

## ITEM 104171 STA3A-2131A230M

Description	Technical data	Accessories	Downloads
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### Features

- › Auxiliary release on the front
- › With door monitoring contact

### Approach direction



- › Figure  
Horizontal and vertical  
Can be adjusted in 90° steps

### Solenoid operating voltage

- › AC 230 V +10%, -15%

### Guard locking type

**STAB3** Closed-circuit current principle, guard locking by spring force. Release by applying voltage to the guard locking solenoid.

## Switching element

**2131** Slow-action switching contact 2 NC ⊕ + 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 values and environment

Housing material	Alloy - die-cast
Weight	Net 0,6 kg
Ambient temperature	-20 ... 80 °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 NC contacts	1
Number of guard lock monitoring positively driven contacts	2
Number of guard lock monitoring NO contacts	1
Connection	3 x M20 x 1.5
Approach speed	max. 20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Closed-circuit current principle
Locking force F <sub>max</sub>	3000 N
Locking force F <sub>Zh</sub>	2300 N
Retention force	20 N
Extraction force	30 N
Actuating force	35 N
Insertion depth	min.24,5 mm

## Electrical connection ratings

Rated thermal current $I_{th}$	4 A
Utilization category according to EN 60947-5-1	AC-15 4A 230V DC-13 4A 24V
Solenoid operating voltage	AC 230 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	11 W
Solenoid duty cycle	100 %
Connection cross-section	0,34 ... 1,5 mm <sup>2</sup>

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

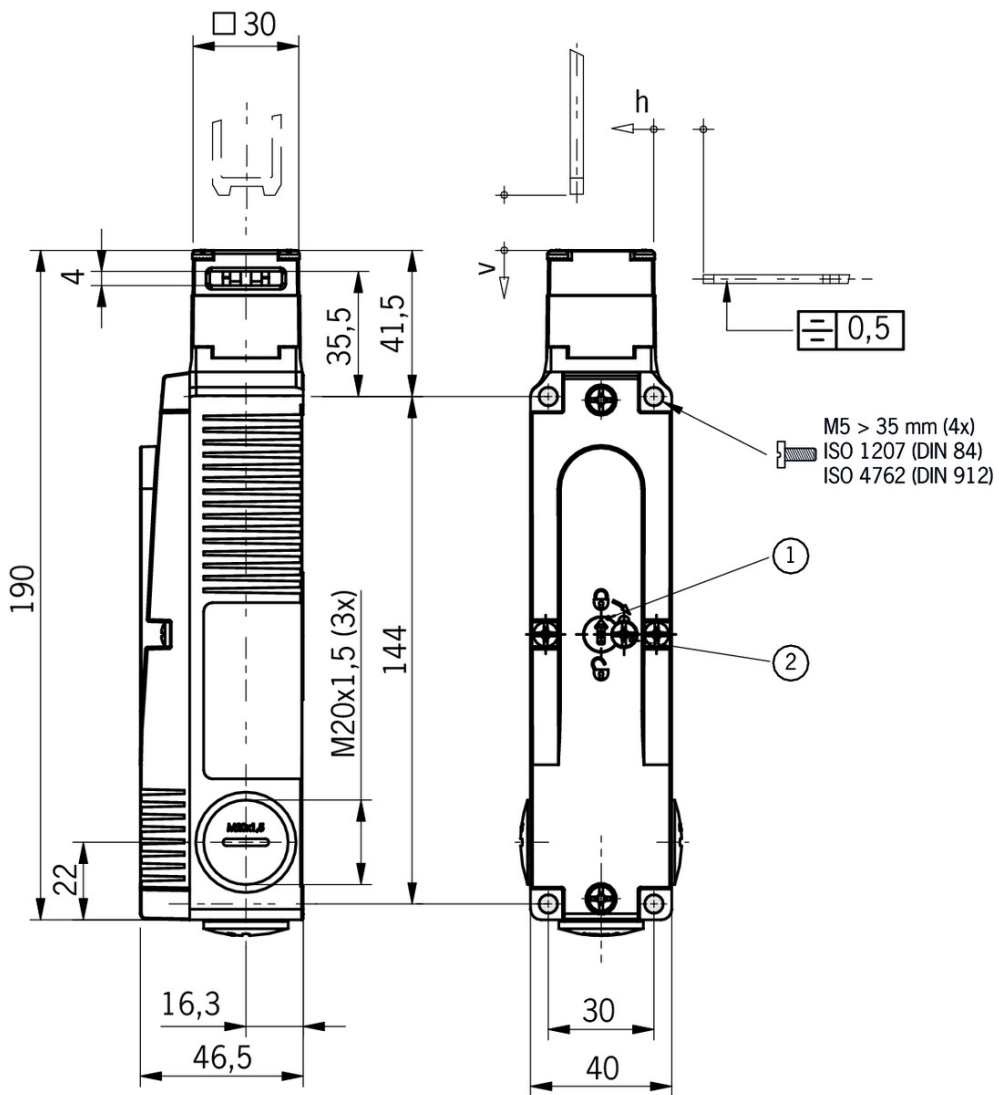
	<b>Control of the guard locking</b>
Category	Depending on external control of guard locking
Performance Level	Depending on external control of guard locking
PFH <sub>D</sub>	Depending on external control of guard locking
	<b>Monitoring of guard locking and the safety guard position</b>
B10 <sub>D</sub>	11,5 x 10 <sup>6</sup>

