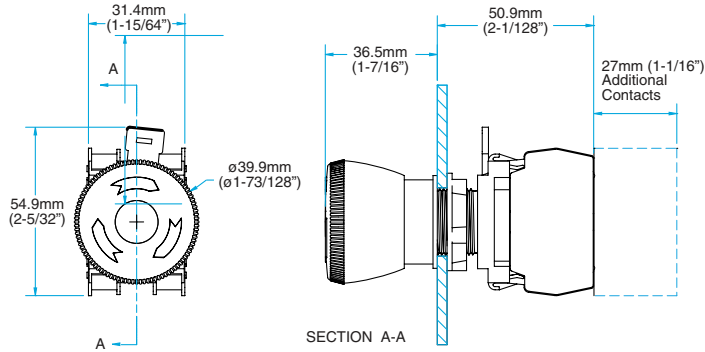
3-POSITION PUSH-PULL MAINTAINED 60MM (2-3/8") JUMBO MUSHROOM CAP



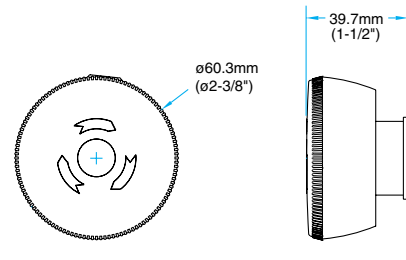
MAINTAINED NON-ILLUMINATED PUSH BUTTONS (CONT.)

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

2-POSITION PUSH-TWIST MAINTAINED 40MM (1-9/16") MUSHROOM CAP



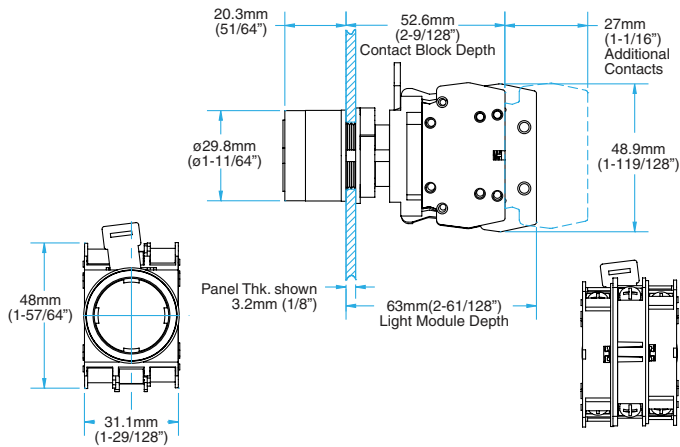
2-POSITION PUSH-TWIST MAINTAINED 60MM (2-3/8") JUMBO MUSHROOM CAP



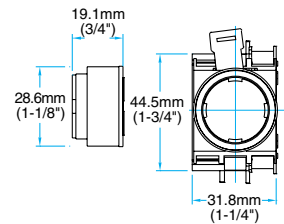
MOMENTARY ILLUMINATED PUSH BUTTONS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

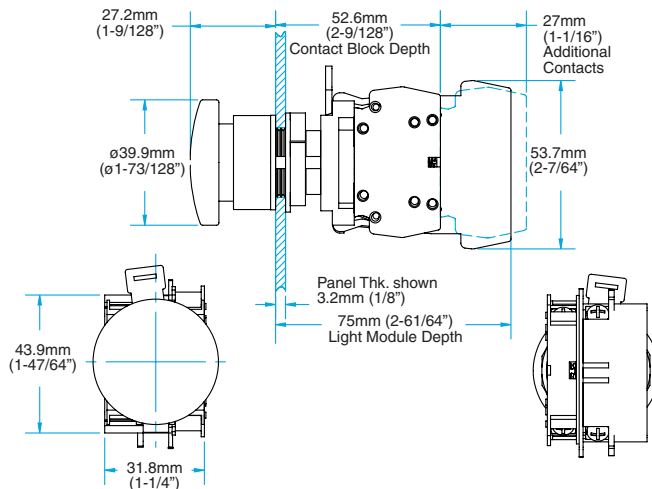
ILLUMINATED FULL VOLTAGE, RESISTOR AND MULTI-VOLTAGE OPERATORS (SHOWN WITH FLUSH LENS)



