

## ITEM 088223 TP4-2131K024SR11

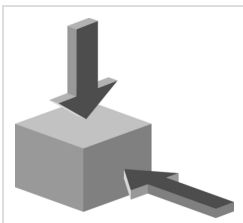
Description	Technical data	Accessories	Downloads
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### Features

- › Auxiliary release on the front
- › With door monitoring contact
- › Increased overtravel for horizontal and vertical approach direction.
- › Plug connector

### Approach direction



#### › Figure

Horizontal and vertical

Can be adjusted in 90° steps

Increased overtravel for horizontal and vertical approach direction.

### Solenoid operating voltage

- › AC/DC 24 V +10%, -15%

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## Guard locking type

**TP4** Open-circuit current principle, guard locking by applying voltage to the guard locking solenoid. Release by spring force.

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## Switching element

**2131** Slow-action switching contact 2 NC ⊖ + 1 NO + 1 NC (door monitoring contact)

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## Auxiliary release

Is used for releasing the guard locking with the aid of a tool. To protect against tampering, the auxiliary release is sealed with sealing lacquer.

## Approvals



## Mechanical values and environment

Housing material	Reinforced thermoplastic
Weight	
Net	0,5 kg
Ambient temperature	-20 ... 55 °C
Degree of protection	IP65
Mechanical life	1 x 10 <sup>6</sup>
Contact material	Silver alloy, gold flashed
Switching principle	Slow-action switching contact
Installation position	Any
Number of door position positively driven contacts	2
Number of NC contacts	1
Number of NO contacts	1
Connection	
	1 x Plug connector SR11
Approach speed	
max.	20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Open-circuit current principle
Locking force F <sub>max</sub>	1300 N
Locking force F <sub>Zh</sub>	1000 N
Retention force	10 N
Extraction force	20 N

Actuating force	10 N
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### Electrical connection ratings

Rated thermal current $I_{th}$	4 A
Utilization category according to EN 60947-5-1	AC-15 4A 50V DC-13 4A 24V
Solenoid operating voltage	AC/DC 24 V -15% ... +10%
Short circuit protection according to IEC 60269-1	(Fuse) 4A gG
Rated insulation voltage $U_i$	50 V
Rated impulse withstand voltage $U_{imp}$	1,5 kV
Switching voltage	Min. at 10mA 12 V
Switching current	Min. at 24V 1 mA
Power consumption	8 W
Solenoid duty cycle	100 %

### Reliability values acc. to EN ISO 13849-1

	<b>Monitoring of guard locking and the safety guard position</b>
B10 <sub>D</sub>	$3 \times 10^6$

### in combination with Actuator BETAETIGER-P-GT

#### Mechanical values and environment

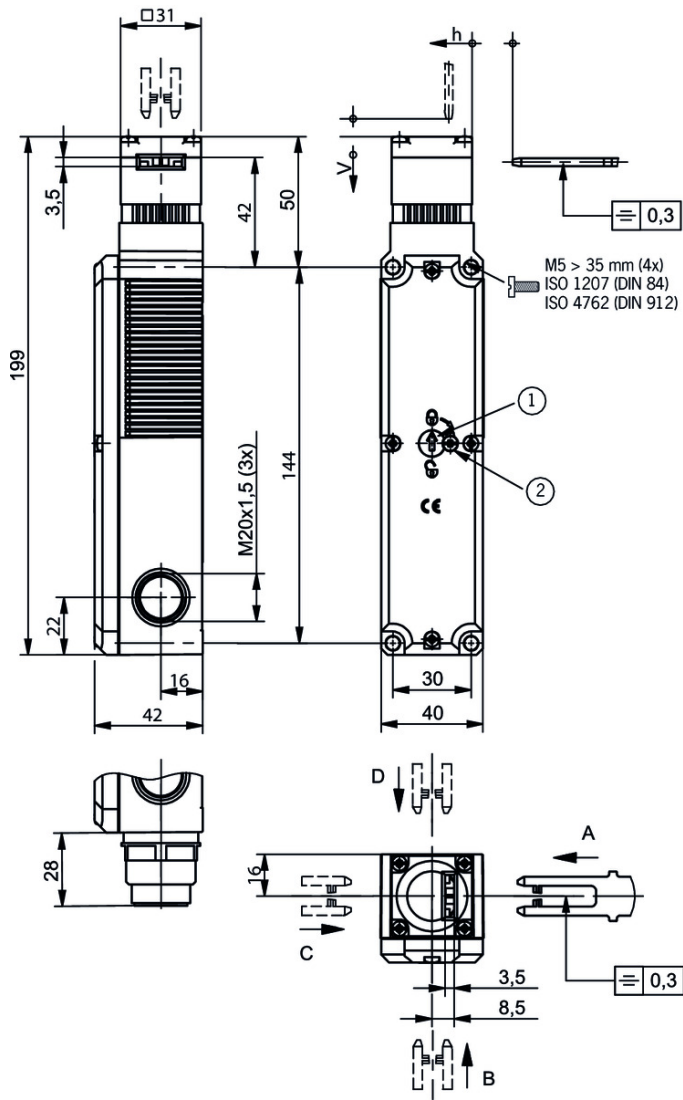
Overtravel A B C D E	2 mm
Overtravel K L M N	1,5 mm

