



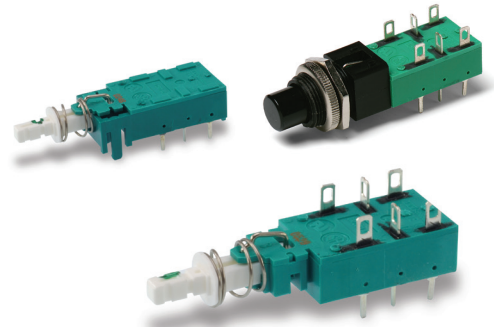
# NE-18 Series Mains / Power Switches

## Features/Benefits

- Chassis or panel mount
- Various buttons
- Various contact configurations
- RoHS compliant

## Typical Applications

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



UL61058-1



## Specifications

### ELECTRICAL RATING:

#### NE18 Series:

- 8A GP, 125 VAC, 50/60 Hz, 1E4, T70
- 6A GP, 250 VAC, 50/60 Hz, 1E4, T70
- 6(4)A RM, 250 VAC, 50/60 Hz, 1E4, T70
- 6/48A RC, 250 VAC, 50/60 Hz, 1E4, T70
- 1RA, 100 VDC, 1E4, T70
- 8RA, 30VDC, 1E4, T70

#### NE18CTII Series:

- 4A GP, 250 VAC, 50/60 Hz, 1E4, T70
- 4/48A RC, 250 VAC, 50/60 Hz, 1E4, T70
- 1RA, 100 VDC, 1E4, T70
- 4RA, 30VDC, 1E4, T70

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

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

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

INSULATION RESISTANCE:  $\wedge 10^{12}$   $\Omega$ chassis – nearest contact;  $\wedge 10^{12}$   $\Omega$ mains contact – mains contact;  $\wedge 10^{12}$   $\Omega$ 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.

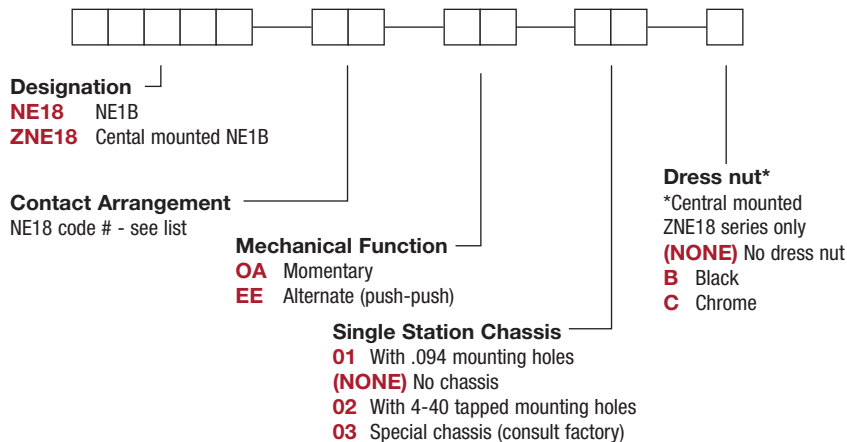
**NOTE:** All models are RoHS compliant and compatible.

**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-97 thru A-104. 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.

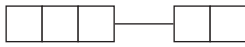


Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



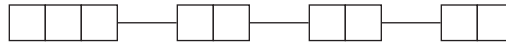
### Order Code - Buttons

#### Solid Buttons



| Style           | Button Color         |
|-----------------|----------------------|
| <b>F01</b> FMR  | <b>01</b> Black      |
| <b>F02</b> FG*  | <b>02</b> White      |
| <b>F12</b> FSC  | <b>03</b> Red        |
| <b>F13</b> FSD  | <b>04</b> Light gray |
| <b>F14</b> FU12 |                      |
| <b>F15</b> FSB  |                      |
| <b>F16</b> FE   |                      |
| <b>F19</b> FA   |                      |
| <b>F21</b> F001 |                      |

