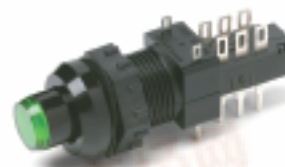


## C&K F Series Pushbutton Switches



A

## Pushbutton



## Features/Benefits

- **Up to 10 poles per module**
- **Various contact terminals**
- **Various mounting & switch ganging configurations**
- **Mechanical indicator buttons**
- **Illumination options**
- **RoHS compliant**

## Typical Applications

- **Audio selection**
- **Digital equipment interface**
- **Medical equipment interface**

## Specifications

SWITCHING POWER: F module max. AC/DC: Silver: 50 VA/15W,  
Gold: 1 VA/300 mW.

SWITCHING VOLTAGE: F module max. AC/DC: Silver: 125/30V,  
Gold: 50/30 V.

SWITCHING CURRENT: F module max. AC/DC: Silver: 0.5A/0.5A,  
Gold: 0.04A/0.01A.

CARRYING CURRENT: Max at  $du = 20^{\circ}\text{C}$ : Silver:  $< 2\text{A}$ , Gold:  $< 0.5\text{A}$ .

DIELECTRIC STRENGTH (50 Hz, 1 min.): Chassis/contact: ^1500V  
Between contacts: ^1500V.

OPERATING LIFE "OA/EE" (24V/200mA):  $>10^5$  operations  
 "GR":  $>3.5 \times 10^4$  operations.

CONTACT RESISTANCE: Initial: Typical %10 mΩ, max. 20 mΩ  
After operating life: %100 mΩ

INSULATION RESISTANCE:  $10^9 \Omega$  between open contacts,  
 $10^9 \Omega$  between chassis and contacts.

CAPACITANCE (at  $f = 10$  kHz):  $\sim 0.7$  pF between 2 contacts.

TOTAL TRAVEL/LATCHING TRAVEL: 4.7mm/3.3mm (.185 inch/  
.130 inch).

All models and options are RoHS compliant and compatible.

TYPICAL F OPERATING FORCE: 2U: 6.5N (650 grams); 4U: 6.5N (650 grams); 6U: 7.5N (750 grams); 8U: 9.0N (900 grams); 10U: 9.0N (900 grams).

EUROPEAN TYPICAL SF OPERATING FORCE:

2U: 3.5N±0.5N (350 grams±100 grams); 4U: 5N±1N (500 grams±100 grams); 6U: 6.5N±1N (650 grams±100 grams); 8U: 9.0N±1N (900 grams±100 grams).

OPERATING TEMPERATURE RANGE: -40°C to 70°C.

## Materials

**HOUSING:** Polycarbonate UL 94V-0 or polyester UL 94V-0.

ACTUATOR: Polyester UL 94V-0.

MOVABLE CONTACTS: Bimetal brass, silver plated, gold plate over nickel.

STATIONARY CONTACTS & TERMINALS: Brass, silver plated, gold plated.

TERMINAL BOARD: Polyester UL 94V-0.

RETURN SPRING: Music wire

TERMINAL SEAL: RTV adhesive sealant.

CHASSIS: Steel.

LOCKOUT PIN: Steel.

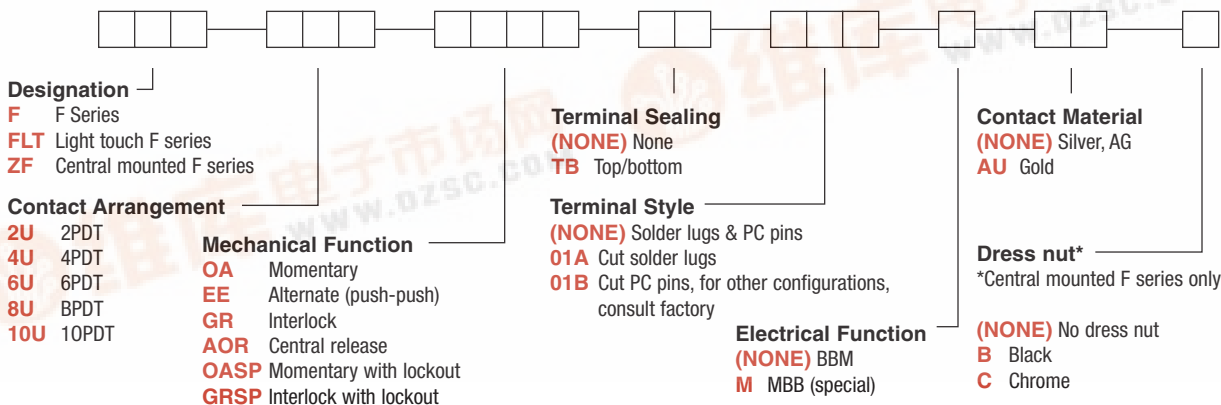
BLOCKERS: Steel.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages A-90 thru A-98. For additional options not shown in catalog, consult Customer Service Center.

