

Looking for cam-operated rotary switches for On/Off, Changeover, Multi-Step, Ammeter, Voltmeter and Motor-Reversing control and load break applications? c3controls has a full line of reliable switches featuring modular operating handles that can be mixed-and-matched with any switch. A very broad product offering that is easy to install.

CAM SWITCHES

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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, 60947-3
60947-5-1

Certifications:

UL File #: E187641 (Guide NLRV2, NLRV8)
CSA File #: 232541
CE Marked (per EU Low Voltage Directive
2006/95/EC and 93/68/EEC)



Visit www.c3controls.com to download product certifications.

IT'S EASY TO BUILD YOUR OWN CAM 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.

On-Off Cam Switches

CS - -
I II III IV V VI VII

Example: To build one of our most popular Cam Switches, the part number would be **CS + II + III + IV + V + VI + VII** or **CS11003-G16-L22LBAA61**



I. BASIC CAM SWITCH

CODE	DESCRIPTION
CS	Cam Switch

SEE PAGES 244-245 FOR SPECIFICATIONS,
PAGE 246 FOR OPERATOR PLATE
MARKINGS AND CONNECTING DIAGRAMS,
AND PAGE 248 FOR DIMENSIONS.

V. OPERATOR TYPE

CODE	DESCRIPTION
(Blank)	Key Lock (For use with K22 only)
L	Lever

II. SWITCH CONFIGURATION / III. CURRENT RATING

CODE	DESCRIPTION	NO. OF STAGES	G10 10 AMP	G16 16 AMP	G25 25 AMP	G32 32 AMP
MAINTAINED 60° (A61)						
11001	1 Pole	1	\$ 5.20	\$11.00	\$14.80	\$18.20
11002	2 Poles	1	\$ 6.70	\$12.30	\$16.60	\$20.30
11003	3 Poles	2	\$ 9.80	\$16.30	\$22.20	\$26.70
11004	4 Poles	2	\$11.30	\$17.60	\$24.00	\$28.80
11005	5 Poles	3	\$15.40	\$21.60	\$29.80	\$35.20
11006	6 Poles	3	\$16.90	\$22.90	\$31.60	\$37.30
11007	7 Poles	4	\$20.00	\$26.90	\$37.20	\$43.70
11008	8 Poles	4	\$21.50	\$28.20	\$39.00	\$45.80
11009	9 Poles	5	\$24.60	\$32.20	\$44.60	\$52.20
11010	10 Poles	5	\$26.10	\$33.50	\$46.40	\$54.30
MAINTAINED 90° (A91/B93)						
11191	1 Pole	1	\$ 5.20	\$11.00	\$14.80	\$18.20
11192	2 Poles	1	\$ 6.70	\$12.30	\$16.60	\$20.30
11199	3 Poles	2	\$ 9.80	\$16.30	\$22.20	\$26.70
11194	4 Poles	2	\$11.30	\$17.60	\$24.00	\$28.80
11906	6 Poles	3	\$16.90	\$22.90	\$31.60	\$37.30
SPRING RETURN 45° (A41)						
13351	1 Pole	1	—	\$11.90	\$15.70	\$19.10
13352	2 Poles	1	—	\$13.20	\$17.50	\$21.20
13353	3 Poles	2	—	\$17.20	\$23.10	\$27.60
13354	4 Poles	2	—	\$18.50	\$24.90	\$29.70

IV. INSTALLATION

CODE	DESCRIPTION	FOR CURRENT RATING CODES	PRICE
S22	32mm x 32mm Front Plate	G10	\$ 3.00
L22	48mm x 48mm Front Plate	G16, G25, G32	\$ 4.00
N22	Round Ring (no front plate)	G16, G25, G32	\$ 3.50
NOTE: See pages 242-243 for legend plate options.			
P22	48mm x 48mm Front Plate – Lockable	G16, G25, G32	\$ 4.50
K22	48mm x 48mm Front Plate – Key Lock	G16, G25, G32	\$ 7.50
NOTE: Available for any maintained 90° switch.			

VI. OPERATOR COLOR

CODE	OPERATOR COLOR	FRONT PLATE COLOR	FOR INSTALLATION CODE
RY	Red	Yellow	S22, L22, P22
BB	Black	Black	S22, L22
BG	Black	Grey	S22, L22
BA	Black	Aluminum	S22, L22, K22
BN	Black	—	N22
RN	Red	—	N22

VII. OPERATOR PLATE MARKING

CODE	DESCRIPTION	FOR INSTALLATION CODE
A61	OFF-ON (60°)	S22, L22, P22
A91	OFF-ON (90°)	S22, L22, P22
A41	OFF-START (45°)	L22, P22
B93	OFF-ON, Keyed (90°)	K22
(Blank)	—	N22

Unit mounts in a single 22.5mm (7/8") hole.

