

**ITEM 093611 NZ2VZ-2131E3VSH-8C-GMMF**

Description	Technical data	Accessories	Downloads
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**Features**

- › Housing according to EN 50041
- › Manual release
- › Plug connector MR8

**Guard locking type**

**VSH** Mechanical locking by spring force. Manual release.

**Switching element**

**2131H** Slow-action switching contact 3 NC ⊕ + 1 NO

**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	$2 \times 10^6$
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	3
Number of door position NO contacts	1
Connection	
	1 x Plug connector BHA8 [1]
Approach speed	max.20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Closed-circuit current principle [2]
Locking force $F_{max}$	2000 N
Locking force $F_{Zh}$	1500 N
Retention force	35 N
Extraction force	40 N
Actuating force	45 N
Insertion depth	52 mm

## Electrical connection ratings

Rated thermal current $I_{th}$	4 A
Utilization category according to EN 60947-5-1	
AC-15	4A 230V
DC-13	4A 24V
Short circuit protection according to IEC 60269-1	
(Fuse)	4A gG
Rated insulation voltage $U_i$	
AC/DC	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

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

	<b>Control of the guard locking</b>
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
	<b>Monitoring of the position of the safety guard</b>
B10 <sub>D</sub>	4,5 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**

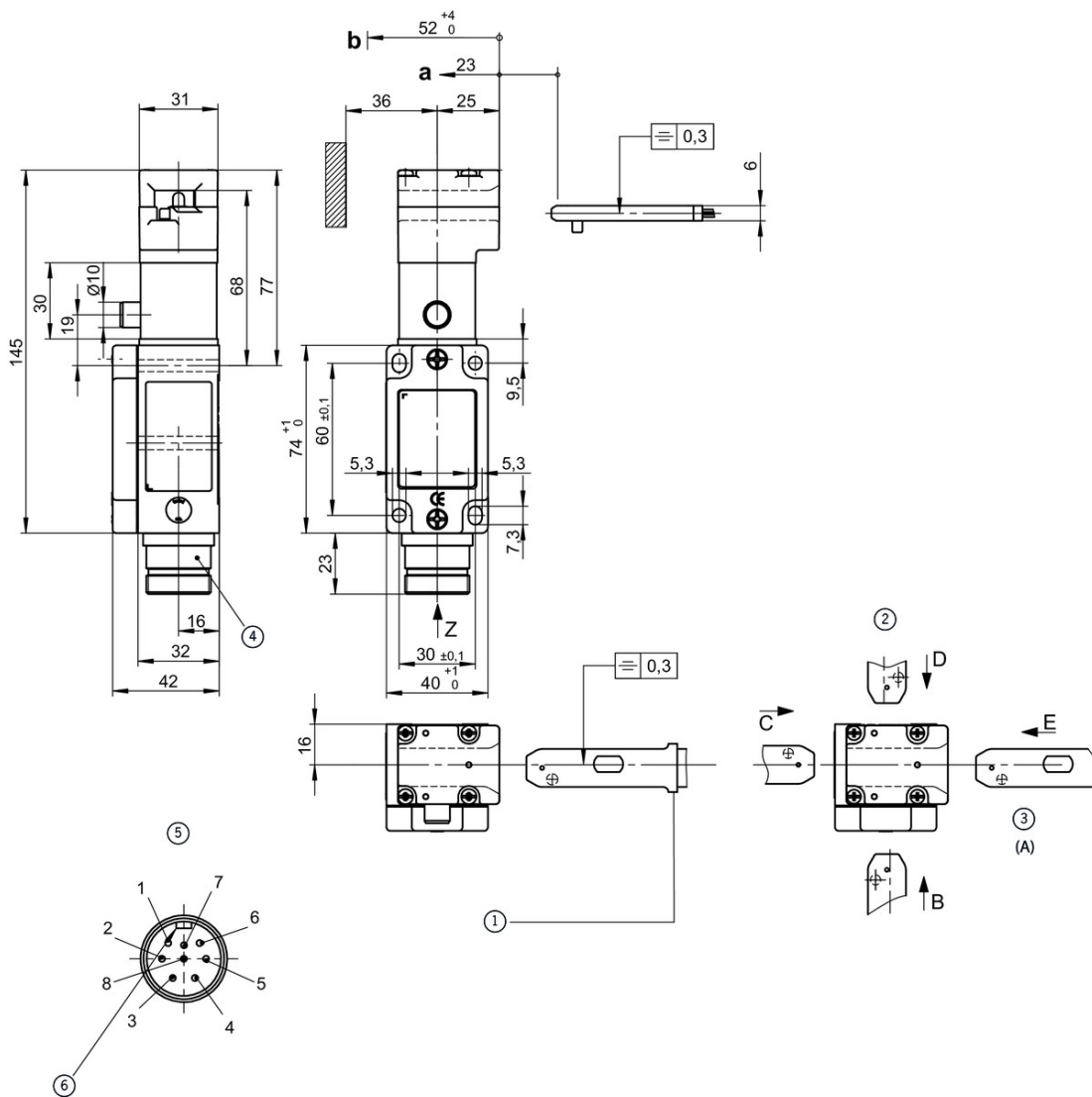
**Mechanical values and environment**

Overtravel	16 mm
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[1] 7-pin + PE

