

## 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.

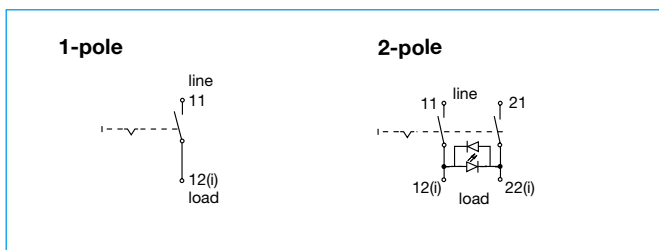
## Typical applications

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 DC 50 V	16 (4) A 16 A:	
CQC	GB 17701	AC 240 V DC 50 V	0.1 - 20 A	

## Schematic diagrams

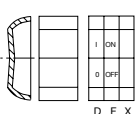


## Technical data

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 with water splash cover IP54 or IP66	
Terminal area	IP00 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) approx. 27 g (1-pole) 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**

<b>Type No.</b>	
3120 switch with rocker actuation	
<b>Mounting</b>	
<b>F3</b>	snap-in, mounting cut-out 50.5 x 21.5 mm
<b>F5</b>	snap-in, mounting cut-out 44.5 x 22 mm
<b>Number of poles</b>	
<b>0</b>	2-pole
<b>6</b>	1-pole
<b>Style</b>	
<b>1</b>	standard
<b>3</b>	with actuator guard
<b>4</b>	with water splash protection (IP54)
<b>Terminal design</b>	
<b>PT</b>	push-in terminals
<b>N7</b>	blade terminals 6.3 x 0.8
<b>G7</b>	as N7, terminals 11 and 21 with additional flat head screws M3.5
<b>Version</b>	
<b>Q1</b>	switch only
<b>Actuator style</b>	
<b>W</b>	rocker
<b>Rocker colour/illumination</b>	
<b>01.</b>	black opaque without illumination
<b>02.</b>	white opaque without illumination
<b>14. R</b>	red translucent with LED illumination
<b>19. G</b>	green translucent with LED illumination
<b>Marking</b>	
<b>D</b> <b>F</b> <b>Q</b> <b>X</b>	 <p>Q: 0 and 1 moulded in</p>
<b>Illumination voltage range</b> (= operating voltage)	
<b>1</b>	DC 12 V
<b>2</b>	DC 24 V
<b>3</b>	AC 115 V
<b>4</b>	AC 230 V
<b>Current rating</b>	
<b>16 A:</b>	
3120 - F 5 0 4 - N7 Q1 - W01Q - 16 A ordering example	

**Order numbering code**

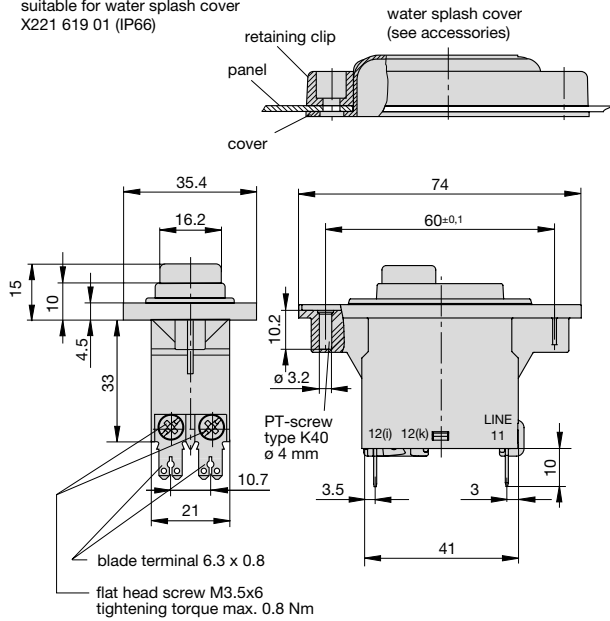
<b>Type No.</b>	
3120 switch with push button actuation	
<b>Mounting</b>	
<b>F2</b>	flange mounting, mounting cut-out 50.5 x 26 mm, suitable for water splash cover X221 619 01 (IP66)
<b>F3</b>	snap-in, mounting cut-out 50.5 x 21.5 mm
<b>Number of poles</b>	
<b>0</b>	2-pole
<b>6</b>	1-pole
<b>Style</b>	
<b>F</b>	frame with 2 push buttons
<b>Terminal design</b>	
<b>PT</b>	push-in terminals
<b>N7</b>	blade terminals 6.3 x 0.8
<b>G7</b>	as N7, terminals 11 and 21 with additional flat head screws M3.5
<b>Version</b>	
<b>Q1</b>	switch only
<b>Actuator style</b>	
<b>S</b>	two push buttons
<b>Colour of push button/illumination</b>	
<b>GRX</b>	green/red without illumination
<b>GRXG</b>	green translucent with LED illumination/red opaque without illumination
<b>Illumination voltage range</b> (= operating voltage)	
<b>1</b>	DC 12 V
<b>2</b>	DC 24 V
<b>3</b>	AC 115 V
<b>4</b>	AC 230 V
<b>Current rating</b>	
<b>16 A</b>	
3120 - F 2 0 F - N7 Q1 - SGRX - 16 A ordering example	

