

# 3500 series

High performance toggle switches •  
environmentally sealed



## DISTINCTIVE FEATURES

Completely sealed switches withstanding 0.1 bar pressure  
Approved to European standards CECC 96000  
Three types of terminals  
Many lever styles available



## ENVIRONMENTAL SPECIFICATIONS

- Front sealing to IP67 or IP69K by a silicone membrane (for sealed panel mounting, add washer U60).
- Rear sealing to IP64 provided by moulded-in terminal inserts
- Operating temperature : -40 °C to + 85°C (-40 °F to +185 °F)
- Moisture resistance : 56 days



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load and electrical life at full load: see table below
- Initial contact resistance : 10 mΩ max. at 1 A 2 VDC
- Insulation resistance : 1,000 MΩ
- Dielectric strength : 2,500 Vrms 50 Hz min. between terminals  
3,000 Vrms 50 Hz min. between terminals and frame

| FUNCTIONS              | GENERAL PERFORMANCES                                                                       |
|------------------------|--------------------------------------------------------------------------------------------|
| ON-OFF<br>and<br>ON-ON | 10,000 cycles, T20 °C<br>15 A 28 VDC resistive<br>15 A 28 VDC inductive<br>5 A 28 VDC lamp |
| ON OFF ON              | 10,000 cycles, T20 °C<br>15 A 28 VDC resistive<br>15 A 28 VDC inductive<br>5 A 28 VDC lamp |
| OTHER<br>FUNCTIONS     | 10,000 cycles, T20 °C<br>15 A 28 VDC resistive<br>10 A 28 VDC inductive<br>3 A 28 VDC lamp |

The company reserves the right to change specifications without notice.



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## GENERAL SPECIFICATIONS

- Mechanical life : 40,000 cycles
- Torque : 2 Nm (1.47 Ft.lb) max. applied to nut
- Panel thickness :  
For NON-SEALED mounting (panel cut-out fig. 1, 2 or 3) : 5 mm (.196) max.  
For SEALED mounting (panel cut-out fig. 2) : 4 mm (.157) max.



## MATERIALS

- Case : mineral filled polyester UL94-V0
- Bushing and cover : zamac
- Actuator : brass, nickel or chrome plated, or anodized aluminum
- Contacts : silver alloy

