

## Description

The 3120 switch serves for switching devices and machinery on or off. It is available in a range of design versions and meets the requirements of the relevant standard IEC/EN 61058 for switches for appliances. Type 3120 is also available as a circuit breaker for equipment protection in accordance with IEC/EN 60934 (see data sheet thermal circuit breaker 3120-F).

### Product characteristics:

- rocker or push button actuation
- single pole and double pole versions
- convenient snap-in mounting
- international approvals

### Optional:

- illumination
- water splash protection
- push-in terminals

### Upon request:

Switch with undervoltage release module:

This version protects the user against bodily harm as an inadvertent start-up of machinery after a power failure is reliably excluded.

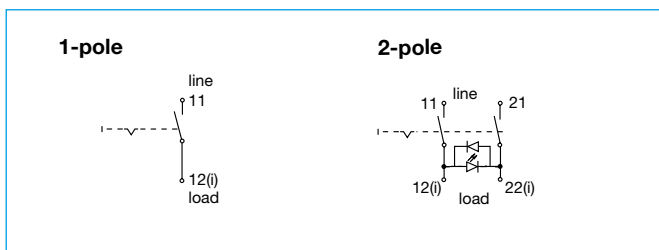
## Typical applications

Medical and laboratory equipment, apparatus and machine construction, professional tools, household and garden appliances, offices machines, audio equipment, machine tools

## Approvals

| Approval authority | Standard     | Voltage rating      | Current rating    | Approval logos                                                                      |
|--------------------|--------------|---------------------|-------------------|-------------------------------------------------------------------------------------|
| VDE                | IEC/EN 61058 | AC 240 V<br>DC 50 V | 16 (4) A<br>16 A: |  |
| CQC                | GB 17701     | AC 240 V<br>DC 50 V | 0.1 - 20 A        |  |

## Schematic diagrams



## Technical data

|                                         |                                                                                           |                         |
|-----------------------------------------|-------------------------------------------------------------------------------------------|-------------------------|
| Voltage ratings                         | AC 240 V, DC 50 V                                                                         |                         |
| <b>Interrupting capacity:</b>           |                                                                                           |                         |
| AC 240 V:                               | 16 (4) A                                                                                  | 25,000 switching cycles |
| DC 50 V:                                | 16 A                                                                                      | 50,000 switching cycles |
| Ambient temperature                     | 0...55 °C                                                                                 |                         |
| Insulation coordination (IEC 60664)     | 2.5 kV /2 reinforced insulation at operating area                                         |                         |
| <b>Dielectric strength</b>              |                                                                                           |                         |
| Operating area                          | test voltage AC 3,000 V                                                                   |                         |
| Pole to pole (2-pole)                   | test voltage AC 1,500 V                                                                   |                         |
| Insulation resistance                   | > 100 MΩ (DC 500 V)                                                                       |                         |
| <b>Degree of protection (IEC 60529)</b> |                                                                                           |                         |
| Operating area                          | IP40<br>with water splash cover IP54 or IP66                                              |                         |
| Terminal area                           | IP00<br>with water splash cover IP64                                                      |                         |
| <b>Environmental tests (IEC 60068)</b>  |                                                                                           |                         |
| Vibration                               | 8 g (57-500 Hz), ± 0.61 mm (10-57 Hz)                                                     |                         |
| Shock                                   | 30 g (11 ms)                                                                              |                         |
| Corrosion                               | 96 hours at 5 % salt mist                                                                 |                         |
| Humidity                                | 240 hrs in 95 % RH                                                                        |                         |
| Mass                                    | approx. 33 g (2-pole)<br>approx. 27 g (1-pole)<br>approx. 42 g (2-pole with PT terminals) |                         |

All information and data given on our products are accurate and reliable to the best of our knowledge, but E-T-A does not accept any responsibility for the use in applications which are not in accordance with the present specification. E-T-A reserves the right to change specifications at any time in the interest of improved design, performance and cost effectiveness. Dimensions are subject to change without notice. Please enquire for the latest dimensional drawing with tolerances if required. All dimensions, data, pictures and descriptions are for information only and are not binding. Amendments, errors and omissions excepted. Ordering codes of the products may differ from their marking.