DISCOUNT
SCHEDULE **C**

SOME OF OUR POPULAR CONFIGURATIONS:

ON-OFF CAM SWITCHES

CATALOG NUMBER	DESCRIPTION	PRICE
CS11008-G10-S22LRYA61	10A, 8 Pole, Maintained 60°, 32mm x 32mm Red/Yellow Lever "OFF-ON" Front Plate	\$24.50
CS11194-G16-P22LRYA91	16A, 4 Pole, Maintained 90°, 48mm x 48mm Red/Yellow Lever "OFF-ON" Front Plate – Lockable	\$22.10

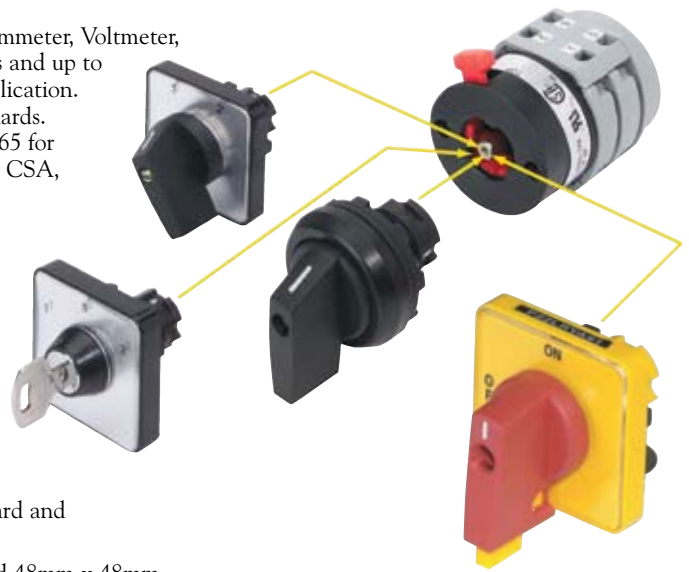
SEE BOTTOM OF PAGE 237
FOR OPERATOR AND
CAM SWITCH OPTIONS.

CAM SWITCHES

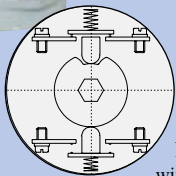
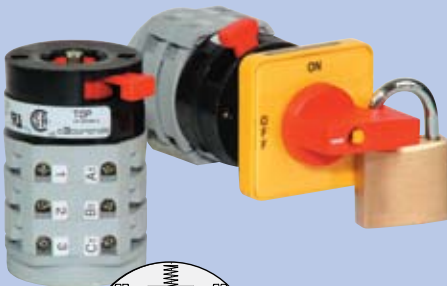
c3controls compact, easy to install On-Off, Changeover, Multi-Step, Ammeter, Voltmeter, and Motor Reversing Cam Switches are available with up to 6 positions and up to 10 poles — a solution for almost any control and load break switch application. They are certified as Manual Motor Controllers per UL and CSA standards. All c3controls cam switch operators are rated Type 1, 3, 3R, 12, and IP65 for installation in severe environments. In addition, switches also meet UL, CSA, and IEC standards requirements making them suitable for use in global applications. c3controls goes the extra step to make sure that our products outlast the competition.

Product features include:

- Rated from 10A to 32A up to 690V AC.
- Available in 45°, 60°, and 90° switching angles.
- Operators and switches conveniently install in a standard, round 22.5mm (7/8") mounting hole that is directly interchangeable with commonly available pilot devices and other control and load break switches.
- Round operator without front plate is available for use with standard and custom legend plates.
- Front plates are available in two different sizes; 32mm x 32mm and 48mm x 48mm, and come in yellow, grey, black or aluminum.



UNIQUE PRODUCT FEATURES



Cam design provides "Quick-Make — Slow-Break" operation with built-in latching. Two double-break, positive drive to open silver alloy contacts per stage provide long electrical life.

1. High-grade engineering plastics like nylon, celcon, and glass filled polyamide provide outstanding mechanical strength and long life with excellent electrical insulating properties.
2. The simple latching mechanism securely assembles the switch with the operator — the switch can be easily and conveniently wired outside the confined space of the control panel, and then installed on the operator that has already been mounted.
3. A wide variety of operators can be "mixed-and-matched" with different switch types to reduce inventory requirements and customize the switch appearance for every application.
4. Operators can be locked OFF with a padlock or key switch (with various key removal positions) to prevent operation of the switch.
5. Markings are integral to the front plate and protected so they won't wear off over time.
6. Switches are available with IP20 guarded terminals to protect against accidental contact with live parts.
7. Combination head terminal screws include captive terminal clamps for ease of wiring.
8. Clearly marked terminals make wiring fast and easy.

MIX AND MATCH ANY OPERATOR AND CAM SWITCH



S22
Lever



S22
Lever



L22
Lever



N22
Round Ring



P22
Lockable



K22
Key Lock

IT'S EASY TO BUILD YOUR OWN CAM 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.

Changeover Cam Switches

CS - -

I **II** **III** **IV** **V** **VI** **VII**

Example: To build one of our most popular Cam Switches, the part number would be **CS + II + III + IV + V + VI + VII** or **CS21027-G16-K22BAC62**



I. BASIC CAM SWITCH

CODE	DESCRIPTION
CS	Cam Switch

SEE PAGES 244-245 FOR SPECIFICATIONS,
PAGE 246 FOR OPERATOR PLATE
MARKINGS AND CONNECTING DIAGRAMS,
AND PAGE 248 FOR DIMENSIONS.

