

ITEM 119367 TZ1LE024BHA-C2399

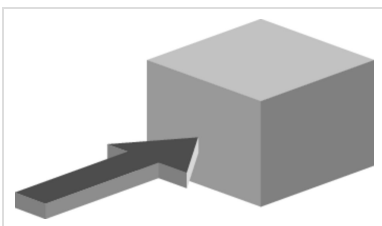
Description	Technical data	Accessories	Downloads
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Features

- › Auxiliary release on the front
- › Escape release on the rear with pushbutton
- › Two LED indicators, red and green
- › Plug connector MR10
- › 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 element

SK For monitoring the door/actuator position

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

2121H Slow-action switching contact 4 NC↻

Auxiliary release

Is used for releasing the guard locking with the aid of a tool. Sealing can be fitted to protect against tampering. Lead seal kit and tool included (already pre-assembled on versions with plug connectors).

Escape release

This is used for manual release of guard locking from within the danger area without tools.

Approvals



Mechanical values and environment

Housing material	Anodized die-cast alloy
Weight	Net 1,2 kg
Ambient temperature	-25 ... 80 °C
Degree of protection	IP65
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 BHA10 [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}	1,5 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	C2399 With auxiliary release and escape release [7]
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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 [8]
Performance Level	Depending on external control of guard locking [9]
PFH _D	Depending on external control of guard locking [10]
	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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in combination with Actuator BETAETIGER-Z-GN

Mechanical values and environment

Overtravel	16 mm
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[1] 9-pin + PE; positively driven NC contact for the door position and positively driven NC contact for the guard lock monitoring connected in series, NC contact for the door position and NC contact for the guard lock monitoring connected in series

[2, 3, 4] $>70^{\circ}\text{C} \Rightarrow 2\text{A}$

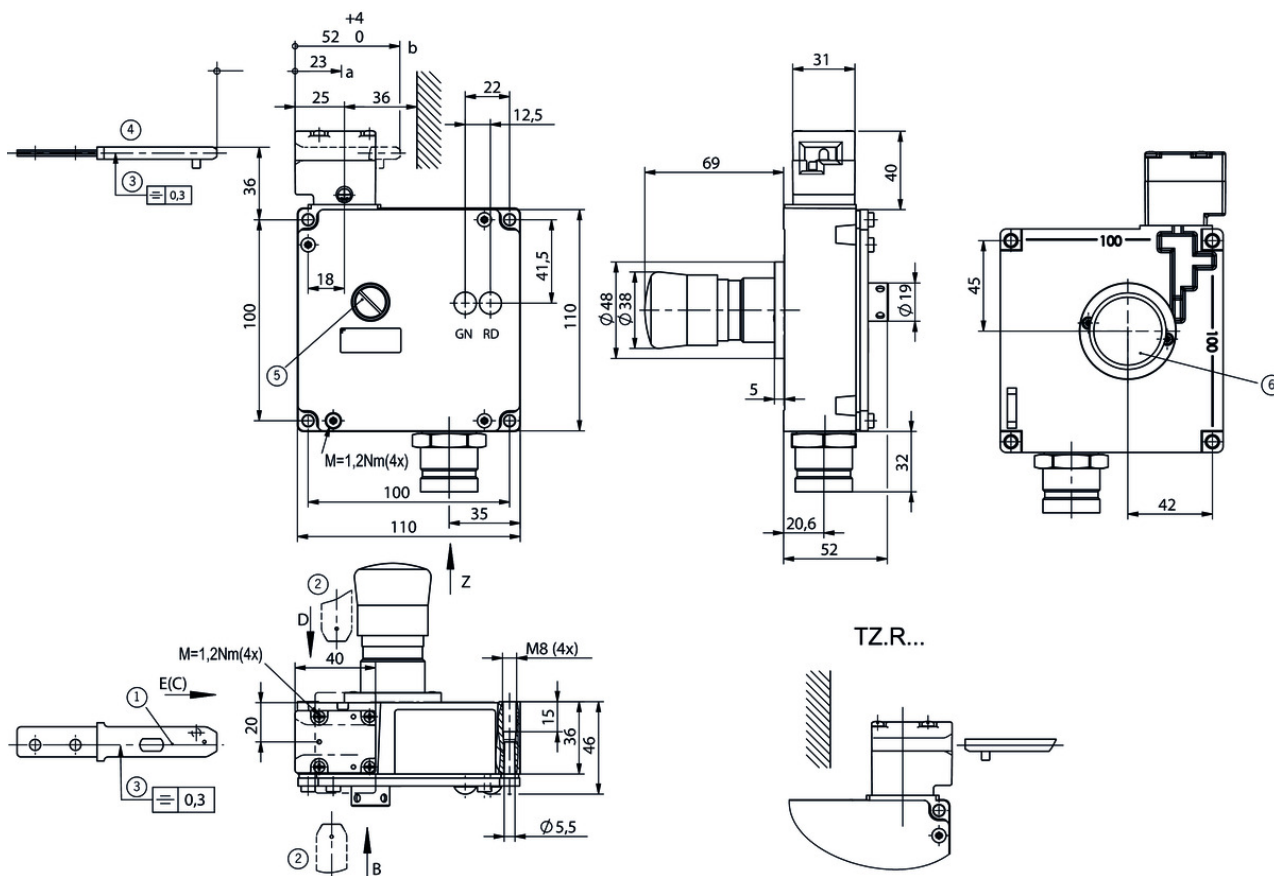
[5] $> 70^{\circ}\text{C} \Rightarrow 2\text{A gG}$

