

## 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.

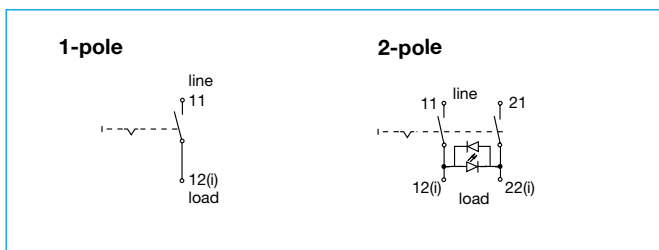
## Typical applications

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) |                         |

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## 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

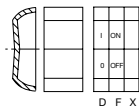
**02.** white opaque without illumination

**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

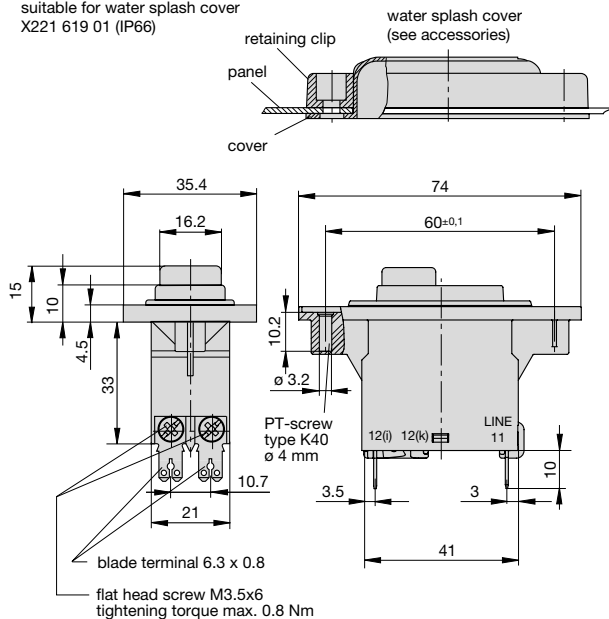
**16 A**

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

## Dimensions

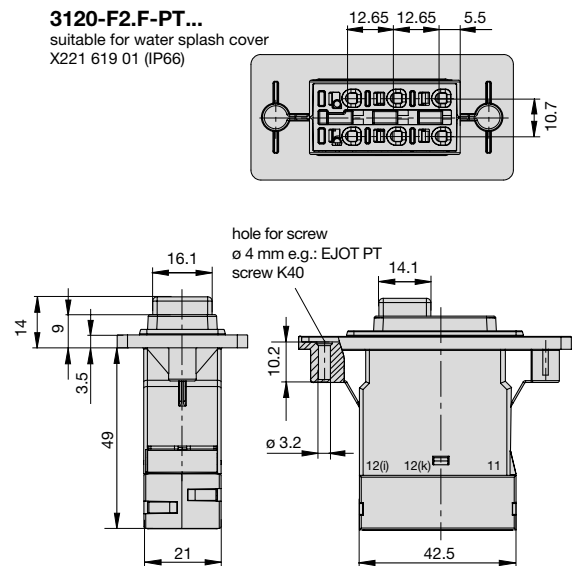
### 3120-F2.F...

suitable for water splash cover  
X221 619 01 (IP66)



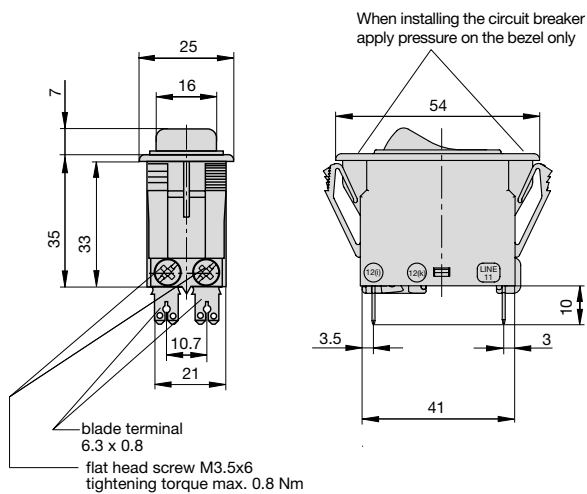
### 3120-F2.F-PT...