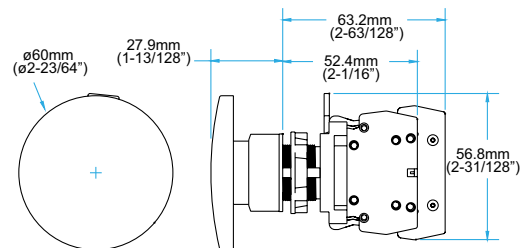
EXTENDED LENS



ILLUMINATED TRANSFORMER AND RESISTOR (240V) OPERATORS (SHOWN WITH MUSHROOM LENS)



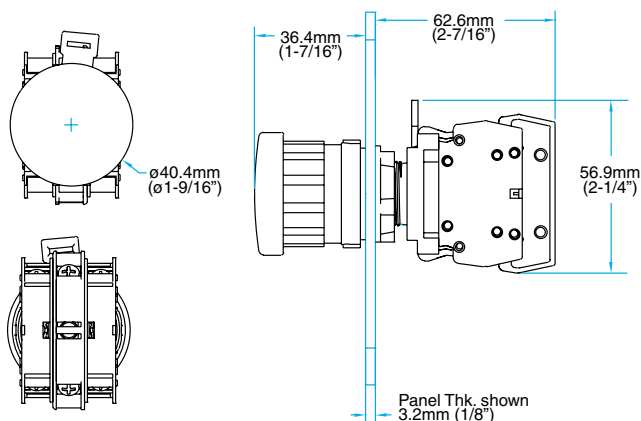
ILLUMINATED FULL VOLTAGE, RESISTOR AND MULTI-VOLTAGE OPERATORS (SHOWN WITH JUMBO MUSHROOM LENS)



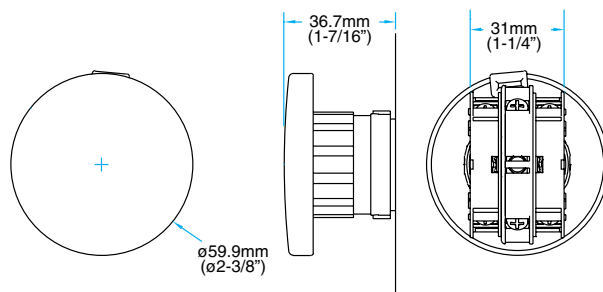
MAINTAINED ILLUMINATED PUSH BUTTONS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

2 & 3-POSITION PUSH-PULL MAINTAINED 40MM (1-9/16") MUSHROOM CAP (SHOWN WITH MULTI-VOLTAGE MODULE)



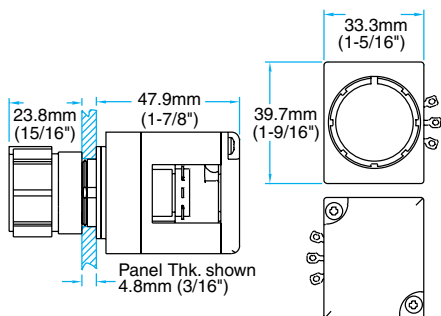
2 & 3-POSITION PUSH-PULL MAINTAINED 60MM (2-3/8") MUSHROOM CAP



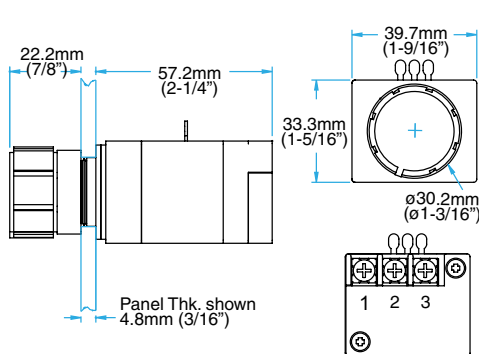
POTENTIOMETERS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