V. OPERATOR TYPE

CODE	DESCRIPTION
(Blank)	Key Lock
L	Lever

II. SWITCH CONFIGURATION / III. CURRENT RATING

CODE	DESCRIPTION	NO. OF STAGES	G10 10 AMP	G16 16 AMP	G25 25 AMP	G32 32 AMP
WITH OFF POSITION, MAINTAINED 60° (B61, C62)						
21025	1 Pole	1	\$ 6.70	\$12.30	\$16.60	\$20.30
21026	2 Poles	2	\$11.30	\$17.60	\$24.00	\$28.80
21027	3 Poles	3	\$16.90	\$22.90	\$31.60	\$37.30
21028	4 Poles	4	\$21.50	\$28.20	\$39.00	\$45.80
21029	5 Poles	5	\$26.10	\$33.50	\$46.40	\$54.30
21030	6 Poles	6	\$30.70	\$38.80	\$53.80	\$62.80
WITH OFF POSITION, MAINTAINED 90° (B91, C91, C92)						
21151	1 Pole	1	\$ 6.70	\$12.30	\$16.60	\$20.30
21152	2 Poles	2	\$11.30	\$17.60	\$24.00	\$28.80
21153	3 Poles	3	\$16.90	\$22.90	\$31.60	\$37.30
21154	4 Poles	4	\$21.50	\$28.20	\$39.00	\$45.80

VI. OPERATOR COLOR

CODE	OPERATOR COLOR	FRONT PLATE COLOR	FOR INSTALLATION CODE
RY	Red	Yellow	S22, L22
BB	Black	Black	S22, L22
BG	Black	Grey	S22, L22
BA	Black	Aluminum	S22, L22, K22
BN	Black	—	N22
RN	Red	—	N22

VII. OPERATOR PLATE MARKING

CODE	DESCRIPTION	FOR INSTALLATION CODE
B61	1-0-2 (60°)	S22, L22
B91	1-0-2 (90°)	S22, L22
C62	1-0-2, Key Removal in OFF Position (60°)	K22
C92	1-0-2, Key Removal in OFF Position (90°)	K22
C91	1-0-2, Key Removal in All Positions (90°)	K22
(Blank)	—	N22

IV. INSTALLATION

CODE	DESCRIPTION	FOR CURRENT RATING CODES	PRICE
S22	32mm x 32mm Front Plate	G10	\$ 3.00
L22	48mm x 48mm Front Plate	G16, G25, G32	\$ 4.00
N22	Round Ring (no front plate)	G16, G25, G32	\$ 3.50
NOTE: See pages 242-243 for legend plate options.			
K22	48mm x 48mm Front Plate – Key Lock	G16, G25, G32	\$ 7.50

Unit mounts in a single 22.5mm (7/8") hole.

DISCOUNT
SCHEDULE **C**

SOME OF OUR POPULAR CONFIGURATIONS:

SEE BOTTOM OF PAGE 237
FOR OPERATOR AND
CAM SWITCH OPTIONS.

CHANGEOVER CAM SWITCHES

CATALOG NUMBER	DESCRIPTION	PRICE
CS21027-G16-L22LRYB61	16A, 3 Pole, Maintained 60°, 48mm x 48mm Red/Yellow Lever "1-0-2" Front Plate	\$26.90
CS21153-G16-L22LBBAB91	16A, 3 Pole, Maintained 90°, 48mm x 48mm Black/Aluminum Lever "1-0-2" Front Plate	\$26.90
CS21027-G16-K22BAC62	16A, 3 Pole, Maintained 60°, 48mm x 48mm Black/Aluminum Key Lock "1-0-2" Front Plate (Key Removal in "OFF" Position)	\$30.40
CS21153-G16-K22BAC91	16A, 3 Pole, Maintained 90°, 48mm x 48mm Black/Aluminum Key Lock "1-0-2" Front Plate (Key Removal in ALL Positions)	\$30.40

IT'S EASY TO BUILD YOUR OWN CAM SWITCH

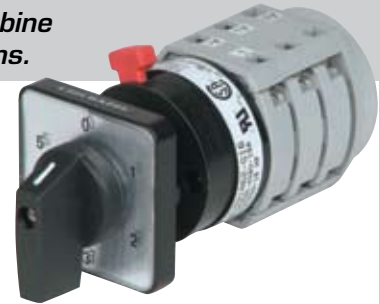
Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Multi-Step Cam Switches

CS - - **L**

I **II** **III** **IV** **V** **VI** **VII**

Example: To build one of our most popular Cam Switches, the part number would be **CS + II + III + IV + L + VI + VII** or **CS31062-G16-L22LBAZ66**



I. BASIC CAM SWITCH

CODE	DESCRIPTION
CS	Cam Switch

SEE PAGES 244-245 FOR SPECIFICATIONS,
PAGE 246 FOR OPERATOR PLATE
MARKINGS AND CONNECTING DIAGRAMS,
AND PAGE 248 FOR DIMENSIONS.

