

STA3A-2131A024MF-EX (ORDER NO. 115584)

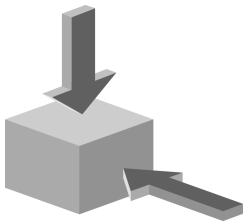
Safety switch STA with door monitoring contact, ATEX

- ▶ ATEX version
- ▶ Suitable for use in zones 2 and 22 (gases and dusts)
- ▶ Auxiliary release on the front
- ▶ With door monitoring contact



Description

Approach direction



Horizontal and vertical

Can be adjusted in 90° steps


Solenoid operating voltage

- ▶ AC/DC 24 V +10%, -15%

Guard locking type

STA3 Closed-circuit current principle, guard locking by spring force. Release by applying voltage to the guard locking solenoid.

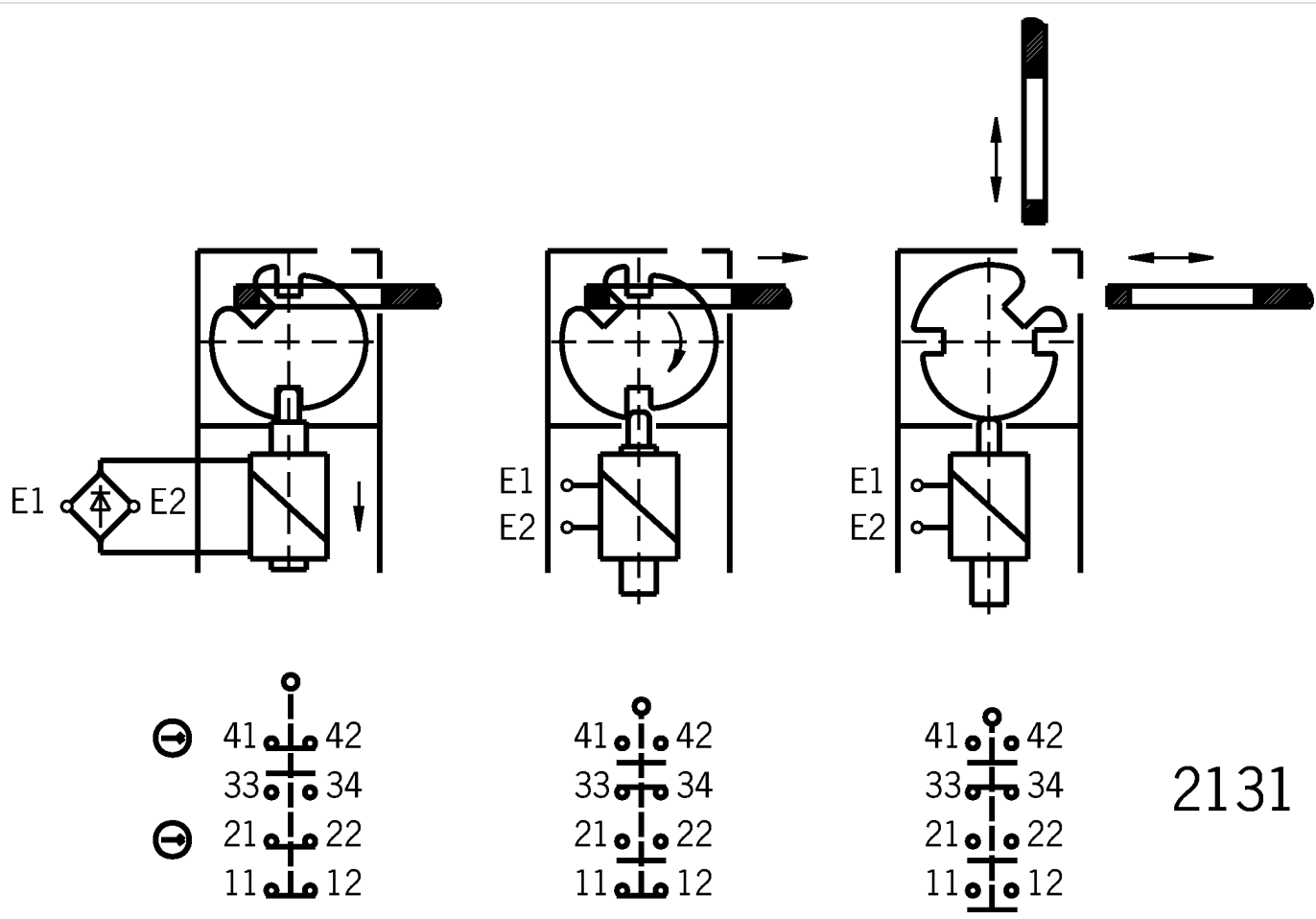
Switching element

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

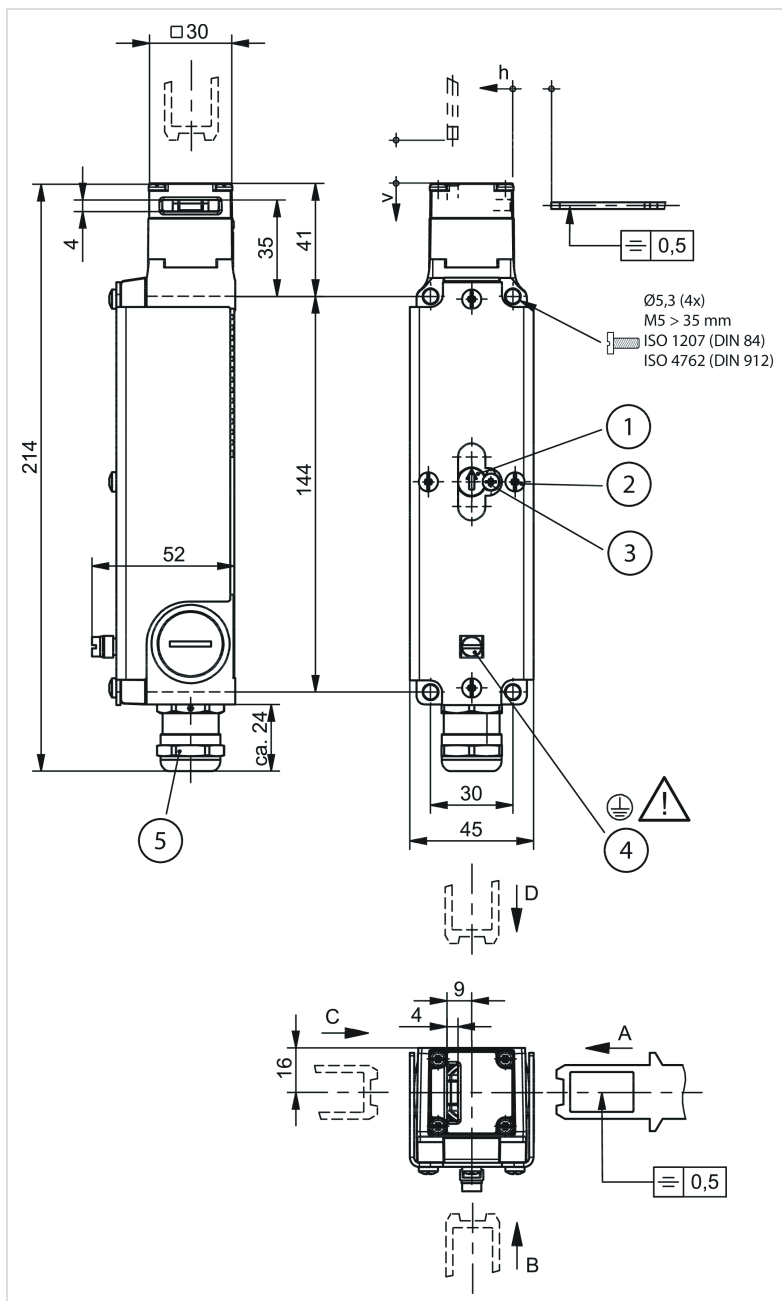
Auxiliary release

This 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.