suitable for water splash cover  
X221 619 01 (IP66)



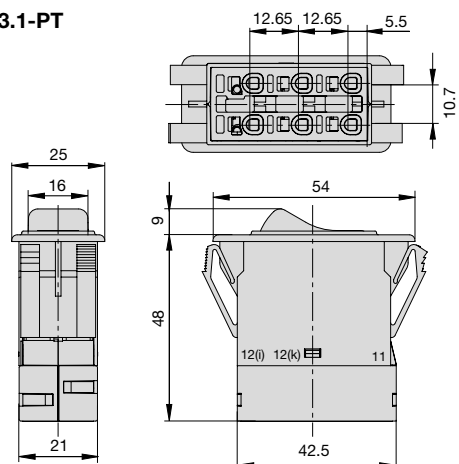
### 3120-F3.1

standard



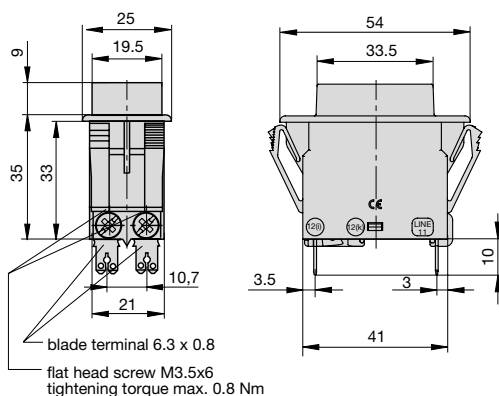
### 3120-F3.1-PT

standard



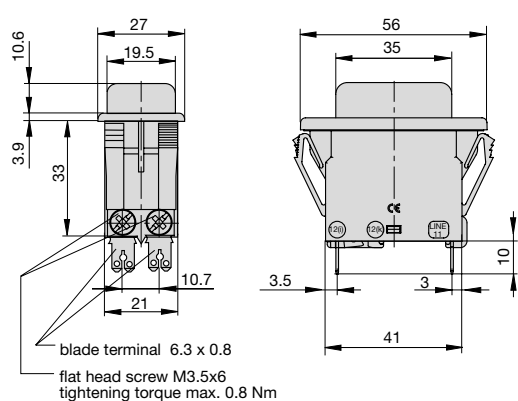
### 3120-F 3.3

with actuator guard



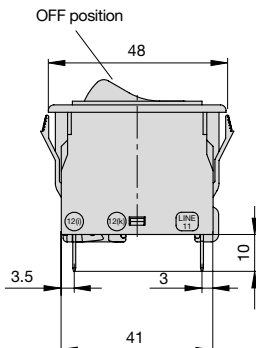
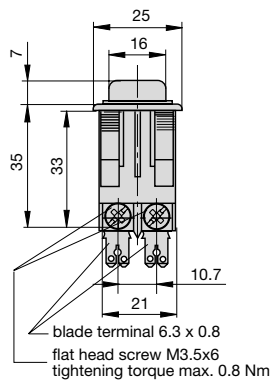
### 3120-F 3.4

with water splash protection (IP54)

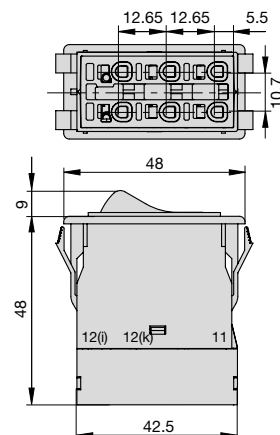
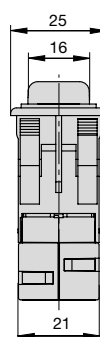


