



A

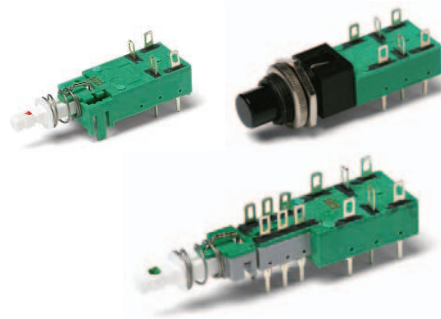
Pushbutton

### Features/Benefits

- Chassis or panel mount
- Various buttons and illumination
- Various contact configurations

### Typical Applications

- Mains/power switching
- Consumer electronics
- Audio equipment
- Digital products



### Specifications

POWER CONTACT:

SWITCHING POWER MAX. AC/DC: NE18: 1500/100 W,  
NE18CTII: 1000/100 W; AC (Inductive  $\cos \phi = 0.6$ ): NE18: 900W,  
NE18CTII: 600W.

SWITCHING VOLTAGE MAX. AC/DC: 250/100V

SWITCHING CURRENT MAX. AC/DC  
AC (Inductive  $\cos \phi = 0.6$ ): NE18:  $6 A^2/4/1 A$ , NE18CTII:  $4 A^2/1 A$

INRUSH CURRENT MAX. AC<sup>1</sup>): NE18: 36 A, NE18CTII: 64 A

DIELECTRIC STRENGTH (50 Hz, 1 min.): 2000 V

OPERATING LIFE AT MAX. LOAD AND AT MAX. INRUSH  
CURRENT:  $\sim 10^4$  operations<sup>5</sup>)

CONTACT RESISTANCE: Initial: 50m $\Omega$ ; After  $10^4$  operations: 70m $\Omega$ .

INSULATION RESISTANCE:  $\sim 10^{12} \Omega$  chassis – nearest contact;  
 $\sim 10^{12} \Omega$  mains contact – mains contact;  $\sim 10^{12} \Omega$  mains contact –  
mains contact after  $10^4$  operations.

LOW VOLTAGE CONTACT:

SWITCHING POWER MAX.: 12W

SWITCHING VOLTAGE MAX.: 24V

SWITCHING CURRENT MAX.: 0.5A

TOTAL TRAVEL: 4.7mm (.185 inch)

LATCHING TRAVEL: 3.3mm (.130 inch)

OPERATING FORCE: Without auxiliary low voltage contacts:  
NE18: 7N (700 grams); NE18CTII: 9.5N (950 grams).

With auxiliary low voltage contacts: NE18: 8N (800 grams);  
NE18CTII: 11N (1100 grams).

SEALING: Dust proof.

### Materials

HOUSING, ACTUATOR & TERMINAL BOARD: Thermoplastic  
polyester (UL 94V-0).

MOVABLE CONTACT: Silver nickel alloy, silver plated.

FIXED CONTACTS: Silver nickel alloy, silver plated.

COMMON CONTACTS & TERMINALS: Copper alloy, silver plated.

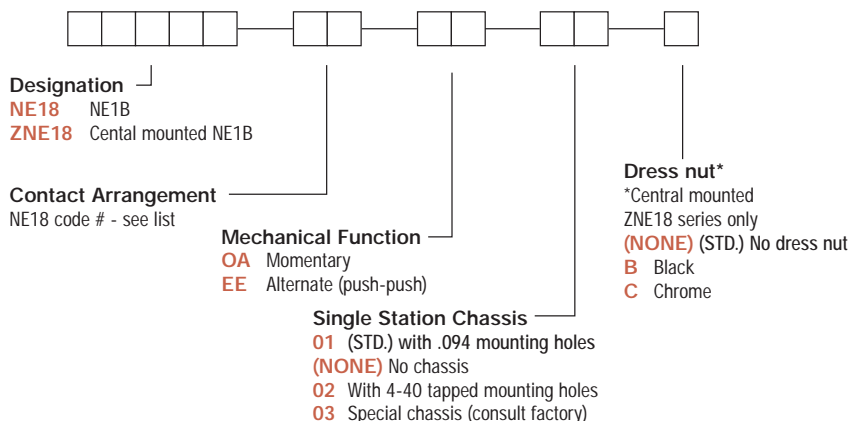
RETURN SPRING: Music wire.

