

ITEM 086140 TZ1LE024SEM4AS1

Description	Technical data	Accessories	Downloads
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Features

- › Auxiliary release on the front
- › Actuating head fitted left
- › Plug connector M12

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.

Auxiliary release

Is used for releasing the guard locking with the aid of a tool. A seal and auxiliary tool are 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 ⁶
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]

Reliability values acc. to EN ISO 13849-1

B10 _D	3×10^6
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in combination with Actuator BETAETIGER-Z-G

Mechanical values and environment

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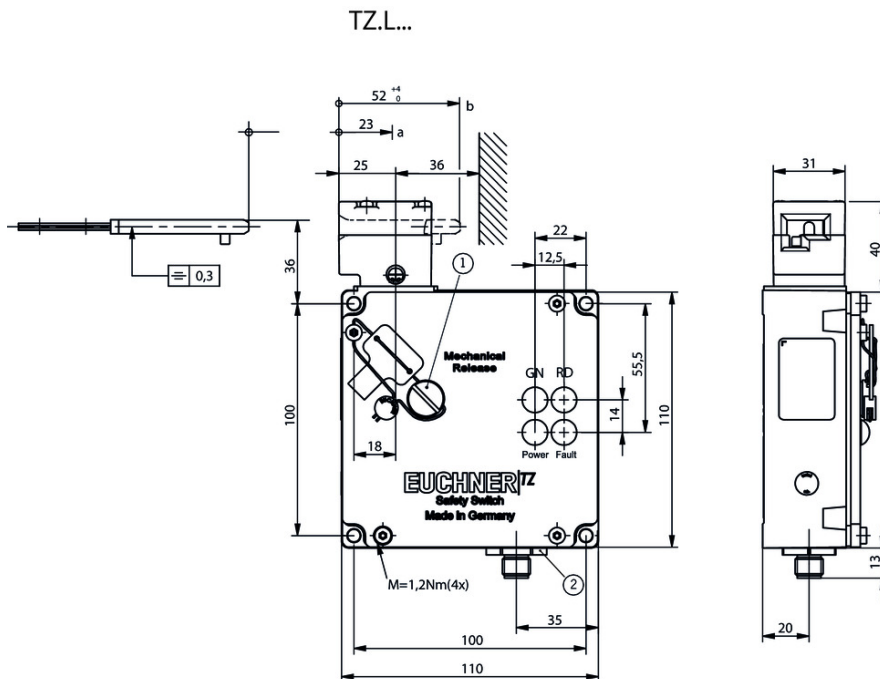
in combination with Actuator BETAETIGER-Z-GN

Mechanical values and environment

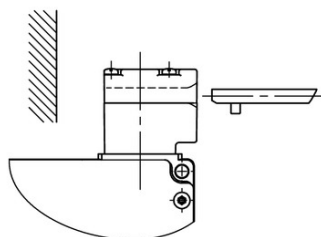
Overtravel	16 mm
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- [1] 1 = Door closed
- [2] 1 = Locked
- [3] 4-pin
- [4] See positively driven NC contact
- [5] 1 = Solenoid energized
- [6, 7] 1 = LED on
- [8] ASI voltage is present
- [9] Offline phase or address 0