#### Mechanical Indicator Buttons



| Style             | Shell Color     | Out Position Color | In Position Color |
|-------------------|-----------------|--------------------|-------------------|
| <b>F01</b> FA100  | <b>01</b> Black | <b>01</b> Black    | <b>02</b> White   |
| <b>F02</b> FA101  |                 |                    | <b>06</b> Yellow  |
| <b>F07</b> FA120  |                 |                    | <b>07</b> Blue    |
| <b>F08</b> FA201  |                 |                    | <b>08</b> Green   |
| <b>F11</b> FA200* |                 |                    | <b>12</b> Orange  |

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

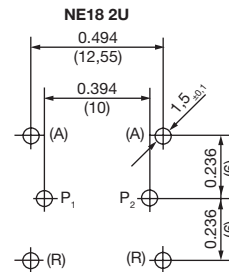
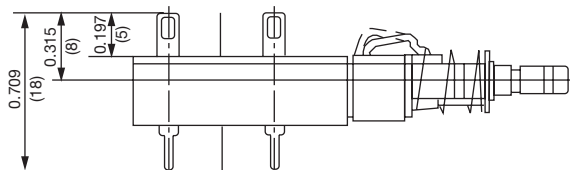
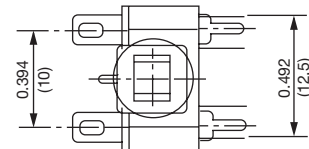
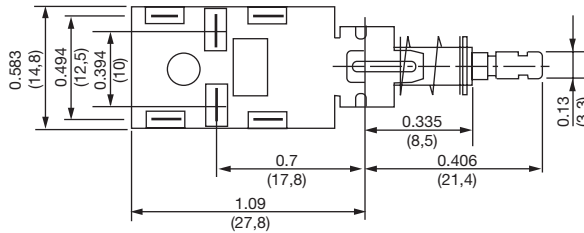
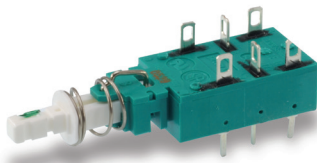
### BUTTON REMOVAL

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

### DESIGNATION & SWITCHES WITH STANDARD OPTIONS



### NE1838EE





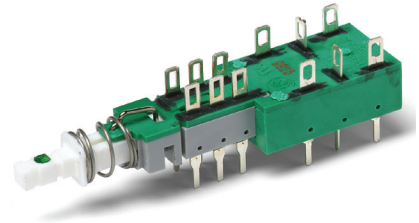
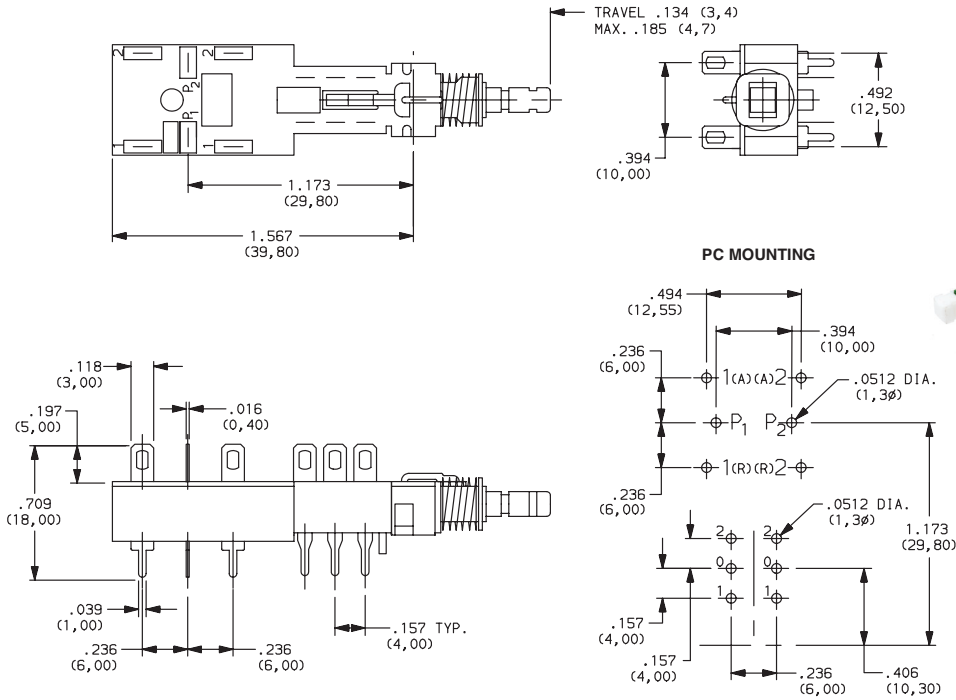
# NE-18 Series Mains / Power Switches