### in combination with Actuator BETAETIGER-P-GNT

#### Mechanical values and environment

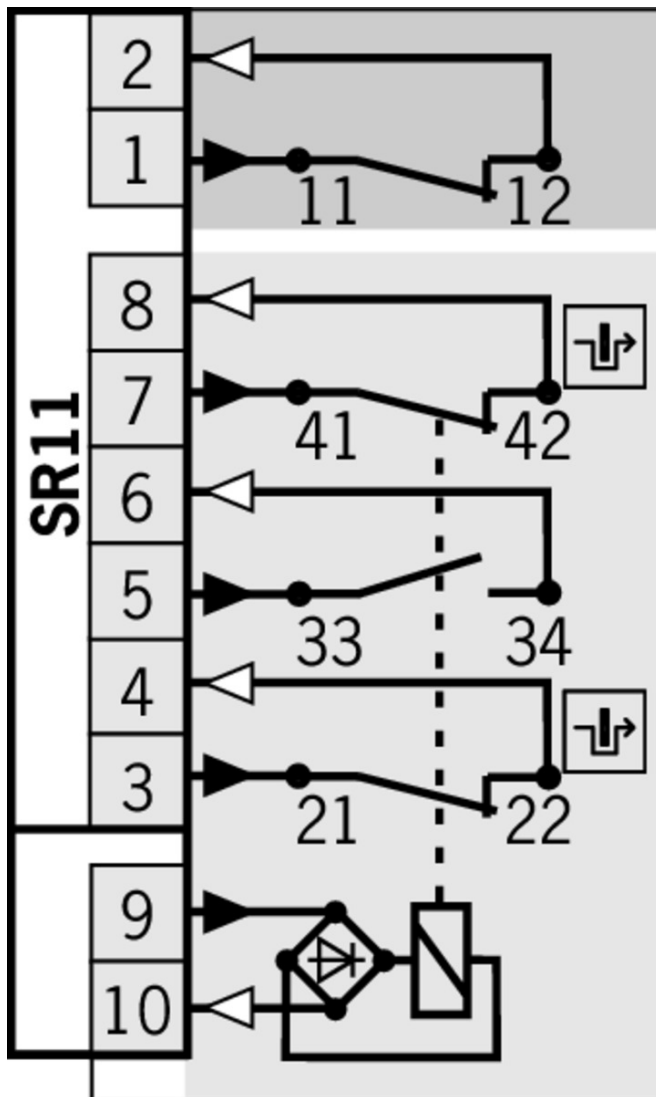
Overtravel A B C D E	7 mm
Overtravel K L M N	7 mm