[6] 2 LEDs; green, red

[7] (For screwdriver, latching), (black push button latching)

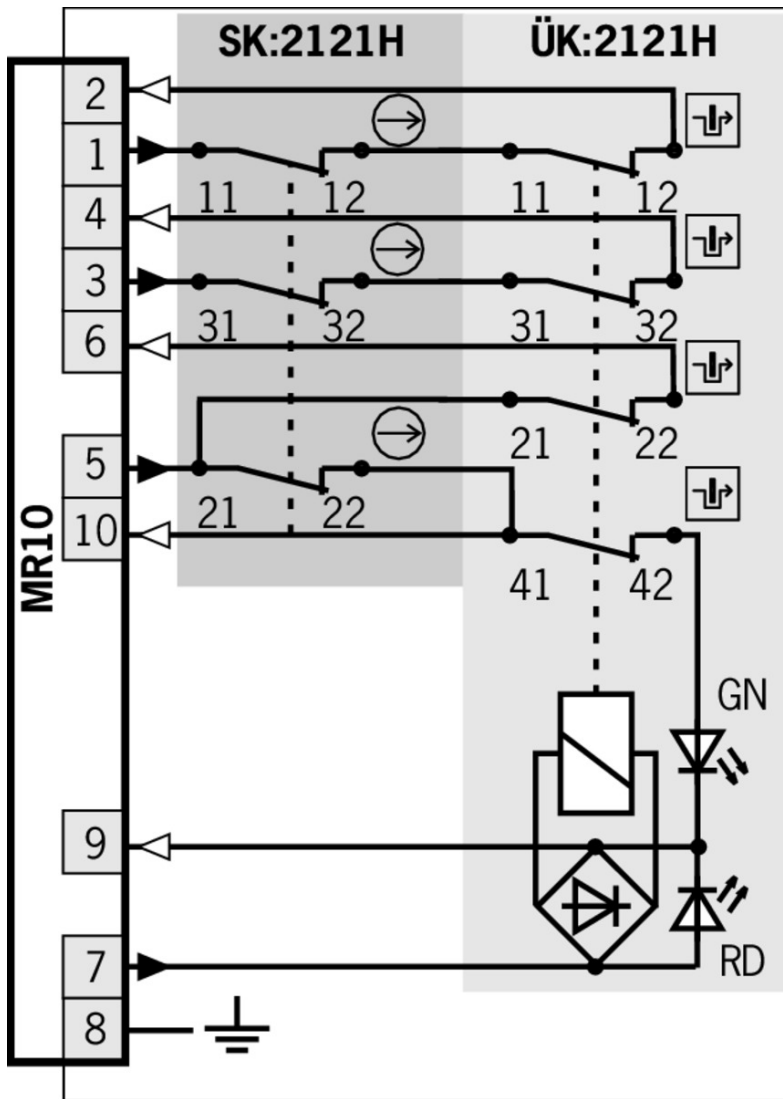
[8, 9, 10] LEDs have the same ground potential as the guard locking solenoid.

