



## Switching element

538H Slow-action switching contact 2 NC $\ominus$

## Approvals



## Mechanical values and environment

Housing material	Anodized die-cast alloy
Weight	Net 0,7 kg
Ambient temperature	-25 ... 80 °C
Degree of protection	IP65
Mechanical life	2 x 10 <sup>6</sup>
Contact material	Silver alloy, gold flashed
Switching principle	Slow-action switching contact
Solenoid alignment	3
Installation position	Any
Number of door position positively driven contacts	2
Connection	1 x M20 x 1.5
Approach speed	max.20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Open-circuit current principle
Locking force F <sub>max</sub>	2000 N
Locking force F <sub>Zh</sub>	1500 N
Retention force	35 N
Extraction force	40 N
Actuating force	45 N
Insertion depth	52 mm

## Electrical connection ratings

Rated thermal current I <sub>th</sub>	4 A
Utilization category according to EN 60947-5-1	AC-15 4A 230V DC-13 4A 24V
Solenoid operating voltage	DC 24 V -15 ... 10
Short circuit protection according to IEC 60269-1	

	(Fuse)	4A gG
Rated insulation voltage U <sub>i</sub>	AC/DC	250 V
Rated impulse withstand voltage U <sub>imp</sub>		2,5 kV
Switching voltage	Min. at 10mA	12 V
Switching current	Min. at 24V	1 mA
Connection cross-section		0,34 ... 1,5 mm <sup>2</sup>

### Reliability values acc. to EN ISO 13849-1

	Control of the guard locking
Category	Depending on external control of guard locking
Performance Level	Depending on external control of guard locking
PFH <sub>D</sub>	Depending on external control of guard locking
	Monitoring of the position of the safety guard
B10 <sub>D</sub>	4,5 x 10 <sup>6</sup>

### in combination with Actuator BETAETIGER-Z-G

#### Mechanical values and environment

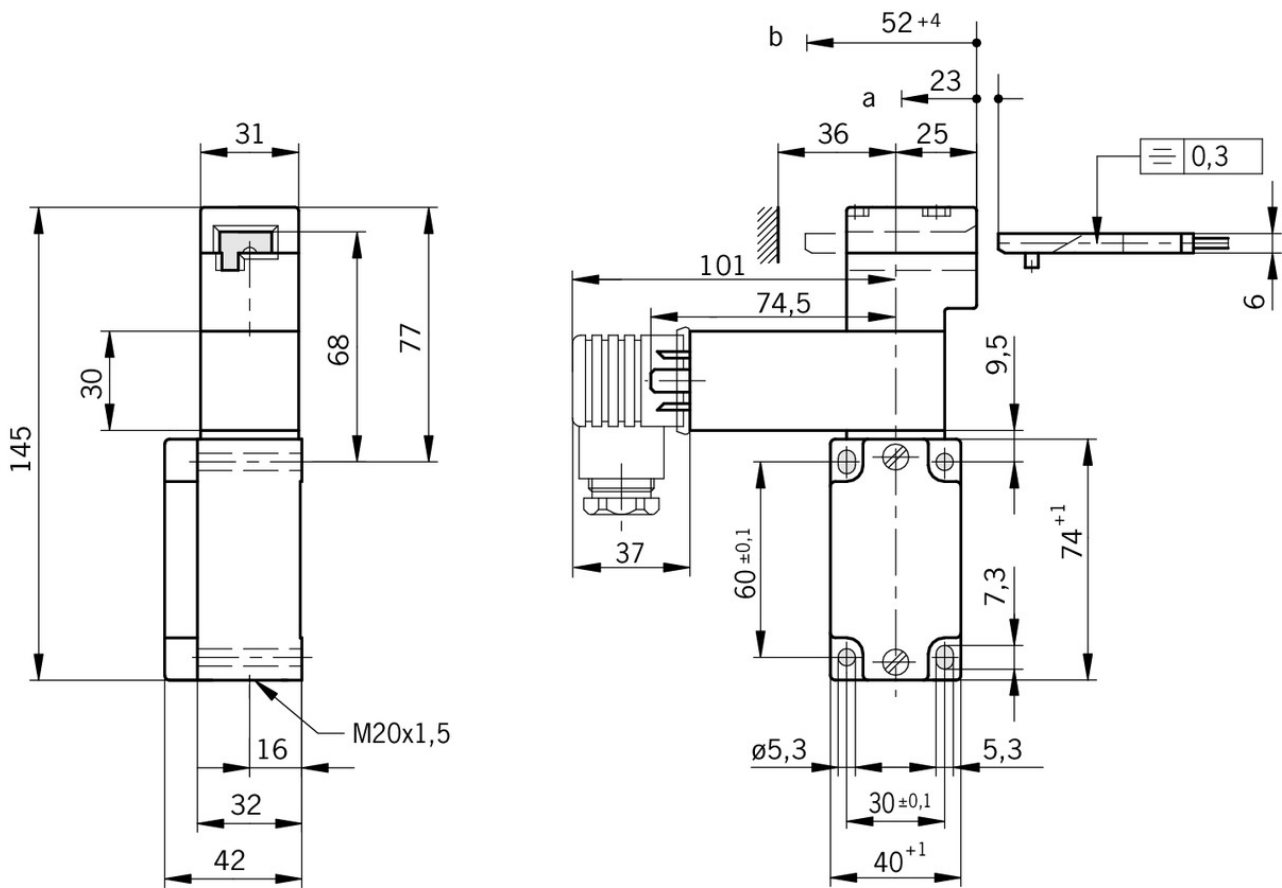
Overtravel	4 mm
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### in combination with Actuator BETAETIGER-Z-GN