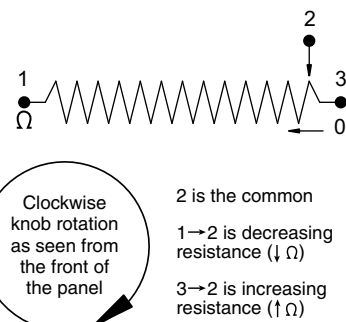
POTENTIOMETER OPERATOR (SHOWN WITHOUT TERMINAL BLOCK)



POTENTIOMETER OPERATOR (SHOWN WITH TERMINAL BLOCK)



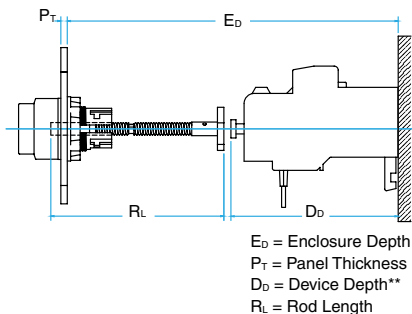
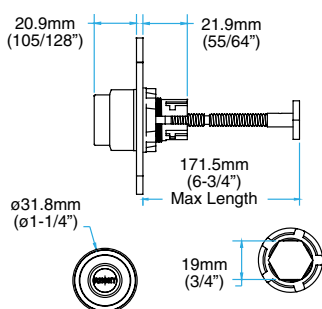
WIRING DIAGRAM



MOMENTARY NON-ILLUMINATED RESET PUSH BUTTONS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

ROD CUTTING INSTRUCTIONS



Minimum Panel Thickness (P_T) = 1mm (3/64")
 Maximum Panel Thickness (P_T) = 4mm (5/32")

Minimum Enclosure Depth (E_D) =
 $34.04\text{mm (1-11/32")} + D_D - P_T$
 Maximum Enclosure Depth (E_D) =
 $175.26\text{mm (6-29/32")} + D_D - P_T$

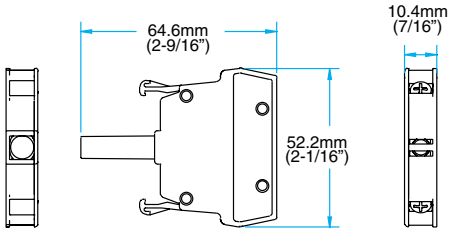
$R_L = E_D - D_D + P_T + 4.06\text{mm (5/32")}$

****Device Depth (D_D) is based on the mounting of the device (i.e. panel mounted or direct mount to a contactor).**

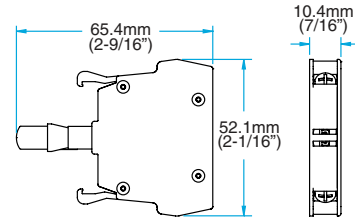
MULTI-VOLTAGE PILOT LIGHTS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

MULTI-VOLTAGE MODULE (NON-RELAMPABLE)



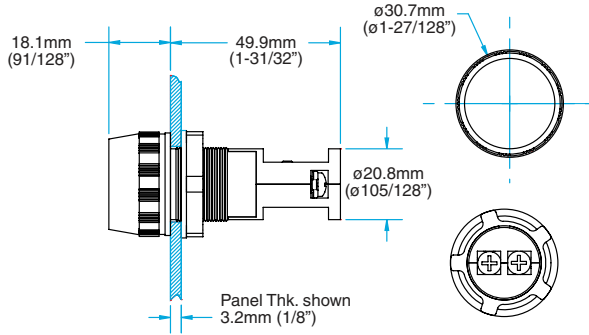
MULTI-VOLTAGE LIGHT MODULE (RELAMPABLE)



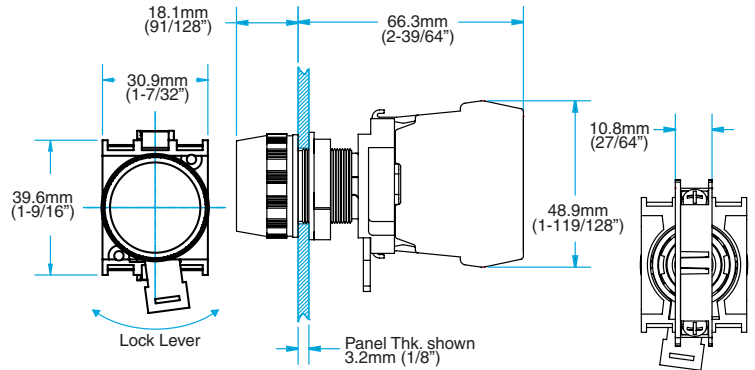
PILOT LIGHTS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