## AGENCY APPROVAL



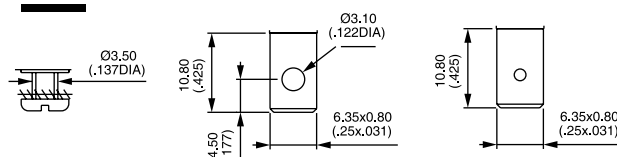
CECC 96201-004

**Availability** : consult factory for details of approved models.

**Marking** : to order switches marked CECC, complete appropriate box of ordering format.

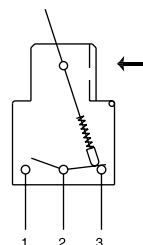


## TERMINALS



## ELECTRICAL FUNCTIONS

→ KEYWAY



## PANEL CUT-OUT

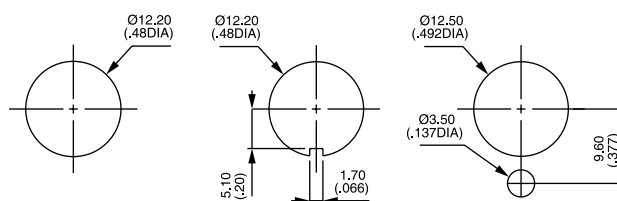


Figure 1

Figure 2

Figure 3

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## BUILD YOUR PART NUMBER

### BASIC PART NUMBER

| SERIES | NUMBER OF POLES | ELECTRICAL FUNCTIONS |     |                              |       |                                 |     | TERMINALS                    |       |   |                              |
|--------|-----------------|----------------------|-----|------------------------------|-------|---------------------------------|-----|------------------------------|-------|---|------------------------------|
| 35     |                 |                      |     |                              |       |                                 |     |                              |       |   |                              |
|        | 3 Single pole   | 1-0                  | ON  | -                            | OFF   | 4-6                             | MOM | <sup>1</sup> ON <sup>6</sup> | MOM ▲ | 0 | Screw                        |
|        | 4 Double pole   | 2-0                  | ON  | -                            | m.OFF | 5-0                             | ON  | -                            | MOM   | 2 | Solder lug/<br>quick-connect |
|        |                 | 3-0                  | OFF | -                            | MOM   | 6-0                             | ON  | -                            | ON    | 3 | Normalized<br>quick-connect  |
|        |                 | 4-1                  | ON  | <sup>3</sup> ON <sup>4</sup> | ON ▲  | 7-0                             | MOM | OFF                          | MOM   | 4 | Screw + clamp                |
|        |                 | 4-2                  | ON  | <sup>3</sup> ON <sup>4</sup> | MOM ▲ | 8-0                             | ON  | OFF                          | MOM   |   |                              |
|        |                 | 4-3                  | MOM | <sup>3</sup> ON <sup>4</sup> | MOM ▲ | 9-0                             | ON  | OFF                          | ON    |   |                              |
|        |                 | 4-4                  | ON  | <sup>1</sup> ON <sup>6</sup> | ON ▲  | ▲ Function 4 : double pole only |     |                              |       |   |                              |
|        |                 | 4-5                  | ON  | <sup>1</sup> ON <sup>6</sup> | MOM ▲ |                                 |     |                              |       |   |                              |

### OPTIONS

| LEVER FINISH                                                      | AGENCY APPROVAL                      | LOCKING LEVER SPECIAL FINISH                                        |
|-------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------|
| N Bright nickel                                                   | 0 None                               | (blank) None                                                        |
| B Satin chrome                                                    | 1 CECC                               | P5 Painted yellow                                                   |
| G* Black                                                          |                                      | A6 Anodized red                                                     |
| F* Black with fluorescent tip (lever type 1 only)                 |                                      | Order with lever finish type C. Other colors : on request.          |
| C Painted or anodized                                             |                                      |                                                                     |
| *Black finish on bushing too.                                     |                                      |                                                                     |
| LEVER STYLES                                                      | LEVER LOCKING STYLES                 | ACCESSORIES                                                         |
| 1 Standard, length 17.5 mm (.688) or locking, length 20 mm (.787) | 0 No locking                         | 0 2 hex nuts, 1 locking ring and 1 lockwasher (non-sealed mounting) |
| 2 Length 30 mm (1.181)                                            | A Locked in 3 positions              | 2 2 hex nuts and 1 sealing washer (sealed mounting)                 |
| 3 Flatted, length 24 mm (.944)                                    | D Locked out of center position      |                                                                     |
| 4 Length 40 mm (1.574)                                            | G Locked in keyway side              |                                                                     |
| 5 Length 50 mm (1.968)                                            | See drawings on the following pages. |                                                                     |
| 6 Locking, length 25.4 mm (1.000)                                 |                                      |                                                                     |



## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- ⚠ **Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- 🔒 **Switch guards** are available to prevent inadvertent lever operation. See "Switch Guards" section of website.
- 🔩 **Mounting accessories** : see above and on the following pages.

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## SCREW TERMINALS SINGLE POLE



|         | Angle of throw (A) | III<br>A2-A3 | II  | I<br>A1-A2 |
|---------|--------------------|--------------|-----|------------|
| 3531-00 | 22°                | ON           | -   | OFF        |
| 3532-00 | 22°                | ON           | -   | m.OFF      |
| 3533-00 | 22°                | OFF          | -   | MOM        |
| 3535-00 | 22°                | ON           | -   | MOM        |
| 3536-00 | 22°                | ON           | -   | ON         |
| 3537-00 | 22°                | MOM          | OFF | MOM        |
| 3538-00 | 30°                | ON           | OFF | MOM        |
| 3539-00 | 30°                | ON           | OFF | ON         |

