

## ITEM 084145 TP4-2131A024M

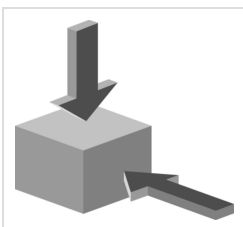
Description	Technical data	Accessories	Downloads
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### Features

- › Auxiliary release on the front
- › With door monitoring contact
- › Increased horizontal overtravel

### Approach direction



- › Figure  
Horizontal and vertical  
Can be adjusted in 90° steps  
Increased overtravel for horizontal approach direction

### Solenoid operating voltage

- › AC/DC 24 V +10%, -15%

## Guard locking type

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

## Switching element

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

## 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 figures and environment

Housing material	Reinforced thermoplastic
Ground	
	Net 0,5 kg
Ambient temperature	-20 ... 55 °C
Degree of protection	IP67
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	
	3 x M20 x 1.5
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

## Electrical connection ratings

Thermal rated current $I_{th}$	4 A
Utilization category acc. to EN 60947-5-1	AC-15 4A 230V 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 $U_i$	250 V
Rated impulse withstand voltage $U_{imp}$	2,5 kV
switching voltage	Min. at 10mA 12 V
Switching current	Min. at 24V 1 mA
Power consumption	8 W
Solenoid duty cycle	100 %
Connection cross-section	0,34 ... 1,5 mm <sup>2</sup>

## Reliability values according 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 figures and environment

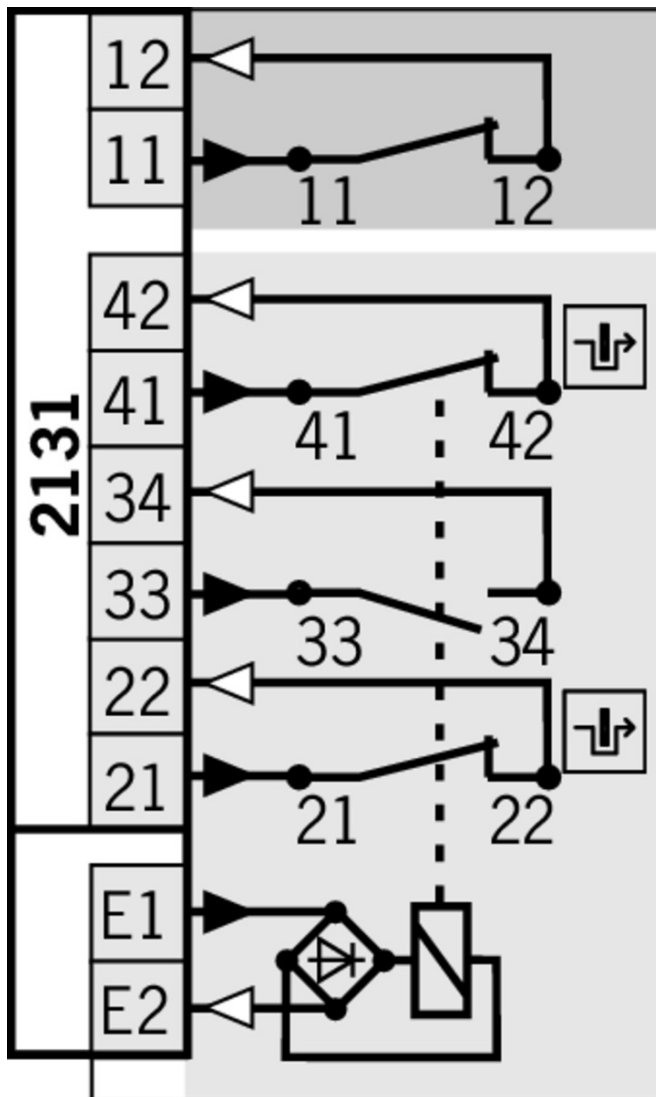
Overtravel A B C D E	2 mm
Overtravel K L M N	1,5 mm