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**Dimensions**

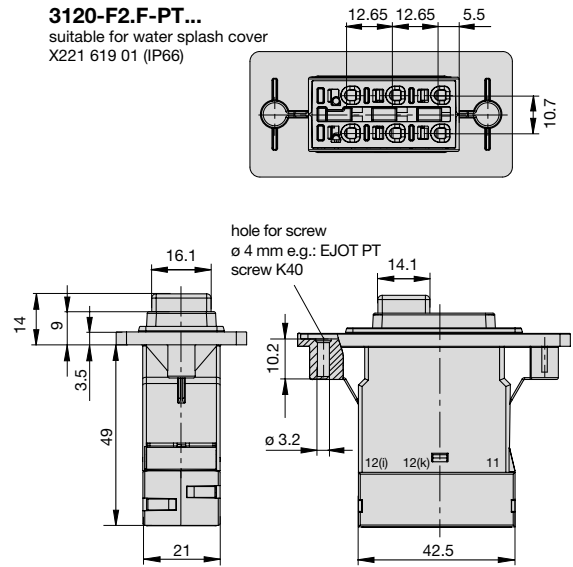
**3120-F2.F-...**

suitable for water splash cover  
X221 619 01 (IP66)



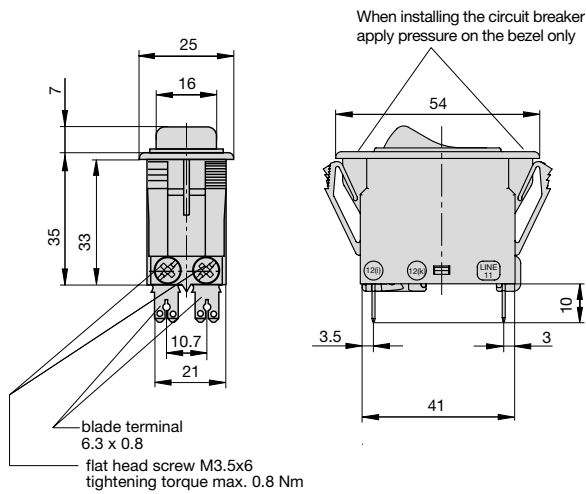
**3120-F2.F-PT...**

suitable for water splash cover  
X221 619 01 (IP66)