V. OPERATOR TYPE

CODE	DESCRIPTION
L	Lever

II. SWITCH CONFIGURATION / III. CURRENT RATING

CODE	DESCRIPTION	NO. OF STAGES	G10 10 AMP	G16 16 AMP	G25 25 AMP	G32 32 AMP
3-POSITION INCLUDES OFF (Z63)						
31059	1 Pole	1	\$ 6.70	\$12.30	\$16.60	\$20.30
31079	2 Poles	2	\$11.30	\$17.60	\$24.00	\$28.80
31099	3 Poles	3	\$16.90	\$22.90	\$31.60	\$37.30
31130	4 Poles	4	\$21.50	\$28.20	\$39.00	\$45.80
4-POSITION INCLUDES OFF (Z94)						
31060	1 Pole	2	\$ 7.70	\$13.30	\$17.60	\$21.30
31080	2 Poles	3	\$12.30	\$18.60	\$25.00	\$29.80
31100	3 Poles	5	\$17.90	\$23.90	\$32.60	\$38.30
31131	4 Poles	6	\$22.50	\$29.20	\$40.00	\$46.80
5-POSITION INCLUDES OFF (Z65)						
31061	1 Pole	2	\$ 8.70	\$14.30	\$18.60	\$22.30
31081	2 Poles	4	\$13.30	\$19.60	\$26.00	\$30.80
31101	3 Poles	6	\$18.90	\$24.90	\$33.60	\$39.30
31132	4 Poles	8	\$23.50	\$30.20	\$41.00	\$47.80
6-POSITION INCLUDES OFF (Z66)						
31062	1 Pole	3	\$ 9.70	\$15.30	\$19.60	\$23.30
31082	2 Poles	5	\$14.30	\$20.60	\$27.00	\$31.80
31102	3 Poles	8	\$19.90	\$25.90	\$34.60	\$40.30

IV. INSTALLATION

CODE	DESCRIPTION	FOR CURRENT RATING CODES	PRICE
S22	32mm x 32mm Front Plate	G10	\$ 3.00
L22	48mm x 48mm Front Plate	G16, G25, G32	\$ 4.00
N22	Round Ring (no front plate)	G16, G25, G32	\$ 3.50

NOTE: See pages 242-243 for legend plate options.

VI. OPERATOR COLOR

CODE	OPERATOR COLOR	FRONT PLATE COLOR	FOR INSTALLATION CODE
RY	Red	Yellow	S22, L22
BB	Black	Black	S22, L22
BG	Black	Grey	S22, L22
BA	Black	Aluminum	S22, L22
BN	Black	—	N22
RN	Red	—	N22

VII. OPERATOR PLATE MARKING

CODE	DESCRIPTION	FOR INSTALLATION CODE
Z63	0-1-2 (60° / 3-Pos.)	S22, L22
Z94	OFF-1-2-3 (90° / 4-Pos.)	S22, L22
Z65	0-1-2-3-4 (60° / 5-Pos.)	S22, L22
Z66	0-1-2-3-4-5 (60° / 6-Pos.)	S22, L22
(Blank)	—	N22

Unit mounts in a single 22.5mm (7/8") hole.

DISCOUNT
SCHEDULE **C**

SOME OF OUR POPULAR CONFIGURATIONS:

MULTI-STEP CAM SWITCHES

CATALOG NUMBER	DESCRIPTION	PRICE
CS31131-G10-S22LBGZ94	10A, 4 Position, 4 Poles, 32mm x 32mm Black/Grey Lever "OFF-1-2-3" Front Plate	\$25.50
CS31132-G16-L22LBAZ65	16A, 5 Position, 4 Poles, 48mm x 48mm Black/Aluminum Lever "0-1-2-3-4" Front Plate	\$34.20
CS31102-G25-L22LBAZ66	25A, 6 Position, 3 Poles, 48mm x 48mm Black/Aluminum Lever "0-1-2-3-4-5" Front Plate	\$38.60

SEE BOTTOM OF PAGE 237
FOR OPERATOR AND
CAM SWITCH OPTIONS.

IT'S EASY TO BUILD YOUR OWN CAM 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.

Ammeter and Voltmeter Cam Switches

CS - - **L**
I II III IV V VI VII

Example: To build one of our most popular Cam Switches, the part number would be **CS + II + III + IV + L + VI + VII** or **CS41313-G16-L22LBAZ4313**



I. BASIC CAM SWITCH

CODE	DESCRIPTION
CS	Cam Switch

SEE PAGES 244-245 FOR SPECIFICATIONS, PAGE 247 FOR OPERATOR PLATE MARKINGS AND CONNECTING DIAGRAMS, AND PAGE 248 FOR DIMENSIONS.

V. OPERATOR TYPE

CODE	DESCRIPTION
L	Lever

II. SWITCH CONFIGURATION / III. CURRENT RATING

CODE			G10	U10	G16	U16
	DESCRIPTION	NO. OF STAGES	10 AMP IP20 TERMINALS	10 AMP UNGUARDED TERMINALS	16 AMP IP20 TERMINALS	16 AMP UNGUARDED TERMINALS
VOLTMETER WITH OFF POSITION						
41312	3-Phase Line to Line	2	\$11.30	\$11.30	\$17.60	\$17.60
41313	3-Phase Line to Line and Line to Neutral	3	\$16.90	\$16.90	\$22.90	\$22.90
AMMETER WITH OFF POSITION						
42321	1 Pole - 1 Transformer	1	\$ 6.70	\$ 6.70	\$12.30	\$12.30
42325	1 Pole - 3 Transformer	3	\$16.90	\$16.90	\$22.90	\$22.90
42326	1 Pole - 4 Transformer	4	\$21.50	\$21.50	\$28.20	\$28.20
42000	Direct Ammeter Selector without Current Transformer	5	—	—	\$33.50	\$33.50

VI. OPERATOR COLOR

CODE	OPERATOR COLOR	FRONT PLATE COLOR	FOR INSTALLATION CODE
RY	Red	Yellow	S22, L22
BB	Black	Black	S22, L22
BG	Black	Grey	S22, L22
BA	Black	Aluminum	S22, L22
BN	Black	—	N22
RN	Red	—	N22

IV. INSTALLATION

CODE	DESCRIPTION	FOR CURRENT RATING CODES	PRICE
S22	32mm x 32mm Front Plate	G10, U10	\$ 3.00
L22	48mm x 48mm Front Plate	G16, U16	\$ 4.00
N22	Round Ring (no front plate)	G16, U16	\$ 3.50

NOTE: See pages 242-243 for legend plate options.