## Dimension drawing



## Legende

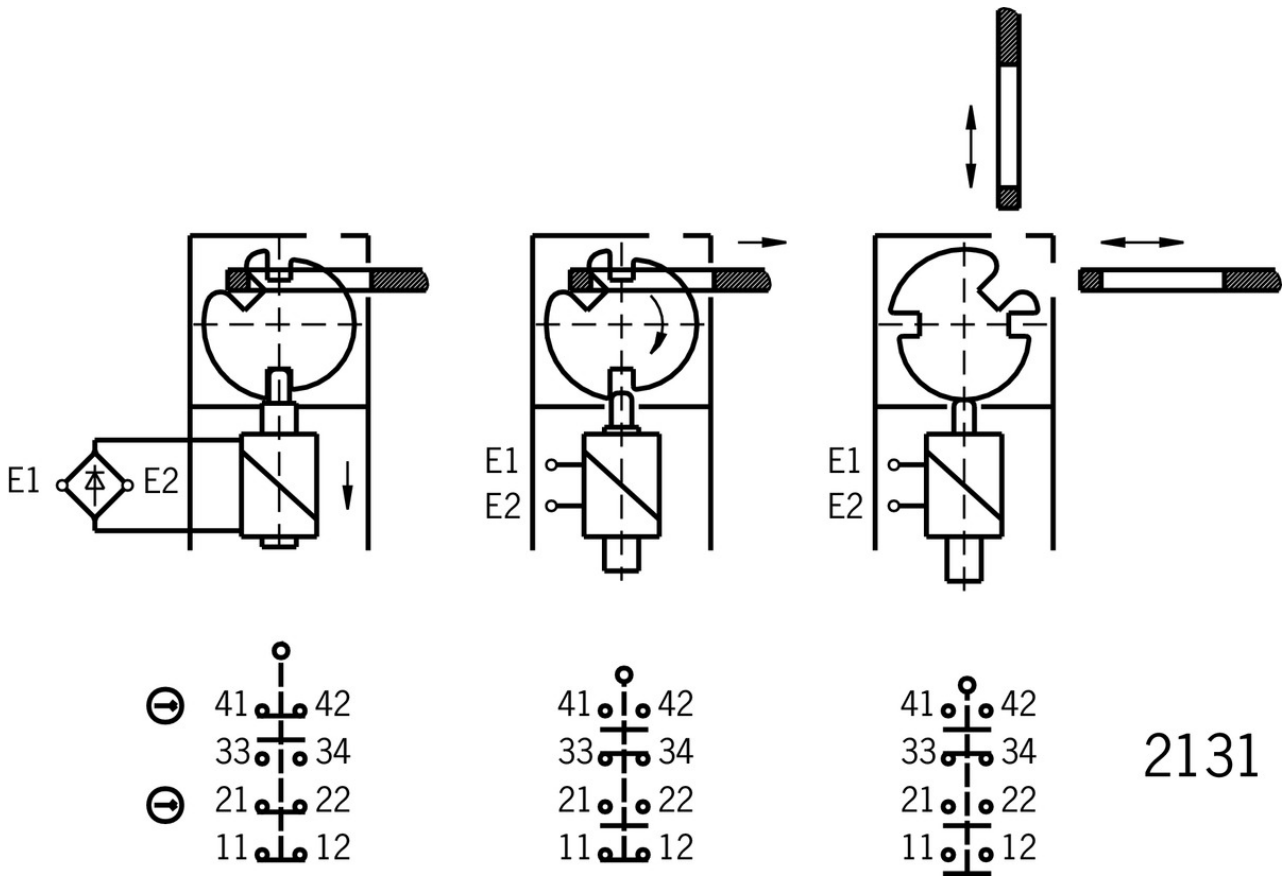
- 1 Auxiliary release
- 2 Locking screw



**Legende**

- Solenoid monitoring
- Door monitoring

## Switching functions



2131

## Actuator

- Actuators for safety switches NP/GP/TP, increased overtravel



### 074570 BETAETIGER-P-GN

#### Features

- Actuators made of stainless steel
- Two stainless safety screws per actuator



### 074576 BETAETIGER-P-GNT

#### Features

- Actuators made of stainless steel
- Two stainless safety screws per actuator
- Actuators with rubber bushings

- Bent actuator for safety switches NP/GP/TP, increased overtravel



### 074571 BETAETIGER-P-WN

#### Features

- Actuators made of stainless steel
- Two stainless safety screws per actuator



### 074577 BETAETIGER-P-WNT

#### Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › Actuators with rubber bushings
- 

▼ Bent actuator for safety switches NP/GP/TP



**070038** BETAETIGER-P-WT

▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › Actuators with rubber bushings
- 



**059227** BETAETIGER-P-W

▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
- 

▼ Actuators for safety switches NP/GP/TP



**070046** BETAETIGER-P-GT

▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › Actuators with rubber bushings
- 



**059226** BETAETIGER-P-G

▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
- 

▼ Hinged actuator top/bottom for safety switches NP/GP/TP



**070050** RADIUSBETAETIGER-P-OU

▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › For doors hinged at top and bottom
- 

▼ Hinged actuator left/right for safety switches NP/GP/TP



**059440** RADIUSBETAETIGER-P-LR

▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › For doors hinged on right and left
- 