Dimension drawing



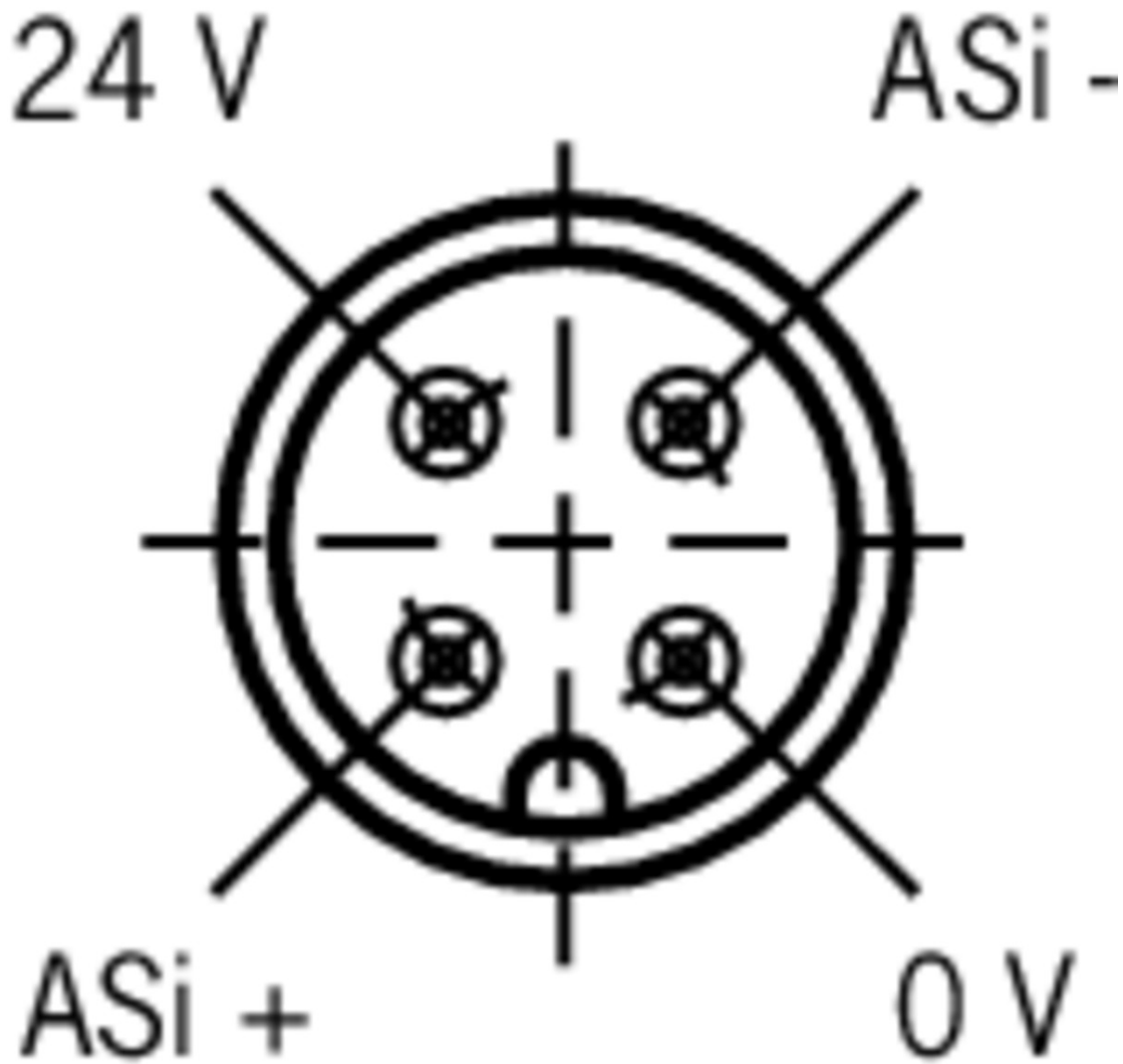
TZ.R...



Legende

- 1 Auxiliary release
- 2 Plug connector not aligned
- a Travel without operation: Actuator is in the guide slot, but function is not triggered.
- b Switching operation completed. actuator must be inserted to this point to ensure reliable switching. The actuator must be withdrawn at least to point a for switching off.

Connector assignment



Legende

View of connection side

Actuator

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

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



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



100406 RADIUSBETAETIGER-Z-R-C2194

✓ Features

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

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



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



100407 RADIUSBETAETIGER-Z-L-C2194

✓ Features

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

✓ 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
-

Bolt

✓ 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 TZ-C... for safety switches TZ



- 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
-



- 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



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

✓ 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

Mounting accessories

✓ Mounting plates EMP-SA for safety switches TZ



094401 EMP-SA

✓ Features

- › For vertical and horizontal mounting of safety switch TZ

✓ 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 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
-

▼ Protective plate NZ.VZ/TZ

059136 SCHUTZBLECH NZ/TZ

▼ Lockout mechanism NZ.VZ/TZ, 5 holes

086538 SPERREINSATZ-Z-086538

▼ Features

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

Spare parts

▼ Lead seal kit

048257 PLOMBENSATZ TZ

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 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	086963	07-08/15	 	4.0 MB
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 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				

CAD data

CAD data for this item on TraceParts