If requesting only a switch, select either a North American or European switch as noted below. Chassis and buttons are sold separately. If multiple stations are selected, we will assume all switches are the same unless noted otherwise.

### North American Order Code - Switch Only



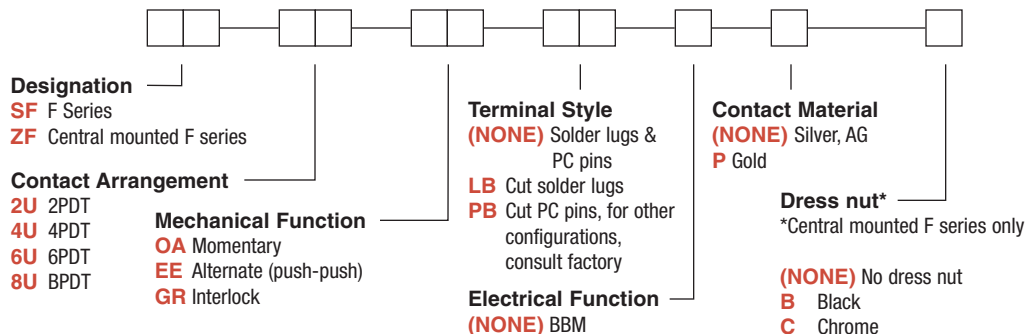


A

Pushbutton

# C&K F Series Pushbutton Switches

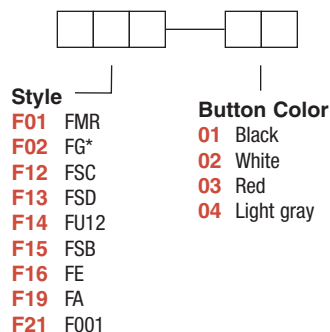
## European Order Code - Switch Only



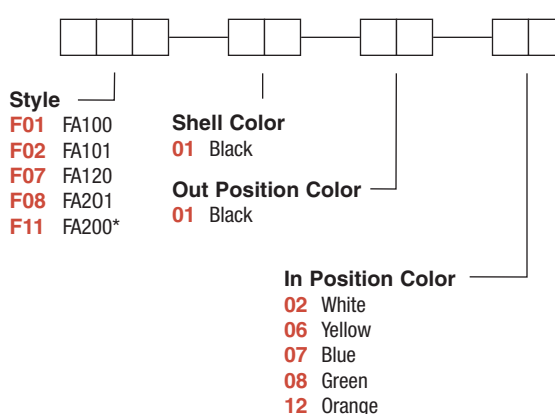
\*Minimum order quantities apply.

## Order Code - Buttons

### Solid Buttons



### Mechanical Indicator Buttons



\*Button options for central mounting configurations, use 'FG' for central mount with chrome dress nut, use 'FA200' for central mount with black dress nut.

## BUTTON REMOVAL

A button of a push-push switch should only be removed in the "OFF" non-latching position.

## Pushbutton

To order a switch with chassis, create the switch part number listed above and add the Chassis part number configuration information at the end of the part number.