in combination with Actuator **BETAETIGER-S-GT-SN**

## Mechanical values and environment

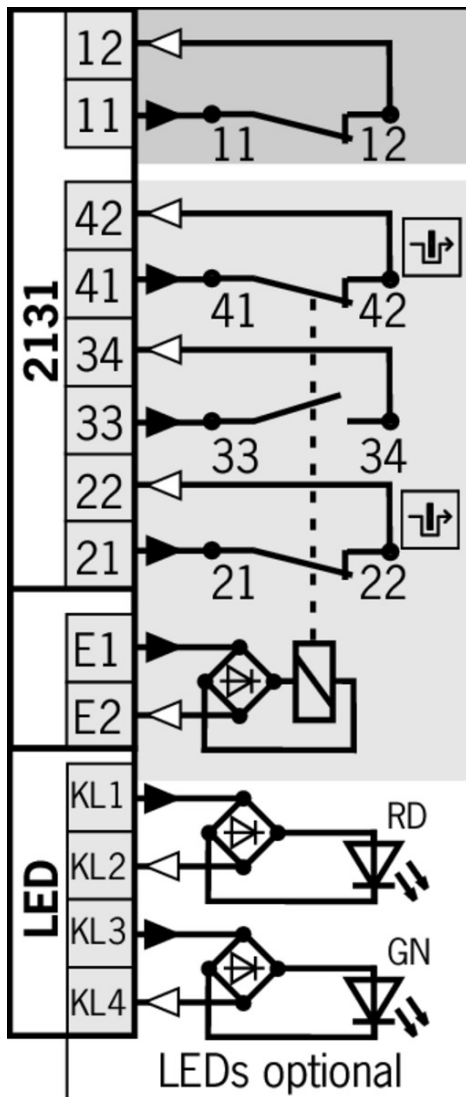
Overtravel	5 mm
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## Dimension drawing



