

## ITEM 100653 TX3C-A024BH12C2201

Description	Technical data	Accessories	Downloads
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### Features

- › Auxiliary release on the front
- › Release under load possible
- › With door monitoring contact
- › Plug connector BH12

### 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.

### Guard locking type

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

### Switching element

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

## 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).

## 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	IP65
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 NO contacts	1
Number of guard lock monitoring positively driven contacts	2
Number of guard lock monitoring NO contacts	1
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 [2]
Locking force F <sub>max</sub>	1700 N
Locking force F <sub>Zh</sub>	1300 N
Retention force	min.50 N [3]
Extraction force	35 N
Actuating force	35 N
Insertion depth	min.32 mm

## Electrical connection ratings

Rated thermal current I <sub>th</sub>	4 A [4]
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Utilization category according to EN 60947-5-1	AC-15 4A 24V [5] DC-13 4A 24V [6]
Solenoid operating voltage	AC/DC 24 V -15% ... +10%
Short circuit protection according to IEC 60269-1	(Fuse) 4A gG [7]
Rated insulation voltage $U_i$	50 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 [8]
Solenoid duty cycle	100 %
LED indicator	Operating voltage corresponds to the solenoid voltage [9]

### Miscellaneous

C number	C2201 [10]
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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 [11]
Performance Level	Depending on external control of guard locking [12]
PFH <sub>D</sub>	Depending on external control of guard locking [13]
	<b>Monitoring of guard locking and the safety guard position</b>
B10 <sub>D</sub>	$6 \times 10^6$

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

#### Mechanical values and environment

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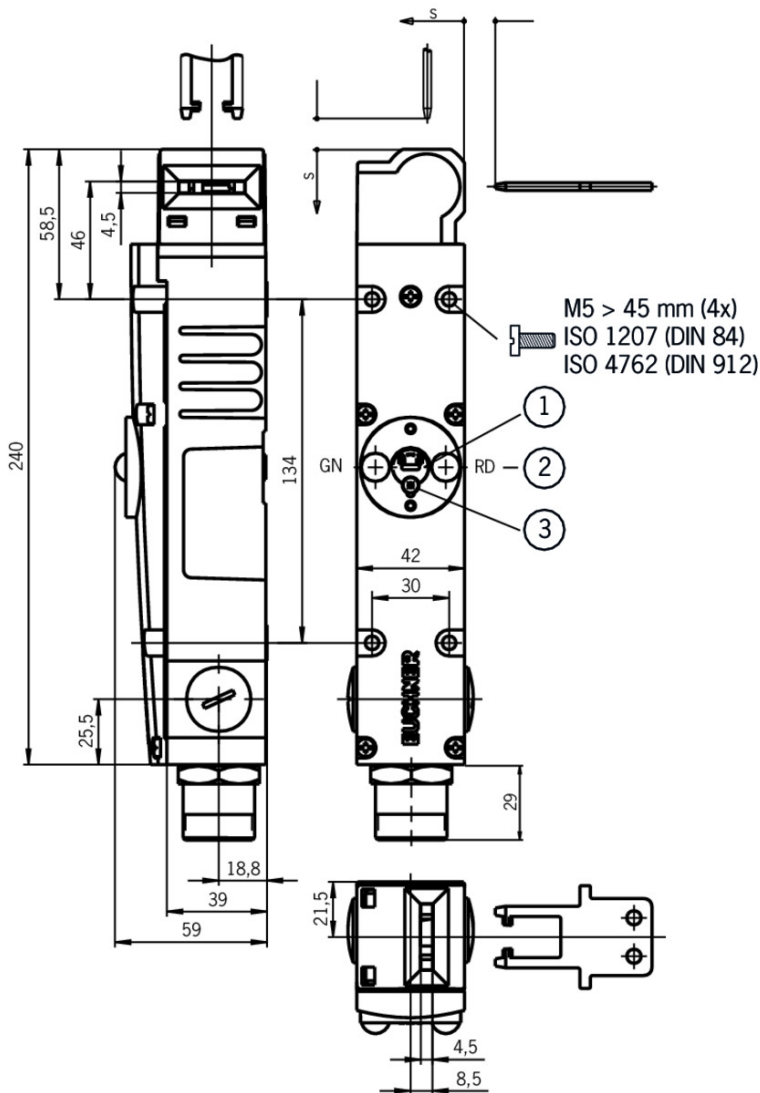
### in combination with Actuator BETAETIGER-X-GNQ, 079742, 098082, 097906

#### Mechanical values and environment

Overtravel	8 mm
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- [1] 11-pin + PE
- [2, 3] Unlocking under load
- [4] > 70°C => 2A
- [5] >70°C =>2A
- [6] >70°C => 2A
- [7] >70°C => 2A gG
- [8] At the instant switched on 48W
- [9] 2 LEDs; green, red
- [10] Special wiring
- [11, 12, 13] LEDs have the same ground potential as the guard locking solenoid.

