

## ITEM 085391 TX3B-A024MC1991

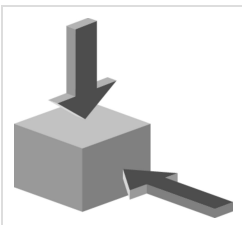
Description	Technical data	Accessories	Downloads
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### Features

- › Auxiliary release on the front
- › Escape release on the rear
- › Release under load possible
- › With door monitoring contact

### Approach direction



- › Figure  
Horizontal and vertical  
Can be adjusted in 90° steps

### Solenoid operating voltage

- › AC/DC 24 V +10%, -15%

## LED function display

The switch has a function display (2 LEDs, red and green). The LED voltage is same as the solenoid operating voltage.

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## Guard locking type

**TX3** Closed-circuit current principle, guard locking by spring force. Release by applying voltage to the solenoid. Release under load possible.

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## Switching element

**ETX** Slow-action switching contact 2 NC  $\ominus$  / 1 NO + 1 NC (door monitoring  
**B** contact)

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## Auxiliary release

Is used for releasing the guard locking with the aid of a tool. The auxiliary release must be sealed to prevent tampering (for example with sealing lacquer).

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## Escape release

This is used for manual release of guard locking from within the danger area without tools. With identification of On/Off position.

## Approvals



## Mechanical values and environment

Housing material	Die-cast alloy, cathodically dipped
Weight	Net 0,8 kg
Ambient temperature	-20 ... 80 °C
Degree of protection	IP67
Mechanical life	1 x 10 <sup>6</sup>
Contact material	Silver alloy, gold flashed
Switching principle	Slow-action switching contact
Installation position	Any
Number of door position NC contacts	1
Number of guard lock monitoring positively driven contacts	2
Number of guard lock monitoring NO contacts	1
Connection	

	3 x M20 x 1.5
Approach speed	max. 20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Closed-circuit current principle [1]
Locking force $F_{max}$	1700 N
Locking force $F_{Zh}$	1300 N
Retention force	min.50 N [2]
Extraction force	35 N
Actuating force	35 N
Insertion depth	min.32 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
Solenoid operating voltage	AC/DC 24 V -15% ... +10%
Short circuit protection according to IEC 60269-1	(Fuse) 4A gG
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	8 W [3]
Solenoid duty cycle	100 %
Connection cross-section	0,34 ... 1,5 mm <sup>2</sup>
LED indicator	Operating voltage corresponds to the solenoid voltage [4]

### Miscellaneous

C number	C1991 [5]
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### Reliability values acc. to EN ISO 13849-1

	<b>Control of the guard locking</b>
Category	Depending on external control of guard locking [6]
Performance Level	Depending on external control of guard locking [7]
$PFH_D$	Depending on external control of guard locking [8]

	<b>Monitoring of guard locking and the safety guard position</b>
B10D	$6 \times 10^6$

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**in combination with Actuator BETAETIGER-X-GQ, 079740**

**Mechanical values and environment**

Overtravel	1 mm
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**in combination with Actuator BETAETIGER-X-GNQ, 079742, 098082, 097906**

**Mechanical values and environment**

Overtravel	8 mm
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[1] Unlocking under load

