

ITEM 098718 TZ1LB024MVAB-C2159

| Description | Technical data | Accessories | Downloads |
|-------------|----------------|-------------|-----------|
|-------------|----------------|-------------|-----------|



Features

- › Mechanical release on the front, release with a triangular key acc. to DIN 22417
- › Two LED indicators, red and green
- › Actuating head fitted left

Approach direction



- › Figure
Horizontal
Can be adjusted in 90° steps

Solenoid operating voltage and LED function display

- › 24 V AC/DC -15%, +10%

Guard locking type

TZ1 Closed-circuit current principle, guard locking by spring force. Release by applying voltage to the solenoid.

Switching elements

SK For monitoring the door/actuator position

ÜK For monitoring the guard locking (built-in solenoid)

2131H Slow-action switching contact 3 NC \ominus + 1 NO

3131H Slow-action switching contact 2 NC \ominus + 2 NO

Auxiliary release

This releases the guard locking after operation with a triangular key acc. to DIN 22417.

Approvals



Mechanical values and environment

| | |
|--|----------------------------------|
| Housing material | Anodized die-cast alloy |
| Weight | Net 1,2 kg |
| Ambient temperature | -25 ... 80 °C |
| Degree of protection | IP67 |
| Mechanical life | 1 x 10 ⁶ |
| Contact material | Silver alloy, gold flashed |
| Switching principle | Slow-action switching contact |
| Installation position | Any |
| Number of door position positively driven contacts | 3 |
| Number of door position NO contacts | 1 |
| Number of guard lock monitoring positively driven contacts | 2 |
| Number of guard lock monitoring NO contacts | 2 |
| Connection | 1 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 _{max} | 2000 N |
| Locking force F _{Zh} | 1500 N |

| | |
|------------------|-----------|
| Retention force | 10 N |
| Extraction force | 30 N |
| Actuating force | 35 N |
| Insertion depth | min.52 mm |
| Cover lid | Black |

Electrical connection ratings

| | |
|---|---|
| Rated thermal current I_{th} | 4 A [1] |
| Utilization category according to EN 60947-5-1 | AC-15 4A 230V [2] DC-13 4A 24V [3] |
| Solenoid operating voltage | AC/DC 24 V -15% ... +10% |
| Short circuit protection according to IEC 60269-1 | (Fuse) 4A gG [4] |
| 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 | 10 W |
| Solenoid duty cycle | 100 % |
| Connection cross-section | 0,34 ... 1,5 mm ² |
| LED indicator | Operating voltage corresponds to the solenoid voltage [5] |

Miscellaneous

| | |
|----------|-----------------------------------|
| C number | C2159 With mechanical release [6] |
|----------|-----------------------------------|

Reliability values acc. to EN ISO 13849-1

| | |
|-------------------|--|
| | Control of the guard locking |
| Category | Depending on external control of guard locking |
| Performance Level | Depending on external control of guard locking |
| PFH _D | Depending on external control of guard locking |
| | Monitoring of guard locking and the safety guard position |
| B10 _D | 3 x 10 ⁶ |

in combination with Actuator BETAETIGER-Z-G

Mechanical values and environment

| | |
|------------|------|
| Overtravel | 4 mm |
|------------|------|

in combination with Actuator BETAETIGER-Z-GN

Mechanical values and environment

| | |
|------------|-------|
| Overtravel | 16 mm |
|------------|-------|

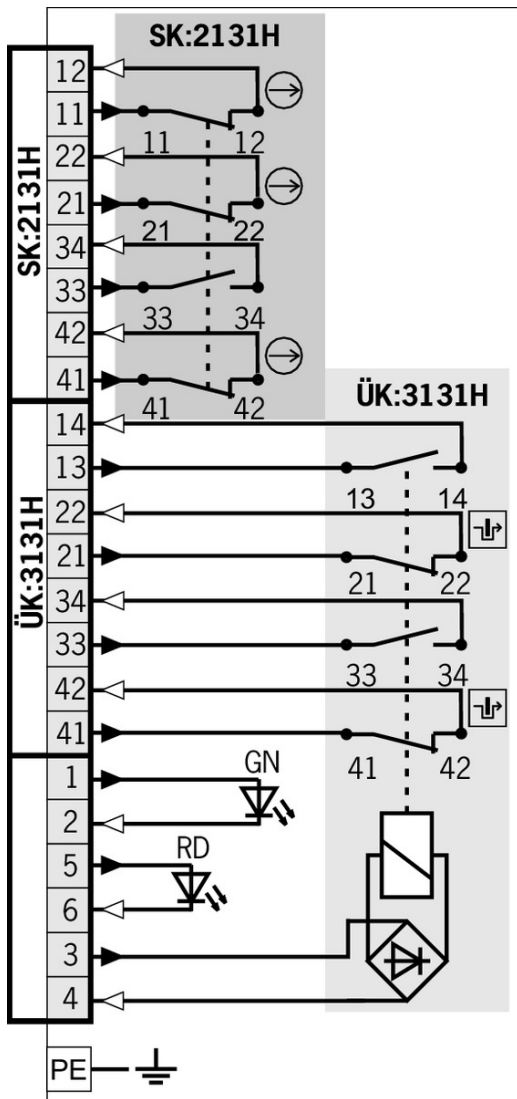
[1, 2, 3] $>70^{\circ}\text{C} \Rightarrow 2\text{A}$