## DESIGNATION & SWITCHES WITH STANDARD OPTIONS

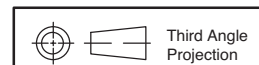
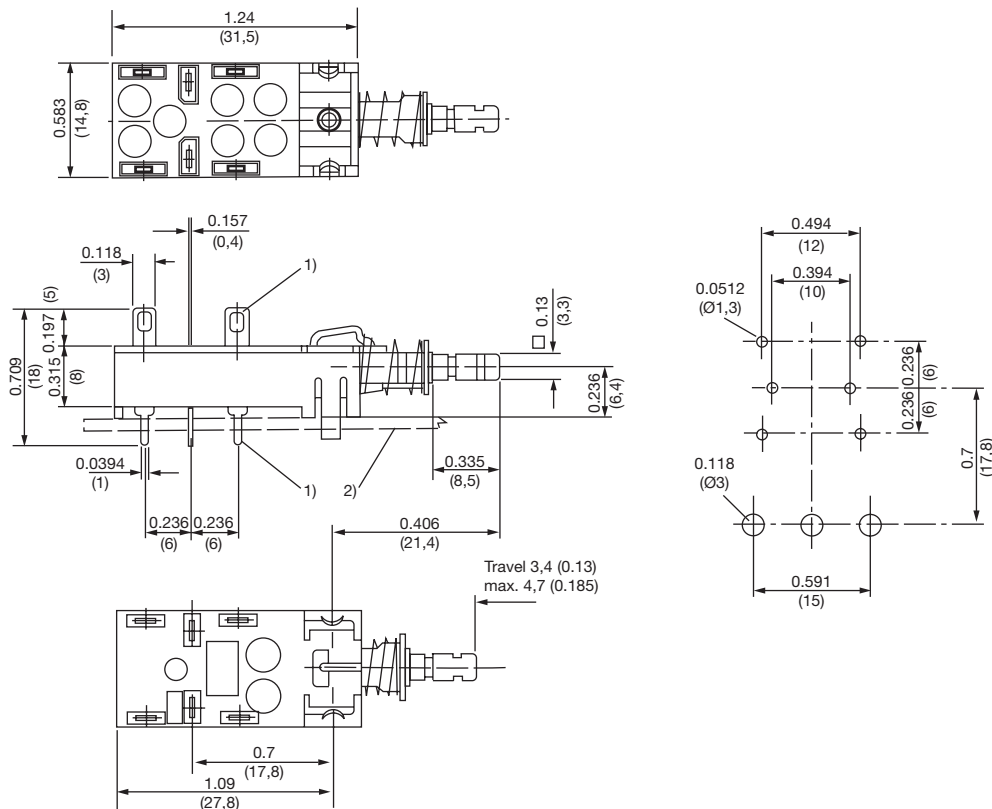


Pushbutton

### NE1839EE



### NE1846EE



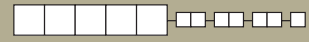
Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



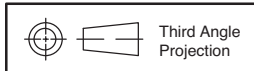
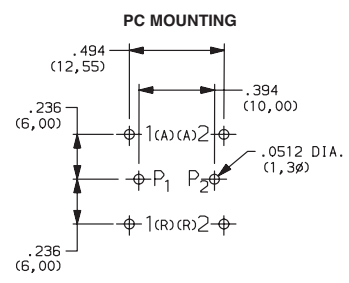
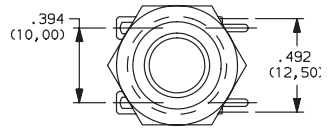
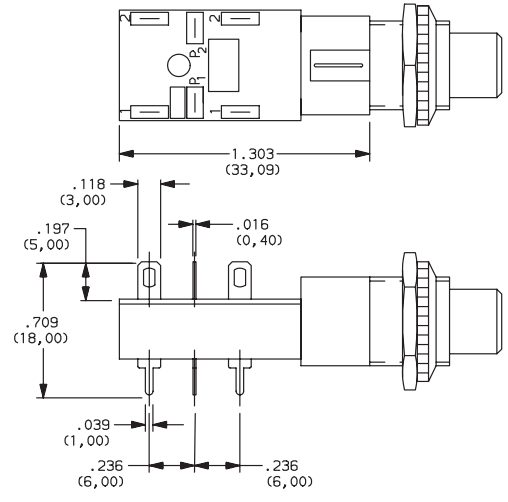
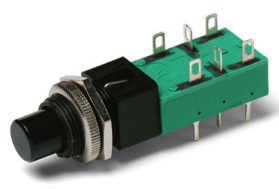
# NE-18 Series Mains / Power Switches