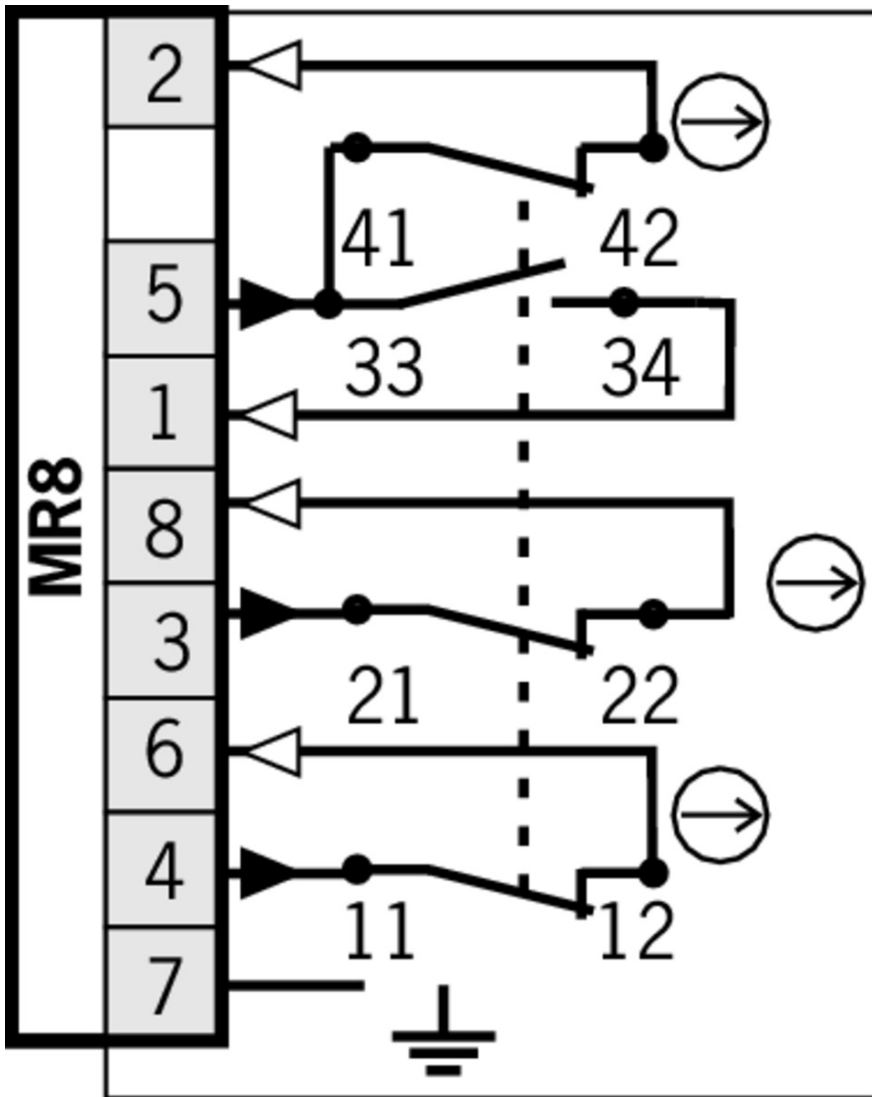
[2] Manual release

## Dimension drawing

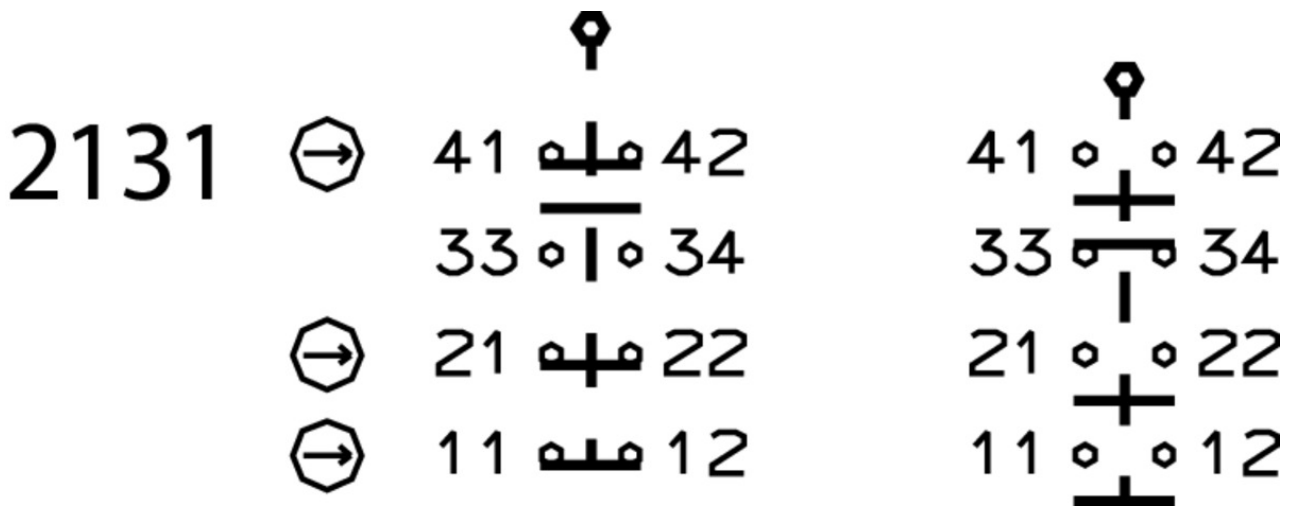


## Legende

- 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.
- 1 Do not use as an end stop. Limit overtravel separately.
- 2 Actuating direction can be changed
- 3 Standard
- 4 Built-in connector: MENCOCOM (8 pin) MIN-8MR2-1-18
- 5 View Z built-in connector aligned
- 6 The alignment is different for every plug connector (thread). See housing cpl.



Switching functions



Actuator



**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



**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

✓ 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 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

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▼ 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

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▼ 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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## 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

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▼ Protective plate NZ.VZ/TZ

**059136** SCHUTZBLECH NZ/TZ

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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

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**091305** SPERREINSATZ MIT KETTE

▼ Features



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

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## Spare parts

- ▼ Replacement head NZ.VZ

**076250** BETAETIGUNGSKOPF NZVZ

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## Bolt

- ▼ 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



**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



**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

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- ▼ 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



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▼ 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-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



**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



**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

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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
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## Mounting accessories

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



**093457** EMP-B1

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



**093458** EMP-B2

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- ✓ 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
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## Connection material

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- ✓ Connection cable with plug connector MR8, 8-pin, 1.8m



**100938** C-MINF08-08X1,0PV01,8-MA-100938

- ✓ Features
    - › MR8 female plug, 8-pin
    - › Straight plug connector
    - › PVC cable
    - › Cable length 1.8 m
    - › With flying lead
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**102506** C-MINF08-08X1,0PU01,8-MA-102506