**NOTE:** Specifications and materials listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

### 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-79 thru A-106. For additional options not shown in catalog, consult Customer Service Center.

If requesting only a switch, select the switch as noted below. Buttons are sold separately.



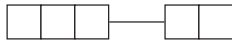
# C&K NE-18 Series Mains / Power Switches

Pushbutton

A

## Order Code - Buttons

### Solid Buttons



#### Style

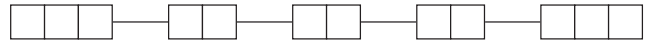
- F01 FMR
- F02 FG\*
- F03 F1.12-H-5
- F06 F1.12-H-4
- F07 F1.15-H-4
- F12 FSC
- F13 FSD
- F14 FU12
- F15 FSB
- F16 FE
- F19 FA
- F21 F001

#### Button Color

- 01 (STD.) Black
- 02 White
- 03 Red
- 04 Light gray
- 09 Chrome, standard for F03 only

\*Black/chrome, standard for F06 & F07 only

### Illuminated Buttons with Chassis



#### Style

- F21 FRV
- F22 FSR

#### Shell Color

- 01 (STD.) Black
- 02 White
- 03 Red
- 06 Yellow
- 08 Green
- 12 Orange
- 16 Clear / White

#### North American Lamp

- 01 6V / 30ma
- 02 12V / 30ma
- 03 24V / 30ma

#### European Lamp

- 04 5V / 60ma
- 05 6V / 40ma
- 06 12V / 40ma
- 07 24V / 20ma

#### Lamp Holder

- FL1
- FL2

### Mechanical Indicator Buttons



#### Style

- F01 FA100
- F02 FA101
- F05 FA110
- F07 FA120
- F08 FA201
- F11 FA200\*

#### Shell Color

- 01 (STD.) Black

#### Out Position Color

- 01 (STD.) Black

#### In Position Color

- 02 White
- 06 Yellow
- 07 Blue
- 08 Green
- 12 Orange

### Central Mounted Illuminated Buttons



#### Style

- F24 FLB\* (F200)
- F25 FLC\*

#### Shell Color

- 01 (STD.) Black
- 02 White
- 05 Gray
- 03 Red
- 06 Yellow
- 07 Blue
- 08 Green
- 12 Orange
- 16 Clear / White

#### Light Type

- 01 Lamp, 6V
- 02 Lamp, 12V
- 03 Lamp, 28V
- 04 LED, green
- 05 LED, red
- 06 LED, yellow
- 07 Neon, 110-220AC

#### Lamp Holder

- LZ1
- LZ2

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

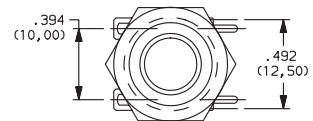
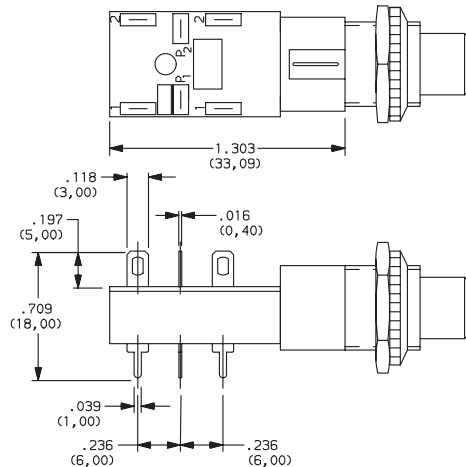
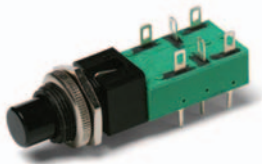
## BUTTON REMOVAL

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

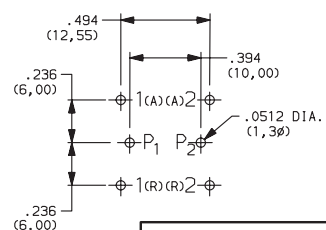
## DESIGNATION & SWITCHES WITH STANDARD OPTIONS