## Dimensions

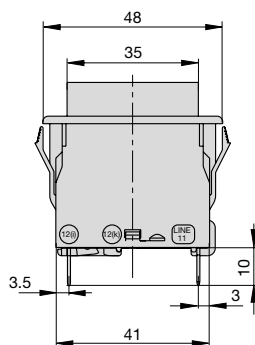
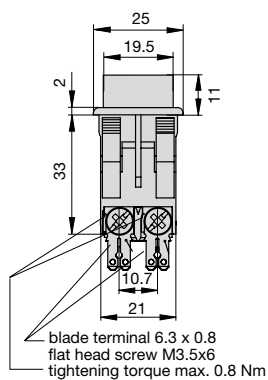
**3120-F 5.1**  
standard



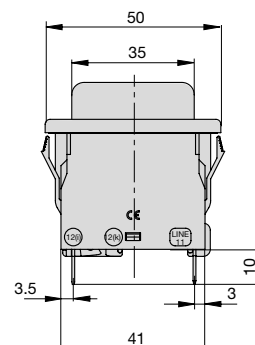
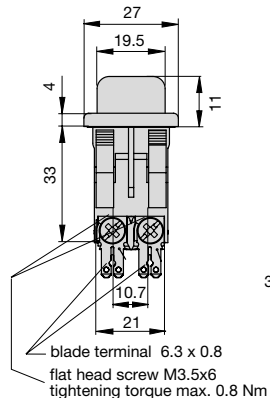
**3120-F5.1-PT**  
standard



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

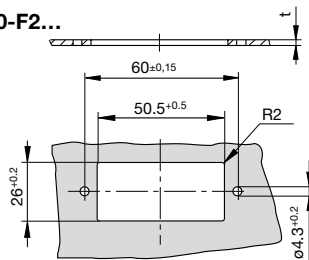


**3120-F5.4**  
with water splash protection (IP54)

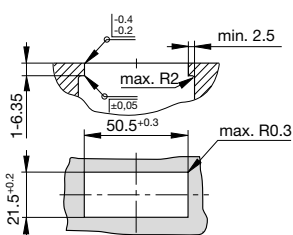


## Cut-out dimensions

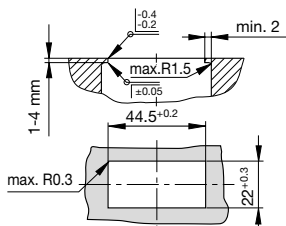
### 3120-F2...