[4] $> 70^{\circ}\text{C} \Rightarrow 2\text{A gG}$

[5] 2 LEDs; green, red

[6] (With triangular wedge latching)

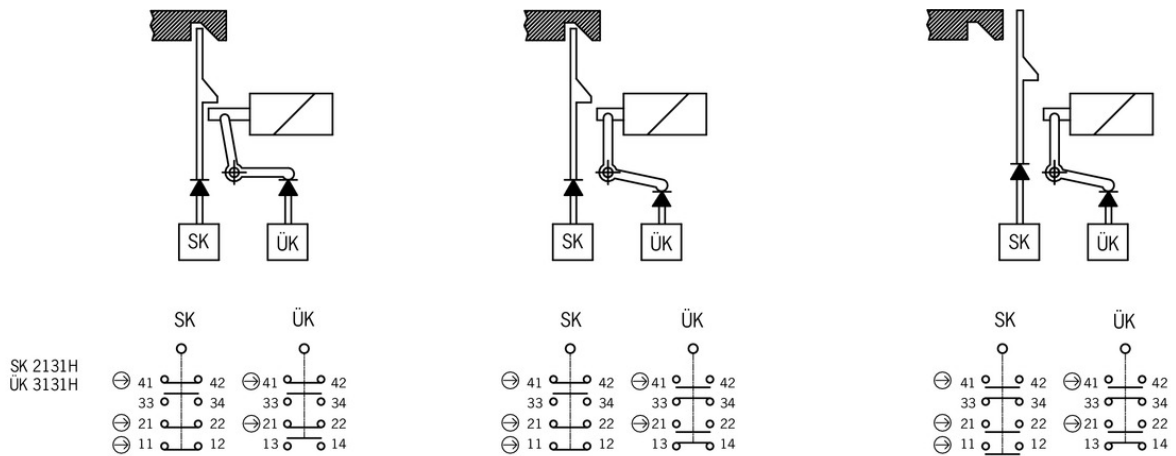
SK: 2131H / ÜK: 3131H



Legende

- Solenoid monitoring
- Door monitoring

Switching functions



Mounting accessories

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



093458 EMP-B2

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



093457 EMP-B1

- ✓ Mounting plates EMP-SA for safety switches TZ



094401 EMP-SA

- ✓ Features

- › For vertical and horizontal mounting of safety switch TZ

- ✓ 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 actuators, M5 x 16

073456 M5X16/V100

- ✓ Features

- › Safety screws M5 x 16
- › Packaging unit 100 pieces

- ▼ Safety screws M5 x 25

073457 M5X25/V100

▼ Features

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

Function expansion

- ▼ Lockout mechanism NZ.VZ/TZ, 3 holes



046730 SPERREINSATZ-Z-046730

▼ Features

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



091305 SPERREINSATZ MIT KETTE

▼ Features

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

- ▼ Lockout mechanism NZ.VZ/TZ, 5 holes

086538 SPERREINSATZ-Z-086538

▼ Features

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

- ▼ Protective plate NZ.VZ/TZ

059136 SCHUTZBLECH NZ/TZ

- ▼ Adapter NZ/TZ 45/30



079033 ADAPTER NZ/TZ 45/30

▼ Features

- › The adapter NZ/TZ 45/30 is used to compensate for different profiles, doors/frame 45/30
-

Bolt

- ▼ Bolt TZ-C... for safety switches TZ



079799 RIEGEL TZ-C-NIRO

▼ Features

- › Stainless steel bolt
- › For doors hinged on the left

- › Can be locked in open position with padlocks
- › Actuator and switch bracket included



057737 RIEGEL TZ-C

✓ Features

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



096058 RIEGEL TZ-C-NIRO-C2101

✓ Features

- › Stainless steel bolt
- › For doors hinged on the left
- › Can be locked in open position with padlocks
- › Actuator and switch bracket included



117194 RIEGEL TZ-C-NIRO-C2392

✓ Features

- › Stainless steel bolt
- › For doors hinged on the left
- › Can be locked in open position with padlocks
- › Actuator and switch bracket included