- ✓ Features
    - › M8R female plug, 8-pin
    - › Straight plug connector
    - › PUR cable
    - › Cable length 1.8 m
    - › With flying lead
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- ✓ Connection cable with plug connector MR8, 8-pin, 6m



**100940** C-MINF08-08X1,0PV06,0-MA-100940

- ✓ Features
  - › M8R female plug, 8-pin

- › Straight plug connector
- › PVC cable
- › Cable length 6 m
- › With flying lead



**100946** C-MINF08-08X1,0PU06,0-MA-100946

✓ Features

- › M8R female plug, 8-pin
- › Straight plug connector
- › PUR cable
- › Cable length 6 m
- › With flying lead

✓ Connection cable with plug connector MR8, 8-pin, 9.1m



**100941** C-MINF08-08X1,0PV09,1-MA-100941

✓ Features

- › M8R female plug, 8-pin
- › Straight plug connector
- › PVC cable
- › Cable length 9.1 m
- › With flying lead



**102507** C-MINF08-08X1,0PU09,1-MA-102507

✓ Features

- › M8R female plug, 8-pin
- › Straight plug connector
- › PUR cable
- › Cable length 9.1 m
- › With flying lead

✓ Connection cable with plug connector MR8, 8-pin, 12.1m



**100942** C-MINF08-08X1,0PV12,1-MA-100942

✓ Features

- › M8R female plug, 8-pin
- › Straight plug connector
- › PVC cable
- › Cable length 12.1 m
- › With flying lead



**102508** C-MINF08-08X1,0PU12,1-MA-102508

✓ Features

- › M8R female plug, 8-pin
- › Straight plug connector
- › PUR cable
- › Cable length 12.1 m
- › With flying lead

✓ Connection cable with plug connector MR8, 8-pin, 18.2m

**103153** C-MINF08-08X1,0PV18,2-MA-103153



- ✓ Features
  - › M8R female plug, 8-pin
  - › Straight plug connector
  - › PVC cable
  - › Cable length 18.2 m
  - › With flying lead



#### **103149** C-MINF08-08X1,0PU18,2-MA-103149

- ✓ Features
  - › MR8 female plug, 8-pin
  - › Straight plug connector
  - › PUR cable
  - › Cable length 18.2 m
  - › With flying lead

#### ✓ Connection cable with plug connector MR8, 8-pin, 15.2m



#### **102509** C-MINF08-08X1,0PU15,2-MA-102509

- ✓ Features
  - › M8R female plug, 8-pin
  - › Straight plug connector
  - › PUR cable
  - › Cable length 15.2 m
  - › With flying lead

#### ✓ Connection cable with plug connector MR8, 8-pin, 24.3m



#### **103150** C-MINF08-08X1,0PU24,3-MA-103150

- ✓ Features
  - › M8R female plug, 8-pin
  - › Straight plug connector
  - › PUR cable
  - › Cable length 24.3 m
  - › With flying lead

## Instructions

### ✓ Käyttöohje Turvakytkimet NZ.VZ

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitsschalter NZ.VZ Manual de instrucciones Interruptores de seguridad NZ.VZ Mode d'emploi Interrupteur de sécurité NZ.VZ Operating Instructions Safety Switch NZ.VZ	2094060	08-06/17	   	1.6 MB
Käyttöohje Turvakytkimet NZ.VZ	2094060	08-06/17		0.4 MB
Istruzioni di impiego Finecorsa di sicurezza NZ.VZ	2094060	08-06/17		0.5 MB

Instrukcja obsługi Wyłącznik bezpieczeństwa NZ.VZ	2094060	08-06/17		 0.5 MB
Инструкция по эксплуатации Предохранительный выключатель NZ.VZ	2094060	08-06/17		 0.6 MB
Návod na prevádzku Bezpečnostný spínač NZ.VZ	2094060	08-06/17		 0.5 MB
Instruktionsbok Säkerhetsbrytare NZ.VZ	2094060	08-06/17		 0.5 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