### Cut-out -F3



### Cut-out -F5

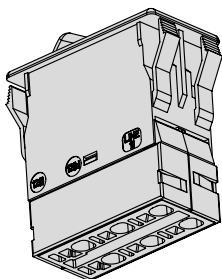


Edges of working parts: ISO13715

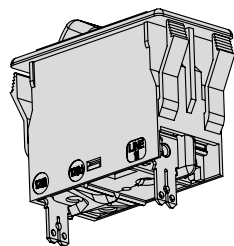
## Terminal types

### 1-pole version

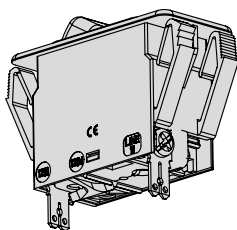
#### 3120-F561-PT



#### 3120-F561-N7

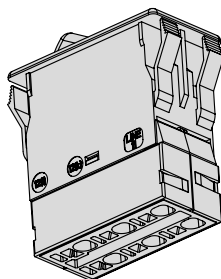


#### 3120-F361-G7

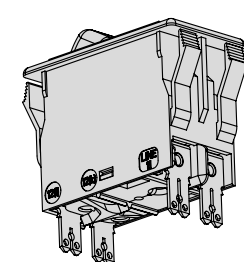


### 2-pole version

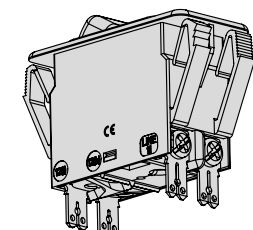
#### 3120-F501-PT



#### 3120-F501-N7

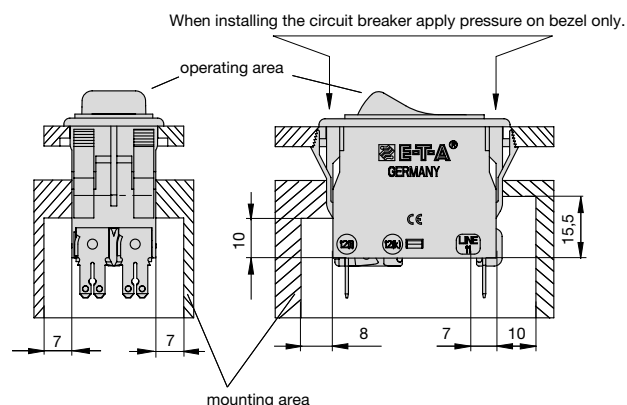


#### 3120-F301-G7

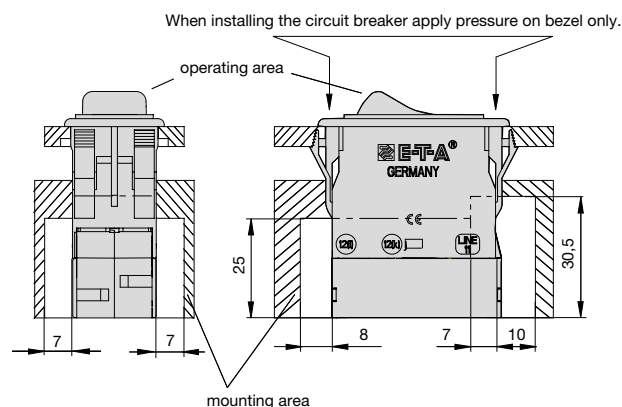


## Installation drawing

### 3120 with blade terminals



### 3120 with push-in terminals

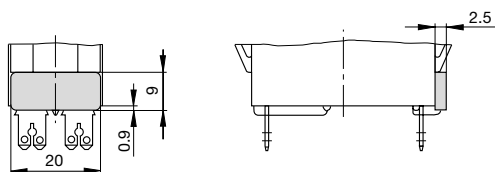


## Cable cross sections PT terminals

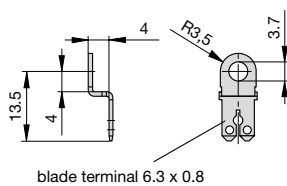
| cable                                                              | cross section with direct push-in wiring             |
|--------------------------------------------------------------------|------------------------------------------------------|
| rigid                                                              | 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

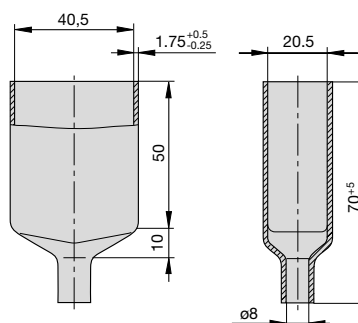
**Insulated cover**  
Y 303 068 01



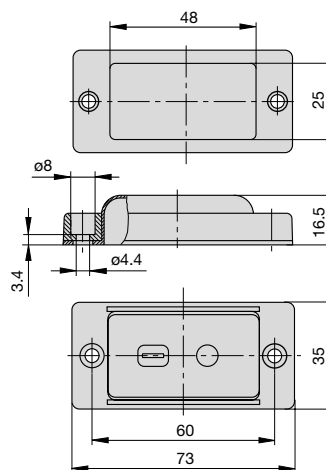
**Terminal adapter**  
Y 303 862 01



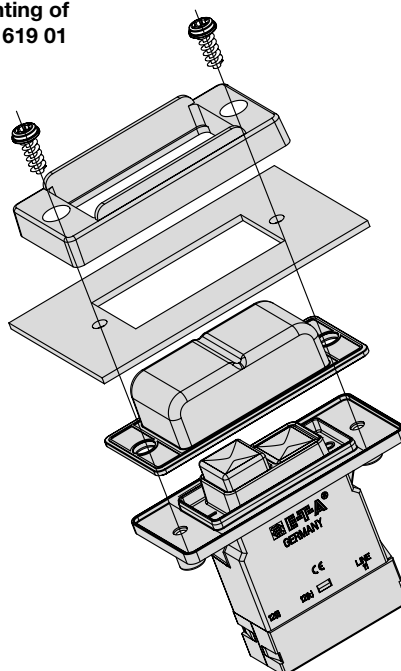
**Rear terminal shroud black (IP64)**  
Y 304 275 01



