

**ITEM 090279 TZ1RE024SEM4AS1-C1937**

Description	Technical data	Accessories	Downloads
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**Features**

- › Emergency unlocking on the front with rotary knob
- › Actuating head fitted right

**Guard locking type**

**TZ1** Closed-circuit current principle, guard locking by spring force. Release by control of AS-i output 0.

**Control of the guard locking solenoid**

The guard locking solenoid is controlled by the control system via AS-Interface bus bit D0. In addition the 24V connection can be switched safely.

**AS-Interface inputs**

**D0, D1** Door monitoring contact SK  
**D2, D3** Solenoid monitoring contact ÜK  
Evaluation is performed via a safety monitor.

**AS-Interface outputs**

- D0** Guard locking solenoid
- D1** Red LED
- D2** Green LED

### LED function display

- › The Power LED indicates the operating voltage on the bus.
- › The Fault LED indicates if a fault has been detected on the AS-Interface bus.
- › The green and the red LEDs can be controlled as required by the control system via the bus using bits D1 and D2.

### Emergency unlocking

Is used for the manual release of the guard locking without tools. The emergency unlocking mechanism must be returned to the locked state manually. A sealing wire is fitted to protect against tampering.

### Approvals



### Mechanical values and environment

Housing material	Anodized die-cast alloy
Weight	Net 1,2 kg
Ambient temperature	-25 ... 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	
According to As-i Safety at Work	1 D0,D1 [1]
Number of guard lock monitoring positively driven contacts	
According to As-i Safety at Work	1 D2,D3 [2]
Connection	
1 x	Plug connector M12 [3]
Approach speed	
max.	20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Closed-circuit current principle
Retention force	10 N
Extraction force	30 N

Actuating force	35 N
Insertion depth	52 mm

### Electrical connection ratings

ASi voltage	22,5 ... 30 V 31,6 V
ASi operating current	max.45 mA
ASi auxiliary voltage IEC 60742, PELV	24 V -15% ... +10%
ASi auxiliary current	350 mA
Solenoid duty cycle	100 %
ASi slave type	
According to ASI specification 2.1	EA code: 7
According to ASI specification 2.1	ID code: B
ASi data in	
According to ASI safety at work	D0,D1,D2,D3 [4]
ASi data out	
Guard locking solenoid	D0 [5]
LED red	D1 [6]
LED green	D2 [7]
ASi LED	
LED green	Power [8]
LED red	Fault [9]

### Miscellaneous

C number	C1937	With mechanical release, special wiring [10]
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### Reliability values acc. to EN ISO 13849-1

B10 <sub>D</sub>	3 x 10 <sup>6</sup>
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### in combination with Actuator BETAETIGER-Z-G

#### Mechanical values and environment

Overtravel	4 mm
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### in combination with Actuator BETAETIGER-Z-GN

