

ITEM 085570 TZ1RE024BHAVFG-RC1971

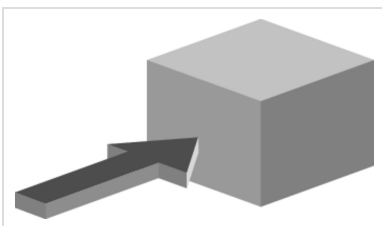
Description	Technical data	Accessories	Downloads
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Features

- › Without auxiliary release
- › Protective plate for switch head
- › Two LED indicators, red and green
- › Plug connector MR12
- › Actuating head fitted right

Approach direction



- › Figure
Horizontal
Can be adjusted in 90° steps

Protective plate for switch head

Makes it more difficult to tamper with the switch.

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 element

SK For monitoring the door/actuator position

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

2121H Slow-action switching contact 4 NC⊖

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	4
Number of guard lock monitoring positively driven contacts	4
Connection	1 x Plug connector BHA12 ^[1]
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	Red

Electrical connection ratings

Rated thermal current I_{th}	4 A [2]
Utilization category according to EN 60947-5-1	AC-15 4A 230V [3] DC-13 4A 24V [4]
Solenoid operating voltage	AC/DC 24 V -15% ... +10%
Short circuit protection according to IEC 60269-1	(Fuse) 4A gG [5]
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 %
LED indicator	Operating voltage corresponds to the solenoid voltage [6]

Miscellaneous

C number	C1971 Without mechanical release with protective plate, special wiring
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Reliability values acc. to EN ISO 13849-1

	Control of the guard locking
Category	Depending on external control of guard locking [7]
Performance Level	Depending on external control of guard locking [8]
PFH_D	Depending on external control of guard locking [9]
	Monitoring of guard locking and the safety guard position
$B10_D$	3×10^6

in combination with Actuator BETAETIGER-Z-G

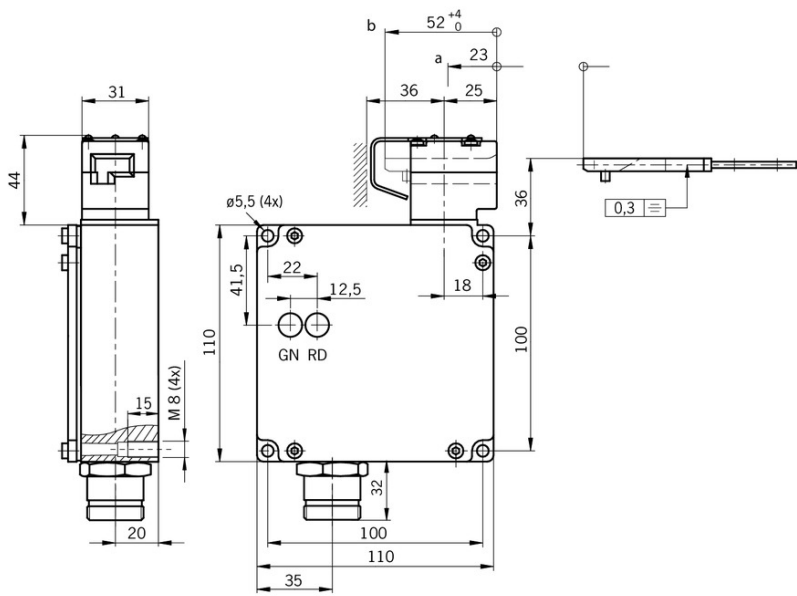
Mechanical values and environment

Overtravel	4 mm
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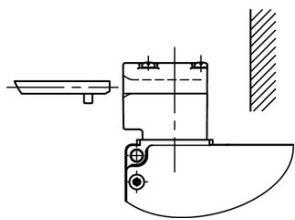
- [1] 11-pin + PE
- [2, 3, 4] >70°C => 2A
- [5] > 70°C => 2A gG
- [6] 2 LEDs; green, red
- [7, 8, 9] LEDs have the same ground potential as the guard locking solenoid.