▼ Hinged actuator left/right for safety switches NP/GP/TP, increased overtravel

**074573** RADIUSBETAETIGER-P-LRN

▼ Features



- › Actuators made of stainless steel
- › Two stainless safety screws per actuator
- › For doors hinged on right and left

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▼ Hinged actuator top/bottom for safety switches NP/GP/TP, increased overtravel



**074572** RADIUSBETAETIGER-P-OUN

▼ Features

- › Actuators made of stainless steel
- › Two stainless safety screws per actuator
- › For doors hinged at top and bottom

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## Function expansion

▼ Wire front release



**096230** AE-B-A1-02,0-096230

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 2 m (rope length 6 m)



**098313** AE-B-A1-03,0-098313

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 3 m (rope length 6 m)



**098314** AE-B-A1-04,0-098314

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 4 m (rope length 6 m)



**097747** AE-B-A1-02,0-F-097747

▼ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Sheath length 2 m (rope length 6 m)



**111233** AE-B-A1-03,0-F-111233

▼ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Sheath length 3 m (rope length 6 m)



**124770** AE-B-A1-06,0-F-124770

▼ Features

- › Can be used as escape release or emergency unlocking

- › automatic return
- › Rope length 6 m (without sheath)



**125582** AE-B-A1-06,0-125582

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Rope length 6 m (without sheath)

▼ Handle for wire front release



**099795** AY-HDL-099795

▼ Features

- › Suitable for all wire front releases

▼ Lock for auxiliary release for safety switches CTP/TP/STP



**109212** SCHLOSS TP GLEICHSCHLIESSEND C2293

▼ Features

- › Identical locking
- › Key can be removed only in “locked” position



**086236** SCHLOSS TP GLEICHSCHLIESSEND

▼ Features

- › Identical locking
- › Key removable in “unlocked” and “locked” positions



**084177** SCHLOSS TP VERSCHIEDENSCHLIESSEND

▼ Features

- › Lock unique locking
- › Key removable in “unlocked” and “locked” positions

▼ Built-in LED



**095510** EINBAULEUCHTE LED-F M20X1,5



**087423** EINBAULEUCHTE LED M20X1,5

▼ Lockout bar NP/GP/TP

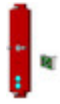


**096105** SPERREINSATZ TP

▼ Features

- › Prevents unintentional closing of the door
- › Can be secured with padlocks

▼ LED set



#### **093752** TP LED SET

##### ▼ Features

- › LED set

- ▼ Emergency unlocking for safety switches CTP/TP/STP



#### **099877** NOTENTSPERRUNG TP/STP

- ▼ Release with automatic reset for safety switches CTP/TP/STP



#### **103110** ENTRIEGELUNG RUECKSTELLEND TP/STP

- ▼ Latch spring for increased retention force

#### **076501** RASTFEDER NP/TP

- ▼ Insertion funnel for safety switches NP..A/GP/TP..A



#### **086237** EINFUEHRTRICHTER-P

- ▼ Handle for escape release for safety switches TP/STP/STA



#### **105329** FE-GRIFF

## Mounting accessories

- ▼ Mounting plates EMP-SB for safety switches CTP, TP...A, STA, STP and TX



#### **093456** EMP-SB

##### ▼ Features

- › For vertical and horizontal mounting of safety switches TP...A, STA, STP and TX

- ▼ Mounting plates EMP-B1 for actuators for safety switches CTP, TP...A, STA, STP, TX and TZ



#### **093457** EMP-B1

- ▼ Mounting plates EMP-B2 for actuators for safety switches CTP, TP...A, STA, STP, TX and TZ



#### **093458** EMP-B2

▼ Safety screws M5 x 25

**073457** M5X25/V100

▼ Features

- › Safety screws M5 x 25
  - › Packaging unit 100 pieces
- 

▼ Safety screws for actuators, M5 x 10

**073455** M5X10-NIRO/V100 NZ/TZ

▼ Features

- › Safety screws M5 x 10
  - › Packaging unit 100 pieces
- 

▼ Safety screws for safety switches M4 x 14, large head

**086232** M4X14-NIRO/V100

▼ Features

- › Safety screws M4 x 14 (large head)
  - › Packaging unit 100 pieces
- 

▼ Switch bracket for bolt NP/TP



**073539** SCHALTERAUFNAHME TP

▼ Features

- › Switch bracket made of steel
  - › For doors hinged on the left or right
- 

▼ Switch bracket TP/STP GFK



**096613** SCHALTERAUFNAHME TP/STP GFK

▼ Features

- › Switch bracket made of fiber glass reinforced plastic
  - › For left or right hinged doors
- 