C									
---	--	--	--	--	--	--	--	--	--

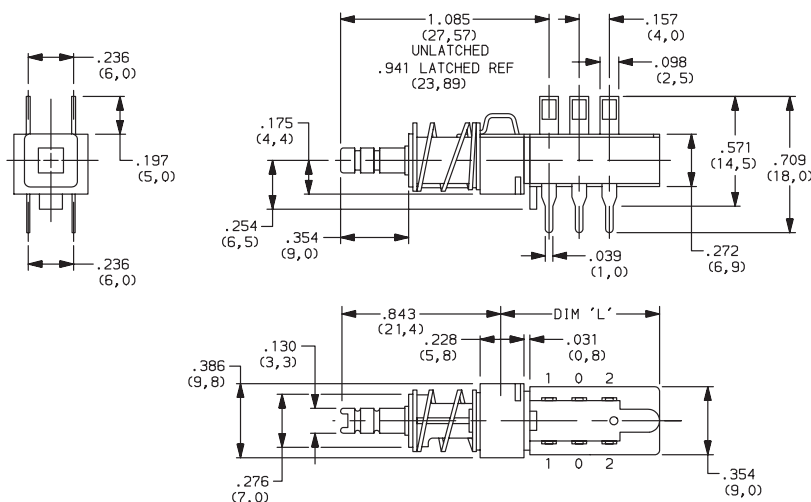
Comes with standard  
.094 (2,4mm) mounting holes  
Note: Single station chassis  
available with special mounting  
configurations, consult factory.

<b>00</b>	Single station
<b>10</b>	10mm
<b>12.5</b>	12.5mm
<b>15</b>	15mm
<b>17.5</b>	17.5mm
<b>20</b>	20mm

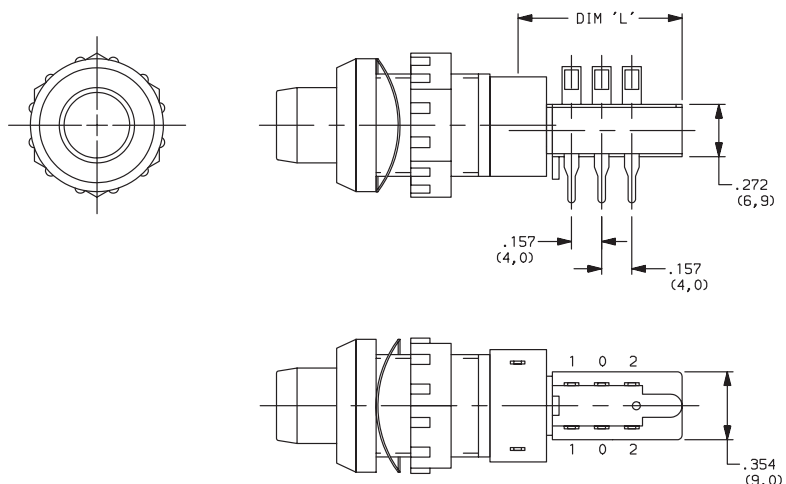
See note

## SWITCHES WITH STANDARD OPTIONS

CONTACT ARRANGEMENT	LENGTH DIM 'L'
2U	0.827 (21,00)
4U	1.300 (33,00)
6U	1.770 (45,00)
8U	2.240 (57,00)
10U	2.720 (69,00)



CONTACT ARRANGEMENT	LENGTH DIM 'L'
2U	0.827 (21,00)
4U	1.300 (33,00)
6U	1.770 (45,00)
8U	2.240 (57,00)
10U	2.720 (69,00)



Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



Pushbutton

# C&K F Series Pushbutton Switches

## DESIGNATION

### Designation, North America

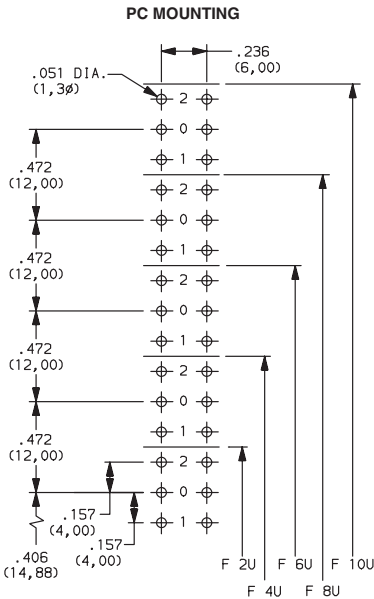
- F** F Series
- FLT** Light touch F series
- ZF** Central mounted F series