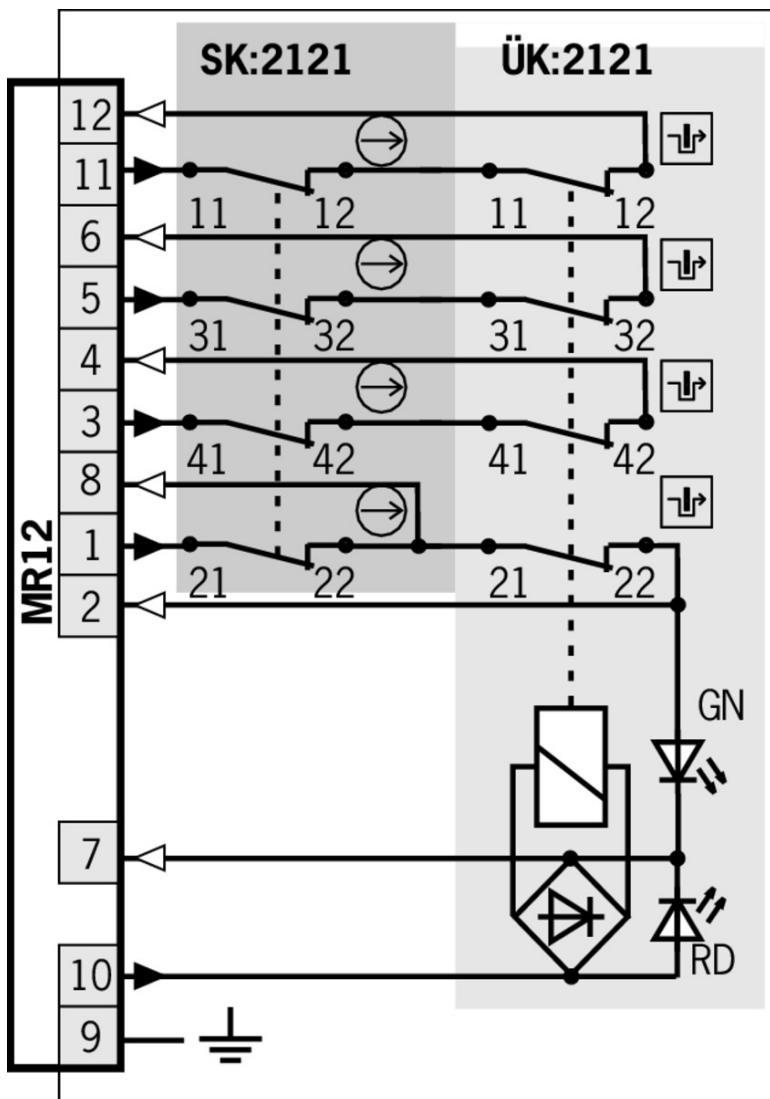
Dimension drawing

TZ.R...



TZ.L...