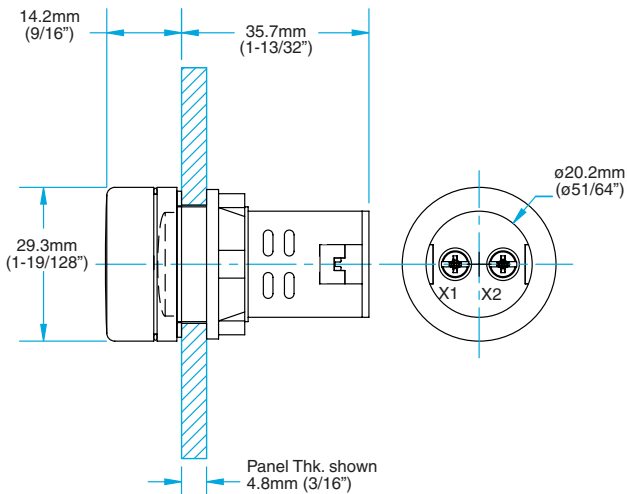
FULL VOLTAGE UNIBODY RELAMPABLE PILOT LIGHT OPERATOR



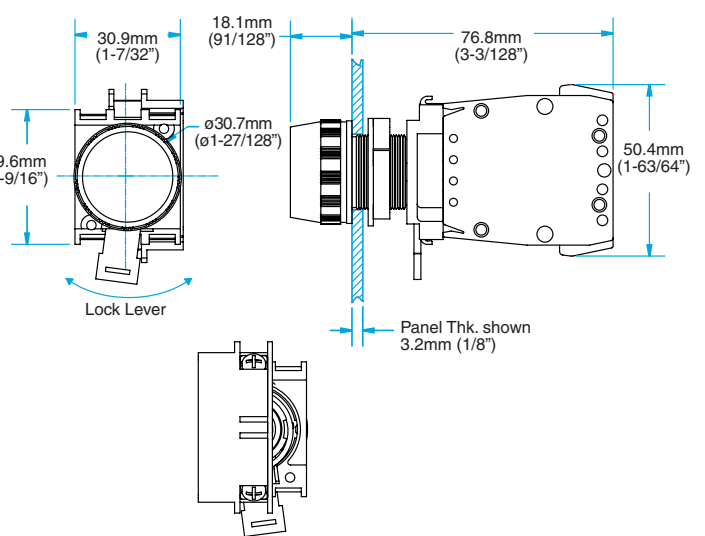
FULL VOLTAGE AND RESISTOR MODULAR PILOT LIGHT OPERATORS



FULL VOLTAGE UNIBODY NON-RELAMPABLE PILOT LIGHT OPERATOR



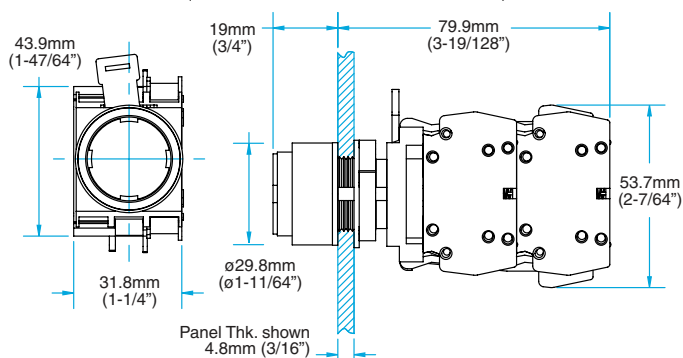
TRANSFORMER AND 240V RESISTOR MODULAR PILOT LIGHT OPERATORS



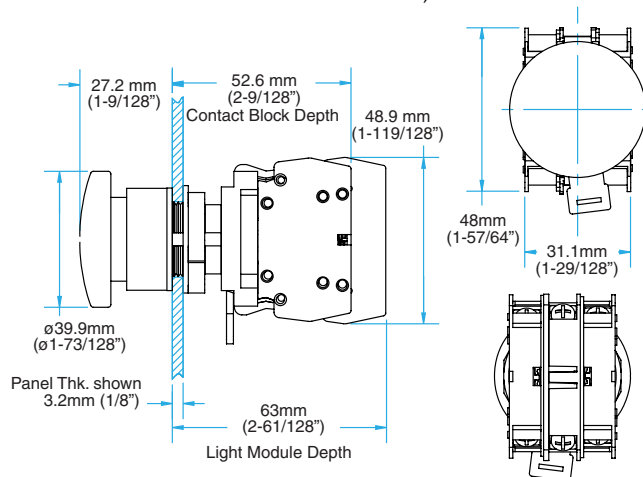
PUSH-TO-TEST PILOT LIGHTS

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

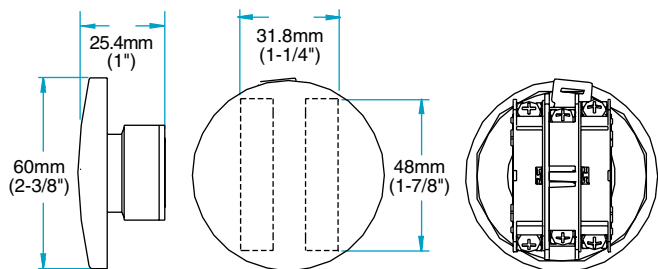
TRANSFORMER AND 240V RESISTOR PUSH-TO-TEST OPERATORS (SHOWN WITH EXTENDED LENS)



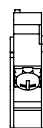
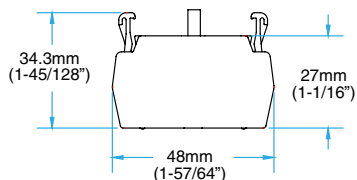
FULL VOLTAGE, RESISTOR AND MULTI-VOLTAGE PUSH-TO-TEST OPERATORS (SHOWN WITH 40MM (1-9/16") MUSHROOM LENS)