Unit mounts in a single 22.5mm (7/8") hole.

DISCOUNT
SCHEDULE **C**

VII. OPERATOR PLATE MARKING

CODE	DESCRIPTION	FOR USE WITH SWITCH CODE	FOR INSTALLATION CODE
VOLTMETER			
Z9312	OFF-RY-YB-BR (90°)	41312	S22, L22
Z4313	OFF-RN-YN-BN-BR-YB-RY (45°)	41313	S22, L22
(Blank)	—	—	N22
AMMETER			
Z9321	OFF-ON (90°)	42321	S22, L22
Z9325	OFF-R-Y-B (90°)	42325, 42000	S22, L22
Z9326	1-2-3-4 (90°)	42326	S22, L22
(Blank)	—	—	N22

SOME OF OUR POPULAR CONFIGURATIONS:

AMMETER AND VOLTMETER CAM SWITCHES

CATALOG NUMBER	DESCRIPTION	PRICE
CS41312-G10-S22LBAZ9312	10A, 3 Phase Line to Line Voltmeter Switch, 32mm x 32mm Black/Aluminum Lever "OFF-RY-YB-BR" Front Plate	\$14.30
CS42325-G16-L22LBAZ9325	16A, 1 Pole - 3 Transformer Ammeter Switch, 48mm x 48mm Black/Aluminum Lever "OFF-R-Y-B" Front Plate	\$26.90

SEE BOTTOM OF PAGE 237 FOR OPERATOR AND CAM SWITCH OPTIONS.

IT'S EASY TO BUILD YOUR OWN CAM 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.

Motor Reversing Cam Switches

CS - - L

I II III IV V VI VII

Example: To build one of our most popular Cam Switches, the part number would be CS + II + III + IV + L + VI + VII or CS51211-G25-L22LBAB61



I. BASIC CAM SWITCH

CODE	DESCRIPTION
CS	Cam Switch

SEE PAGES 244-245 FOR SPECIFICATIONS,
PAGE 247 FOR OPERATOR PLATE
MARKINGS AND CONNECTING DIAGRAMS,
AND PAGE 248 FOR DIMENSIONS.

V. OPERATOR TYPE

CODE	DESCRIPTION
L	Lever

II. SWITCH CONFIGURATION / III. CURRENT RATING

CODE	DESCRIPTION	NO. OF STAGES	G16	G25	G32
			16 AMP	25 AMP	32 AMP
51210	Motor Reversing, 2 Poles	2	\$17.60	\$24.00	\$28.80
51211	Motor Reversing, 3 Poles	3	\$22.90	\$31.60	\$37.30

IV. INSTALLATION

CODE	DESCRIPTION	FOR CURRENT RATING CODES	PRICE
L22	48mm x 48mm Front Plate	G16, G25, G32	\$ 4.00
N22	Round Ring (no front plate)	G16, G25, G32	\$ 3.50

NOTE: See pages 242-243 for legend plate options.

Unit mounts in a single 22.5mm (7/8") hole.

DISCOUNT
SCHEDULE C

VI. OPERATOR COLOR

CODE	OPERATOR COLOR	FRONT PLATE COLOR	FOR INSTALLATION CODE
RY	Red	Yellow	L22
BB	Black	Black	L22
BG	Black	Grey	L22
BA	Black	Aluminum	L22
BN	Black	—	N22
RN	Red	—	N22

VII. OPERATOR PLATE MARKING

CODE	DESCRIPTION	FOR INSTALLATION CODE
B61	1-0-2 (60°)	L22
(Blank)	—	N22

SOME OF OUR POPULAR CONFIGURATIONS:

MOTOR REVERSING CAM SWITCHES

CATALOG NUMBER	DESCRIPTION	PRICE
CS51210-G16-L22LBAB61	16A, 2 Poles, 48mm x 48mm Black/Black Lever "1-0-2" Front Plate	\$21.60
CS51211-G25-L22LBAB61	25A, 3 Poles, 48mm x 48mm Black/Aluminum Lever "1-0-2" Front Plate	\$35.60
CS51211-G32-L22LBAB61	32A, 3 Poles, 48mm x 48mm Black/Aluminum Lever "1-0-2" Front Plate	\$41.30

SEE BOTTOM OF PAGE 237
FOR OPERATOR AND
CAM SWITCH OPTIONS.

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 (for N22 Round Ring Operators Only)

— — —
I II III

Legend plates feature 1 or 2 lines of text with approximately 16 characters per line. Uppercase is standard unless specified.