## Connection material

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▼ Plug connector SR11 for safety switches NZ and TZ

**070859** SR11EF

▼ Features

- › Crimp contacts
  - › Cable optional
  - › Coding shells
- 

**054773** SR11WF

▼ Features

- › Crimp contacts
- › 90° angled optional

- › Cable optional
  - › Coding shells
- 

**091296** SR11AM2-M20

▣ Features

- › Crimp contacts
  - › Cable optional
  - › Coding shells
- 

▣ Connection cable with plug connector SR11, 5m



**077629** C-M26F12-12X1,00PU05,0-MA-077629

▣ Features

- › Female plug SR11, 11-pin + PE
  - › Straight plug connector
  - › PUR cable
  - › Cable length 5 m
  - › With flying lead
- 

▣ Connection cable with plug connector SR11, 10m



**077630** C-M26F12-12X1,00PU10,0-MA-077630

▣ Features

- › Female plug SR11, 11-pin + PE
  - › Straight plug connector
  - › PUR cable
  - › Cable length 10 m
  - › With flying lead
- 

▣ Connection cable with plug connector SR11, 15m



**077631** C-M26F12-12X1,00PU15,0-MA-077631

▣ Features

- › Female plug SR11, 11-pin + PE
  - › Straight plug connector
  - › PUR cable
  - › Cable length 15 m
  - › With flying lead
- 

▣ Connection cable with plug connector SR11, 20m



**096632** C-M26F12-12X1,0PU20,0-MA-096632

▣ Features

- › Female plug SR11, 11-pin + PE
  - › Straight plug connector
  - › PUR cable
  - › Cable length 20 m
  - › With flying lead
- 

▣ Connection cable with plug connector SR11, 25m



**094749** C-M26F12-12X1,0PU25,0-MA-094749

▼ Features

- › Female plug SR11, 11-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 25 m
- › With flying lead

## Instructions

▼ Návod k použití Bezpečnostní spínač TP...

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitsschalter TP...	2084123	15-12/17		5.7 MB
Manual de instrucciones Interruptores de seguridad TP...				
Mode d'emploi pour les interrupteurs de sécurité TP...				
Operating Instructions Safety Switches TP...				
Návod k použití Bezpečnostní spínač TP...	2084123	15-12/17		1.5 MB
Driftsvejledning for sikkerhedsafbryder TP...	2084123	15-12/17		1.5 MB
Manual de instruções Chave de segurança TP...	2084123	15-12/17		1.5 MB
Istruzioni di impiego dei finecorsa di sicurezza TP...	2084123	15-12/17		1.5 MB

## Catalogs















▼ Bezpečnostní spínače s plastovým pouzdem Sicherheitsschalter mit Kunststoffgehäuse Safety Switches with Plastic Housing Interruptores de seguridad con carcasa plástica Interrupteurs de sécurité avec boîtier plastique 塑料壳体 的安全开关

	Doc. no.	Version	Language	Download
Sicherheitsschalter mit Kunststoffgehäuse	096955	11-03/18		6.6 MB
Interrupteurs de sécurité avec boîtier plastique	100677	11-03/18		6.6 MB
Interruptores de seguridad con carcasa plástica	104855	11-03/18		6.6 MB
Bezpečnostní spínače s plastovým pouzdem	121649	11-03/18		6.6 MB
Safety Switches with Plastic Housing	096956	11-03/18		6.6 MB
塑料壳体 的安全开关	116243	11-03/18		6.2 MB

## Declaration of conformity

▼ EU prohlášení o shodě

Doc. no. Version Language Download

EU-Konformitätserklärung	2077153	25-02/17		 0.3 MB
Declaración UE de conformidad				
Déclaration UE de conformité				
Dichiarazione di conformità				
EU declaration of conformity				
EU prohlášení o shodě	2077153	25-02/17		 0.5 MB
EU-overensstemmelseserklæring				
Δήλωση συμμόρφωσης της ΕΕ				
EU-vaatimustenmukaisuusvakuutus				
EU-típusbizonyítvány				
EU-conformiteitsverklaring				
Deklaracja zgodności UE				
Declaração de Conformidade UE				
Declarația de conformitate UE				
EÚ vyhlásenie o zhode				

### CAD data

CAD data for this item on TraceParts