# E-T-A 3120-F...Q1 switch only

## 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

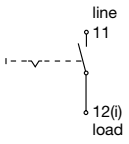
Medical and laboratory equipment, apparatus and machine construction, professional tools, household and garden appliances, offices machines, audio equipment, machine tools

## Approvals

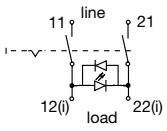
| Approval authority | Standard | Voltage rating | Current rating | Approval logos |
|---|---|---|---|---|
| VDE | IEC/EN 61058 | AC 240 V<br>DC 50 V | 16 (4) A<br>16 A: | |
| CQC | GB 17701 | AC 240 V<br>DC 50 V | 0.1 - 20 A | |

## Schematic diagrams

**1-pole**




**2-pole**



## Technical data

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

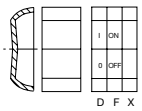
**Terminal design**
- **PT** push-in terminals
- **N7** blade terminals 6.3 x 0.8
- **G7** as N7, terminals 11 and 21 with additional flat head screws M3.5

**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

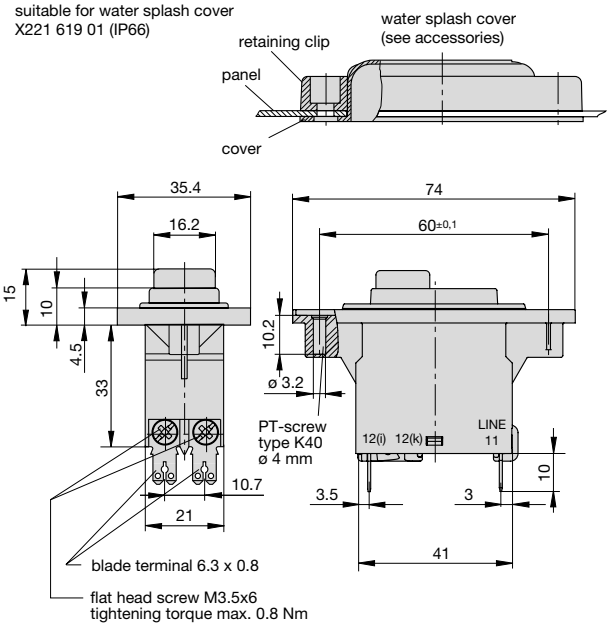
**Illumination voltage range**
(= operating voltage)
- **1** DC 12 V
- **2** DC 24 V
- **3** AC 115 V
- **4** AC 230 V

**Current rating**
- **16 A**

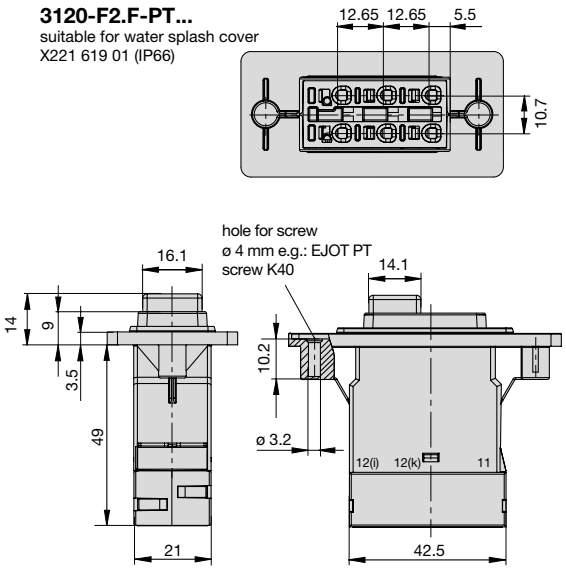
**3120 - F 2 0 F - N7 Q1 - SGRX - 16 A** ordering example

## Dimensions

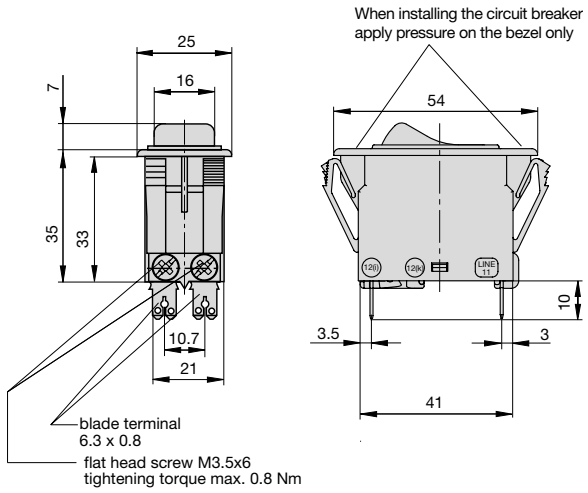
### 3120-F2.F-...
suitable for water splash cover
X221 619 01 (IP66)



