

ITEM 105305 STA4A-4141A024SEM4AS1

Description	Technical data	Accessories	Downloads
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Features

- › Auxiliary release on the front

Guard locking type

STA4 Open-circuit current principle, guard locking by control of AS-i output
0. Release by spring force.

Control of the guard locking solenoid

The guard locking solenoid is controlled by the control system via AS-Interface bus bit D0. In addition the 24V connection can be switched safely.

AS-Interface inputs

D0, D1 Door monitoring contact SK
D2, D3 Solenoid monitoring contact ÜK
Evaluation is performed via a safety monitor.

AS-Interface outputs

- D1** Red LED
- D2** Green LED

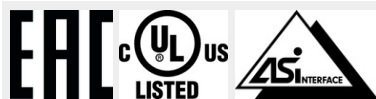
LED function display

- › The Power LED indicates the operating voltage on the bus.
- › The Fault LED indicates if a fault has been detected on the AS-Interface bus.
- › The green and the red LEDs can be controlled as required by the control system via the bus using bits D1 and D2.

Auxiliary release

Is used for releasing the guard locking with the aid of a tool. To protect against tampering, the auxiliary release is sealed with sealing lacquer.

Approvals



Mechanical values and environment

Housing material	Alloy - die-cast
Weight	Net 0,6 kg
Ambient temperature	-20 ... 55 °C
Degree of protection	IP67
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	
According to As-i Safety at Work	1 D0,D1 [1]
Number of guard lock monitoring positively driven contacts	
According to As-i Safety at Work	1 D2,D3 [2]
Connection	
1 x	Plug connector M12 [3]
Approach speed	
max.	20 m/min
Actuation frequency	1200 1/h
Guard locking principle	Open-circuit current principle
Locking force F _{max}	3000 N
Locking force F _{Zh}	2300 N
Retention force	20 N

Extraction force	30 N
Actuating force	35 N
Insertion depth	24,5 mm

Electrical connection ratings

ASi voltage	22,5 ... 30 V 31,6 V
ASi operating current	max.45 mA
ASi auxiliary voltage	
IEC 60742, PELV	24 V -15% ... +10%
ASi auxiliary current	300 mA
Solenoid duty cycle	100 %
ASi slave type	
According to ASI specification 2.1	EA code: 7
According to ASI specification 2.1	ID code: B
ASi data in	
According to ASI safety at work	D0,D1,D2,D3 [4]
ASi data out	
Guard locking solenoid	D0 [5]
LED red	D1 [6]
LED green	D2 [7]
ASi LED	
LED green	Power [8]
LED red	Fault [9]

Reliability values acc. to EN ISO 13849-1

B10 _D	11,5 x 10 ⁶
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in combination with Actuator BETAETIGER-S-GT-SN

Mechanical values and environment

Overtravel	5 mm
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[1] 1 = Door closed