60MM (2-3/8") JUMBO MUSHROOM LENS

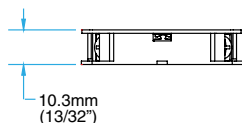


CONTACT BLOCK



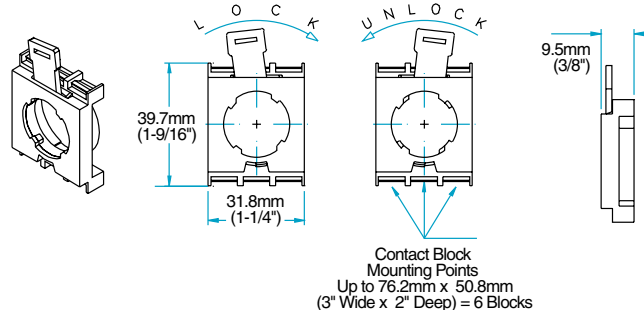
A600 (AC) Rating
Designation:
A600 (7,200 VA Make
and 720 VA Break),
600V AC Maximum
Maximum Continuous
Thermal Current, Ith:
10A

Q600 (DC) Rating
Designation:
Q600 (69 VA Make and
69 VA Break), 600V
DC Maximum
Maximum Continuous
Thermal Current, Ith:
2.5A



LATCHING DEVICE

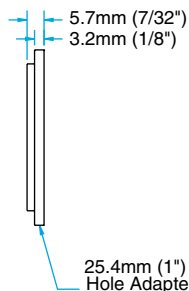
Contact block latching device for use on all 22mm IEC operators.



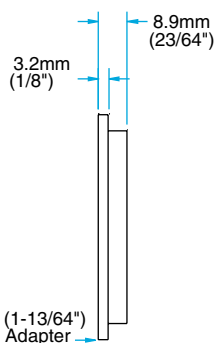
Contact Block
Mounting Points
Up to 76.2mm x 50.8mm
(3" Wide x 2" Deep) = 6 Blocks

MOUNTING ADAPTERS

MAK-1/22



- Mounting Adapter for use with all 22mm IEC operators.
- Maximum enclosure thickness 1.3mm (3/64")
- No gasket is required.