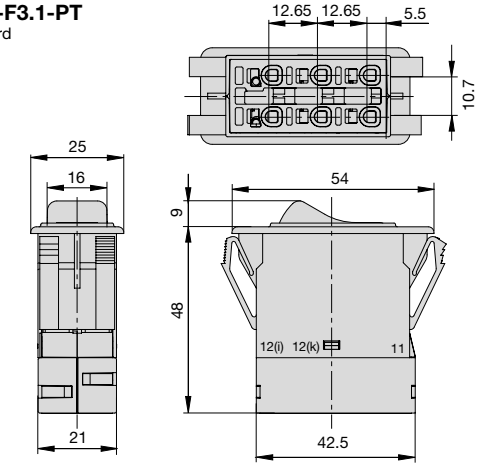

### 3120-F2.F-PT...
suitable for water splash cover
X221 619 01 (IP66)



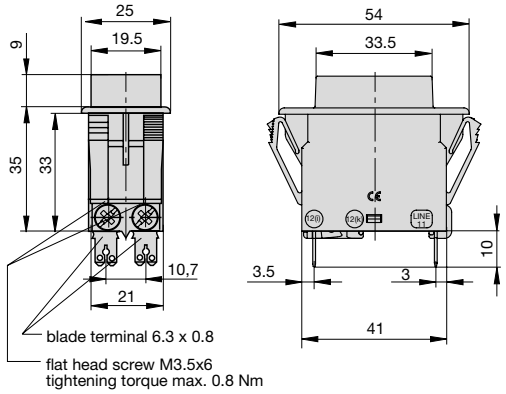

### 3120-F3.1
standard



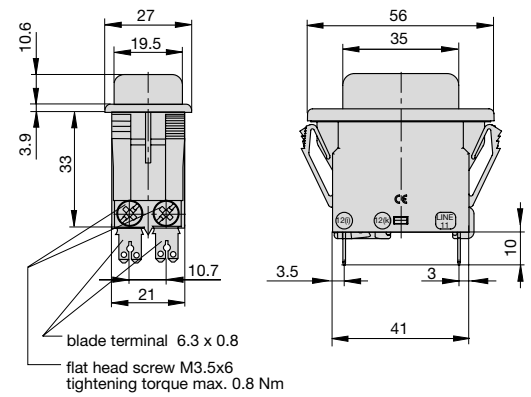

### 3120-F3.1-PT
standard




### 3120-F 3.3
with actuator guard

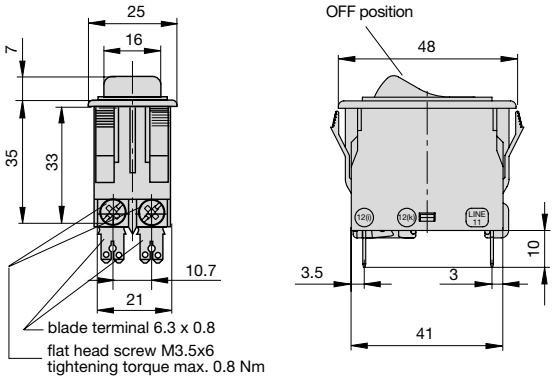



### 3120-F 3.4
with water splash protection (IP54)

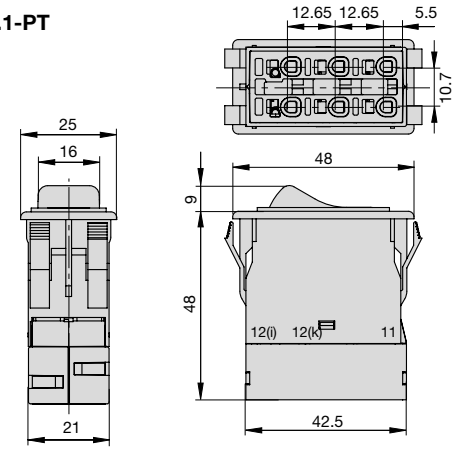


## Dimensions

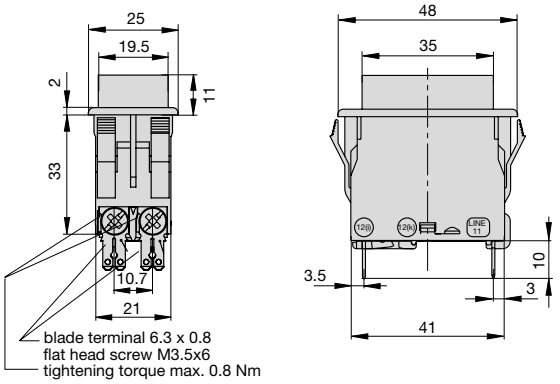
### 3120-F 5.1
standard



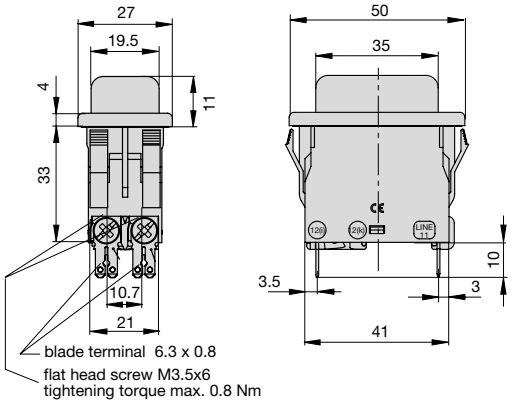

### 3120-F5.1-PT
standard




### 3120-F5.3
with actuator guard

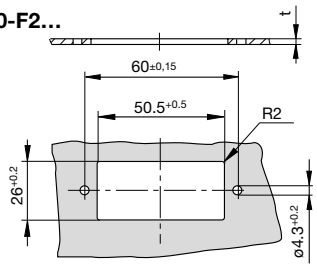