[2] 1 = Locked

[3] 4-pin

[4] See positively driven NC contact

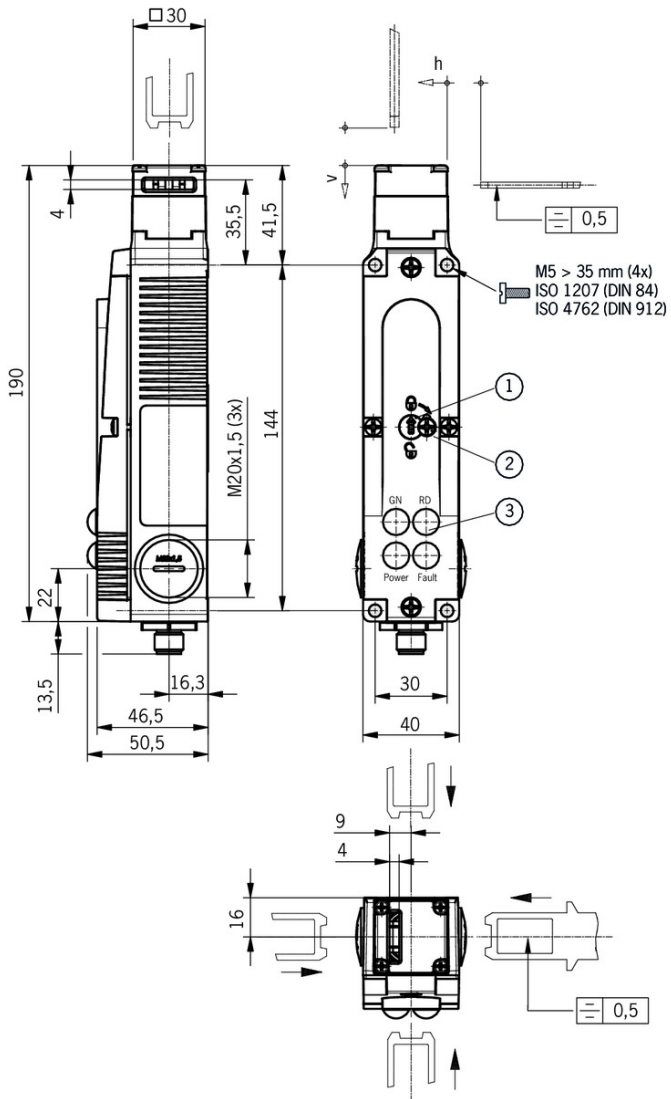
[5] 1 = Solenoid energized

[6, 7] 1 = LED on

[8] ASI voltage is present

[9] Offline phase or address 0

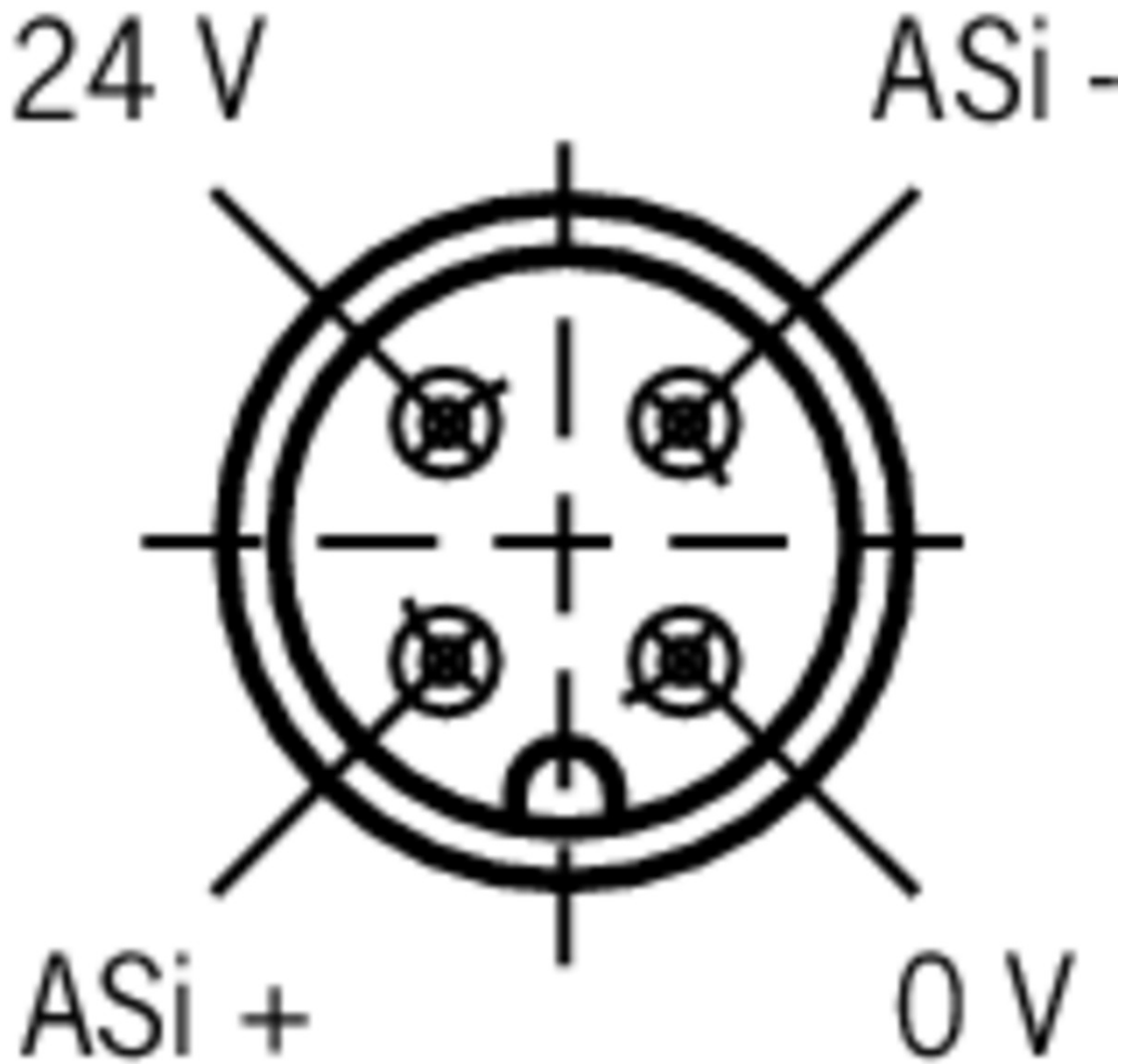
Dimension drawing



Legende

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

Connector assignment



Legende

View of connection side

Actuator

▼ Actuator S for safety switches SGA/SGP/STA/STP/STM



097861 BETAETIGER-S-G-SN-C2115

▼ Features

- › Two safety screws included
- › Physically compatible with TP actuator P-G



095738 BETAETIGER-S-GT-SN

▼ Features

- › Two safety screws included
- › Actuators with rubber bushings

-
- ▼ Hinged actuator L left/right, for safety switches SGA/SGP/STA/STP/STM for insertion funnel