A  
Pushbutton

DESIGNATION & SWITCHES WITH STANDARD OPTIONS



**ZNE1838EECF0201**



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



# NE-18 Series Mains / Power Switches

## CONTACT ARRANGEMENT









Pushbutton  
A

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

| OPTION CODE<br>Contact capacity<br>and availability | STYLE               | ELECTRICAL<br>CIRCUIT |
|---|---------------------|-----------------------|
| <b>46</b>   | NE18 – 2USX         | DPDT                  |
| <b>47</b>   | NE18 – 2ASP         | DPST                  |
| <b>48</b>   | NE18 – 2USP         | DPDT                  |
| <b>49</b>   | NE18 – 2ASW         | DPST                  |
| <b>50</b>   | NE18 – 2USW         | DPDT                  |
| <b>53 (4A/64)</b>                                   | 2U + NE18CTII – 2AX | DPST                  |
| <b>54</b>   | 2U + NE18 – 2AW     | DPST                  |
| <b>55</b>   | 2U + NE18 – 2AP     | DPST                  |
| <b>56</b>   | 2U + NE18 – 2UW     | DPDT                  |
| <b>57</b>   | 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<br>(CEE 24) | APPROVALS  |
|----------|------------------------------|--------------------|----------------------|------------------------------|--|
|          | POWER CONTACTS <sup>1</sup>  | AUXILIARY CONTACTS |                      |                              |  |
| NE18     | 2A <sup>2</sup>              | 2U                 | > 3mm<br>(.118 inch) | II                           |  <br>UL61058-1 |
| NE18     | 2A <sup>2</sup><br>2U        | 2U                 | > 3mm<br>(.118 inch) | I                            |  <br>UL61058-1 |
| NE18CTII | 2A <sup>2</sup>              | 2U                 | > 3mm<br>(.118 inch) | II                           |  <br>UL61058-1 |

1) A = make contact, U = changeover contact  
 2) With 2A mains contacts: Mounting only by PC pins is not sufficient.

## MECHANICAL FUNCTION



| OPTION CODE | FUNCTION              |
|-------------|-----------------------|
| <b>OA</b>   | Momentary             |
| <b>EE</b>   | Alternate (push-push) |



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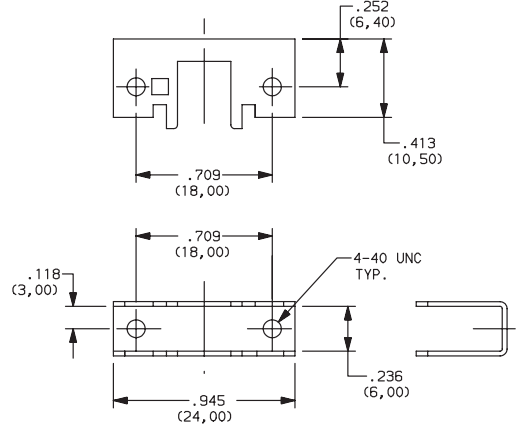
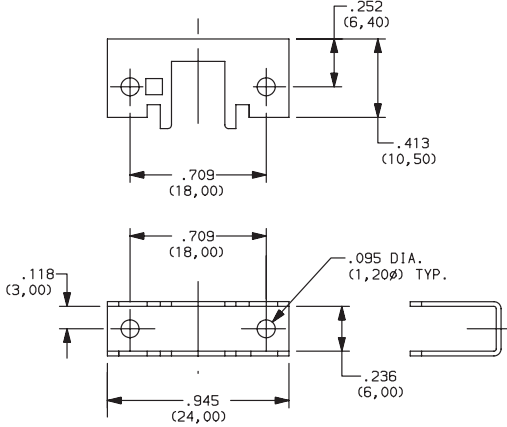
### SINGLE STATION CHASSIS