### Designation, Europe

- SF** F Series
- ZF** Central mounted F series

## CONTACT ARRANGEMENT

OPTION CODE	NO. OF POLES	SCHEMATIC
2U	2PDT	
4U	4PDT	2X
6U	6PDT	3X
8U	8PDT	4X
10U	10PDT	5X



## MECHANICAL FUNCTION

### North America

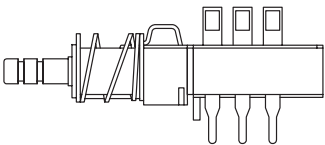
OPTION CODE	FUNCTION
OA	Momentary
EE	Alternate (push-push)
GR	Interlock
AOR	Central release
OASP	Momentary with lockout
GRSP	Interlock with lockout

### Europe

OPTION CODE	FUNCTION
OA	Momentary
EE	Alternate (push-push)
GR	Interlock

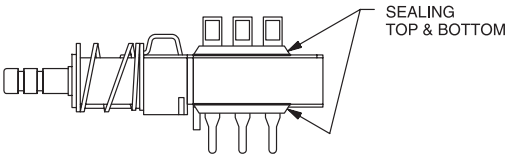
## TERMINAL SEALING

**(NONE)** NO SEAL



F2UEE shown in example above.

**TB** TOP & BOTTOM



NOTE: Available for North America only



Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

C&K F Series  
Pushbutton Switches



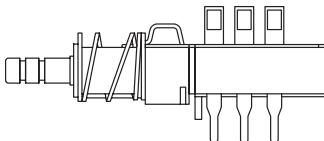
A

Pushbutton

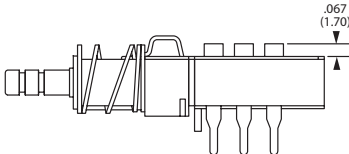
TERMINAL STYLE



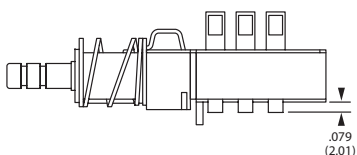
(NONE) SOLDER LUGS & PC PINS



01A CUT SOLDER LUGS (North America)  
LB CUT SOLDER LUGS (Europe)



01B CUT PC PINS (North America)  
PB CUT PC PINS (Europe)



ELECTRICAL FUNCTION



OPTION CODE	FUNCTION
(NONE)	BBM Non-shorting
M	MBB Shorting (North America only)

CONTACT MATERIAL



NORTH AMERICA OPTION CODE	EUROPE OPTION CODE	RoHS COMPLIANT *	RoHS COMPATIBLE *	MATERIAL	RATING
(NONE)	(NONE)	YES	YES	SILVER, AG	50 VA/15 W; 125/30 V; 0.5/0.5 A
AU	P	YES	YES	GOLD	1 VA/300mW; 50/30 V; 0.04 A/0.01 A

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

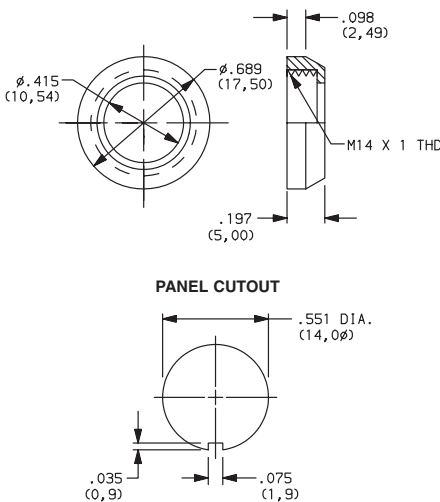
NOTE: For the latest information regarding RoHS compliance, please go to: [www.ittcannon.com/rohs](http://www.ittcannon.com/rohs).