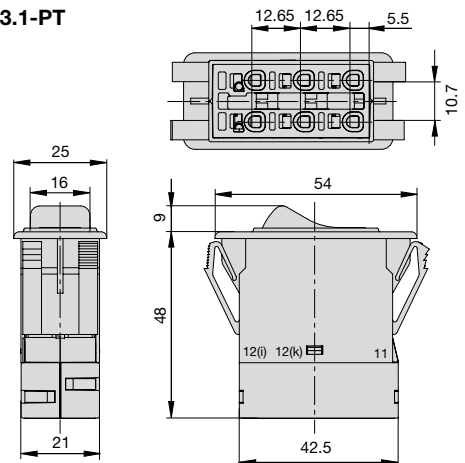
**3120-F3.1**

standard



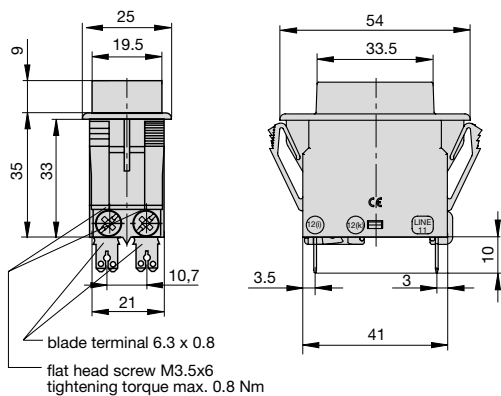
**3120-F3.1-PT**

standard



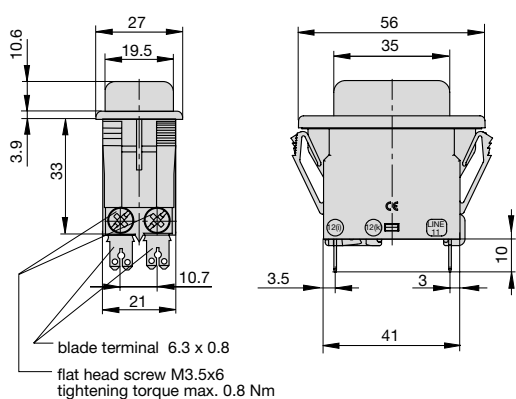
**3120-F 3.3**

with actuator guard



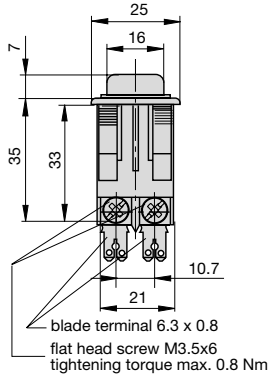
**3120-F 3.4**

with water splash protection (IP54)

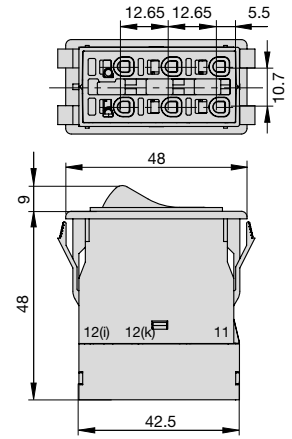


**Dimensions**

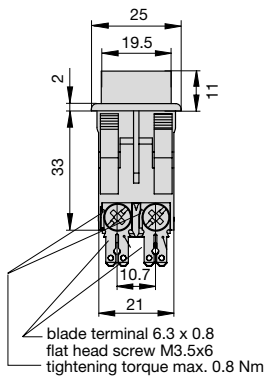
**3120-F 5.1**  
standard



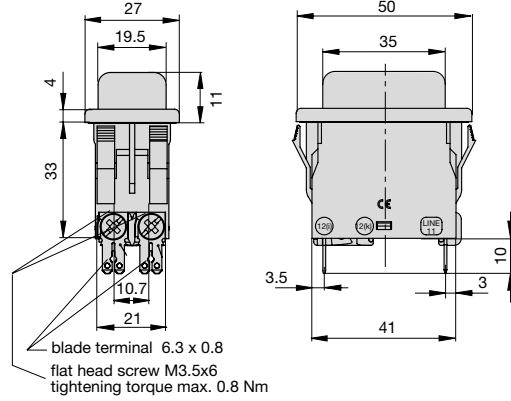
**3120-F5.1-PT**  
standard



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



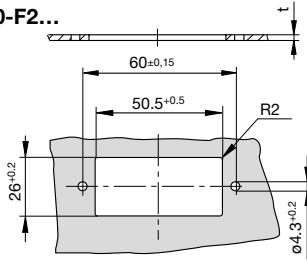
**3120-F5.4**  
with water splash protection (IP54)



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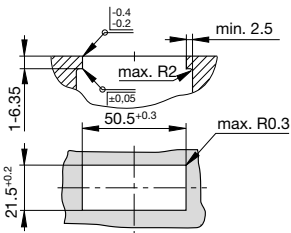
## Cut-out dimensions