Dimension drawing



Legende

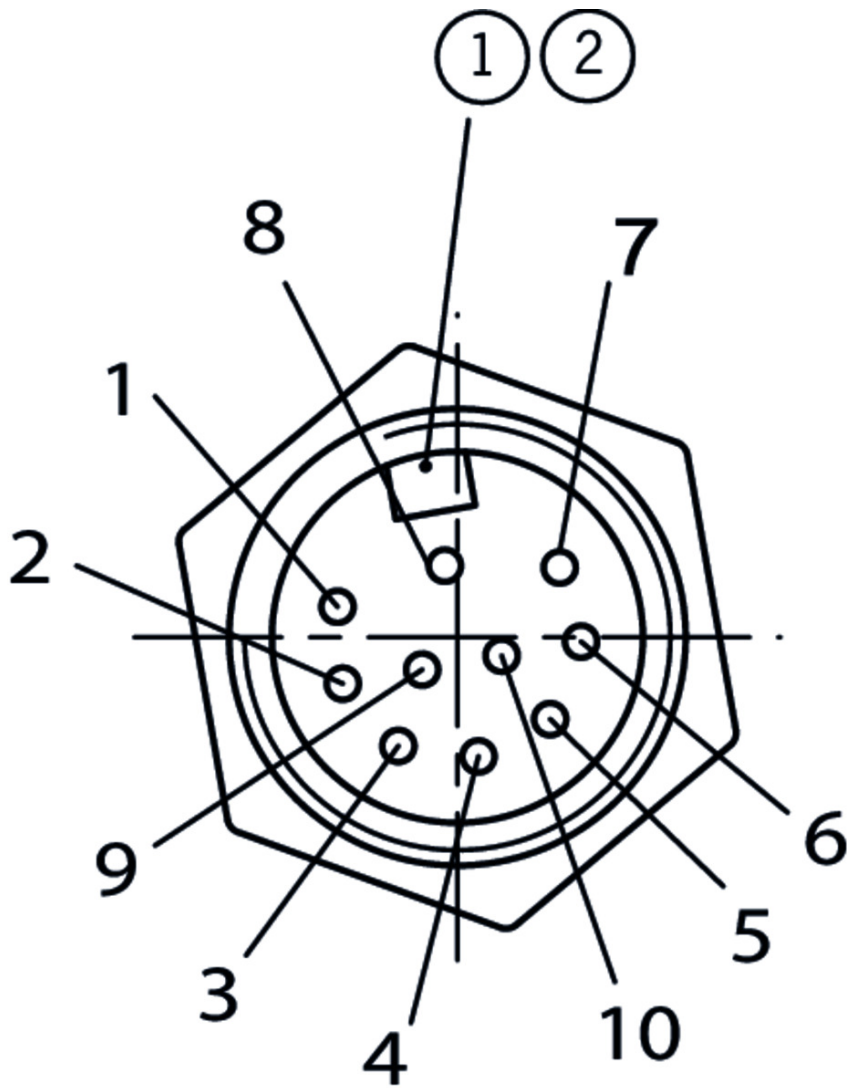
- 1 Order actuator separately
- 2 Direction adjustable
- 3 Safety switch and actuator must be placed together for mounting on the fixture/machines.
- 4 The safety guard must not be used as a mechanical stop.
- 5 Auxiliary release
- 6 Escape release: There must not be any tensile force on the actuator on activating the escape release function
- 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.



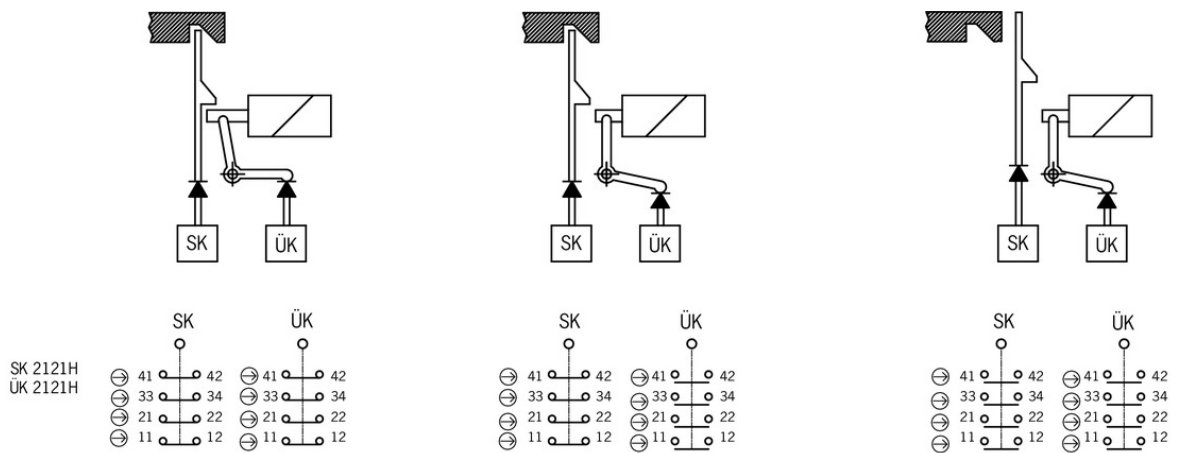
Legende

- 1 Connector used: MIN-10MR-1-18... Mencom Corporation www.mencomcorp.com
- 2 Plug connector is not aligned