### ZNE1838EECF0201



#### PC MOUNTING



Dimensions are shown: IN (mm)  
Dimensions subject to change

# C&K NE-18 Series Mains / Power Switches

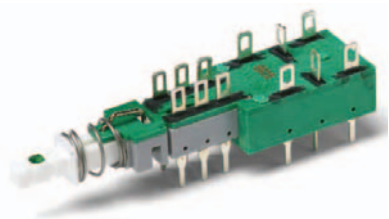
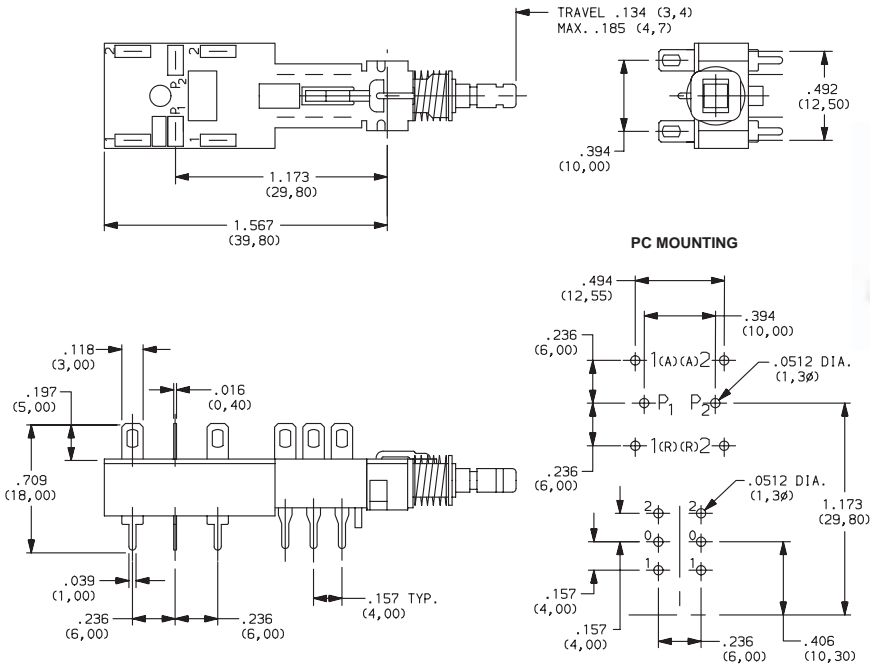
## DESIGNATION & SWITCHES WITH STANDARD OPTIONS



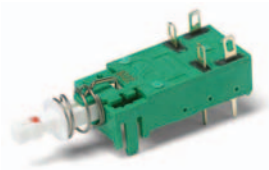
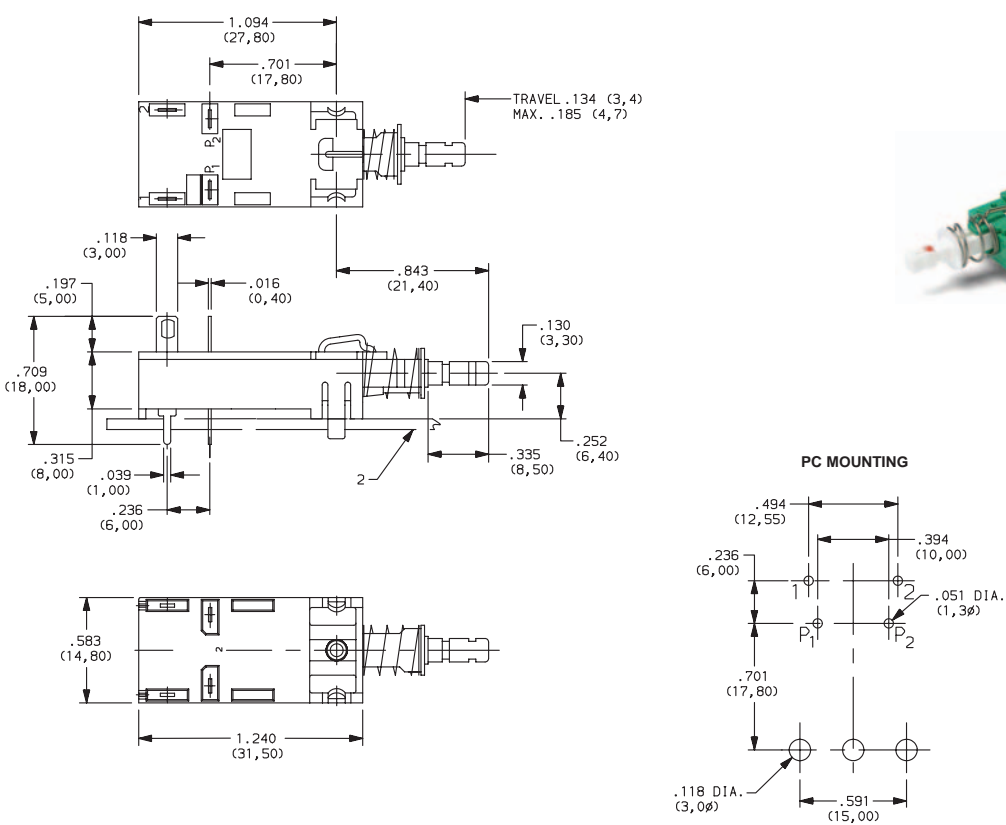
A