## In combination with Actuator BETAETIGER-P-GNT

### Mechanical figures and environment

Overtravel A B C D E	7 mm
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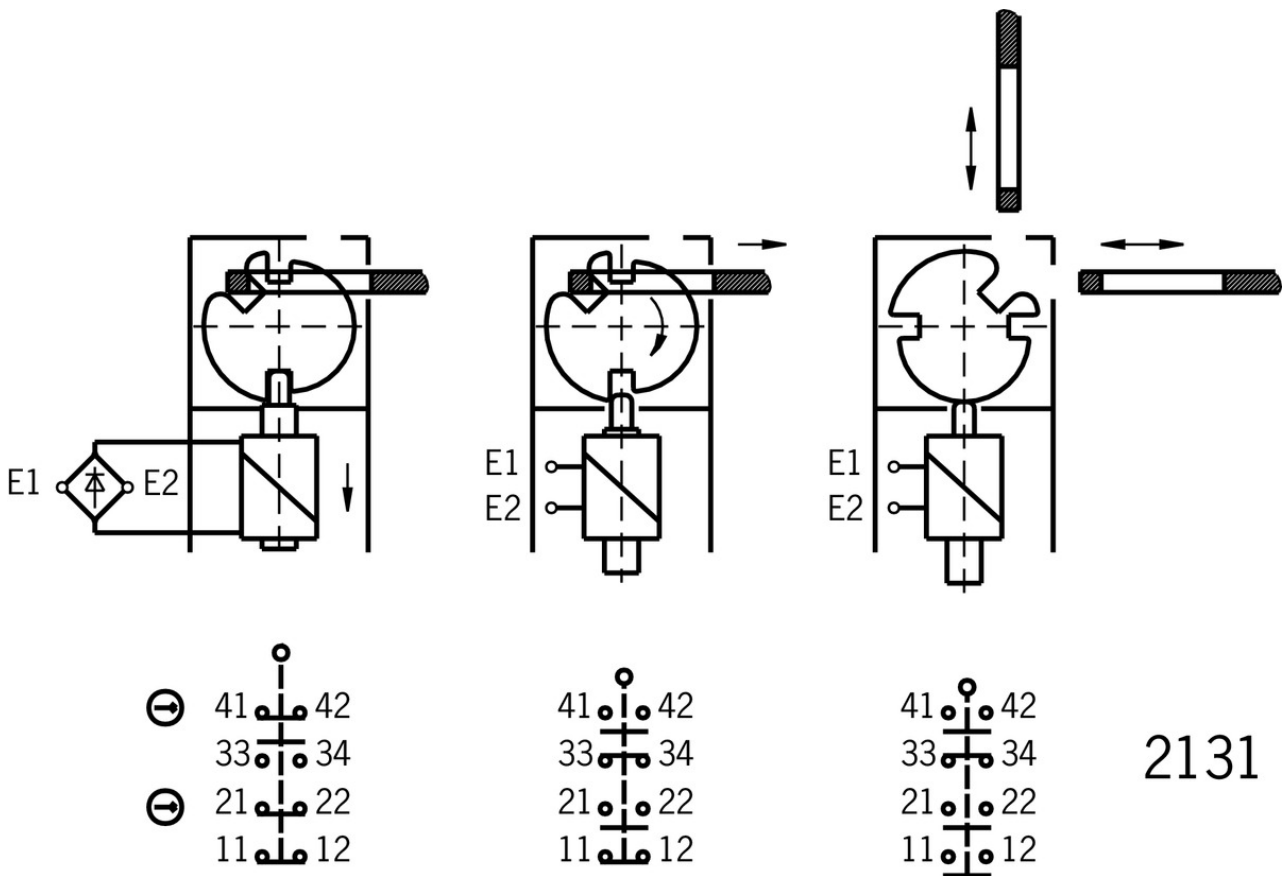




**Legende**

- Solenoid monitoring
- Door monitoring

## Switching functions



2131

## Actuator

### Actuators for safety switches NP/GP/TP



#### 059226 BETAETIGER-P-G

##### Features

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



#### 070046 BETAETIGER-P-GT

##### Features

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

### Bent actuator for safety switches NP/GP/TP



#### 059227 BETAETIGER-P-W

##### Features

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



#### 070038 BETAETIGER-P-WT

##### Features

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

▼ 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
- 

▼ 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 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
- 

▼ 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
- 

## Bolt

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▼ Bolt 0 NP/TP for safety switches NP, GP and TP



**073535** RIEGEL 0 NP/TP OHNE RASTUNG

▼ Features

- › Steel bolt
  - › For left or right hinged doors
  - › Can be locked in open position with padlocks
  - › Actuator included
- 