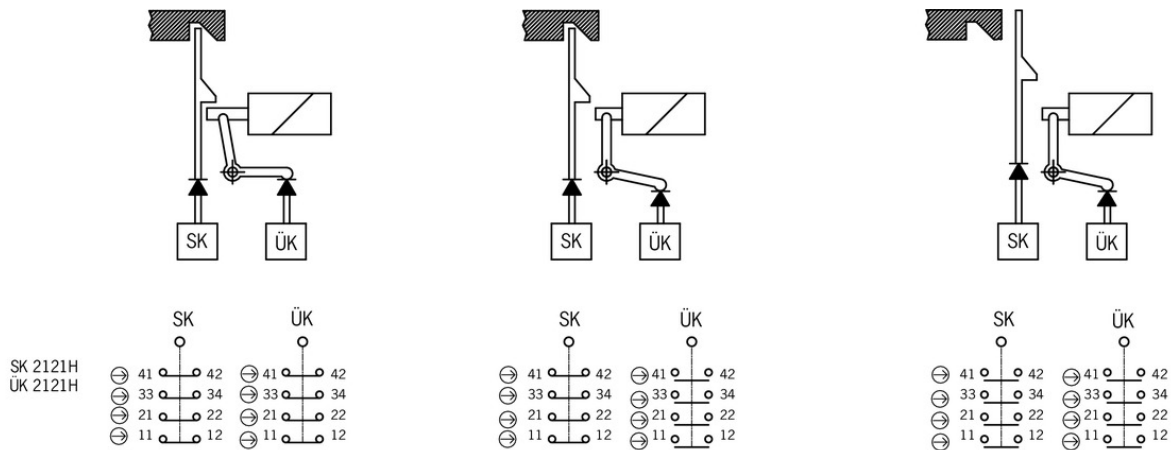




Legende

- Solenoid monitoring
- Door monitoring

Switching functions



Connection material

- ✓ Connection cable with plug connector MR12, 12-pin, 3.6m



100960 C-MINF12-12X1,0PV03,6-MA-100960

✓ Features

- › MR12 female plug, 12-pin
- › Straight plug connector
- › PVC cable
- › Cable length 3.6 m
- › With flying lead



100967 C-MINF12-12X1,0PU03,6-MA-100967

✓ Features

- › MR12 female plug, 12-pin
- › Straight plug connector
- › PUR cable
- › Cable length 3.6 m
- › With flying lead

- ✓ Connection cable with plug connector MR12, 12-pin, 9.1m



100962 C-MINF12-12X1,0PV09,1-MA-100962

✓ Features

- › MR12 female plug, 12-pin
- › Straight plug connector
- › PVC cable
- › Cable length 9.1 m
- › With flying lead



102523 C-MINF12-12X1,0PU09,1-MA-102523

✓ Features

- › MR12 female plug, 12-pin
- › Straight plug connector
- › PUR cable
- › Cable length 9.1 m

- › With flying lead
-

▼ Connection cable with plug connector MR12, 12-pin, 6m



100961 C-MINF12-12X1,0PV06,0-MA-100961

▼ Features

- › MR12 female plug, 12-pin
 - › Straight plug connector
 - › PVC cable
 - › Cable length 6 m
 - › With flying lead
-



102522 C-MINF12-12X1,0PU06,0-MA-102522

▼ Features

- › MR12 female plug, 12-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 6 m
 - › With flying lead
-

▼ Connection cable with plug connector MR12, 12-pin, 18.2m



102526 C-MINF12-12X1,0PU18,2-MA-102526

▼ Features

- › MR12 female plug, 12-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 18.2 m
 - › With flying lead
-

▼ Connection cable with plug connector MR12, 12-pin, 15.2m



102525 C-MINF12-12X1,0PU15,2-MA-102525

▼ Features

- › MR12 female plug, 12-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 15.2 m
 - › With flying lead
-

▼ Connection cable with plug connector MR12, 12-pin, 12.1m



102524 C-MINF12-12X1,0PU12,1-MA-102524

▼ Features

- › MR12 female plug, 12-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 12.1 m
 - › With flying lead
-

Bolt

▼ 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
-

▼ Bolt TZ-A... for safety switches TZ



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
-



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
-



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
-

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



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
-



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
-

Function expansion

▼ 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
-

▼ Lockout mechanism NZ.VZ/TZ, 3 holes



091305 SPERREINSATZ MIT KETTE

▼ Features

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



046730 SPERREINSATZ-Z-046730

▼ Features

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

▼ 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
-

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

Actuator

- ▼ Actuators for safety switches NZ.VZ, NZ.VZ.VS and TZ



016849 BETAETIGER-Z-G

- ▼ Features

- › Two stainless safety screws per actuator



072251 BETAETIGER-Z-GN

- ▼ Features

- › Two stainless safety screws per actuator



097436 BETAETIGER-Z-GME

- ▼ Features

- › Made of solid stainless steel
- › Two stainless safety screws per actuator



074411 BETAETIGER-Z-G/V25

✓ Features

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

✓ 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 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

✓ 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



074413 RADIUSBETAETIGER-Z-L/V25

✓ Features

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



024298 RADIUSBETAETIGER-Z-L

✓ Features

- › Two stainless safety screws per actuator

▼ 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

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 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 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