**01** WITH .094 MOUNTING HOLES

**(NONE)** NO CHASSIS

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



**03** SPECIAL CHASSIS (CONSULT FACTORY)

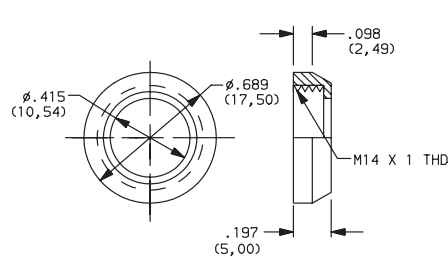
### DRESS NUT



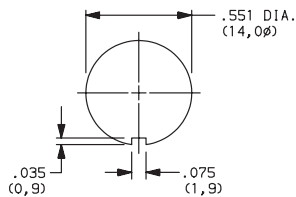
**(NONE)** NO DRESS NUT

**B** BLACK

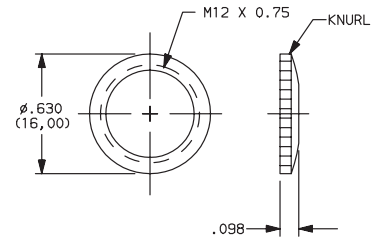
**C** CHROME



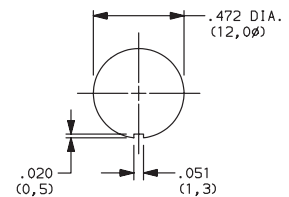
#### PANEL CUTOUT



**NOTE:** Available with ZNE18 designation and FA200 buttons.



#### PANEL CUTOUT



**NOTE:** Available with ZNE18 designation and FG button.



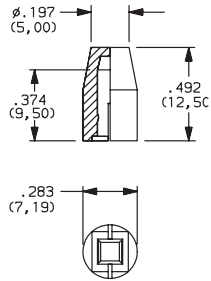
# NE-18 Series Mains / Power Switches

## SOLID BUTTON

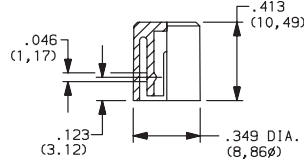
Pushbutton A

### STYLE

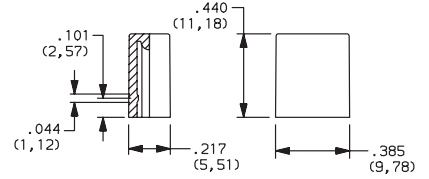
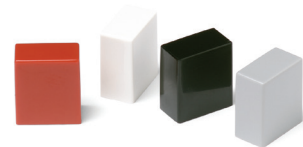
**F01** FMR



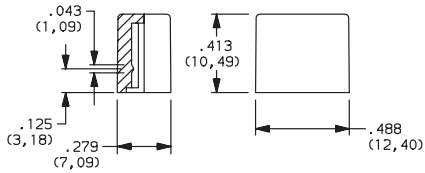
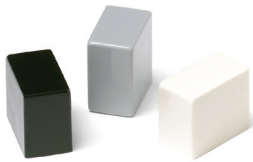
**F02** FG



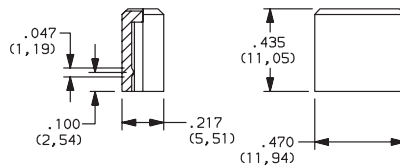
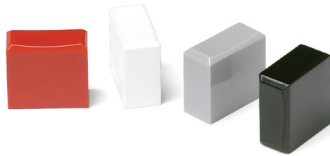
**F12** FSC



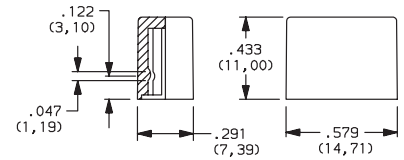
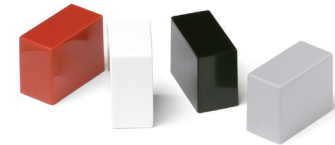
**F13** FSD