I. STANDARD LEGEND PLATE TYPE

CODE	DESCRIPTION	PRICE
CSLP	Standard 1-3/4" h x 1-3/4" w	\$2.00
CSLPT	Tall 2" h x 1-3/4" w	\$2.50
CSLPJ	Jumbo 2" h x 2" w	\$2.50
CSLPR	Standard Round 2-25/64" Dia.	\$4.50
CSLPRM	Medium Round 2-3/4" Dia.	\$5.25
CSLPRJ	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

CODE	LEGEND LEFT	LEGEND CENTER	LEGEND RIGHT
00	(Blank)	(Blank)	(Blank)
81	FWD	AUTO	REV
89	OFF	RUN	START
85	OFF	START	RUN
86	OFF	1	2
88	1	2	3



NOT FINDING WHAT YOU NEED IN A STANDARD PLATE?

We offer Special and Custom Engraving up to 304.8mm x 609.6mm (12" x 24"). Please consult factory or see page 243 for details.

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



SOME OF OUR POPULAR CONFIGURATIONS:

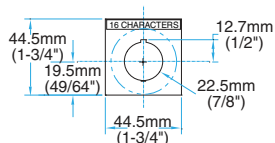
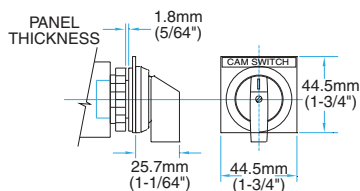
LEGEND PLATES

CATALOG NO.	DESIGNATION	PRICE
CSLPAL-88	1 2 3	\$2.00
CSLPAL-89	OFF RUN START	\$2.00
CSLPAL-86	OFF 1 2	\$2.00

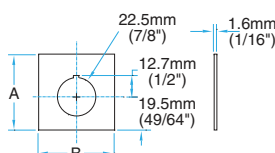


Legend plates for use with N22 Round Ring Operators.

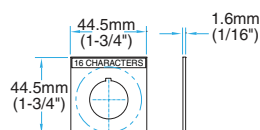
N22 OPERATOR W/CSLP LEGEND PLATE



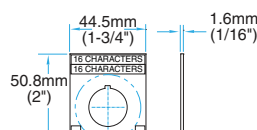
STANDARD LEGEND PLATE WITH KEYWAY



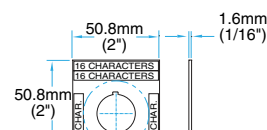
CSLP STANDARD



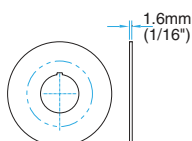
CSLPT TALL



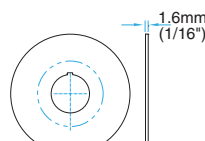
CSLPJ JUMBO



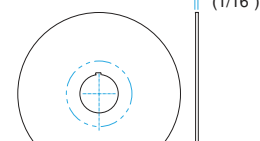
CSLPR STANDARD ROUND



CSLPRM MEDIUM ROUND



CSLPRJ JUMBO ROUND



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.

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 (for N22 Round Ring Operators Only)

I II III

I. STANDARD LEGEND PLATE TYPE

CODE	DESCRIPTION	PRICE
CSLP	Standard 1-3/4" h x 1-3/4" w	\$2.00
CSLPT	Tall 2" h x 1-3/4" w	\$2.50
CSLPJ	Jumbo 2" h x 2" w	\$2.50
CSLPR	Standard Round 2-25/64" Dia.	\$4.50
CSLPRM	Medium Round 2-3/4" Dia.	\$5.25
CSLPRJ	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

CODE	DESCRIPTION	PRICE
SP	Special Legend	\$7.00

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

DISCOUNT
SCHEDULE **C**

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.

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

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

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 242.



(Sample custom plate)

CUSTOM LEGEND PLATES FOR USE WITH N22 ROUND RING OPERATORS

- 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).

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

- 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.

SPECIFICATIONS:

ELECTRICAL SPECIFICATIONS					
		SWITCH CURRENT RATING CODE			
		G10 / U10	G16 / U16	G25	G32
ELECTRICAL					
	UNITS				
UL/CSA APPLICATIONS					
Rated Operating Voltage, Ue	VAC	460	600	600	600
Rated Operating Current, Ie	A	10	15	20	30
Rated Three Phase Power, Pe					
@ 240V AC	HP	1	2	5	5
@ 480V AC	HP	2	3	10	10
@ 600V AC	HP	—	5	15	15
Rated Single Phase Power, Pe					
@ 120V AC	HP	1/3	1/3	1	1
@ 240V AC	HP	3/4	1	3	3
Short Circuit Ratings					
With Class J and CC Fuses	kA	1	5	5	5
Maximum Fuse Size	A	10	25	50	50
With Class RK5 Fuses	kA	1	5	5	5
Maximum Fuse Size	A	10	25	50	50
Electrical Endurance at Max. Ie	Ops.	10,000	10,000	10,000	10,000
Maximum Operating Rate	Ops./Hr.	120	120	120	120
IEC APPLICATIONS					
Rated Insulation Voltage, Ui	VAC	440	690	690	690
Rated Isolation Voltage, Uiso	VAC	250	415	415	415
Rated Impulse Voltage, Uimp	kV	4	6	6	6
Rated Operating Voltage, Ue	VAC	440	690	690	690
Rated Uninterrupted Current, Ith	A	12	20	32	40
Rated Operating Current, Ie					
AC-21A	A	10	16	25	32
DC-1 @ 48V DC	A	10	16	25	32
DC-13 @ 24V DC	A	6	16	25	32
Rated Three Phase Power, AC-23A, Pe					
@ 220 ~ 240V AC	kW	1.8	3	5.5	7.5
@ 380 ~ 440V AC	kW	3	7.5	11	15
@ 500 ~ 690V AC	kW	—	7.5	11	15
Rated Three Phase Power, AC-3, Pe					
@ 220 ~ 240V AC	kW	1.5	2.2	4	5.5
@ 380 ~ 440V AC	kW	3	5.5	7.5	11
@ 500 ~ 690V AC	kW	—	5.5	7.5	11
Short Circuit Ratings					
With Type gG/gM Fuses	kA	3	5	10	10
Maximum Fuse Size	A	10	16	25	32