Pushbutton

### NE1839EE



### NE1845EE



# C&K NE-18 Series Mains / Power Switches

## CONTACT ARRANGEMENT



OPTION CODE Contact capacity and availability	STYLE	ELECTRICAL CIRCUIT
37	NE18 — 2AX	DPST
38	NE18 — 2UX	DPDT
51	2U + NE18 — 2AX	DPST*
52 (4A/64)	NE18CTII — 2AX	DPST
39	2U + NE18 — 2UX	DPDT*
41	NE18 — 2AP	DPST
42	NE18 — 2UP	DPDT
43	NE18 — 2AW	DPST
44	NE18 — 2UW	DPDT
45	NE18 — 2ASX	DPST

OPTION CODE Contact capacity and availability	STYLE	ELECTRICAL CIRCUIT
46	NE18 — 2USX	DPDT
47	NE18 — 2ASP	DPST
48	NE18 — 2USP	DPDT
49	NE18 — 2ASW	DPST
50	NE18 — 2USW	DPDT
53 (4A/64)	2U + NE18CTII — 2AX	DPST
54	2U + NE18 — 2AW	DPST
55	2U + NE18 — 2AP	DPST
56	2U + NE18 — 2UW	DPDT
57	2U + NE18 — 2UP	DPDT

- \* 2U + Denotes auxiliary set of low current contacts DPDT  
 2A = DPST  
 2U = DPDT  
 S = Snap-in mounting  
 X = Solder lug/PC pins  
 W = Solder lugs only  
 P = PC pins only

- NOTES  
 1. Contact plating is silver on all Power Switches.  
 2. The electrical function is Break Before Make (BBM) on all Power Switches.  
 3. The terminals will be epoxy sealed.

TYPE	POSSIBLE CONTACT ARRANGEMENT		CONTACT SPACING	PROTECTION CLASS (CEE 24)	APPROVALS
	POWER CONTACTS <sup>1)</sup>	AUXILIARY CONTACTS			
NE18	2A <sup>2)</sup>	2U	> 3mm (.118 inch)	II	VDE, BSI, DEMKO, NEMKO, SEMKO, SEV, CSA, UL
NE18	2A <sup>2)</sup> 2R 2U	2U	> 3mm (m) (.118 inch)	I	VDE, MEEI, BSI <sup>3)</sup> , DEMKO, NEMKO, SEMKO, SEV, CSA, UL
NE18CTII	2A <sup>2)</sup>	2U	> 3mm (.118 inch)	II	VDE, BSI, DEMKO, CSA, SEMKO, SEV, UL, NEMKO

- 1) A = make contact, R = break contact, U = changeover contact, m = VDE sign for switches with a contact spacing (air gap) < 3mm (.118 inch) according to VDE 0630/CEE 24.  
 2) With 2A mains contacts: Mounting only by PC pins is not sufficient.  
 3) BSI only for 2U mains contacts.

## MECHANICAL FUNCTION



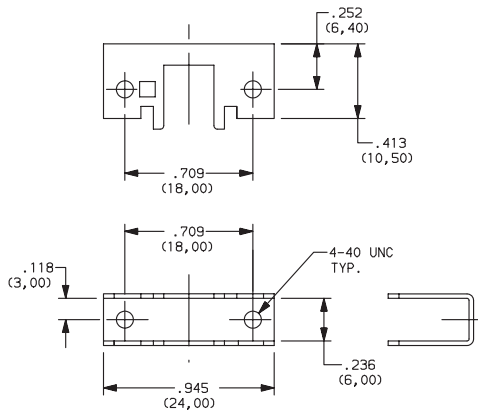
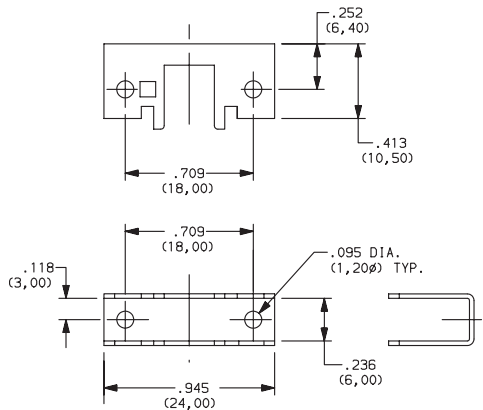
OPTION CODE	FUNCTION
OA	Momentary
EE	Alternate (push-push)