## SCREW TERMINALS DOUBLE POLE



|         | Angle of throw (A) | III<br>A2-A3<br>B5-B6 | II<br>*A3-B5<br>**A1-B5 | I<br>A1-A2<br>B5-B4 |
|---------|--------------------|-----------------------|-------------------------|---------------------|
| 3541-00 | 22°                | ON                    | -                       | OFF                 |
| 3544-10 | 22°                | ON                    | ON*                     | ON                  |
| 3544-20 | 22°                | ON                    | ON*                     | MOM                 |
| 3544-30 | 22°                | MOM                   | ON*                     | MOM                 |
| 3545-00 | 22°                | ON                    | -                       | MOM                 |
| 3546-00 | 22°                | ON                    | -                       | ON                  |
| 3547-00 | 22°                | MOM                   | OFF                     | MOM                 |
| 3548-00 | 30°                | ON                    | OFF                     | MOM                 |
| 3549-00 | 30°                | ON                    | OFF                     | ON                  |

## SOLDER LUG/QUICK-CONNECT TERMINALS SINGLE POLE



|         | Angle of throw (A) | III<br>A2-A3 | II  | I<br>A1-A2 |
|---------|--------------------|--------------|-----|------------|
| 3531-02 | 22°                | ON           | -   | OFF        |
| 3532-02 | 22°                | ON           | -   | m.OFF      |
| 3533-02 | 22°                | OFF          | -   | MOM        |
| 3535-02 | 22°                | ON           | -   | MOM        |
| 3536-02 | 22°                | ON           | -   | ON         |
| 3537-02 | 22°                | MOM          | OFF | MOM        |
| 3538-02 | 30°                | ON           | OFF | MOM        |
| 3539-02 | 30°                | ON           | OFF | ON         |

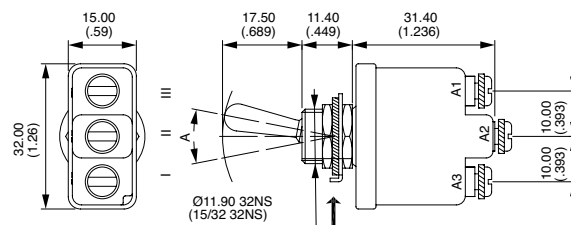
## SOLDER LUG/QUICK-CONNECT TERMINALS DOUBLE POLE



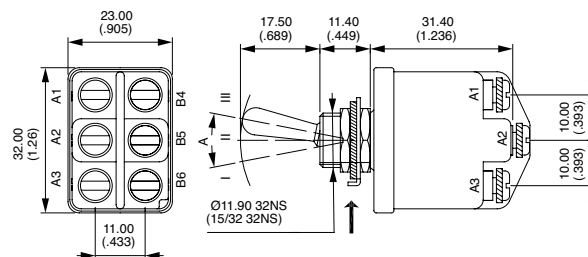
|         | Angle of throw (A) | III<br>A2-A3<br>B5-B6 | II<br>*A3-B5<br>**A1-B5 | I<br>A1-A2<br>B5-B4 |
|---------|--------------------|-----------------------|-------------------------|---------------------|
| 3541-02 | 22°                | ON                    | -                       | OFF                 |
| 3544-12 | 22°                | ON                    | ON*                     | ON                  |
| 3544-22 | 22°                | ON                    | ON*                     | MOM                 |
| 3544-32 | 22°                | MOM                   | ON*                     | MOM                 |
| 3545-02 | 22°                | ON                    | -                       | MOM                 |
| 3546-02 | 22°                | ON                    | -                       | ON                  |
| 3547-02 | 22°                | MOM                   | OFF                     | MOM                 |
| 3548-02 | 30°                | ON                    | OFF                     | MOM                 |
| 3549-02 | 30°                | ON                    | OFF                     | ON                  |