[2] Release under load

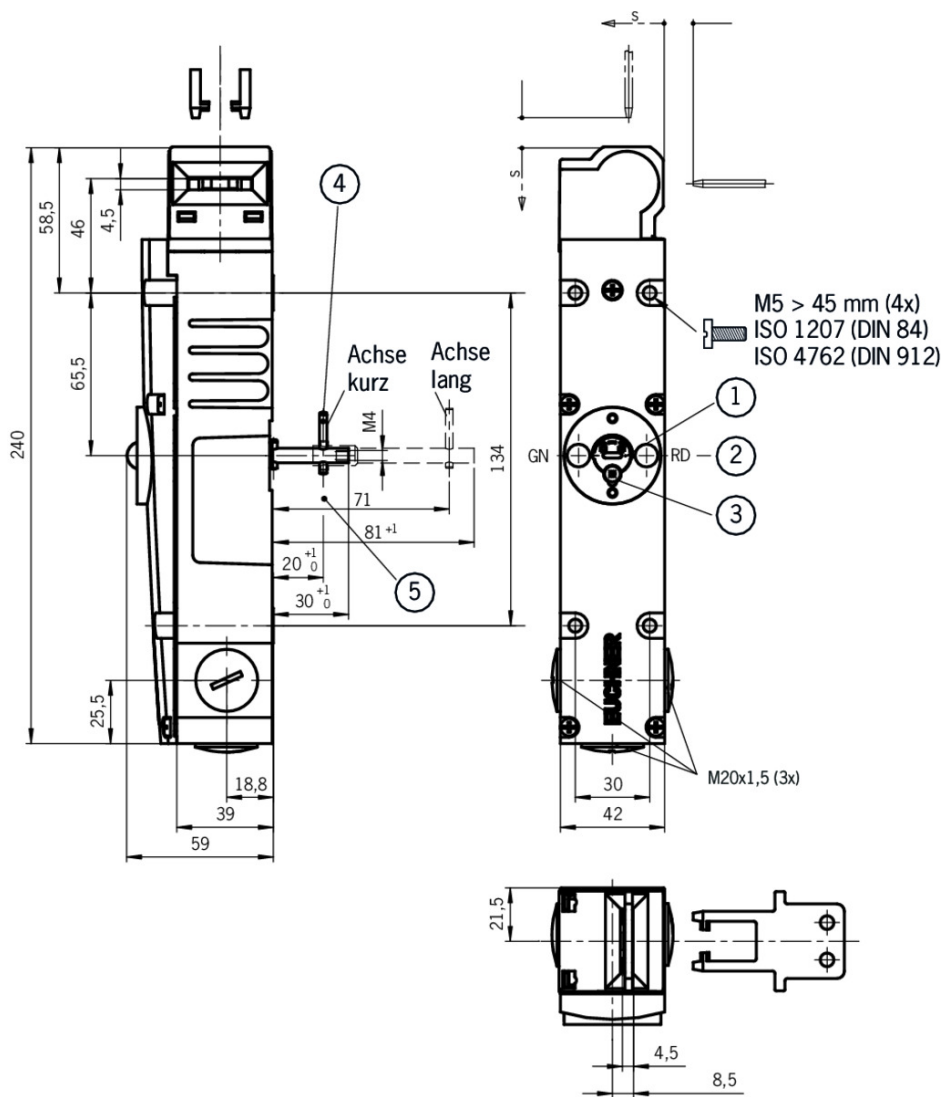
[3] At the instant switched on 48W

[4] 2 LEDs; green, red

[5] Escape release with short actuator shaft

[6, 7, 8] LEDs have the same ground potential as the guard locking solenoid.