## Order numbering code

### Type No.

**3120** switch with rocker actuation

#### Mounting

**F3** snap-in, mounting cut-out 50.5 x 21.5 mm

**F5** snap-in, mounting cut-out 44.5 x 22 mm

#### Number of poles

**0** 2-pole

**6** 1-pole

#### Style

**1** standard

**3** with actuator guard

**4** with water splash protection (IP54)

#### Terminal design

**PT** push-in terminals

**N7** blade terminals 6.3 x 0.8

**G7** as N7, terminals 11 and 21 with additional flat head screws M3.5

#### Version

**Q1** switch only

#### Actuator style

**W** rocker

#### Rocker colour/illumination

**01.** black opaque without illumination

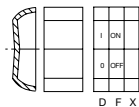
**02.** white opaque without illumination

**14. R** red translucent with LED illumination

**19. G** green translucent with LED illumination

#### Marking

**D**  
**F**  
**Q**  
**X**



Q: 0 and 1 moulded in

#### Illumination voltage range (= operating voltage)

**1** DC 12 V

**2** DC 24 V

**3** AC 115 V

**4** AC 230 V

#### Current rating

**16 A:**

**3120 - F 5 0 4 - N7 Q1 - W01Q - 16 A** ordering example

## Order numbering code

### Type No.

**3120** switch with push button actuation

#### Mounting

**F2** flange mounting, mounting cut-out 50.5 x 26 mm, suitable for water splash cover X221 619 01 (IP66)

**F3** snap-in, mounting cut-out 50.5 x 21.5 mm

#### Number of poles

**0** 2-pole

**6** 1-pole

#### Style

**F** frame with 2 push buttons

#### Terminal design

**PT** push-in terminals

**N7** blade terminals 6.3 x 0.8

**G7** as N7, terminals 11 and 21 with additional flat head screws M3.5

#### Version

**Q1** switch only

#### Actuator style

**S** two push buttons

#### Colour of push button/illumination

**GRX** green/red without illumination

**GRXG** green translucent with LED illumination/red opaque without illumination

#### Illumination voltage range

(= operating voltage)

**1** DC 12 V

**2** DC 24 V

**3** AC 115 V

**4** AC 230 V

#### Current rating

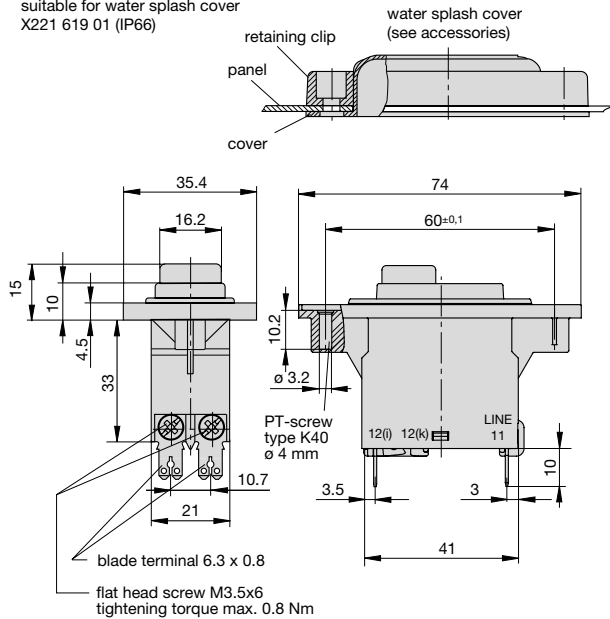
**16 A**

**3120 - F 2 0 F - N7 Q1 - SGRX - 16 A** ordering example

## Dimensions

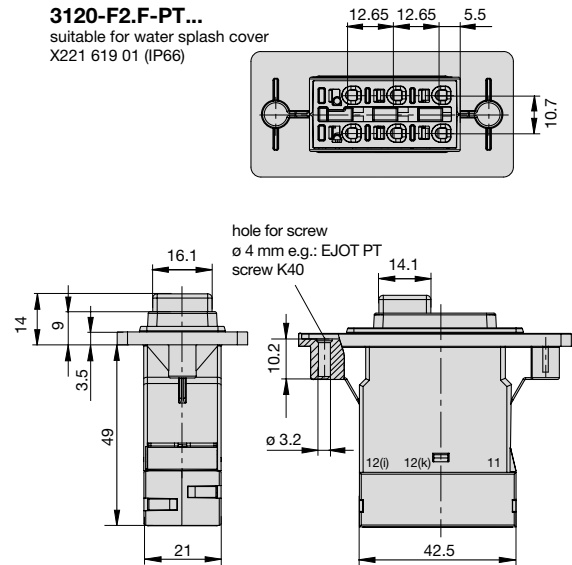
### 3120-F2.F-...

suitable for water splash cover  
X221 619 01 (IP66)