## Legende

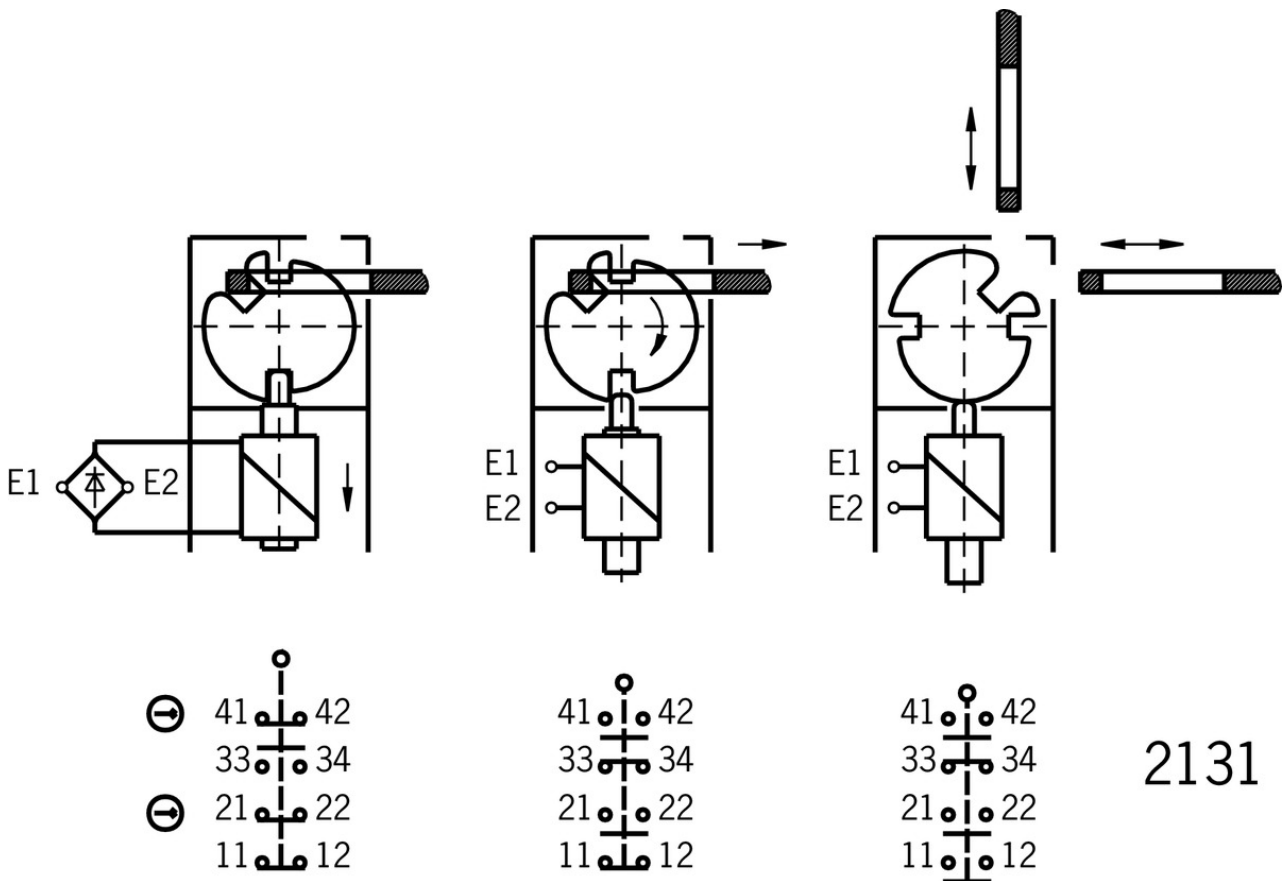
- 1 Auxiliary release
- 2 Locking screw



**Legende**

- Solenoid monitoring
- Door monitoring

## Switching functions



## Actuator

- ✓ Actuator S for safety switches SGA/SGP/STA/STP/STM



**097861** BETAETIGER-S-G-SN-C2115

✓ Features

- › Two safety screws included
- › Physically compatible with TP actuator P-G



**095738** BETAETIGER-S-GT-SN

✓ Features

- › Two safety screws included
- › Actuators with rubber bushings

- ✓ Actuator S, bent, for safety switches SGA/SGP/STA/STP/STM



**095740** BETAETIGER-S-WQT-SN

✓ Features

- › Two safety screws included

- ✓ Hinged actuator S top/bottom for safety switches SGA/SGP/STA/STP/STM

**095315** RADIUSBETAETIGER-S-OU-SN

✓ Features



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

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▼ Hinged actuator S left/right for safety switches SGA/SGP/STA/STP/STM



**096838** RADIUSBETAETIGER-S-LR-SN

- ▼ Features
  - › Actuators made of stainless steel
  - › Two safety screws included
  - › For doors hinged on right and left

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▼ Actuator L, bent, for safety switches SGA/SGP/STA/STP/STM for insertion funnel