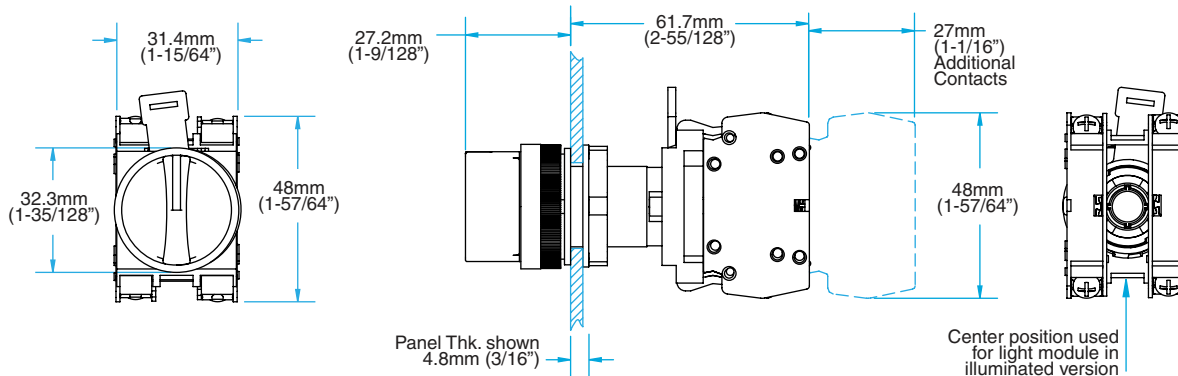
MAK-30/22

- Mounting Adapter for use with all 22mm IEC operators.
- Maximum enclosure thickness 3.8mm (5/32")
- Mounting Adapter must be used with one 1.6mm (1/16") gasket to ensure a watertight seal.

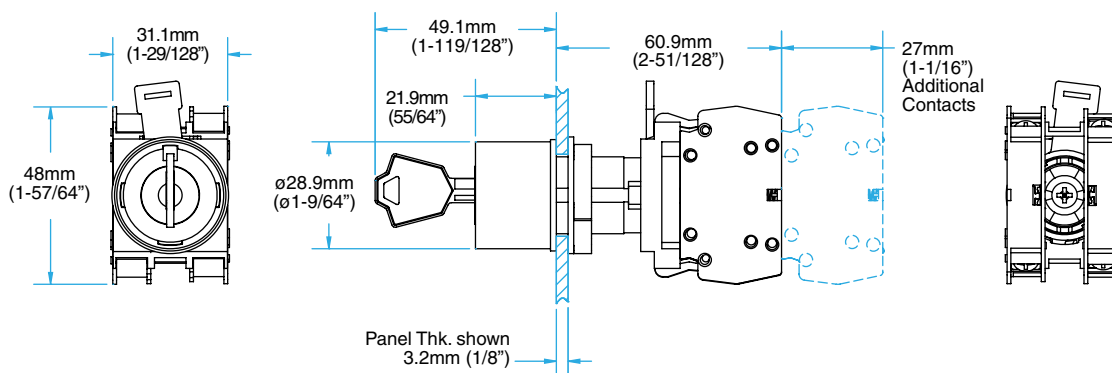
SELECTOR SWITCHES

Fully-assembled operators come standard with one 1.6mm (1/16") gasket.

ILLUMINATED AND NON-ILLUMINATED SELECTOR SWITCH OPERATORS (SHOWN WITH STANDARD HANDLE)



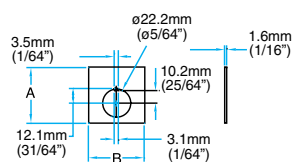
KEYED SELECTOR SWITCH OPERATOR (WITH VERTICALLY MOUNTED CONTACT BLOCKS)



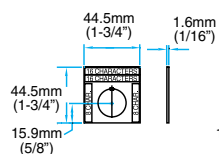
**VISIT WWW.C3CONTROLS.COM
TO DOWNLOAD CAD DRAWINGS**

LEGEND PLATES

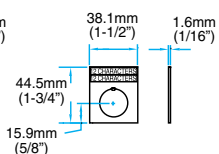
STANDARD LEGEND PLATE
WITH BREAK-AWAY POSITIONING
FOR OPTIONAL THRUST
WASHER ACCESSORY