### 3120-F5.4
with water splash protection (IP54)



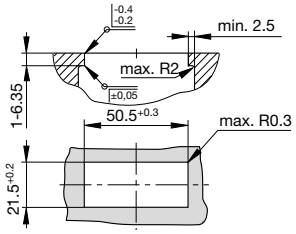
## Cut-out dimensions

**3120-F2...**

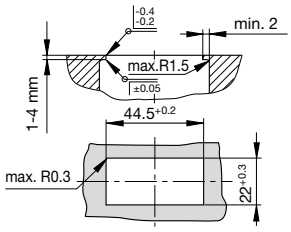



t: metal min. 2
plastic min. 3

**Cut-out -F3**




**Cut-out -F5**

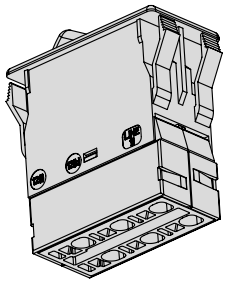



Edges of working parts: ISO13715

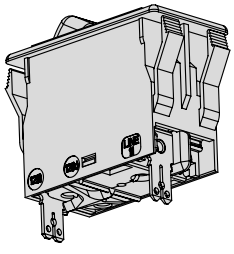
## Terminal types

**1-pole version**

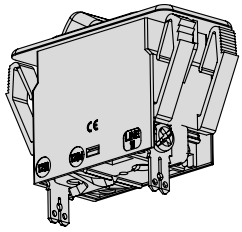
**3120-F561-PT**



**3120-F561-N7**

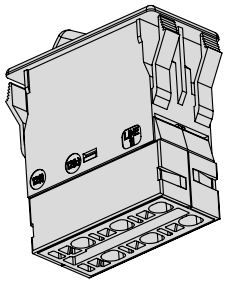


**3120-F361-G7**

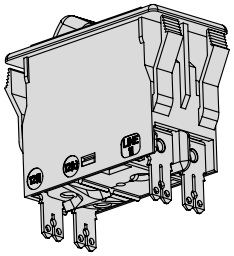


**2-pole version**

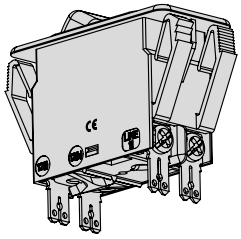
**3120-F501-PT**



**3120-F501-N7**

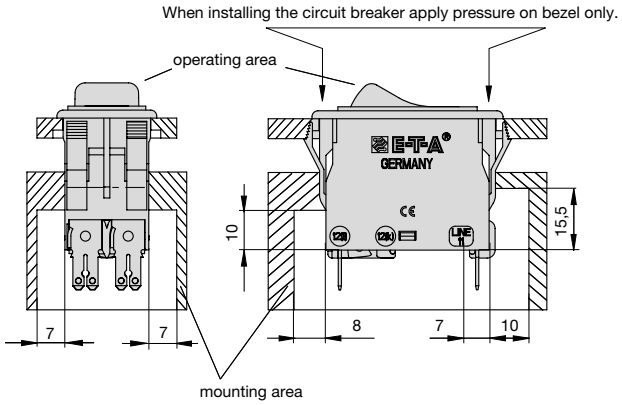