## SINGLE STATION CHASSIS

**01** (STD.) WITH .094 MOUNTING HOLES

**(NONE)** NO CHASSIS

**02** WITH 4-40 TAPPED MOUNTING HOLES



**03** SPECIAL CHASSIS (CONSULT FACTORY)



**A**

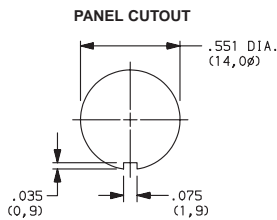
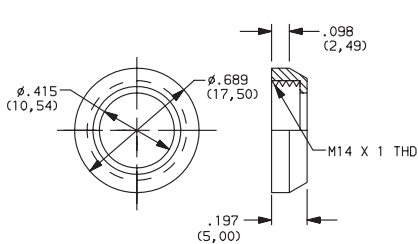
Pushbutton

## DRESS NUT

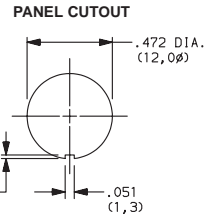
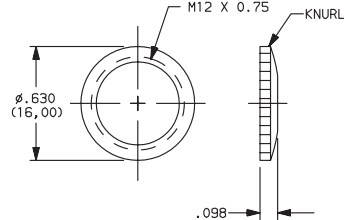
**(NONE)** (STD.) NO DRESS NUT

**B** BLACK

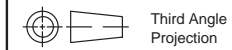
**C** CHROME



NOTE: Available with ZNE18 designation and FA200, FLB or FLC buttons.



NOTE: Available with ZNE18 designation and FG button.