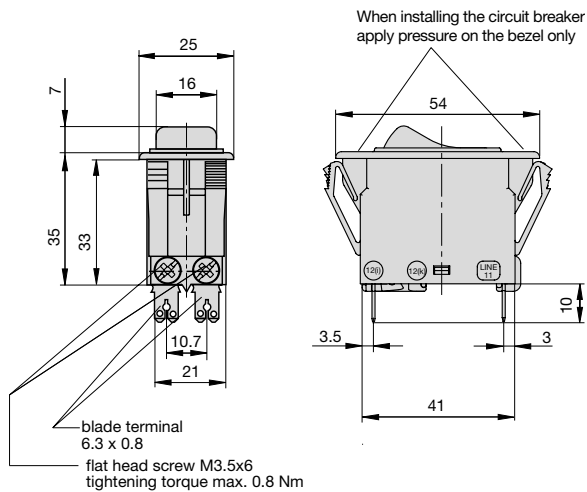
### 3120-F2.F-PT...

suitable for water splash cover  
X221 619 01 (IP66)



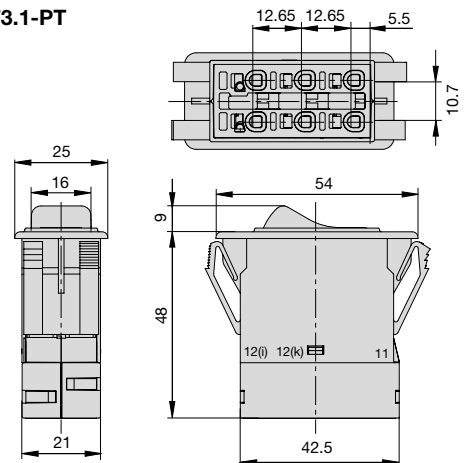
### 3120-F3.1

standard



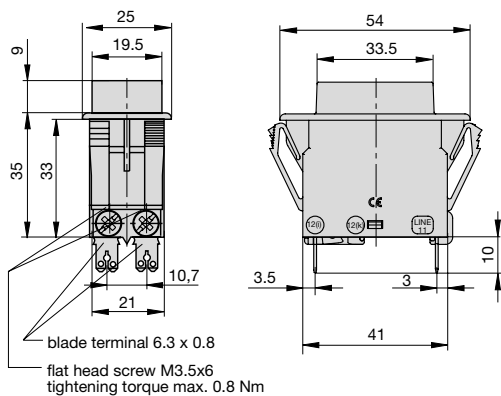
### 3120-F3.1-PT

standard



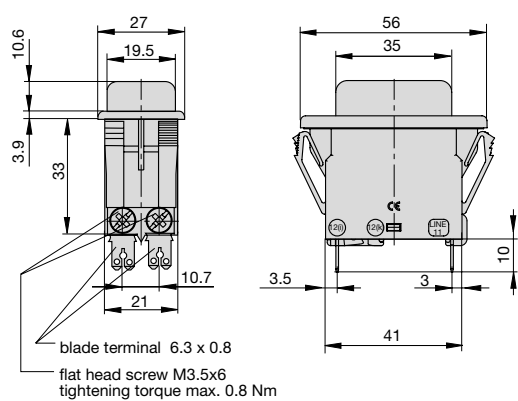
### 3120-F 3.3

with actuator guard



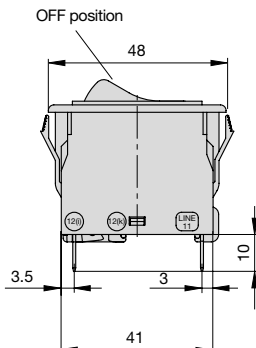
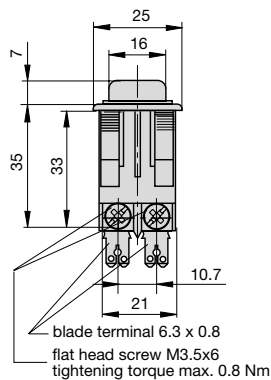
### 3120-F 3.4

with water splash protection (IP54)

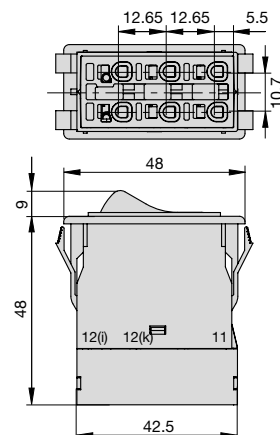
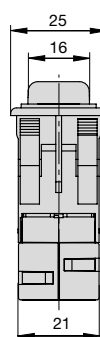