DRESS NUT



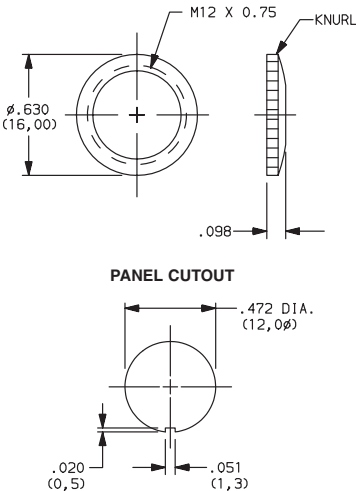
(NONE) NO DRESS NUT FOR F & F/LT  
DESIGNATIONS

B BLACK

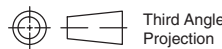


NOTE: Available with ZF designation and FA200 buttons.

C CHROME



NOTE: Available with ZF designation and FG button.



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

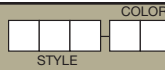


# C&K F Series Pushbutton Switches

A

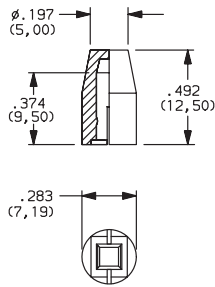
Pushbutton

## SOLID BUTTON

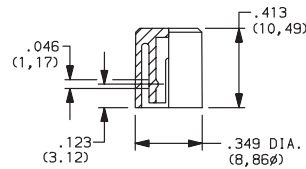


### STYLE

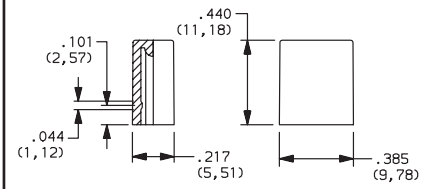
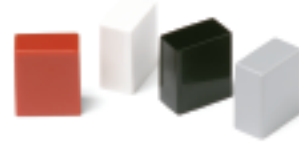
#### F01 FMR



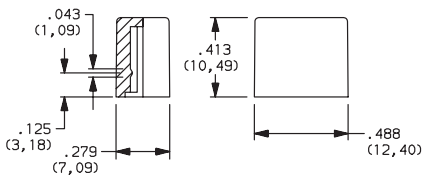
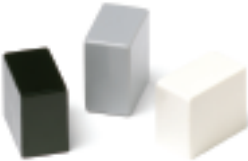
#### F02 FG



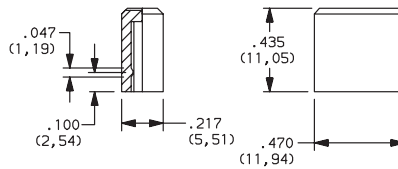
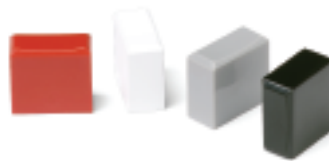
#### F12 FSC



#### F13 FSD



#### F14 FU12



OPTION CODE	COLOR
01	BLACK
02	WHITE
03	RED
04	LT. GRAY

# C&K F Series Pushbutton Switches



A

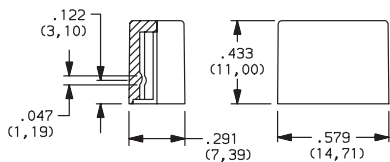
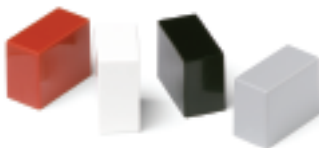
Pushbutton

## SOLID BUTTON

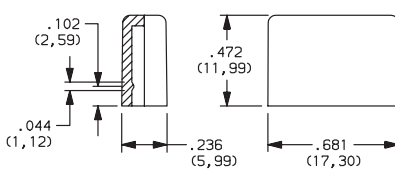
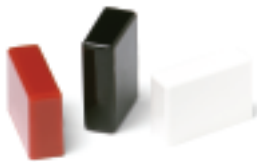
STYLE		COLOR	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### STYLE