Wiring diagram



Switching functions



Connection material

Connection cable with plug connector MR10, 10-pin, 12.1m



102519 C-MINF10-10X1,0PU12,1-MA-102519

▼ Features

- › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 12.1 m
 - › With flying lead
-



102505 C-MINF10-10X1,0PV12,1-MA-102505

▼ Features

- › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PVC cable
 - › Cable length 12.1 m
 - › With flying lead
-

▼ Connection cable with plug connector MR10, 10-pin, 15.2m



102520 C-MINF10-10X1,0PU15,2-MA-102520

▼ Features

- › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 15.2 m
 - › With flying lead
-



100953 C-MINF10-10X1,0PV15,2-MA-100953

▼ Features

- › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PVC cable
 - › Cable length 15.2 m
 - › With flying lead
-

▼ Connection cable with plug connector MR10, 10-pin, 18.2m



102521 C-MINF10-10X1,0PU18,2-MA-102521

▼ Features

- › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 18.2 m
 - › With flying lead
-

▼ Connection cables with plug connector MR10, 10-pin, 1.8m



100949 C-MINF10-10X1,0PV01,8-MA-100949

▼ Features

- › MR10 female plug, 10-pin
- › Straight plug connector
- › PVC cable
- › Cable length 1.8 m

- › With flying lead

❑ Connection cable with plug connector M10, 10-pin, 3.6m



100950 C-MINF10-10X1,0PV03,6-MA-100950

❑ Features

- › MR10 female plug, 10-pin
- › Straight plug connector
- › PVC cable
- › Cable length 3.6 m
- › With flying lead

❑ Connection cable with plug connector MR10, 10-pin, 6m



100951 C-MINF10-10X1,0PV06,0-MA-100951

❑ Features

- › MR10 female plug, 10-pin
- › Straight plug connector
- › PVC cable
- › Cable length 6 m
- › With flying lead



102518 C-MINF10-10X1,0PU06,0-MA-102518

❑ Features

- › MR10 female plug, 10-pin
- › Straight plug connector
- › PUR cable
- › Cable length 6 m
- › With flying lead

❑ Connection cable with plug connector MR10, 10-pin, 9.1m



100952 C-MINF10-10X1,0PV09,1-MA-100952

❑ Features

- › MR10 female plug, 10-pin
- › Straight plug connector
- › PVC cable
- › Cable length 9.1 m
- › With flying lead



100956 C-MINF10-10X1,0PU09,1-MA-100956

❑ Features

- › MR10 female plug, 10-pin
- › Straight plug connector
- › PUR cable
- › Cable length 9.1 m
- › With flying lead

❑ Connection cable with plug connector M10, 10-pin, 18.2m



103157 C-MINF10-10X1,0PV18,2-MA-103157

- ▼ Features
 - › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PVC cable
 - › Cable length 18.2 m
 - › With flying lead
-

- ▼ Connection cable with plug connector MR10, 10-pin, 1.8m



102516 C-MINF10-10X1,0PU01,8-MA-102516

- ▼ Features
 - › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 1.8 m
 - › With flying lead
-

- ▼ Connection cable with plug connector MR10, 10-pin, 3.6m



102517 C-MINF10-10X1,0PU03,6-MA-102517

- ▼ Features
 - › MR10 female plug, 10-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 3.6 m
 - › With flying lead
-

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



074412 RADIUSBETAETIGER-Z-R/V25

▼ Features

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



024299 RADIUSBETAETIGER-Z-R

▼ Features

- › Two stainless safety screws per actuator



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



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
-

- ✓ 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
-

▼ Bolt TZ-CF with escape release for safety switches TZ with escape release



121716 RIEGEL TZ-CF-NIRO-C2392

▼ Features

- › Steel bolt
 - › For doors hinged on the left
 - › Escape release
 - › Lever for escape release from the danger area
 - › Detent knob in open position
 - › Can be locked in open position with padlocks
 - › Actuator and switch bracket 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, 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

▼ 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
-

▼ 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
-

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

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