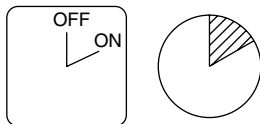
MECHANICAL, ENVIRONMENTAL AND CONSTRUCTION SPECIFICATIONS

		SWITCH CURRENT RATING CODE			
		G10 / U10	G16 / U16	G25	G32
MECHANICAL					
	UNITS				
Mechanical Endurance	Ops.	100,000			
Maximum Operating Rate	Ops./Hr.	300			
ENVIRONMENTAL					
Ambient Operating Temperature		-25° to +55° C (-13° to +131° F)			
Altitude	m/ft.	2,000/6,562			
Ingress Protection					
Switch Type					
Code U		IP10			
Code G		IP20			
Operators	—	Type 1, 3, 3R, 12, and IP65			
CONSTRUCTION					
Conductor Size					
UL/CSA	AWG	18 ~ 16	16 ~ 12	16 ~ 12	14 ~ 10
Solid/Multi-Strand	mm ²	0.7 ~ 1.5	1.5 ~ 4	1.5 ~ 4	2.5 ~ 6
Fine Strand with Sleeve	mm ²	0.7 ~ 1.5	1 ~ 2.5	1 ~ 2.5	1.5 ~ 4
Terminal Torque	Nm	0.5 ~ 0.8	0.8 ~ 1.1	1.1 ~ 1.4	1.1 ~ 1.4
	Lb-in.	5 ~ 7	7 ~ 10	10 ~ 12	10 ~ 12
RoHS Compliance		For RoHS compliance documentation by product, refer to www.c3controls.com			

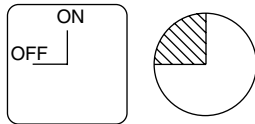
ON-OFF CAM SWITCHES

OPERATOR PLATE MARKINGS

CODE A61

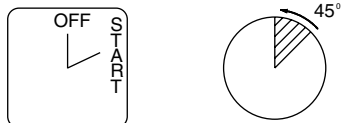


CODES A91 & B93



CODE A41

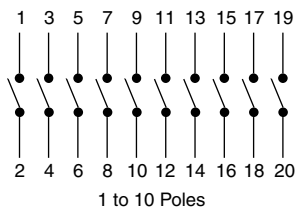
Spring Return to OFF



CONNECTING DIAGRAMS

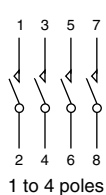
MAINTAINED 60°, 90°

CODES 11***



SPRING RETURN 45°

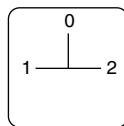
CODES 13***



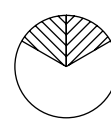
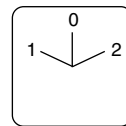
CHANGEOVER CAM SWITCHES