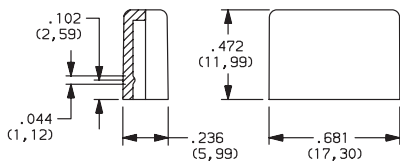
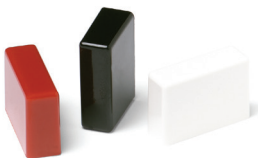
**F14** FU12



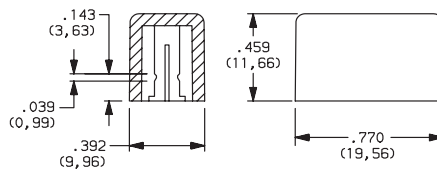
**F15** FSB



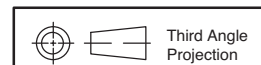
**F16** FE



**F19** FA



| OPTION CODE | COLOR    |
|-------------|----------|
| <b>01</b>   | BLACK    |
| <b>02</b>   | WHITE    |
| <b>03</b>   | RED      |
| <b>04</b>   | LT. GRAY |



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



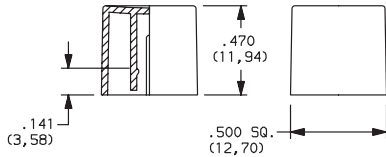


### SOLID BUTTON



### STYLE

**F21** F001



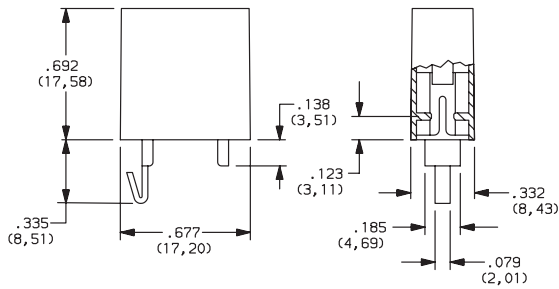
| OPTION CODE | COLOR   |
|-------------|---|
| <b>01</b>   | BLACK   |
| <b>02</b>   | WHITE   |
| <b>03</b>   | RED   |
| <b>04</b>   | LT. GRAY                                      |
| <b>09</b>   | BLACK/CHROME<br>(F03, F06 & F07 buttons only) |

### MECHANICAL BUTTON

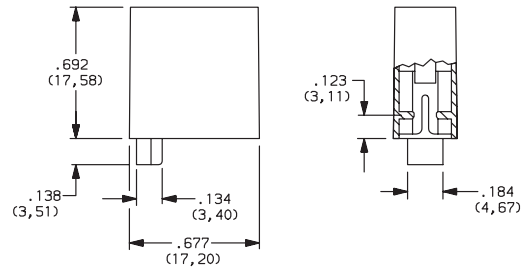


### STYLE

**F01** FA100



**F02** FA101







# NE-18 Series Mains / Power Switches

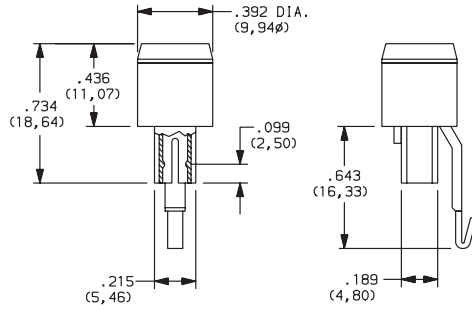
## MECHANICAL BUTTON



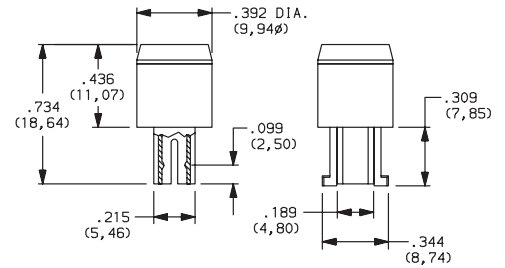
Pushbutton A

### STYLE

**F08** FA201



**F11** FA200



### SHELL COLOR

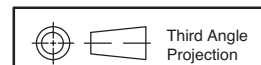
**01** BLACK

### 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 |



Dimensions are shown: Inches (mm)  
Specifications and 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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