**3120-F301-G7**

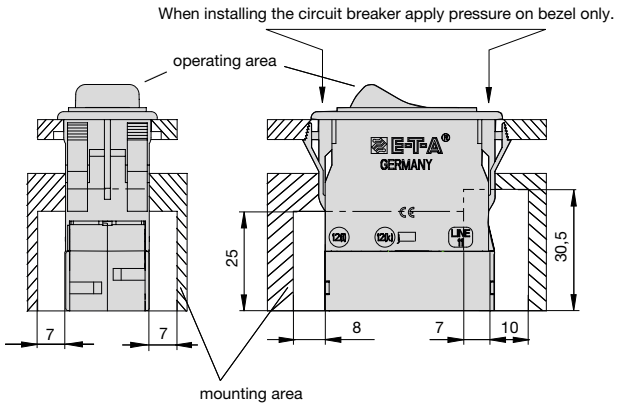


## Installation drawing

**3120 with blade terminals**




**3120 with push-in terminals**

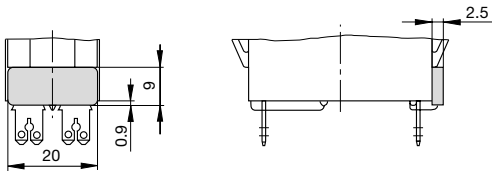



## Cable cross sections PT terminals

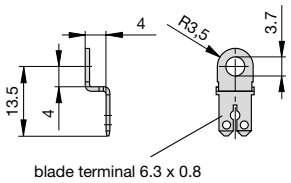
| **cable** | **cross section with direct push-in wiring** |
|---|---|
| rigid | 1…4 mm² (stripping length: 10 mm) |
| flexible with wire end ferrule (with or without plastic sleeve) | 0.5…2.5 mm² |
| **cable** | **cross section when opening the push-in terminals** |
| rigid | 0.5…4 mm² (stripping length: 10 mm) |
| flexible without wire end ferrule | 0.5…2.5 mm² |