→ KEYWAY

Shown with standard lever

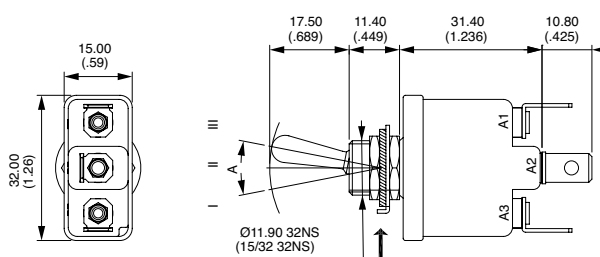


→ KEYWAY

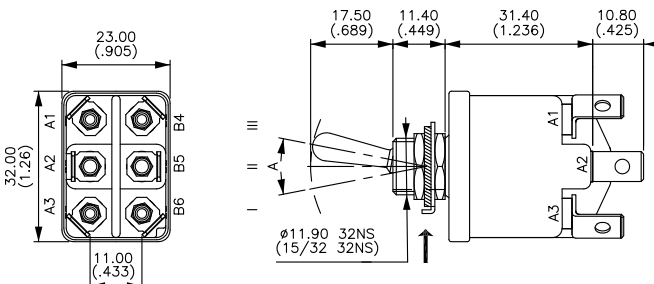


Also available in functions ON-m.OFF and OFF-MOM.

→ KEYWAY



→ KEYWAY



Also available in functions ON-m.OFF and OFF-MOM.  
\*and\*\* : A2-B4 and A2-B6 = jumper to be wired by the user.

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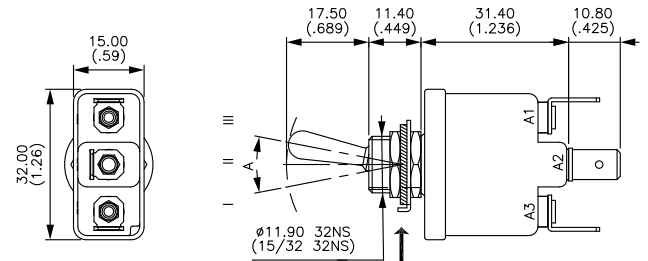
## NORMALIZED QUICK-CONNECT TERMINALS SINGLE POLE



|         | Angle of throw (A) | III<br>A2-A3 | II  | I<br>A1-A2 |
|---------|--------------------|--------------|-----|------------|
| 3531-03 | 22°                | ON           | -   | OFF        |
| 3532-03 | 22°                | ON           | -   | m.OFF      |
| 3533-03 | 22°                | OFF          | -   | MOM        |
| 3535-03 | 22°                | ON           | -   | MOM        |
| 3536-03 | 22°                | ON           | -   | ON         |
| 3537-03 | 22°                | MOM          | OFF | MOM        |
| 3538-03 | 30°                | ON           | OFF | MOM        |
| 3539-03 | 30°                | ON           | OFF | ON         |

→ KEYWAY

Shown with standard lever

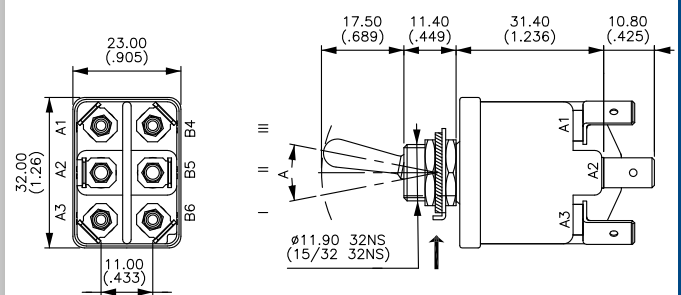


## NORMALIZED QUICK-CONNECT TERMINALS DOUBLE POLE



|         | Angle of throw (A) | III<br>A2-A3<br>B5-B6 | II<br>*A3-B5<br>**A1-B5 | I<br>A1-A2<br>B5-B4 |
|---------|--------------------|-----------------------|-------------------------|---------------------|
| 3541-03 | 22°                | ON                    | -                       | OFF                 |
| 3544-13 | 22°                | ON                    | ON*                     | ON                  |
| 3544-23 | 22°                | ON                    | ON*                     | MOM                 |
| 3544-33 | 22°                | MOM                   | ON*                     | MOM                 |
| 3545-03 | 22°                | ON                    | -                       | MOM                 |
| 3546-03 | 22°                | ON                    | -                       | ON                  |
| 3547-03 | 22°                | MOM                   | OFF                     | MOM                 |
| 3548-03 | 30°                | ON                    | OFF                     | MOM                 |
| 3549-03 | 30°                | ON                    | OFF                     | ON                  |