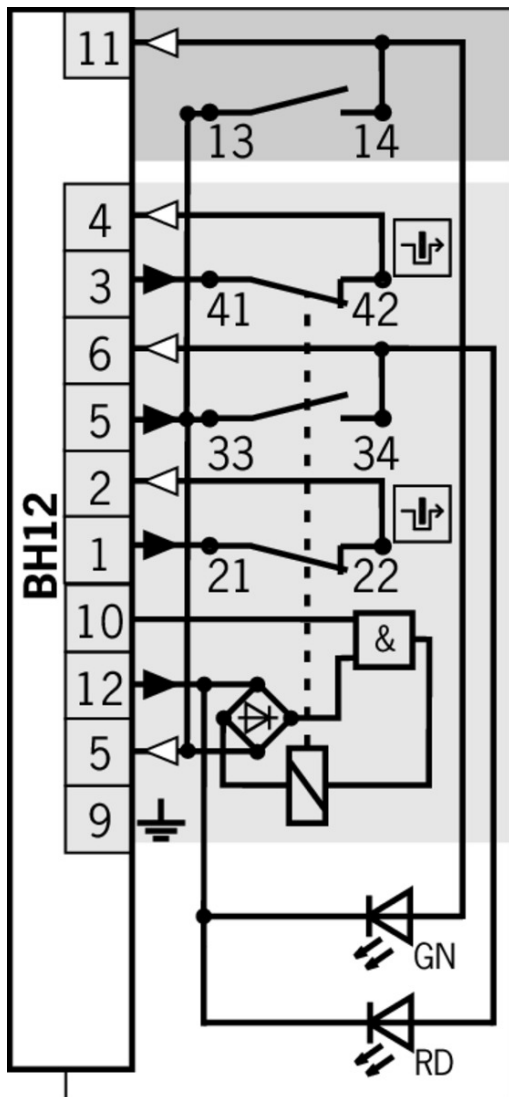
**Dimension drawing**



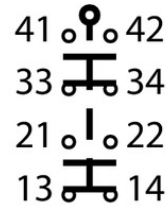
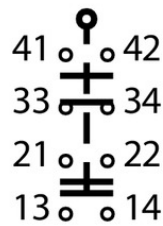
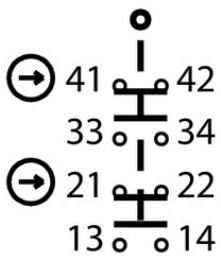
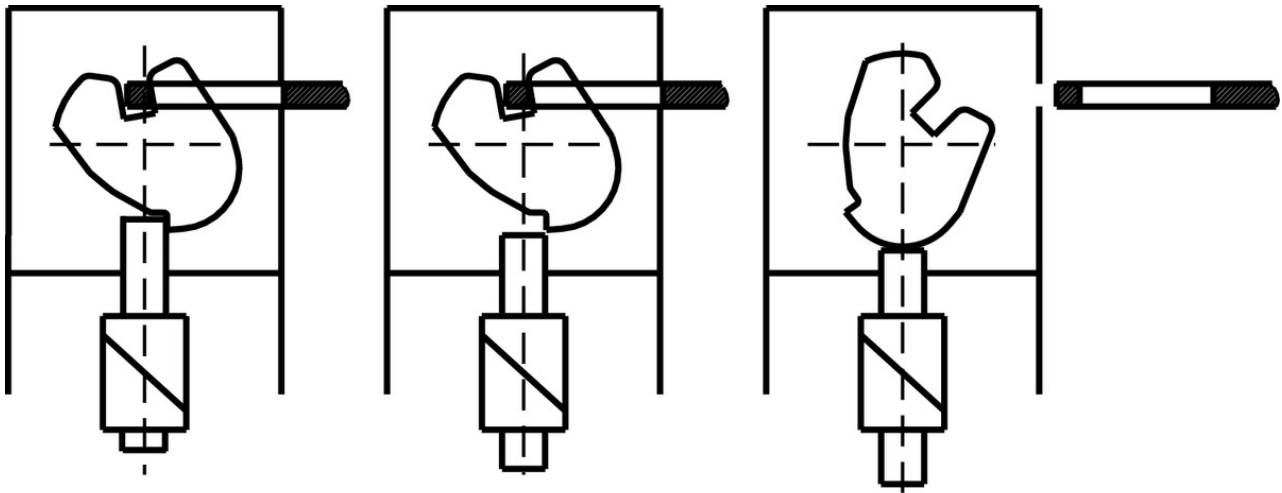
**Legende**

- 1 Auxiliary release
- 2 LED indicator
- 3 Locking screw

ETX C



## Switching functions



ETX C

## Actuator

- ▼ 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

- ▼ 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

- ▼ 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

- ▼ 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

- ▼ 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

- ▼ 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

## Bolt

- ▼ Bolt TX-A for safety switches TX and NX



**082990** RIEGEL TX-A

▼ Features

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

- ▼ Bolt TX-C for safety switches TX and NX



**082991** RIEGEL TX-C

▼ Features

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

- ▼ 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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▼ 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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## Mounting accessories

▼ 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

▼ 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

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## Function expansion

▼ 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

▼ Release with automatic reset for safety switches TX





**094773** ENTRIEGELUNG RUECKSTELLEND TX1/3

▼ Lock for mechanical release for safety switches TX



**079796** SCHLOSS TX VERSCHIEDENSCHLIESSEND



**079795** SCHLOSS TX GLEICHSCHLIESSEND

## Spare parts

▼ Lead seal kit

**087256** PLOMBENSATZ C1937

## 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...				

## 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			