## Dimensions

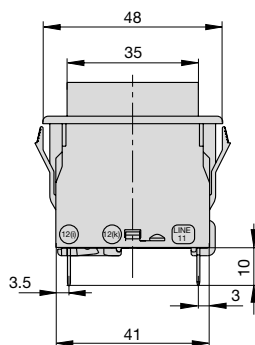
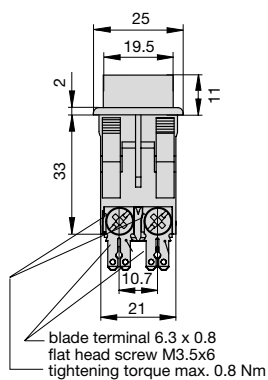
**3120-F 5.1**  
standard



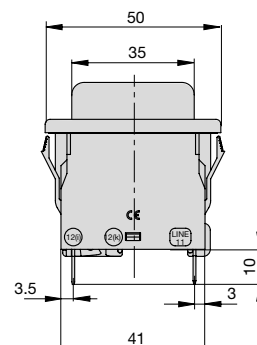
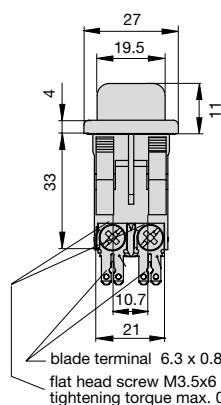
**3120-F5.1-PT**  
standard



**3120-F5.3**  
with actuator guard

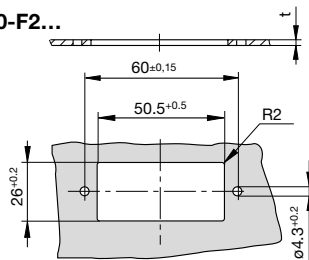


**3120-F5.4**  
with water splash protection (IP54)

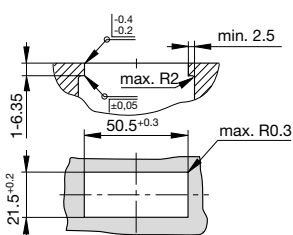


## Cut-out dimensions

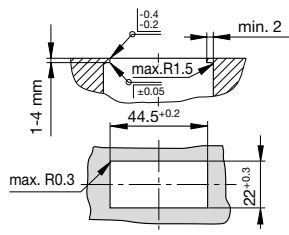
### 3120-F2...