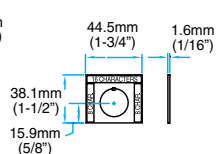
22LP-SP
STANDARD



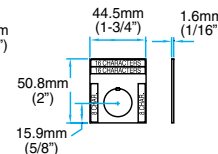
22LPN-SP
NARROW



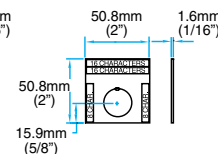
22LPS-SP
SHORT



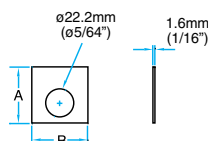
22LPT-SP
TALL



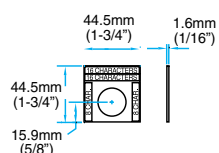
22LPJ-SP
JUMBO



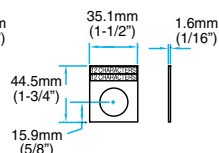
STANDARD LEGEND PLATE
WITH FREE POSITIONING HOLE



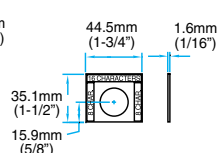
22LP-SP
STANDARD



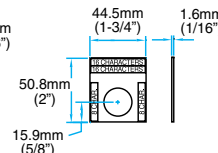
22LPN-SP
NARROW



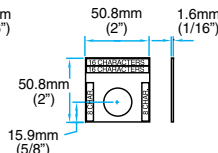
22LPS-SP
SHORT



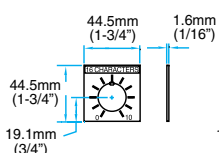
22LPT-SP
TALL



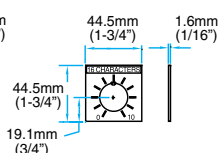
22LPJ-SP
JUMBO



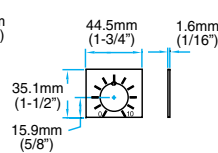
22LP-40-SP
POT



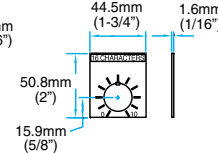
22LP-43-SP
POT



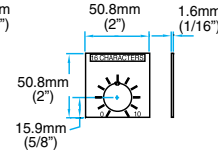
22LPS-40-SP
SHORT



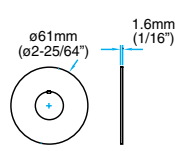
22LPT-40-SP
TALL



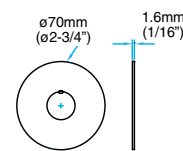
22LPJ-40-SP
JUMBO



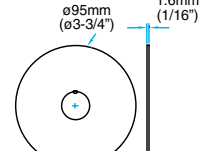
22LPR-SP
STANDARD ROUND



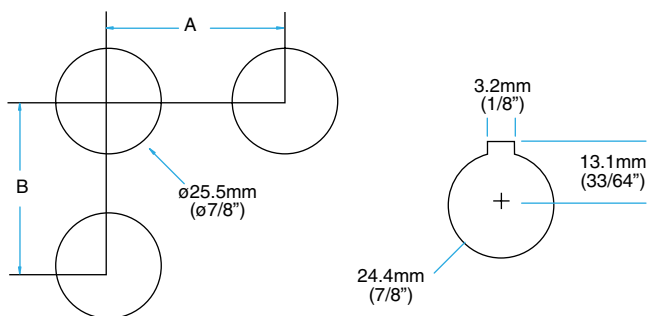
22LPRM-SP
MEDIUM ROUND



22LPRJ-SP
JUMBO ROUND



MOUNTING HOLE PATTERN



MOUNTING HOLE PATTERN

SPACING	A	B
Minimum	31.8mm (1-1/4")	47.9mm (1-7/8")
Standard	38.1mm (1-1/2")	57.2mm (2-1/4")
Staggered	44.5mm (1-3/4")	44.5mm (1-3/4")
Contacts		