▼ Bolt 1 NP/TP for safety switches NP, GP and TP



**073536** RIEGEL 1 NP/TP 1X RASTUNG ZU

▼ Features

- › Steel bolt
  - › For left or right hinged doors
  - › Can be locked in open position with padlocks
  - › Actuator included
  - › Detent mechanism closed position
- 

▼ Bolt TP/GP... for safety switches GP and TP



**084430** RIEGEL TP-A

▼ Features

- › Steel bolt
  - › For doors hinged on the right
  - › Can be locked in open position with padlocks
  - › Actuator included
- 



**084432** RIEGEL TP-C

▼ Features

- › Steel bolt
  - › For doors hinged on the left
  - › Can be locked in open position with padlocks
  - › Actuator included
-



- ▼ Bolt TP-GFK for safety switches TP and GP



**096616** RIEGEL TP-GFK

▼ Features

- › Fiber glass reinforced plastic bolt
- › For left or right hinged doors
- › Can be locked in open position with padlocks
- › Actuator included

- ▼ Bolt BTC-T/GP... without escape release for safety switches GP and TP



**106301** BTC-T/GP-S-TH-00-X

▼ Features

- › Aluminum bolt
- › For left or right hinged doors
- › Can be locked in open position with padlocks
- › Actuator included

## Function expansion

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



**086237** EINFUEHRTRICHTER-P

- ▼ LED set



**093752** TP LED SET

▼ Features

- › LED set

- ▼ Built-in LED



**087423** EINBAULEUCHTE LED M20X1,5



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

- ▼ Lockout bar NP/GP/TP



**096105** SPERREINSATZ TP

▼ Features

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

- ▼ Latch spring for increased retention force

**076501** RASTFEDER NP/TP

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



**084177** SCHLOSS TP VERSCHIEDENSCHLIESSEND

▼ Features

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



**086236** SCHLOSS TP GLEICHSCHLIESSEND

▼ Features

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



**109212** SCHLOSS TP GLEICHSCHLIESSEND C2293

▼ Features

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

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▼ Emergency unlocking for safety switches CTP/TP/STP



**099877** NOTENTSPERRUNG TP/STP

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



**103110** ENTRIEGELUNG RUECKSTELLEND TP/STP

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▼ 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)

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**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

✓ 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 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 left or right hinged doors

- ▼ 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













- ▼ Cable glands M20x1.5



**086233** EKPM20/06 086233

## Instructions

- ▼ Operating Instructions Safety Switches TP...

Betriebsanleitung Sicherheitsschalter TP... Operating Instructions Safety Switches TP... Manual de instrucciones Interruptores de seguridad TP... Mode d'emploi pour les interrupteurs de sécurité TP... Istruzioni di impiego dei finecorsa di sicurezza TP...	084123	14-12/14	    	 7.1 MB
Návod k použití Bezpečnostní spínač TP...	084123	14-12/14		 2.1 MB
Driftsvejledning for sikkerhedsafbryder TP...	084123	14-12/14		 1.5 MB
Instruções de operação das chaves de segurança TP...	084123	14-12/14		 1.5 MB







## Catalogs

### ▼ Safety Switches with Plastic Housing




	Doc. no.	Version	Language	Download
Sicherheitsschalter mit Kunststoffgehäuse	096955	10-10/12		 18.8 MB
Safety Switches with Plastic Housing	096956	10-10/12		 18.7 MB
Interrupteurs de sécurité avec boîtier plastique	100677	10-10/12		 19.2 MB
Interruptores de seguridad con carcasa plástica	104855	10-10/12		 18.7 MB
Bezpečnostní spínače s plastovým pouzdem	121649	10-10/12		 6.8 MB

## Declaration of conformity

### ▼ EC-Declaration of Conformity

	Doc. no.	Version	Language	Download
EG-Konformitätserklärung EC-Declaration of Conformity CE-Declaración de Conformidad CE-Déclaration de Conformité CE-Dichiarazione di conformità	077153	24-01/16	    	 1.1 MB

### ▼ ES prohlášení o shodě

	Doc. no.	Version	Language	Download
ES prohlášení o shodě EF-overensstemmelseserklæring Δήλωση πιστότητας EK EY-vaatimuksenmukaisuusvakuutus EK-típusbizonyítvány EG-conformiteitsverklaring Deklaracja zgodności WE Declaração de Conformidade CE Declarație de conformitate CE ES vyhlásenie o zhode EF-overensstemmelseserklæring	111196	06-01/16	         	 2.7 MB

## CAD data

CAD data for this item on TraceParts