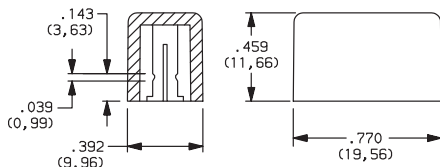
**F15** FSB



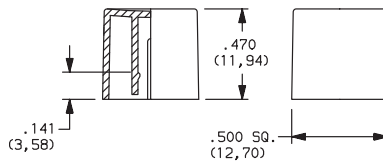
**F16** FE



**F19** FA



**F21** F001



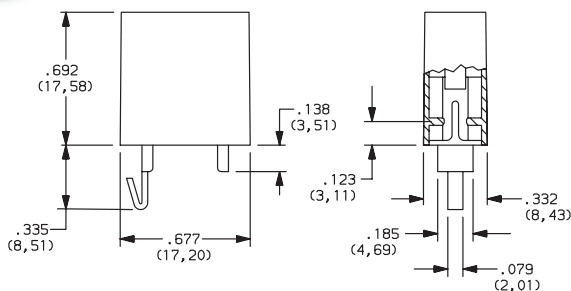
OPTION CODE	COLOR
01	BLACK
02	WHITE
03	RED
04	LT. GRAY

## MECHANICAL BUTTON

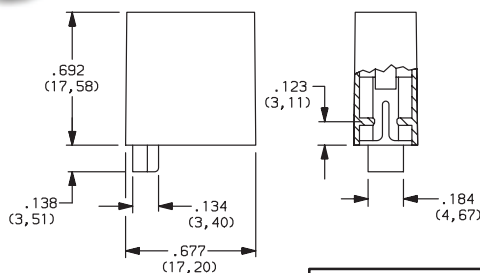
STYLE		SHELL COLOR		IN POSITION COLOR		OUT POSITION COLOR	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### STYLE

**F01** FA100



**F02** FA101



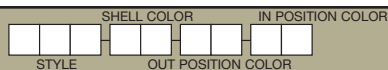
Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

**A**

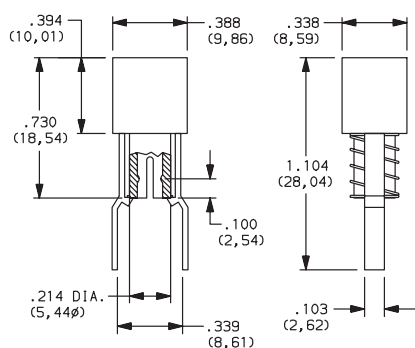
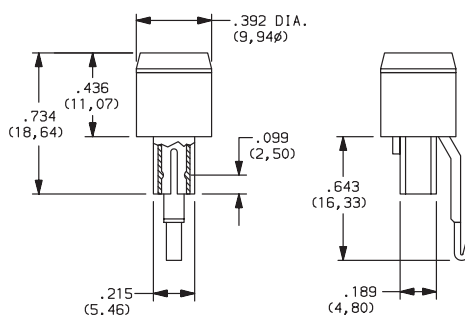
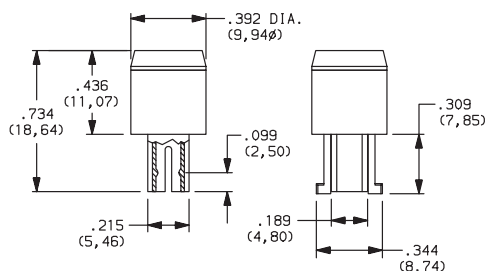
Pushbutton