#### Mechanical values and environment

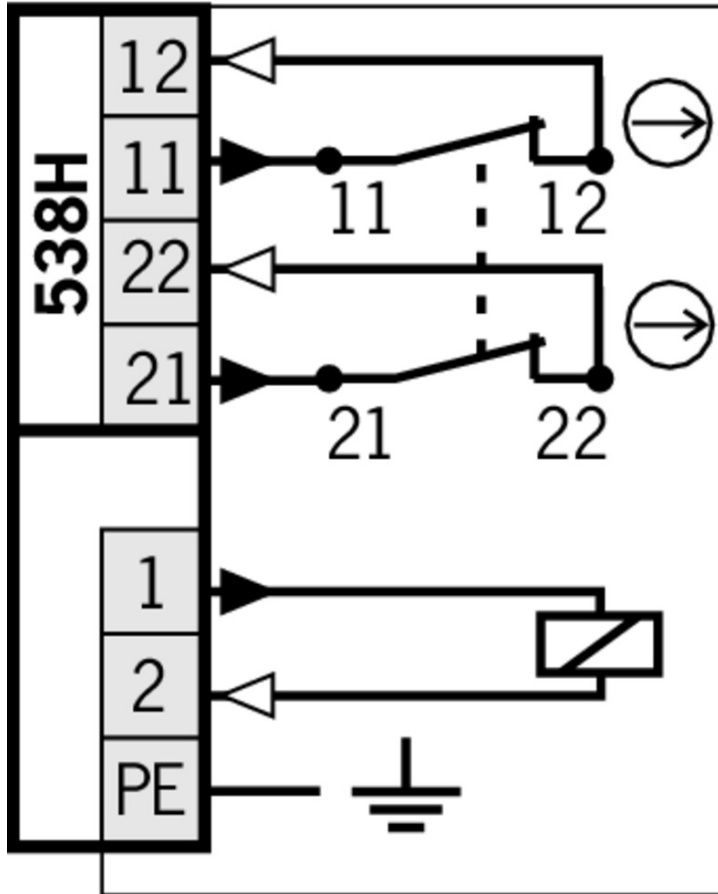
Overtravel	16 mm
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## Dimension drawing

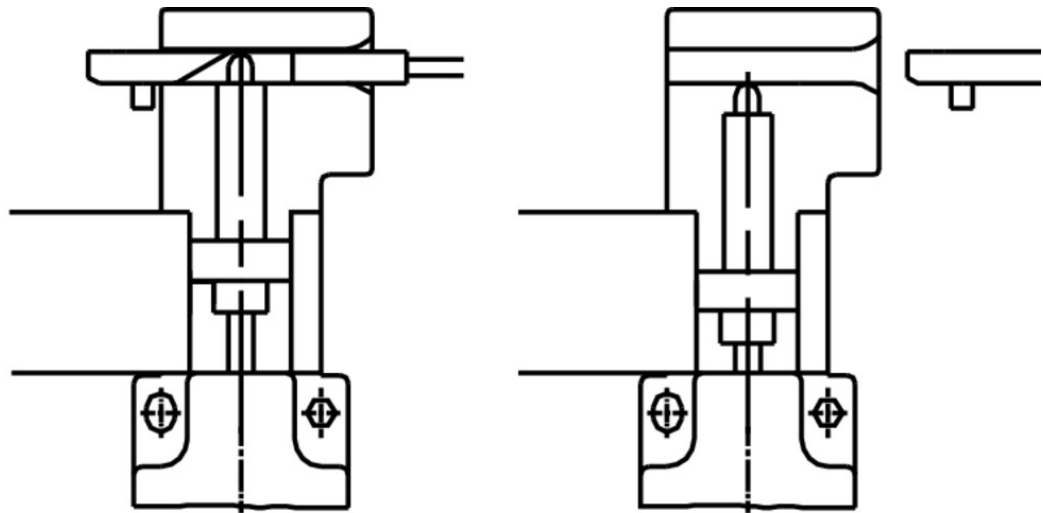


## Legende

- 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.