### Cut-out -F3



### Cut-out -F5

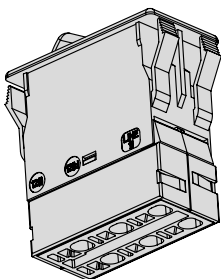


Edges of working parts: ISO13715

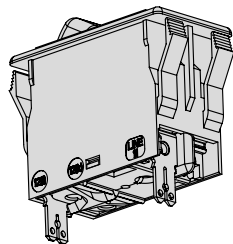
## Terminal types

### 1-pole version

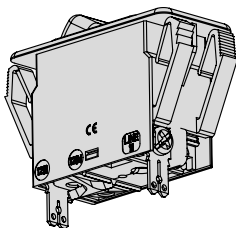
#### 3120-F561-PT



#### 3120-F561-N7

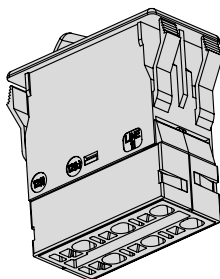


#### 3120-F361-G7

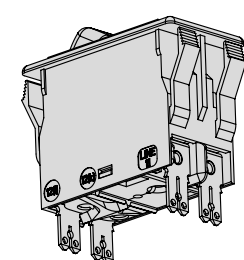


### 2-pole version

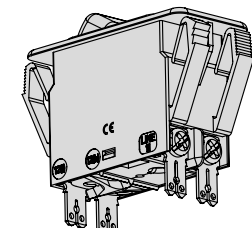
#### 3120-F501-PT



#### 3120-F501-N7

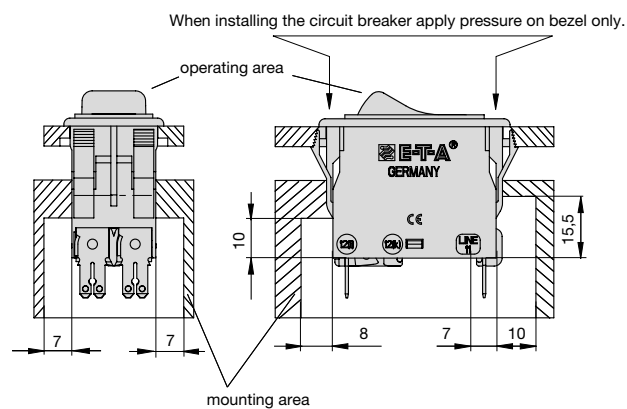


#### 3120-F301-G7

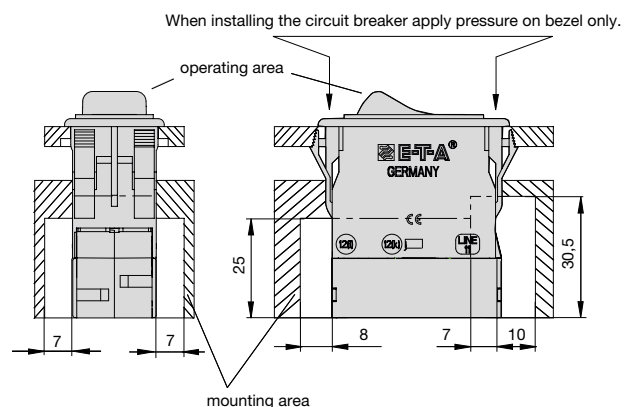


## Installation drawing

### 3120 with blade terminals



### 3120 with push-in terminals

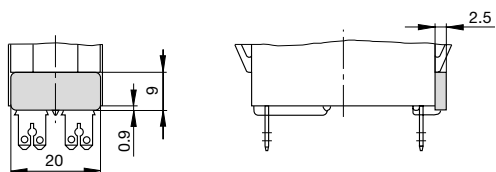


## Cable cross sections PT terminals

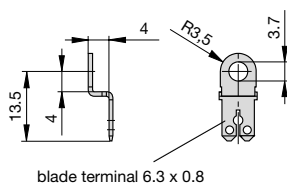
| cable                                                              | cross section with direct push-in wiring             |
|--------------------------------------------------------------------|------------------------------------------------------|
| rigid                                                              | 1...4 mm <sup>2</sup><br>(stripping length: 10 mm)   |
| flexible with wire end ferrule<br>(with or without plastic sleeve) | 0.5...2.5 mm <sup>2</sup>                            |
| cable                                                              | cross section when opening the push-in terminals     |
| rigid                                                              | 0.5...4 mm <sup>2</sup><br>(stripping length: 10 mm) |
| flexible without wire end ferrule                                  | 0.5...2.5 mm <sup>2</sup>                            |

## Accessories

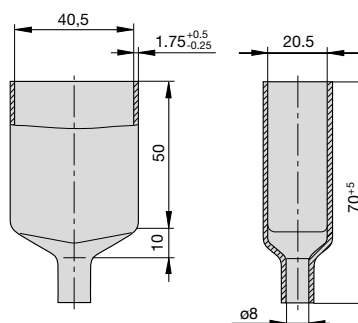
**Insulated cover**  
Y 303 068 01



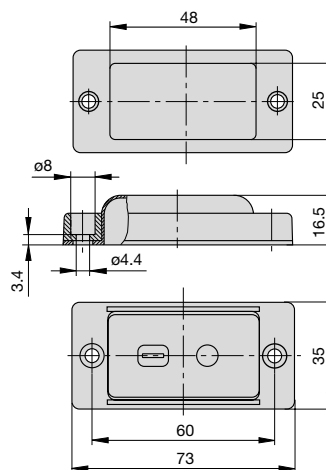
**Terminal adapter**  
Y 303 862 01



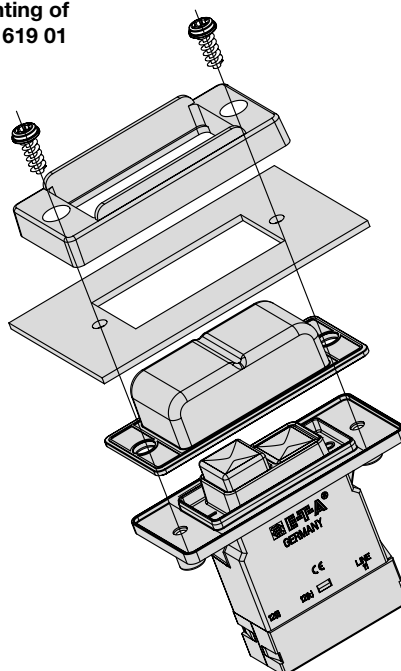
**Rear terminal shroud black (IP64)**  
Y 304 275 01