Function drawings

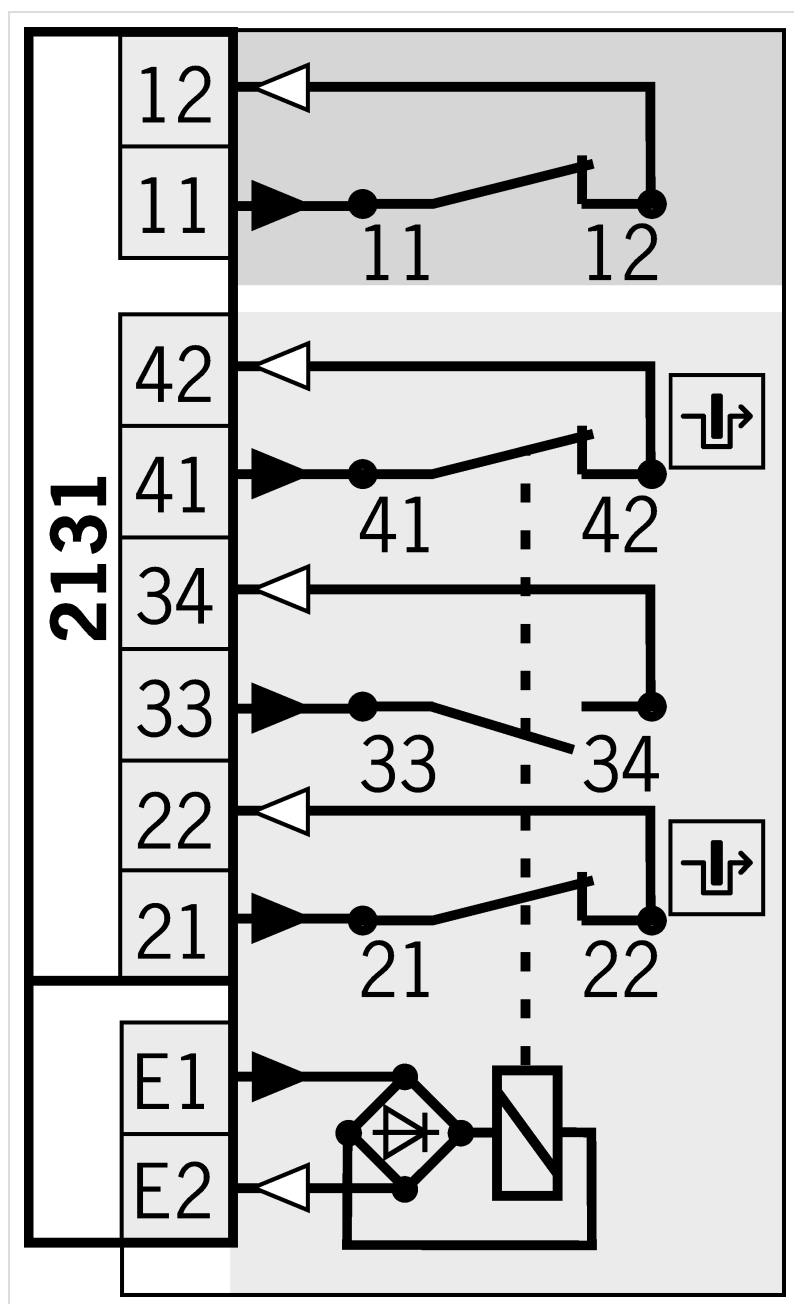


Dimension drawings



- 1 Auxiliary release
- 2 Cover screw (4x M = 1.5 Nm)
- 3 Locking screw
- 4 Ground switch via cable eye to prevent electrostatic charging, cable cross-section 4...6 mm²
- 5 Cable gland included clamping range Ø6.5 - 12 mm

Connection examples



Door monitoring

Solenoid monitoring

Technical data

Approvals



Electrical connection ratings

| | |
|---|------------------------------|
| Connection cross-section | 0.34 ... 1.5 mm ² |
| Power consumption | 8 W |
| Rated impulse withstand voltage U _{imp} | 2.5 kV |
| Rated insulation voltage U _i | 50 V |
| Short circuit protection according to IEC 60269-1 | 4A gG |
| Solenoid duty cycle | 100 % |
| Solenoid operating voltage | |
| | AC/DC 24 V -15% ... +10% |
| Switching current | |
| | min. at 24 V 1 mA |
| Switching voltage | |
| | min. at 10 mA 12 V |
| thermal rated current I _{th} | 4 A |
| Utilization category | |
| | DC-13 4A 24V |
| | AC-15 4A 50V |