**095741** BETAETIGER-S-WQT-LN

- ▼ Features
  - › Two safety screws included
  - › Actuators with rubber bushings

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▼ Actuator L for safety switches SGA/SGP/STA/STP/STM for insertion funnel



**095739** BETAETIGER-S-GT-LN

- ▼ Features
  - › Two safety screws included
  - › Actuators with rubber bushings

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▼ Hinged actuator L top/bottom, for safety switches SGA/SGP/STA/STP/STM for insertion funnel



**096697** RADIUSBETAETIGER-S-OU-LN

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

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▼ Hinged actuator L left/right, for safety switches SGA/SGP/STA/STP/STM for insertion funnel



**096844** RADIUSBETAETIGER-S-LR-LN

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

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## Bolt

▼ Bolt S-... for safety switches STA, STP, SGP and SGA



**096384** RIEGEL S-A

- ▼ Features
  - › Steel bolt

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



**096385** RIEGEL S-C

✓ Features

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

✓ Bolt STP-GFK for safety switches STA, STP, SGP and SGA



**098121** RIEGEL STP-GFK

✓ Features

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

✓ Bolt BTC-ST/G... without escape release for safety switches STA, STP, SGP and SGA



**106284** BTC-ST/G-S-TH-00-X

✓ Features

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

## 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

✓ 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
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## Function expansion

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### ✓ Insertion funnel for safety switches SGP/STA/STP/STM/SGA



### **093157** EINFUEHRTRICHTER-S

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### ✓ Built-in LED



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

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### **087423** EINBAULEUCHTE LED M20X1,5

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### ✓ Emergency unlocking for safety switches STA



### **099876** NOTENTSPERRUNG STA

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### ✓ Lockout bar STA/STP/SGA/SGP/STM



### **105701** SPERREINSATZ STP/STA

#### ✓ Features

- › Prevents unintentional closing of the door
  - › Can be secured with padlocks
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### ✓ Handle for escape release for safety switches TP/STP/STA



### **105329** FE-GRIFF

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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)
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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)



**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)



**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)



**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)



**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)



**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)

## Connection material

- ☑ Cable glands M20x1.5



**086233** EKPM20/06 086233

## Instructions













- ☑ Инструкция по эксплуатации Предохранительный выключатель STA...

Doc. no. Version Language Download













Betriebsanleitung Sicherheitsschalter STA... Manual de instrucciones del interruptor de seguridad STA... Mode d'emploi pour les interrupteurs de sécurité STA... Operating Instructions Safety Switch STA...	2096775	08-12/17	   	 5.8 MB
Инструкция по эксплуатации Предохранительный выключатель STA...	2096775	08-12/17		 1.7 MB
使用说明书 安全开关 STA...	2096775	08-12/17		 1.6 MB
Istruzioni d'impiego dei finecorsa di sicurezza STA...	2096775	08-12/17		 1.5 MB

## Catalogs

- Bezpečnostní spínače s plastovým pouzdrém 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 pouzdrém	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











- Sicherheitsschalter mit Metallgehäuse Safety Switches with Metal Housing Bezpečnostní spínače s kovovým pouzdrém Interrupteurs de sécurité avec boîtier métallique 金属壳体的安全开关 Interruptores de seguridad con carcasa metálica

	Doc. no.	Version	Language	Download
Sicherheitsschalter mit Metallgehäuse	100319	11-03/18		 7.9 MB
Interrupteurs de sécurité avec boîtier métallique	100676	11-03/18		 7.9 MB
Interruptores de seguridad con carcasa metálica	104856	11-03/18		 14.0 MB
Safety Switches with Metal Housing	100369	11-03/18		 7.9 MB
Bezpečnostní spínače s kovovým pouzdrém	121650	11-03/18		 7.9 MB
金属壳体的安全开关	102453	11-03/18		 8.2 MB

## Declaration of conformity

- EU prohlášení o shodě

	Doc. no.	Version	Language	Download
EU-Konformitätserklärung Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity	2077153	25-02/17	    	 0.3 MB

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			