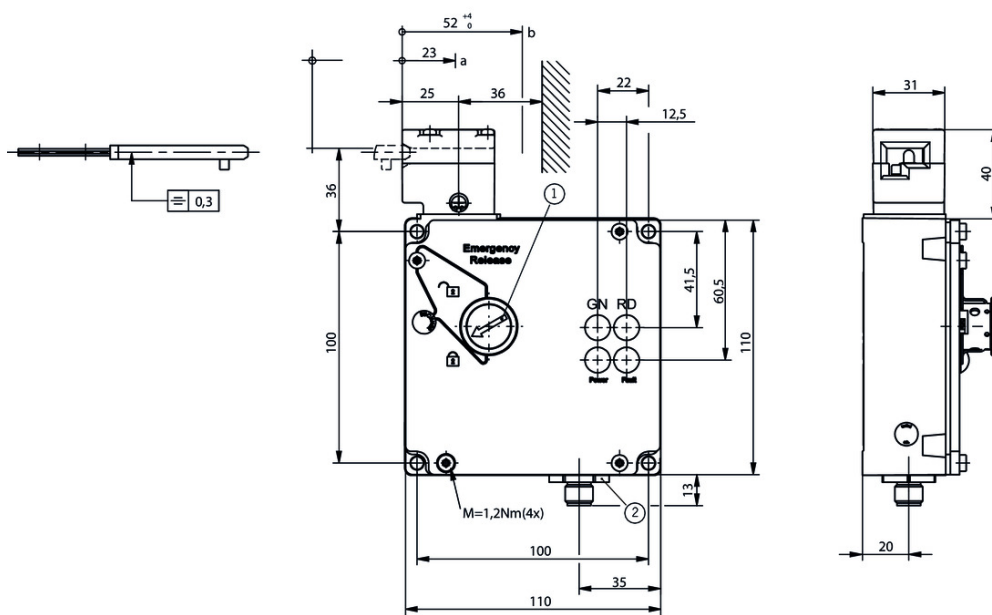
#### Mechanical values and environment

Overtravel	16 mm
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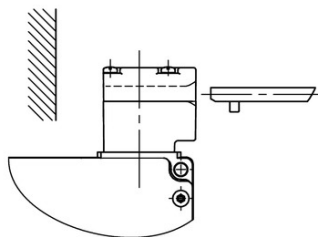
- [1] 1 = Door closed
- [2] 1 = Locked
- [3] 4-pin
- [4] See positively driven NC contact
- [5] 1 = Solenoid energized
- [6, 7] 1 = LED on
- [8] ASI voltage is present
- [9] Offline phase or address 0
- [10] (Rotary knob latching)

**Dimension drawing**

TZ.L...



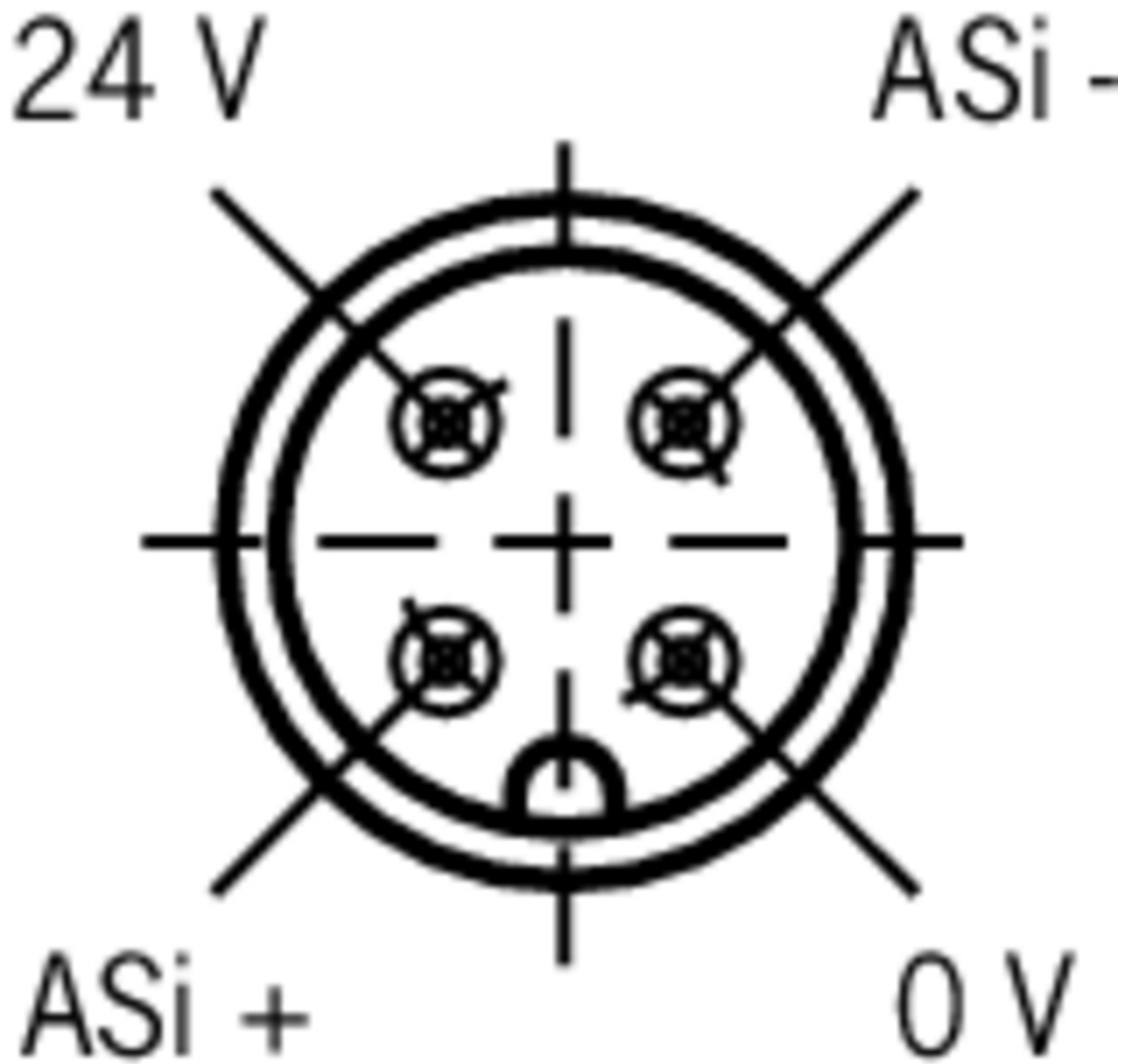
TZ.R...