OPERATOR PLATE MARKINGS

CODES B91, C91 & C92



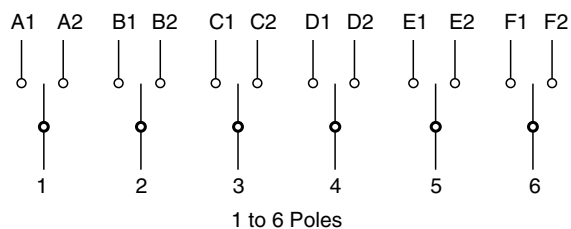
CODES B61 & C62



CONNECTING DIAGRAMS

MAINTAINED 60°, 90°

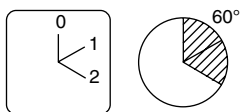
CODES 21***



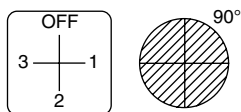
MULTI-STEP CAM SWITCHES

OPERATOR PLATE MARKINGS

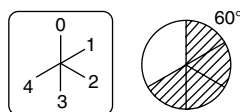
CODE Z63



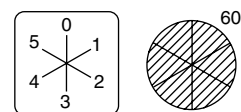
CODE Z94



CODE Z65



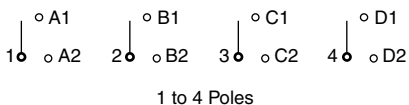
CODE Z66



CONNECTING DIAGRAMS

3-POSITION

CODES 31059, 31079, 31099 & 31130



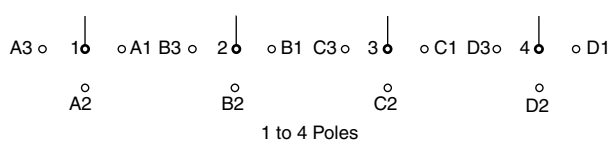
5-POSITION

CODES 31061, 31081, 31101 & 31132



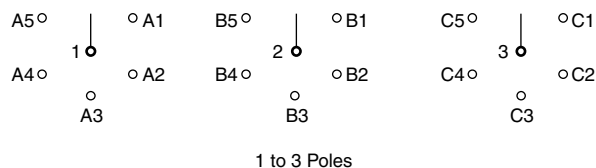
4-POSITION

CODES 31060, 31080, 31100 & 31131



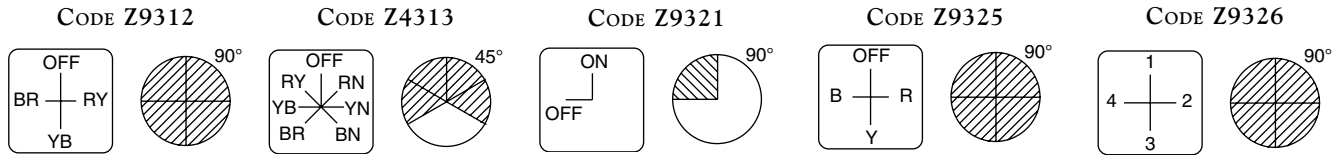
6-POSITION

CODES 31062, 31082 & 31102



AMMETER AND VOLTMETER CAM SWITCHES

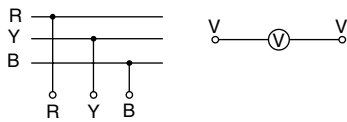
OPERATOR PLATE MARKINGS



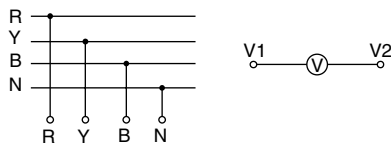
CONNECTING DIAGRAMS

VOLTMETER

CODE 41312

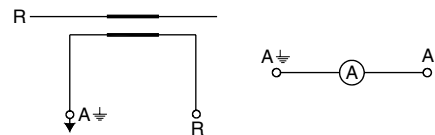


CODE 41313

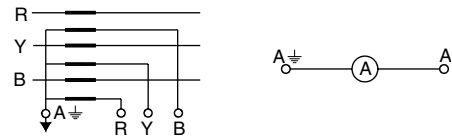


AMMETER

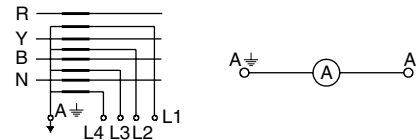
CODE 42321



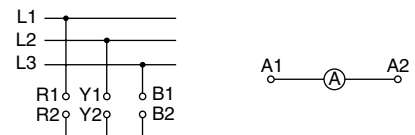
CODE 42325



CODE 42326



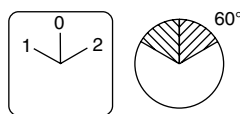
CODE 42000



MOTOR REVERSING CAM SWITCHES

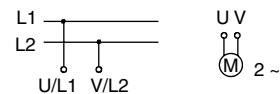
OPERATOR PLATE MARKINGS

CODE B61



CONNECTING DIAGRAMS

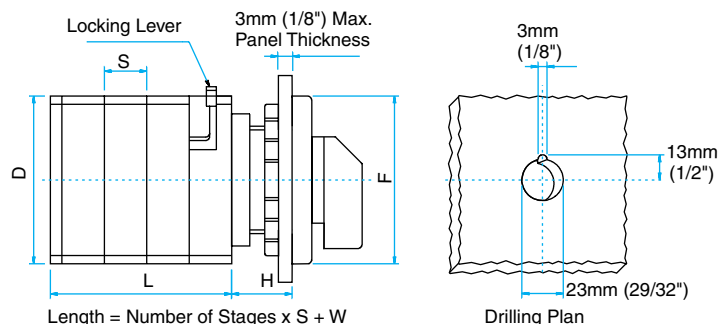
CODE 51210



CODE 51211



CAM SWITCH & FRONT PLATE INSTALLATION DIMENSIONS



VISIT WWW.C3CONTROLS.COM
TO DOWNLOAD CAD DRAWINGS

SWITCH & FRONT PLATE INSTALLATION DIMENSIONS

CURRENT RATING CODE	INSTALLATION CODE	S	D	F	H	W
G10 & U10	S22	9.5mm (3/8")	33mm (1-19/64")	32mm (1-17/64")	10mm (25/64")	28.5mm (1-1/8")
G16 & U16	N22, L22, P22, K22	12mm (15/32")	46mm (1-13/16")	48mm (1-57/64")	13mm (33/64")	37mm (1-15/32")
G25	N22, L22, P22, K22	15mm (19/32")	50mm (1-31/32")	48mm (1-57/64")	13mm (33/64")	37mm (1-15/32")
G32	N22, L22, P22, K22	15mm (19/32")	50mm (1-31/32")	48mm (1-57/64")	13mm (33/64")	37mm (1-15/32")

Length = (No. of Stages) x S + W

OPERATOR DIMENSIONS