### 3120-F2...

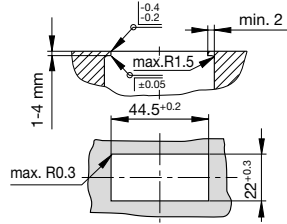


t: metal min. 2  
plastic min. 3

### Cut-out -F3



### Cut-out -F5

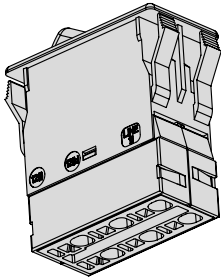


Edges of working parts: ISO13715

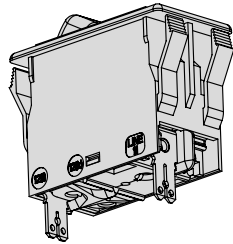
## Terminal types

### 1-pole version

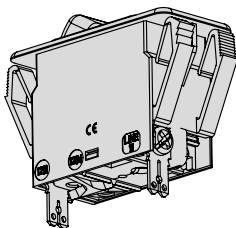
#### 3120-F561-PT



#### 3120-F561-N7

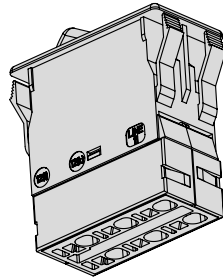


#### 3120-F361-G7

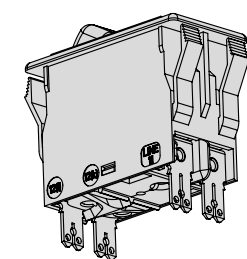


### 2-pole version

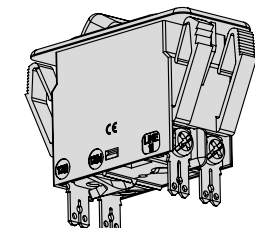
#### 3120-F501-PT



#### 3120-F501-N7

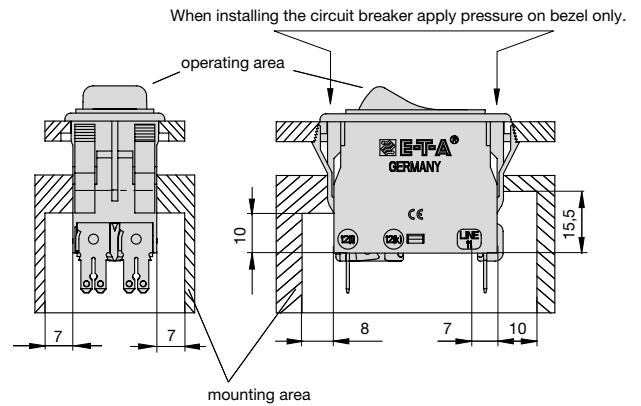


#### 3120-F301-G7

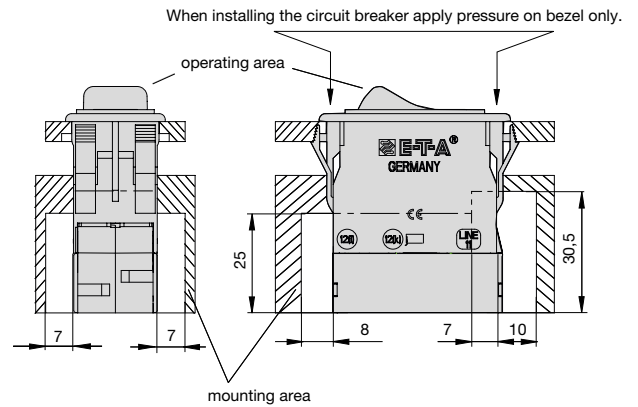


## Installation drawing

### 3120 with blade terminals



### 3120 with push-in terminals

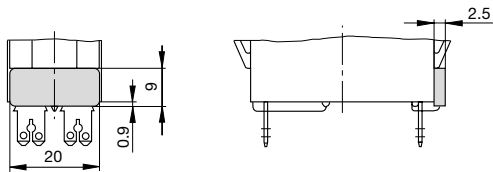


## Cable cross sections PT terminals

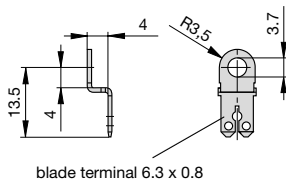
cable	cross section with direct push-in wiring
rigid	1...4 mm <sup>2</sup> (stripping length: 10 mm)
flexible with wire end ferrule (with or without plastic sleeve)	0.5...2.5 mm <sup>2</sup>
cable	cross section when opening the push-in terminals
rigid	0.5...4 mm <sup>2</sup> (stripping length: 10 mm)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