**Water splash cover, transparent (IP66)**  
for style -F2...  
X 221 619 01



**Mounting of**  
X221 619 01

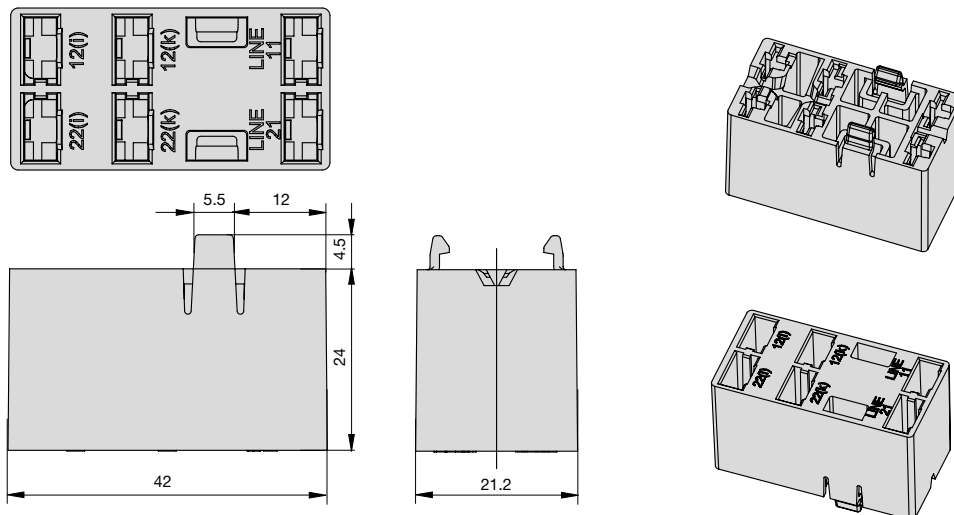


## Accessories

### Plug-in connector (for connection types N7 and G7)

#### Y 31214001

Connecting cables can be pre-wired. Two retaining clips ensure a tight fit.



#### Benefits:

- Reduced installation time and costs for final assembly
- Quick replacement of devices

#### Note:

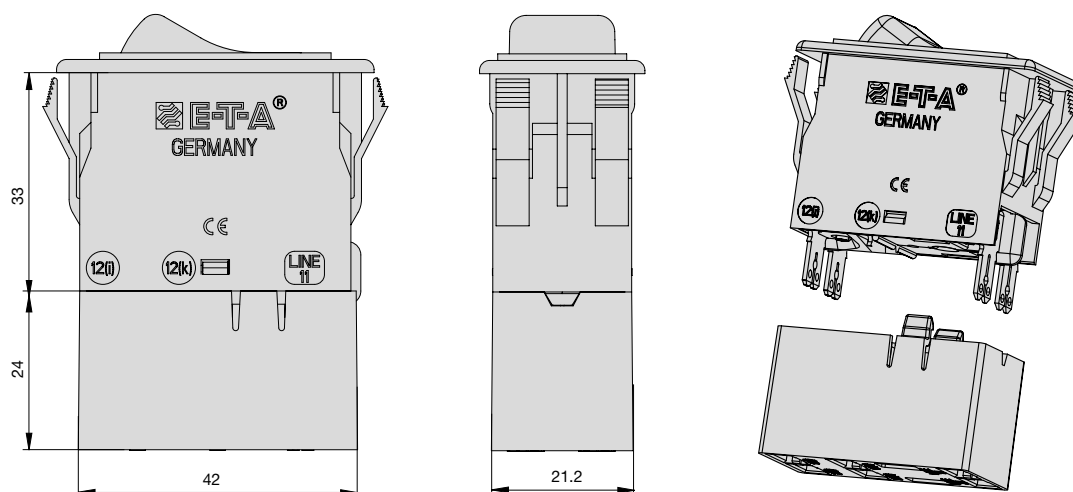
Delivery without receptacles.

Dimensions of receptacles (width 6.3 mm) are in accordance with DIN 46340 part 3, shape A.

Examples of suitable receptacles: Stocko RSB 7916 F6,3-1 / Klauke type 2730 / Vogt type 3832d.67 /

TE FASTON Terminals 250 Series / Delphi Packard 58 Series

Plug-in connector mounted on circuit breaker:



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

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- 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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