Dimensions are shown: IN (mm)  
Dimensions subject to change

# C&K NE-18 Series Mains / Power Switches

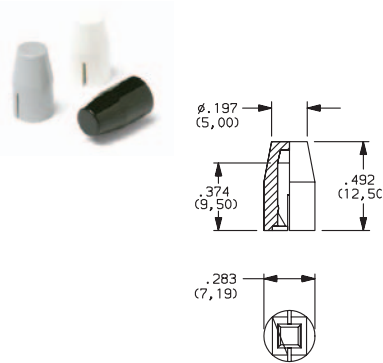
## SOLID BUTTON

### STYLE

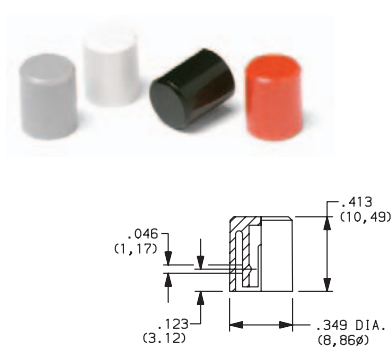
A

Pushbutton

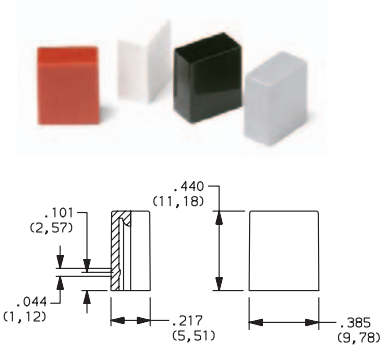
**F01** FMR



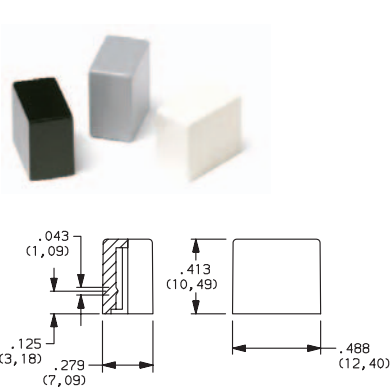
**F02** FG



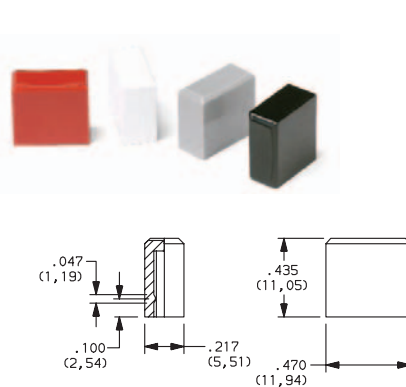
**F12** FSC



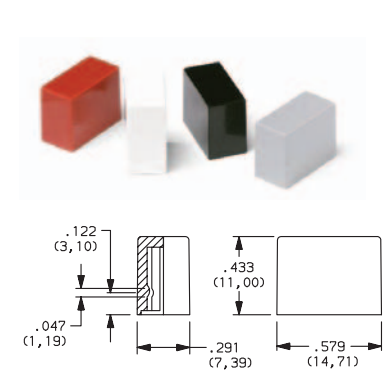
**F13** FSD



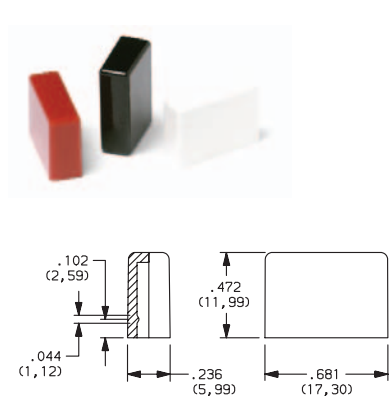
**F14** FU12



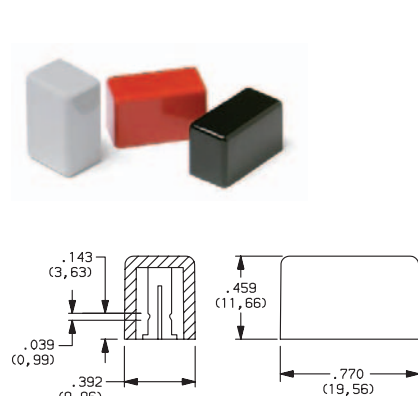
**F15** FSB



**F16** FE



**F19** FA



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



Third Angle  
Projection

Dimensions are shown: IN (mm)  
Dimensions subject to change

# C&K NE-18 Series Mains / Power Switches

## SOLID BUTTON

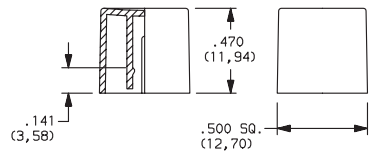


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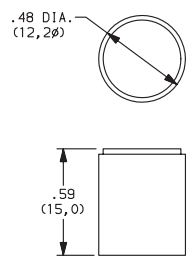
Pushbutton

### STYLE

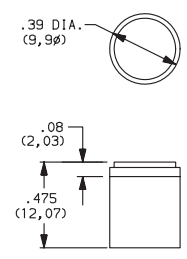
**F21** F001



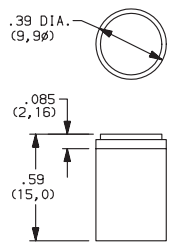
**F03** F1.12-H-5



**F06** F1.12-H-4

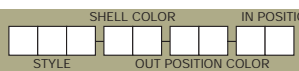


**F07** F1.15-H-4



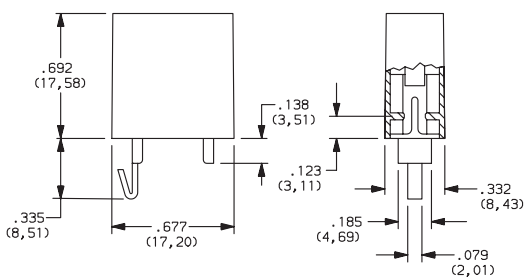
OPTION CODE	COLOR
01	(STD.) BLACK
02	WHITE
03	RED
04	LT. GRAY
09	BLACK/CHROME (F03, F06 & F07 buttons only)