- ✓ Bolts NZ/TZ-S1 and NZ/TZ-S2 for safety switches NZ.VZ, NZ.VZ.VS and TZ



028357 RIEGEL NZ/TZ-S1

✓ Features

- › Aluminum bolt
- › For doors hinged on the left or right. Cone grip bottom.
- › Spring catch in open position
- › Can be locked in open position with padlocks
- › Actuator included



028359 RIEGEL NZ/TZ-S2

✓ Features

- › Aluminum bolt
- › For doors hinged on the left or right. Cone grip top.
- › Spring catch in open position
- › Can be locked in open position with padlocks
- › Actuator included

- ✓ Bolt BTC-TZ00... without escape release for safety switch TZ



106280 BTC-TZ00-C-TH-00-X

✓ Features

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

Actuator

▼ Hinged actuator right for safety switches NZ.VZ, NZ.VZ.VS and TZ



100406 RADIUSBETAETIGER-Z-R-C2194

▼ Features

- › Two stainless safety screws per actuator
- › Smaller door radii



024299 RADIUSBETAETIGER-Z-R

▼ Features

- › Two stainless safety screws per actuator



074412 RADIUSBETAETIGER-Z-R/V25

▼ Features

- › Two stainless safety screws per actuator
- › Packaging unit 25 pieces

▼ Hinged actuator left for safety switches NZ.VZ, NZ.VZ.VS and TZ



100407 RADIUSBETAETIGER-Z-L-C2194

▼ Features

- › Two stainless safety screws per actuator
- › Smaller door radii



024298 RADIUSBETAETIGER-Z-L

▼ Features

- › Two stainless safety screws per actuator



074413 RADIUSBETAETIGER-Z-L/V25

▼ Features

- › Two stainless safety screws per actuator
- › Packaging unit 25 pieces

▼ Hinged actuator bottom for safety switches NZ.VZ, NZ.VZ.VS and TZ



048850 RADIUSBETAETIGER-Z-U

▼ Features

- › Two stainless safety screws per actuator



074414 RADIUSBETAETIGER-Z-U/V25

▼ Features

- › Two stainless safety screws per actuator
- › Packaging unit 25 pieces

▼ Hinged actuator top for safety switches NZ.VZ, NZ.VZ.VS and TZ

057950 RADIUSBETAETIGER-Z-O



- ✓ Features
 - › Two stainless safety screws per actuator



- 074415** RADIUSBETAETIGER-Z-O/V25
- ✓ Features
 - › Two stainless safety screws per actuator
 - › Packaging unit 25 pieces

✓ Actuators for safety switches NZ.VZ, NZ.VZ.VS and TZ



- 016849** BETAETIGER-Z-G
- ✓ Features
 - › Two stainless safety screws per actuator



- 074411** BETAETIGER-Z-G/V25
- ✓ Features
 - › Two stainless safety screws per actuator
 - › Packaging unit 25 pieces



- 097436** BETAETIGER-Z-GME
- ✓ Features
 - › Made of solid stainless steel
 - › Two stainless safety screws per actuator



- 072251** BETAETIGER-Z-GN
- ✓ Features
 - › Two stainless safety screws per actuator

Connection material

✓ Cable glands M20x1.5



077684 EKVM20/09

Instructions












✓ Betriebsanleitung Sicherheitsschalter TZ...

Doc. no. **Version** **Language** **Download**

| | | | | |
|---|---------|----------|--|--|
| Betriebsanleitung Sicherheitsschalter TZ... Operating Instructions TZ... Safety Switch Manual de instrucciones del interruptor de seguridad TZ... Mode d'emploi Interrupteur de sécurité TZ... Istruzioni di impiego dei finecorsa di sicurezza TZ... | 2088062 | 09-05/18 |      |  6.9 MB |
| Instrukcja obsługi wyłącznika bezpieczeństwa TZ... | 2088062 | 09-05/18 |  |  1.8 MB |
| Manual de instruções da chave de segurança TZ... | 2088062 | 09-05/18 |  |  1.5 MB |
| Руководство по эксплуатации предохранительных выключателей TZ... | 2088062 | 09-05/18 |  |  1.9 MB |
| Návod na obsluhu – bezpečnostný spínač TZ... | 2088062 | 09-05/18 |  |  1.8 MB |
| 使用说明书安全开关 TZ... | 2088062 | 09-05/18 |  |  1.6 MB |

Catalogs

- ✓ Sicherheitsschalter mit Metallgehäuse Safety Switches with Metal Housing Bezpečnostní spínače s kovovým pouzdem 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 pouzdem | 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 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 | 2077153 | 25-02/17 |           |  0.5 MB |

CAD data

CAD data for this item on TraceParts