**Legende**

- 1 Emergency unlocking (rotary knob)
- 2 Plug connector not aligned

## Connector assignment



## 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
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- ▼ Safety screws M5 x 25

**073457** M5X25/V100

▼ Features

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

## Function expansion

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- ▼ 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

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## Bolt

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### ✓ Bolt TZ-A... for safety switches TZ



#### **096057** RIEGEL TZ-A-NIRO-C2101

##### ✓ Features

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



#### **057736** RIEGEL TZ-A

##### ✓ Features

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



#### **079798** RIEGEL TZ-A-NIRO

##### ✓ Features

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



#### **117193** RIEGEL TZ-A-NIRO-C2392

##### ✓ Features

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

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



#### **106278** BTC-TZ00-A-TH-00-X

##### ✓ Features

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

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✓ 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
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## Spare parts

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✓ Lead seal kit

**087256** PLOMBENSATZ C1937

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## Actuator

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



**074415** RADIUSBETAETIGER-Z-O/V25

✓ Features

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



**057950** RADIUSBETAETIGER-Z-O

✓ Features

- › Two stainless safety screws per actuator
- 

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



**074413** RADIUSBETAETIGER-Z-L/V25

✓ Features

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



**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
- 

✓ 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 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

▼ 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

▼ Bus coupling module with plug connector M12, 5-pin

**105756** BCM-A-P2-SEM4-1



- ▼ Features
  - › Conversion from M12 to ribbon cable
  - › Very compact design
  - › Easy handling

## Instructions

### ▼ Betriebsanleitung Sicherheitsschalter TZ...AS1

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitsschalter TZ...AS1	086963	07-08/15		4.0 MB
Mode d'emploi pour les interrupteurs de sécurité TZ...AS1				
Istruzioni di impiego dei finecorsa di sicurezza TZ...AS1				
Operating Instructions Safety Switches TZ...AS1				
Инструкция по эксплуатации предохранительных выключателей TZ...AS1	086963	07-08/15		0.4 MB

## Catalogs

### ▼ Sicherheitsschalter mit AS-Interface Safety Switches with AS-Interface Interrupteurs de sécurité avec AS-Interface

	Doc. no.	Version	Language	Download
Sicherheitsschalter mit AS-Interface	092164	11-04/17		2.3 MB
Interrupteurs de sécurité avec AS-Interface	112564	11-04/17		2.3 MB
Safety Switches with AS-Interface	092332	11-04/17		2.3 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