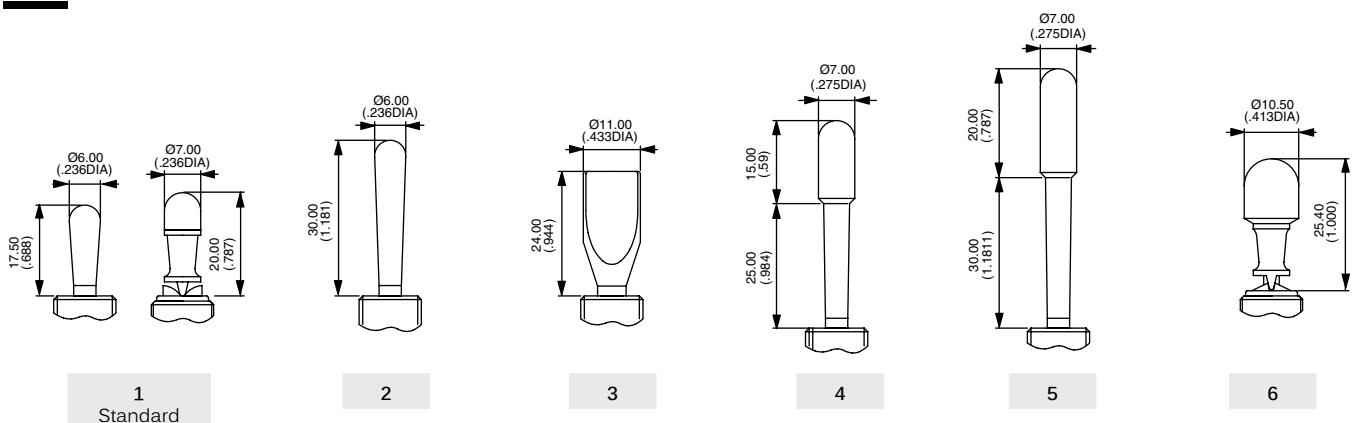
→ KEYWAY



Also available in functions ON-m.OFF and OFF-MOM.

\*and\*\*: A2-B4 and A2-B6 = jumper to be wired by the user.

## LEVER STYLES



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## LEVER FINISH



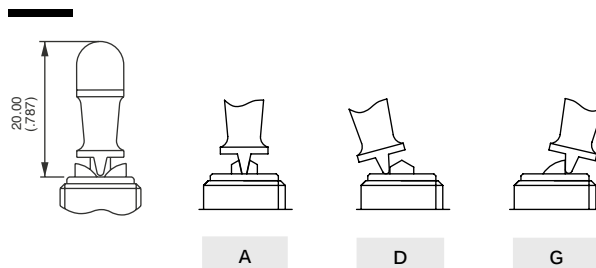
- N Bright nickel
- B Satin chrome
- G\* Black
- F\* Black with fluorescent tip (available with lever type 1 only)
- C Painted or anodized (for locking lever only)

\* Black finish on bushing too.

## LOCKING LEVER STYLES



- 0 No locking
- A Locked in 3 positions. For functions 4-1, 4-4 and 9-0.
- D Locked out of center position. For functions 1-0 and 6-0.
- G Locked in keyway. For functions 1-0 and 6-0.



## AGENCY APPROVAL



- 0 None
- 1 CECC

## MOUNTING ACCESSORIES



- 0 For NON-SEALED mounting (panel cut-out fig. 1, 2 or 3)  
2 hex nuts 14 mm (.551) across flats, 1 locking ring U121 or U12, 1 lockwasher U13  
Panel thickness : 5 mm (.196) max.
- 2 For SEALED mounting (panel cut-out fig. 2)  
2 hex nuts 14 mm (.551) across flats and 1 sealing washer U60  
Panel thickness : 4 mm (.157) max.

**Special hardware** : black cap nut U129. Order separately. See "Hardware" section of website.

## LOCKING LEVER SPECIAL FINISH



- (blank) None
  - P5 Painted yellow
  - A6 Anodized red
- Order with lever finish type C.  
Other colors on request.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

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Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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