## Switching functions



## 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
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## Bolt

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- ✓ Bolt NZ-A for safety switches NZ.VZ and NZ.VZ.VS



### **057734** RIEGEL NZ-A

- ✓ Features
    - › Steel bolt
    - › For doors hinged on the right
    - › Can be locked in open position with padlocks
    - › Actuator and switch bracket included
    - › Bolt is not allowed to be used in conjunction with an escape release.
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- ✓ Bolt NZ-C for safety switches NZ.VZ and NZ.VZ.VS



### **057735** RIEGEL NZ-C

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

- ✓ Bolt NZ-A... for safety switches NZ.VZ and NZ.VZ.VS



### **083890** RIEGEL NZ-AB

- ✓ Features
    - › Steel bolt
    - › For doors hinged on the right
    - › Ball detent mechanism in closed position
    - › Can be locked in open position with padlocks
    - › Actuator and switch bracket included
- 



### **078455** RIEGEL NZ-AR2

- ✓ Features
    - › Steel bolt
    - › For doors hinged on the right
    - › Detent knob in open position
    - › Detent knob in closed position
    - › Can be locked in open position with padlocks
    - › Actuator and switch bracket included
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- ✓ Bolt NZ-C... for safety switches NZ.VZ and NZ.VZ.VS



### **083892** RIEGEL NZ-CB

- ✓ Features
  - › Steel bolt
  - › For doors hinged on the left
  - › Ball detent mechanism in closed position



- › Can be locked in open position with padlocks
- › Actuator and switch bracket included



#### **078456** RIEGEL NZ-CR2

##### ✓ Features

- › Steel bolt
- › For doors hinged on the left
- › Detent knob in open position
- › Detent knob mechanism in closed position
- › 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

- ✓ Bolts NZ/TZ-S1/AF and NZ/TZ-S1/CF with escape release for safety switches NZ.VZ, NZ.VZ.VS and TZ with escape release



#### **079786** RIEGEL NZ/TZ-S1/AF

##### ✓ Features

- › Aluminum bolt
- › For doors hinged on the right
- › Escape release
- › Spring catch in open position
- › Can be locked in open position with padlocks
- › Actuator included



#### **079785** RIEGEL NZ/TZ-S1/CF

##### ✓ Features

- › Aluminum bolt
- › For doors hinged on the left
- › Escape release
- › Spring catch in open position
- › Can be locked in open position with padlocks
- › Actuator included

## Mounting accessories

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- ▼ Mounting plates EMP-B2 for actuators for safety switches CTP, TP...A, STA, STP, TX and TZ



**093458** EMP-B2

- ▼ Mounting plates EMP-SC for safety switches NM, NP...AS and NZ



**085753** EMP-SC

- ▼ Features

- › For vertical and horizontal mounting of safety switches NM, NP...AS and NZ

- ▼ Mounting plates EMP-B1 for actuators for safety switches CTP, TP...A, STA, STP, TX and TZ



**093457** EMP-B1

## 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

- ▼ LED function display NZ



**029220** NGLE060RT



**029221** NGL060GR

## Spare parts

▼ Replacement head NZ.VZ

**076250** BETAETIGUNGSKOPF NZVZ

## Connection material

▼ Cable glands M20x1.5



**077683** EKVM20/06



**077684** EKVM20/09

▼ Solenoid plug for safety switch NZ.VZ.VS

**028345** STECKVERBINDER FUER MAGNETVERRIEG.

▼ Features

› Without rectifier for the connection of DC.

## Instructions













▼ Istruzioni di impiego Finecorsa di sicurezza NZ.VZ-...VS

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitsschalter NZ.VZ-...VS	094066	07-08/16		2.2 MB
Manual de instrucciones Interruptor de seguridad NZ.VZ-...VS				
Mode d'emploi Interrupteur de sécurité NZ.VZ-...VS				
Operating Instructions Safety Switch NZ.VZ-...VS				
Istruzioni di impiego Finecorsa di sicurezza NZ.VZ-...VS	094066	07-08/16		0.6 MB
Návod na prevádzku Bezpečnostný spínač NZ.VZ-...VS	094066	07-08/16		0.6 MB

## Catalogs

▼ Sicherheitsschalter mit Metallgehäuse Safety Switches with Metal Housing Bezpečnostní spínače

s kovovým pouzdem 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 pouzdem	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	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