## MECHANICAL BUTTON

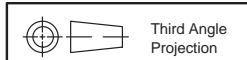
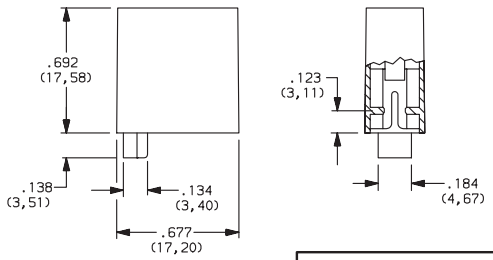


### STYLE

**F01** FA100



**F02** FA101



Third Angle Projection  
Dimensions are shown: IN (mm)  
Dimensions subject to change



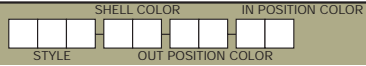
Cannon

# C&K NE-18 Series Mains / Power Switches



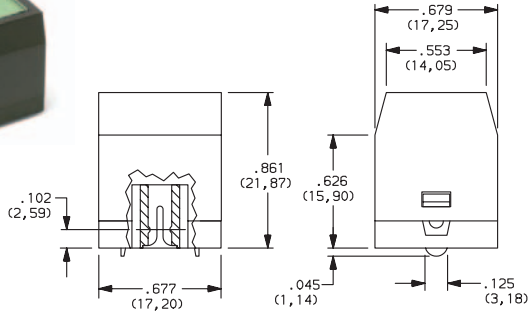
Pushbutton

## MECHANICAL BUTTON

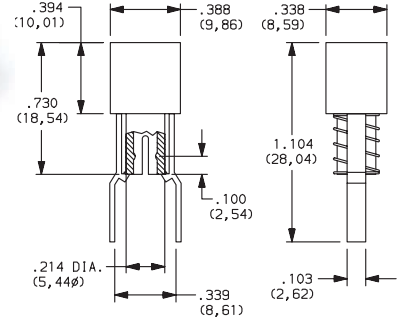


### STYLE

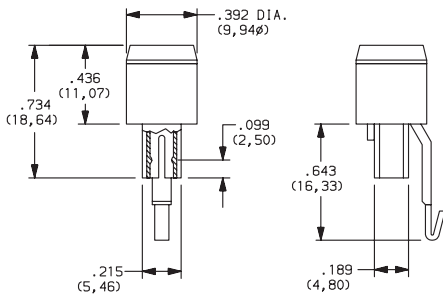
**F05** FA110



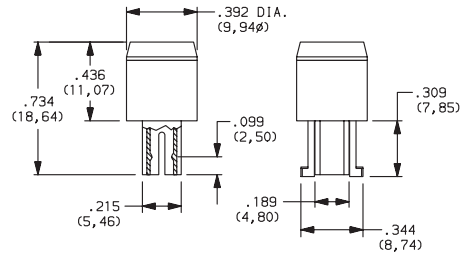
**F07** FA120



**F08** FA201



**F11** FA200



### SHELL COLOR

**01** (STD.) 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

### OUT POSITION COLOR

**01** (STD.) BLACK



Third Angle Projection  
Dimensions are shown: IN (mm)  
Dimensions subject to change



# C&K NE-18 Series Mains / Power Switches

## ILLUMINATED BUTTON WITH CHASSIS

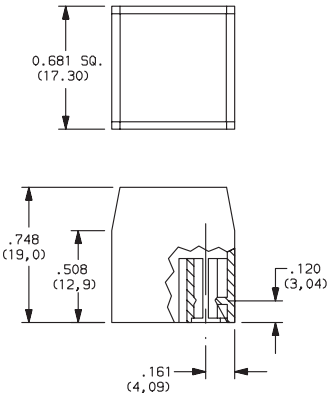


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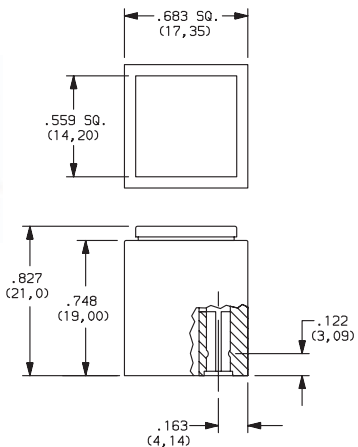
Pushbutton

### STYLE

**F21** FRV



**F22** FSR



### SHELL COLOR

**01** (STD.) BLACK

### LENS COLOR

OPTION CODE	COLOR
<b>02</b>	WHITE
<b>03</b>	RED
<b>06</b>	YELLOW
<b>08</b>	GREEN
<b>12</b>	ORANGE
<b>16</b>	CLEAR / WT.