Mechanical values and environment

| | |
|--|------------------------------------|
| Actuating force | 35 N |
| Actuation frequency | max. 1200 1/h |
| Ambient temperature | -20 ... +75 °C |
| Approach direction | A |
| Approach speed | max. 20 m/min |
| Clamping range for cable | 6.5 ... 12 mm |
| Connection | |
| | 3 x Cable gland M20 x 1.5 |
| Degree of protection | IP67 |
| Extraction force | 30 N |
| Guard locking principle | Closed-circuit current principle |
| Insertion depth | 24.5 mm |
| Installation orientation | any |
| Locking force F _{max} | 3000 N |
| Locking force F _{Zh} | 2300 N |
| Material | |
| | Housing Die-cast alloy |
| | Contact Silver alloy, gold flashed |
| Mechanical life | 1 x 10 ⁶ |
| Number of door position NC contacts | 1 |
| Number of guard lock monitoring NO contacts | 1 |
| Number of guard lock monitoring positively driven contacts | 2 |
| Retention force | 20 N |
| Switching principle | Slow-action switching contact |

Reliability values according to EN ISO 13849-1

| | |
|---|--|
| Control of guard locking | |
| Category | Depending on external control of guard locking |
| Performance Level | Depending on external control of guard locking |
| PFHd | Depending on external control of guard locking |
| Monitoring of guard locking and the guard position | |
| B10d | 11.5 x 10 ⁶ |

Miscellaneous

| | |
|----------------------|---|
| Explosion protection | |
| | incl. cable gland II3G Ex nR IIB T4 Gc X /II3D Ex tc IIIC T110°C Dc X |

In combination with actuator ACTUATOR-S-G-SN-C2115

| | |
|------------|------|
| Overtravel | 5 mm |
|------------|------|

Accessories

Actuator

Actuator S for safety switch SGA/SGP/STA/STP/STM



097861
BETAETIGER-S-G-SN-C2115

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

Actuator S, bent, for safety switch SGA/SGP/STA/STP/STM



115073
BETAETIGER-S-W-SN-C2115

- ▶ Two stainless-steel safety screws per actuator
- ▶ Minimum door radius 300 mm

Bent actuator S for safety switch SGA-EX/STA-EX



158407
BETAETIGER-S-WQ-SN-C2498

- ▶ Two safety screws included
- ▶ Minimum door radius 300 mm

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



096844
RADIUSBETAETIGER-S-LR-LN

- ▶ Actuator made of stainless steel
- ▶ Two stainless-steel safety screws per actuator
- ▶ For doors hinged on the right and left

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



096697
RADIUSBETAETIGER-S-OU-LN

- ▶ Actuator made of stainless steel
- ▶ Two stainless-steel safety screws per actuator
- ▶ For top-hinged and bottom-hinged doors

Hinged actuator S, left/right, for safety switch SGA/SGP/STA/STP/STM



096838
RADIUSBETAETIGER-S-LR-SN

- ▶ Actuator made of stainless steel
- ▶ Two safety screws included
- ▶ For doors hinged on the right and left

Hinged actuator S, top/bottom, for safety switch SGA/SGP/STA/STP/STM



095315
RADIUSBETAETIGER-S-OU-SN

- ▶ Actuator made of stainless steel
- ▶ Two safety screws included
- ▶ For top-hinged and bottom-hinged doors

Function expansion

Insertion funnel for safety switch SGP/STA/STP/STM/SGA



093157
EINFUEHRTRICHTER-S

Lockout bar STA/STP/SGA/SGP/STM



105701
SPERREINSATZ STP/STA

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

Metal bolt

Bolt BTM-UNIP-S... for safety switches TP, STP, STA, CTP and CTA



159951
BTM-UNIP-S-TH-00-X-159951

- ▶ Steel bolt
- ▶ For doors hinged on the left or right
- ▶ Can be locked in open position with padlocks
- ▶ Actuator not included

Contacts

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