# C&K F Series Pushbutton Switches

## MECHANICAL BUTTON



### STYLE

**F07** FA120**F08** FA201**F11** FA200

### SHELL COLOR

**01** BLACK

### OUT POSITION COLOR

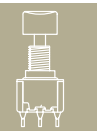
**01** BLACK

### IN POSITION COLOR

OPTION CODE	COLOR
<b>02</b>	WHITE
<b>06</b>	YELLOW
<b>07</b>	BLUE
<b>08</b>	GREEN
<b>12</b>	ORANGE



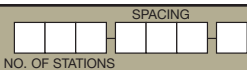
# C&K F Series Pushbutton Switches



A

Pushbutton

## CHASSIS



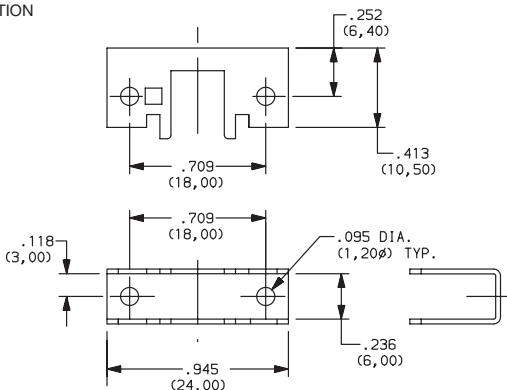
## NUMBER OF STATIONS

**C00 Thru C10** Comes with standard 0.094 (2,44mm) mounting holes

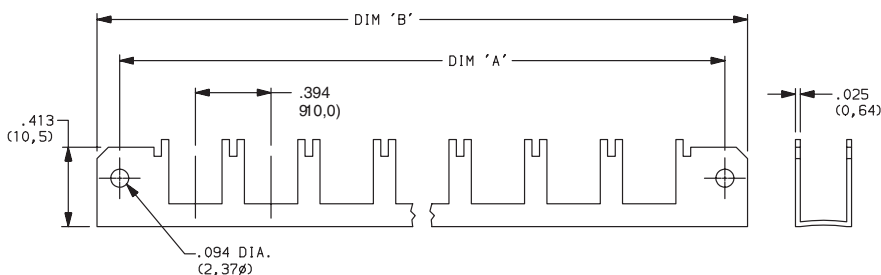
**NOTE:** Single station chassis available with mounting configurations, consult factory.

## SPACING

**00** SINGLE STATION

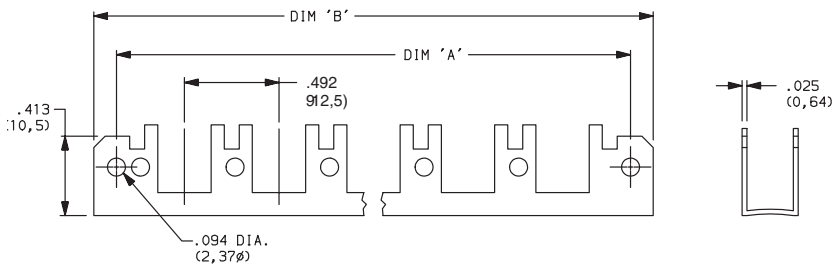


**10** 10mm



No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.182 (30,02)	1.418 (36,02)	0.005
3	1.575 (40,01)	1.811 (46,00)	0.010
4	1.969 (50,01)	2.205 (56,01)	0.010
5	2.363 (60,02)	2.599 (66,01)	0.010
6	2.757 (70,03)	2.993 (76,02)	0.015
7	3.150 (80,01)	3.386 (86,00)	0.015
8	3.544 (90,02)	3.780 (96,01)	0.015
9	3.938 (100,03)	4.174 (106,02)	0.015
10	4.331 (110,01)	4.567 (116,00)	0.015

**12.5** 12.5mm



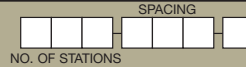
No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.200 (30,48)	1.436 (36,47)	0.005
3	1.692 (42,98)	1.928 (48,97)	0.010
4	2.184 (55,47)	2.420 (61,47)	0.010
5	2.676 (67,97)	2.912 (73,96)	0.010
6	3.169 (80,49)	3.405 (86,49)	0.015
7	3.661 (92,99)	3.897 (98,98)	0.015
8	4.153 (105,49)	4.389 (111,48)	0.015
9	4.645 (117,98)	4.881 (123,98)	0.015
10	5.137 (130,48)	5.373 (136,47)	0.015