096844 RADIUSBETAETIGER-S-LR-LN

▼ Features

- › Actuators made of stainless steel
- › Two stainless safety screws per actuator
- › For doors hinged on right and left

-
- ▼ Actuator L, bent, for safety switches SGA/SGP/STA/STP/STM for insertion funnel



095741 BETAETIGER-S-WQT-LN

▼ Features

- › Two safety screws included
- › Actuators with rubber bushings

-
- ▼ Hinged actuator S top/bottom for safety switches SGA/SGP/STA/STP/STM



095315 RADIUSBETAETIGER-S-OU-SN

▼ Features

- › Actuators made of stainless steel
- › Two safety screws included
- › For doors hinged at top and bottom

-
- ▼ Hinged actuator S left/right for safety switches SGA/SGP/STA/STP/STM



096838 RADIUSBETAETIGER-S-LR-SN

▼ Features

- › Actuators made of stainless steel
- › Two safety screws included
- › For doors hinged on right and left

-
- ▼ Actuator S, bent, for safety switches SGA/SGP/STA/STP/STM



095740 BETAETIGER-S-WQT-SN

▼ Features

- › Two safety screws included

-
- ▼ Actuator L for safety switches SGA/SGP/STA/STP/STM for insertion funnel



095739 BETAETIGER-S-GT-LN

▼ Features

- › Two safety screws included
- › Actuators with rubber bushings

-
- ▼ Hinged actuator L top/bottom, for safety switches SGA/SGP/STA/STP/STM for insertion funnel



096697 RADIUSBETAETIGER-S-OU-LN

▼ Features

- › Actuators made of stainless steel

- › Two stainless safety screws per actuator
 - › For doors hinged at top and bottom
-

Bolt

- ▼ Bolt S-... for safety switches STA, STP, SGP and SGA



096384 RIEGEL S-A

▼ Features

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



096385 RIEGEL S-C

▼ Features

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

- ▼ Bolt STP-GFK for safety switches STA, STP, SGP and SGA



098121 RIEGEL STP-GFK

▼ Features

- › Fiber glass reinforced plastic bolt
 - › For doors hinged on the left or right
 - › Can be locked in open position with padlocks
 - › Actuator included
-

- ▼ Bolt BTC-ST/G... without escape release for safety switches STA, STP, SGP and SGA



106284 BTC-ST/G-S-TH-00-X

▼ Features

- › Aluminum bolt
 - › For doors hinged on the left or right
 - › Can be locked in open position with padlocks
 - › Actuator included
-

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

Function expansion

- ▼ Emergency unlocking for safety switches STA



099876 NOTENTSPERRUNG STA

- ▼ Insertion funnel for safety switches SGP/STA/STP/STM/SGA



093157 EINFUEHRTRICHTER-S

- ▼ Lockout bar STA/STP/SGA/SGP/STM



105701 SPERREINSATZ STP/STA

- ▼ Features

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

- ▼ Wire front release



096230 AE-B-A1-02,0-096230

- ▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 2 m (rope length 6 m)



097747 AE-B-A1-02,0-F-097747

- ▼ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Sheath length 2 m (rope length 6 m)



098313 AE-B-A1-03,0-098313

- ▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 3 m (rope length 6 m)



111233 AE-B-A1-03,0-F-111233

✓ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Sheath length 3 m (rope length 6 m)



098314 AE-B-A1-04,0-098314

✓ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 4 m (rope length 6 m)



125582 AE-B-A1-06,0-125582

✓ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Rope length 6 m (without sheath)



124770 AE-B-A1-06,0-F-124770

✓ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Rope length 6 m (without sheath)

Connection material

✓ Bus coupling module with plug connector M12, 5-pin








105756 BCM-A-P2-SEM4-1

✓ Features

- › Conversion from M12 to ribbon cable
- › Very compact design
- › Easy handling







Instructions

✓ Betriebsanleitung Sicherheitsschalter STA...AS1

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitsschalter STA...AS1 Operating Instructions Safety Switches STA...AS1	099108	04-08/15	 	 1.6 MB
Инструкция по эксплуатации предохранительных выключателей STA...AS1	099108	04-08/15		 0.4 MB

Catalogs

▼ Sicherheitsschalter mit AS-Interface Safety Switches with AS-Interface Interrupteurs de sécurité avec AS-Interface

	Doc. no.	Version	Language	Download
Sicherheitsschalter mit AS-Interface	092164	11-04/17		 2.3 MB
Interrupteurs de sécurité avec AS-Interface	112564	11-04/17		 2.3 MB
Safety Switches with AS-Interface	092332	11-04/17		 2.3 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				