## Accessories

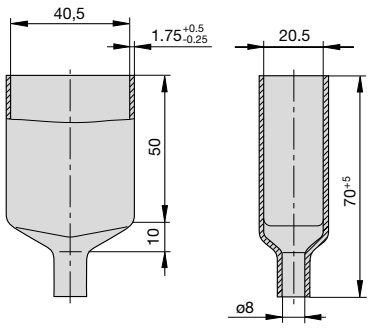
**Insulated cover**
**Y 303 068 01**



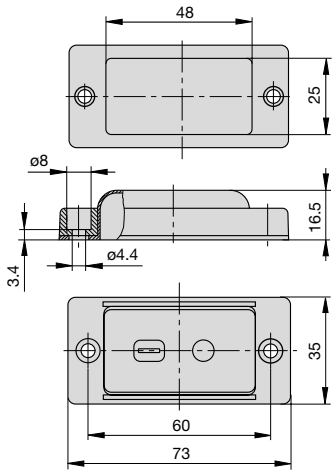

**Terminal adapter**
**Y 303 862 01**



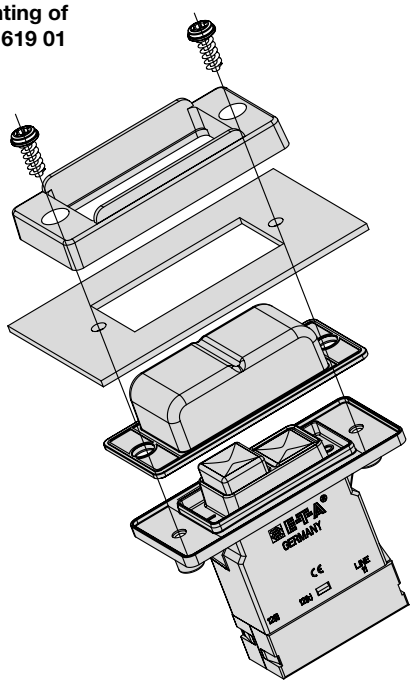

**Rear terminal shroud black (IP64)**
**Y 304 275 01**




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

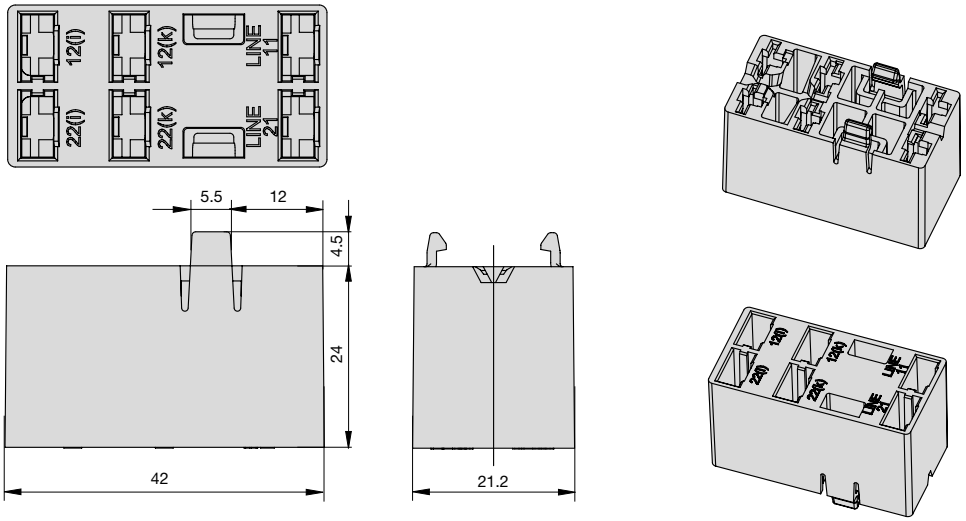



**Mounting of**
**X221 619 01**



## Accessories

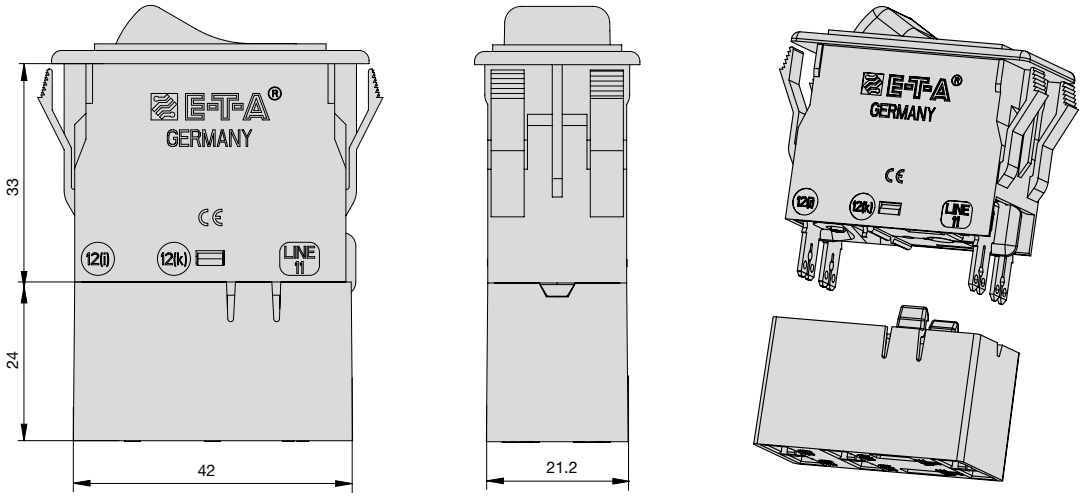
**Plug-in connector (for connection types N7 and G7)**
**Y 31214001**
Connecting cables can be pre-wired. Two retaining clips ensure a tight fit.




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 / Klaucke type 2730 / Vogt type 3832d.67 / TE FASTON Terminals 250 Series / Delphi Packard 58 Series

Plug-in connector mounted on circuit breaker:



# OCEAN CHIPS
## Океан Электроники
## Поставка электронных компонентов

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**».

AVIC 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).

FORSTAR®

Телефон: 8 (812) 309-75-97 (многоканальный)
Факс: 8 (812) 320-03-32
Электронная почта: ocean@oceanchips.ru
Web: http://oceanchips.ru/
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А