A  
Pushbutton

# C&K F Series Pushbutton Switches

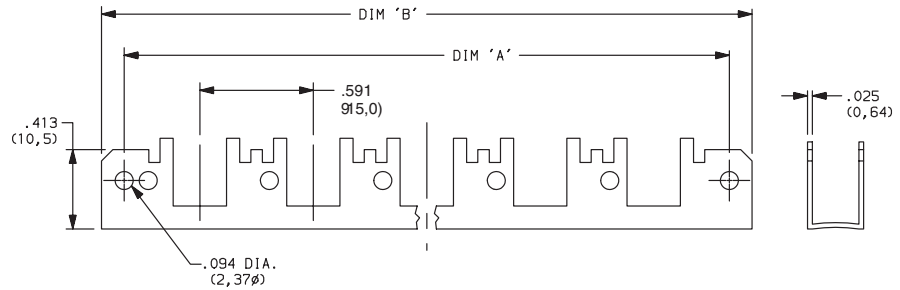
CHASSIS



## SPACING

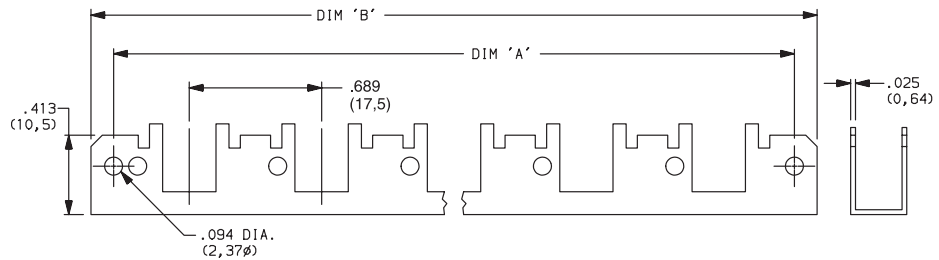
15 15mm

No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.374 (34,90)	1.615 (41,02)	0.005
3	1.969 (50,01)	2.205 (56,01)	0.010
4	2.560 (65,02)	2.796 (71,02)	0.010
5	3.150 (80,01)	3.386 (86,00)	0.010
6	3.741 (95,02)	3.977 (101,02)	0.015
7	4.332 (110,03)	4.568 (116,03)	0.015
8	4.922 (125,02)	5.158 (131,01)	0.015
9	5.513 (140,03)	5.749 (146,02)	0.015
10	6.103 (155,02)	6.339 (161,01)	0.015



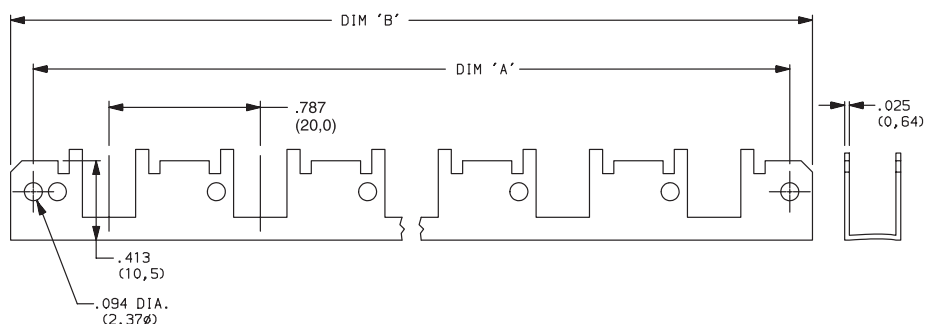
17.5 17.5mm

No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.477 (37,52)	1.713 (43,51)	0.005
3	2.166 (55,02)	2.402 (61,01)	0.010
4	2.855 (75,52)	3.091 (78,51)	0.010
5	3.544 (90,02)	3.780 (96,01)	0.010
6	4.233 (107,52)	4.469 (113,51)	0.015
7	4.922 (125,02)	5.158 (131,01)	0.015
8	5.611 (142,52)	5.847 (148,51)	0.015
9	6.300 (160,02)	6.536 (166,01)	0.015
10	6.989 (177,52)	7.225 (183,52)	0.015



20 20mm

No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.575 (40,01)	1.811 (46,00)	0.005
3	2.363 (60,02)	2.599 (66,01)	0.010
4	3.150 (80,01)	3.386 (86,00)	0.010
5	3.938 (100,03)	4.174 (106,02)	0.010
6	4.725 (120,02)	4.961 (126,01)	0.015
7	5.512 (140,00)	5.748 (146,00)	0.015
8	6.300 (160,02)	6.536 (166,01)	0.015
9	7.087 (180,01)	7.323 (186,00)	0.015
10	7.875 (200,03)	8.111 (206,02)	0.015



ITT



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change