### LAMP

#### North America

OPTION CODE	LAMP
<b>01</b>	6V / 30mA
<b>02</b>	12V / 30mA
<b>03</b>	24V / 30mA

#### Europe

OPTION CODE	LAMP
<b>04</b>	5V / 60mA
<b>05</b>	6V / 40mA
<b>06</b>	12V / 40mA
<b>07</b>	24V / 20mA

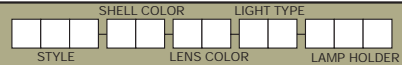
### LAMP HOLDER

OPTION CODE	DESCRIPTION
<b>FL1</b>	Standard version. No electrical connection to module. Lamps are illuminated by applying voltage to the solder lugs of the lampholder contacts.
<b>FL2</b>	For use only on modules with solder lugs on top face. One of the lampholder contacts is electrically linked with the module by means of a blade spring connecting the normally closed contact of the left side front changeover.



# C&K NE-18 Series Mains / Power Switches

## CENTRAL MOUNTED ILLUMINATED BUTTON

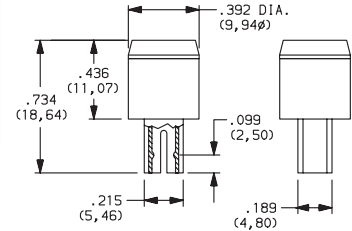
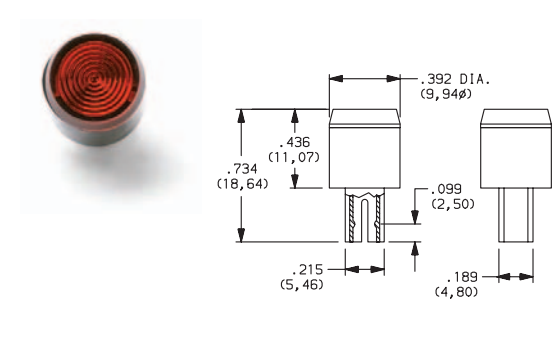
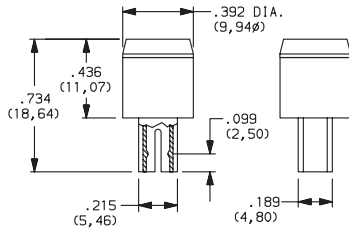
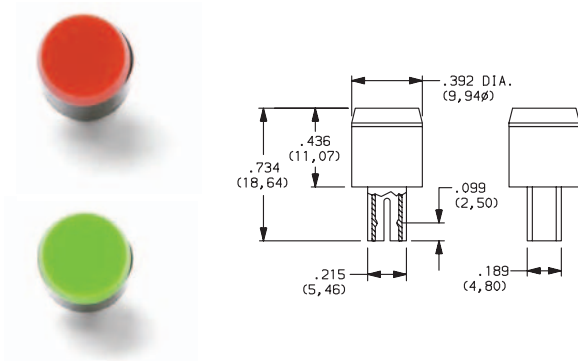


### STYLE

**F24** FLB (F200)

**F25** FLC

Pushbutton



### SHELL COLOR

OPTION CODE	COLOR
<b>01</b>	(STD.) BLACK
<b>02</b>	WHITE
<b>05</b>	GRAY

### LENS COLOR

OPTION CODE	COLOR
<b>03</b>	RED
<b>06</b>	YELLOW
<b>07</b>	BLUE
<b>08</b>	GREEN
<b>12</b>	ORANGE
<b>16</b>	CLEAR / WT.

### LIGHT TYPE

OPTION CODE	DESCRIPTION
<b>01</b>	Lamp, 6V
<b>02</b>	Lamp, 12V
<b>03</b>	Lamp, 28V
<b>04</b>	LED, green
<b>05</b>	LED, red
<b>06</b>	LED, yellow
<b>07</b>	Neon, 110-220AC

### LAMP HOLDER

OPTION CODE	DESCRIPTION
<b>LZ1</b>	Illumination dependent on button position. Button depressed, lamp on.
<b>LZ2</b>	Illumination independent of button position.



Third Angle Projection  
 Dimensions are shown: IN (mm)  
 Dimensions subject to change

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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