**Accessories**

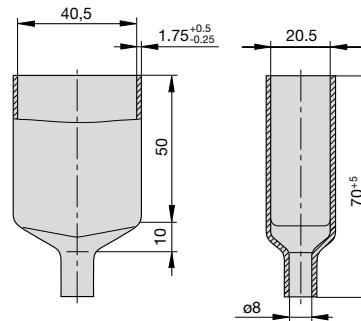
**Insulated cover  
Y 303 068 01**



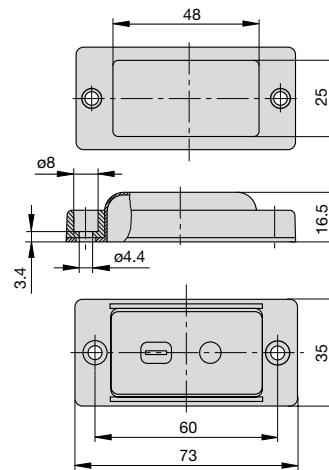
**Terminal adapter  
Y 303 862 01**



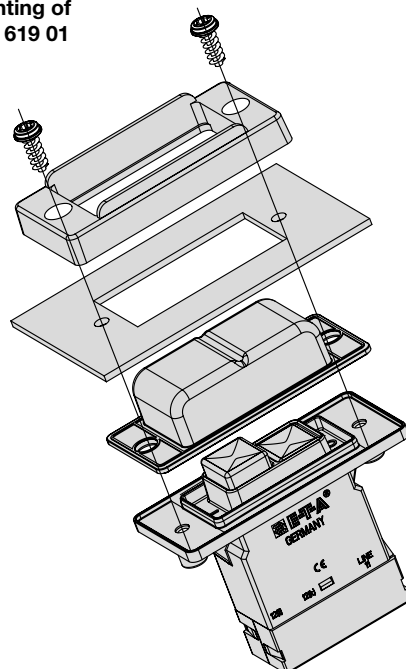
**Rear terminal shroud black (IP64)  
Y 304 275 01**



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



**Mounting of  
X221 619 01**



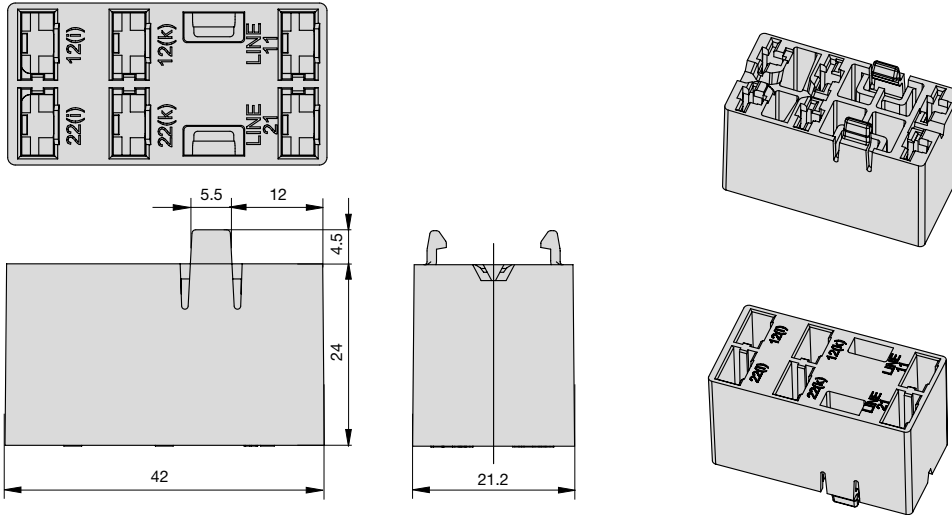
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**Accessories**

**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

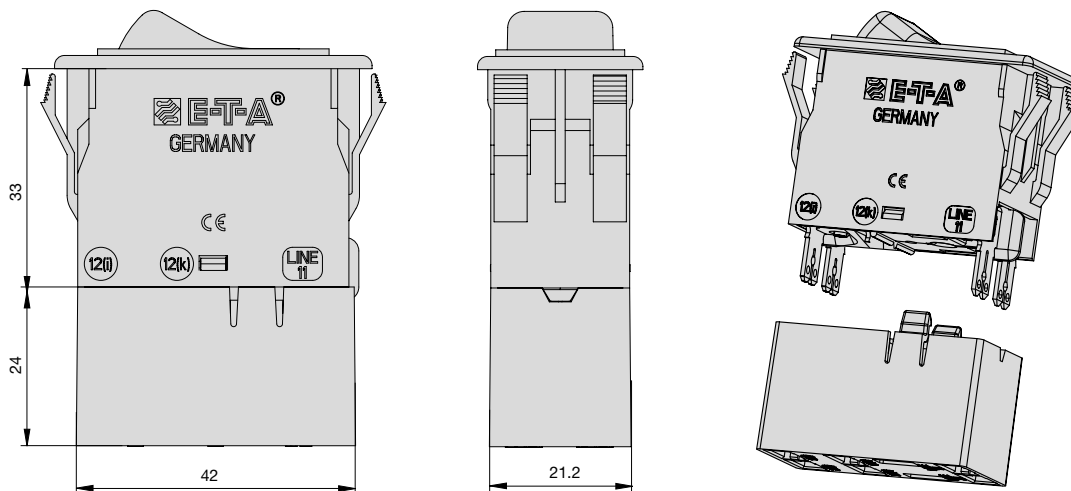
**Note:**

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:



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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
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- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
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- 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.);

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## JONHON

«JONHON» (основан в 1970 г.)

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(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:

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