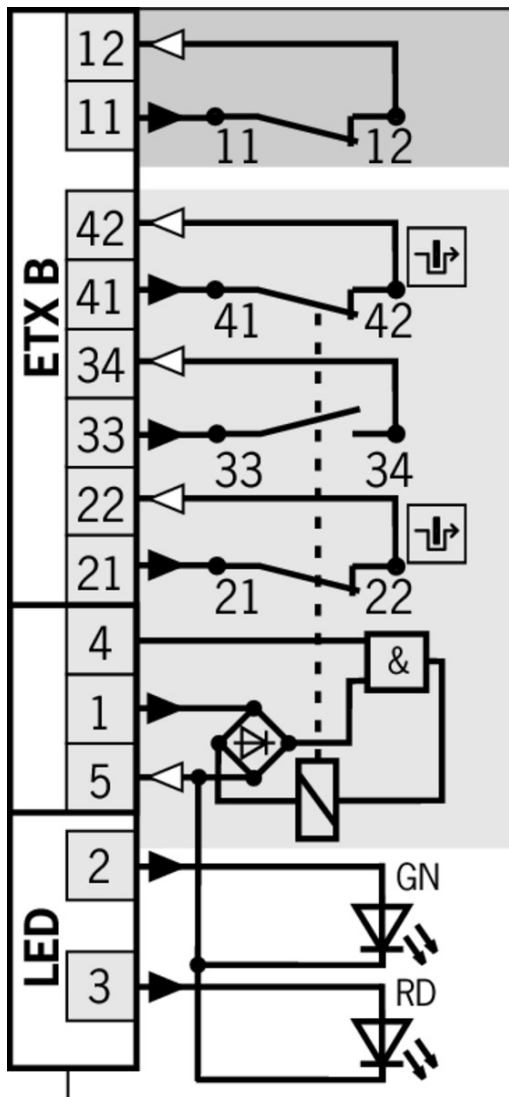
**Dimension drawing**



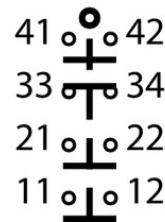
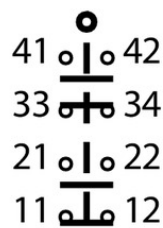
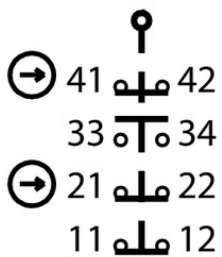
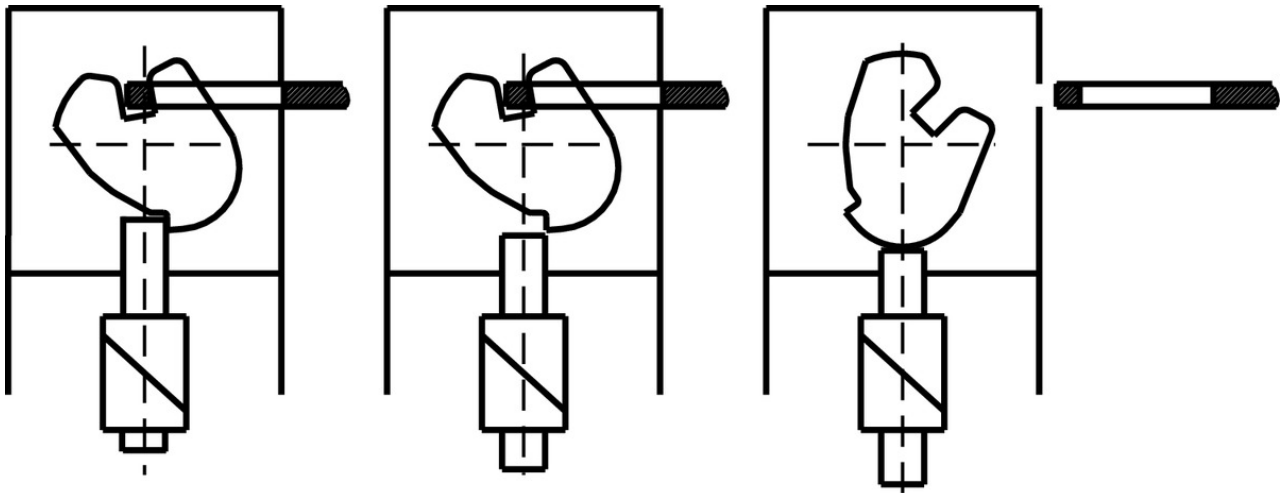
## Legende

- 1 Auxiliary release
- 2 LED indicator
- 3 Locking screw
- 4 Escape release, basic position
- 5 Escape release, unlocked position

ETX BAC/DC 24 V



## Switching functions



ETX B

## Function expansion

- Lock for mechanical release for safety switches TX



**079795** SCHLOSS TX GLEICHSCHLIESSEND



**079796** SCHLOSS TX VERSCHIEDENSCHLIESSEND

- Release with automatic reset for safety switches TX



**094773** ENTRIEGELUNG RUECKSTELLEND TX1/3

- Lockout mechanism NX/TX



**096098** SPERREINSATZ TX

- Features

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

- Emergency unlocking for safety switches TX

**094771** NOTENTSPERRUNG TX



## Actuator

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- ▼ Bent actuator for safety switches NX/TX



### **079740** BETAETIGER-X-WQ

#### ▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › With rubber bush
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- ▼ Actuators for safety switches NX/TX



### **079739** BETAETIGER-X-GQ

#### ▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › With rubber bush
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- ▼ Actuators for safety switches NX/TX, increased overtravel



### **079741** BETAETIGER-X-GNQ

#### ▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › With rubber bush
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- ▼ Bent actuator for safety switches NX/TX, increased overtravel



### **079742** BETAETIGER-X-WNQ

#### ▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
  - › With rubber bush
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- ▼ Hinged actuator left/right for safety switches NX/TX



### **098082** RADIUSBETAETIGER-X-LR-N

#### ▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
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- ▼ Hinged actuator top/bottom for safety switches NX/TX



### **097906** RADIUSBETAETIGER-X-OU-N

#### ▼ Features

- › Actuators made of stainless steel
  - › Two stainless safety screws per actuator
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## Bolt

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- ▼ Bolt TX-AF with escape release for safety switches TX...C1991



### **085392** RIEGEL TX-AF

#### ▼ Features

- › Steel bolt
  - › For safety switches with escape release **TX...C1991 + 2161**
  - › For doors hinged on the right
  - › Detent knob in open position
  - › Can be locked in open position with padlocks
  - › Actuator and switch bracket included
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- ▼ Bolt TX-CF with escape release for safety switches TX...C1991



### **085393** RIEGEL TX-CF

#### ▼ Features

- › Steel bolt
  - › For safety switches with escape release **TX...C1991 + 2161**
  - › For doors hinged on the left
  - › Detent knob in open position
  - › 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-SB for safety switches CTP, TP...A, STA, STP and TX



### **093456** EMP-SB

#### ▼ Features

- › For vertical and horizontal mounting of safety switches TP...A, STA, STP and TX
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- ▼ 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

## Connection material

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- ▼ Cable glands M20x1.5

### **077683** EKVM20/06



**077684** EKVM20/09

## Instructions

### ▼ Betriebsanleitung Sicherheitsschalter TX...

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitsschalter TX...	079777	07-01/17		4.4 MB
Mode d'emploi pour les interrupteurs de sécurité TX...				
Istruzioni di impiego dei finecorsa di sicurezza TX...				
Operating Instructions Safety Switches TX...				

## 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	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