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



**Mounting of**  
X221 619 01

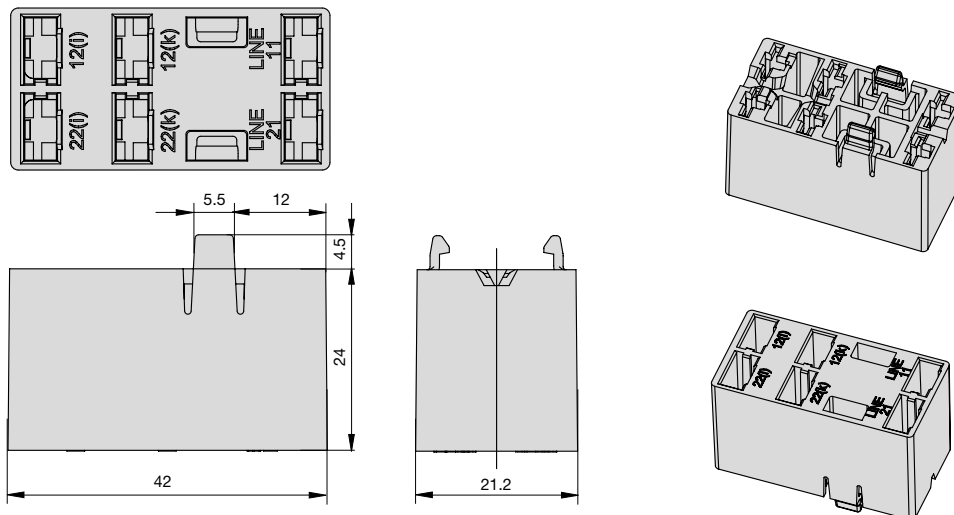


## Accessories

### 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

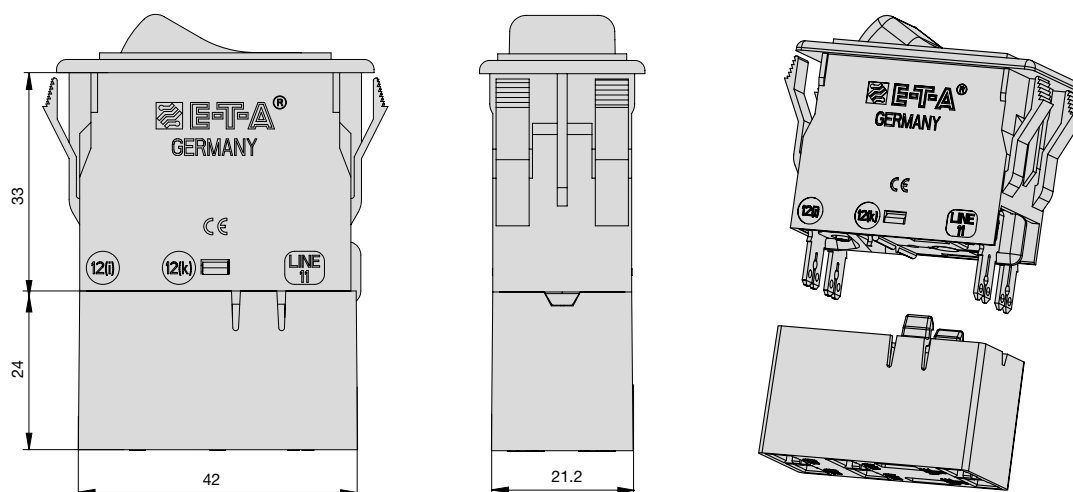
#### Note:

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.
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- Входной контроль качества.
- Наличие сертификата ISO.

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- 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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