ITEM 105305 STA4A-4141A024SEM4AS1

Description	Technical data	Accessories	Downloads

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.
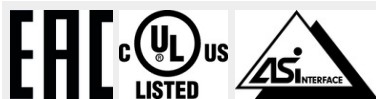
AS-Interface outputs

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	1×10^6
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

in combination withActuator BETAETIGER-S-GT-SN

Mechanical values and environment

Overtravel	5 mm

[1] 1 = Door closed

[2] 1 = Locked

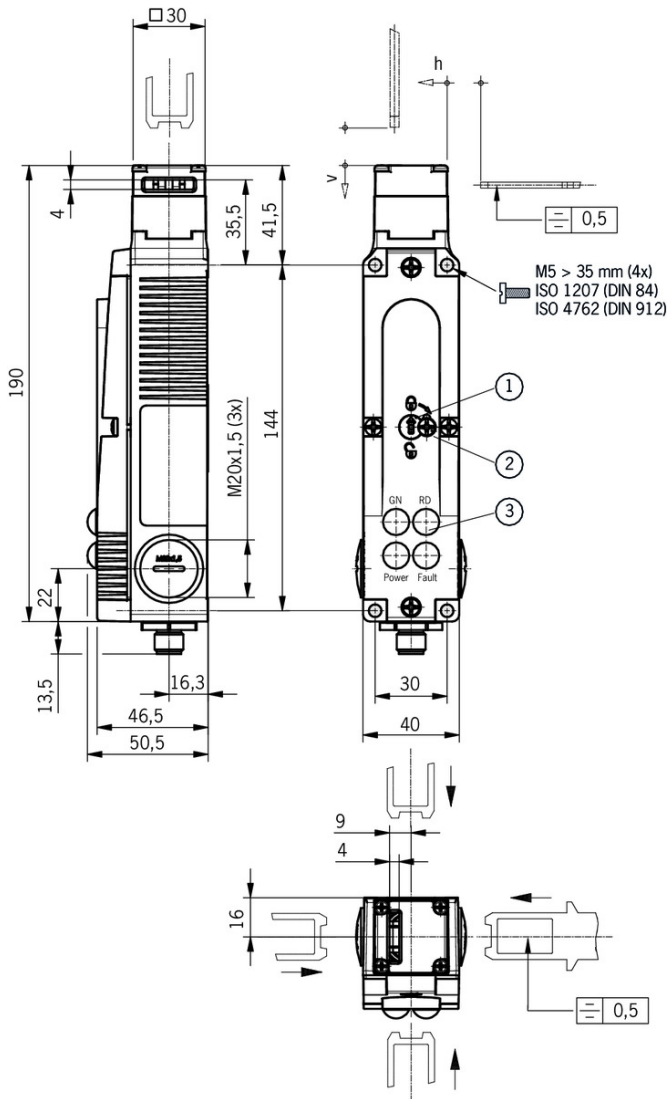[3] 4-pin

[4] See positively driven NC contact

[5] 1 = Solenoid energized

[6, 7] 1 = LED on

[8] ASI voltage is present
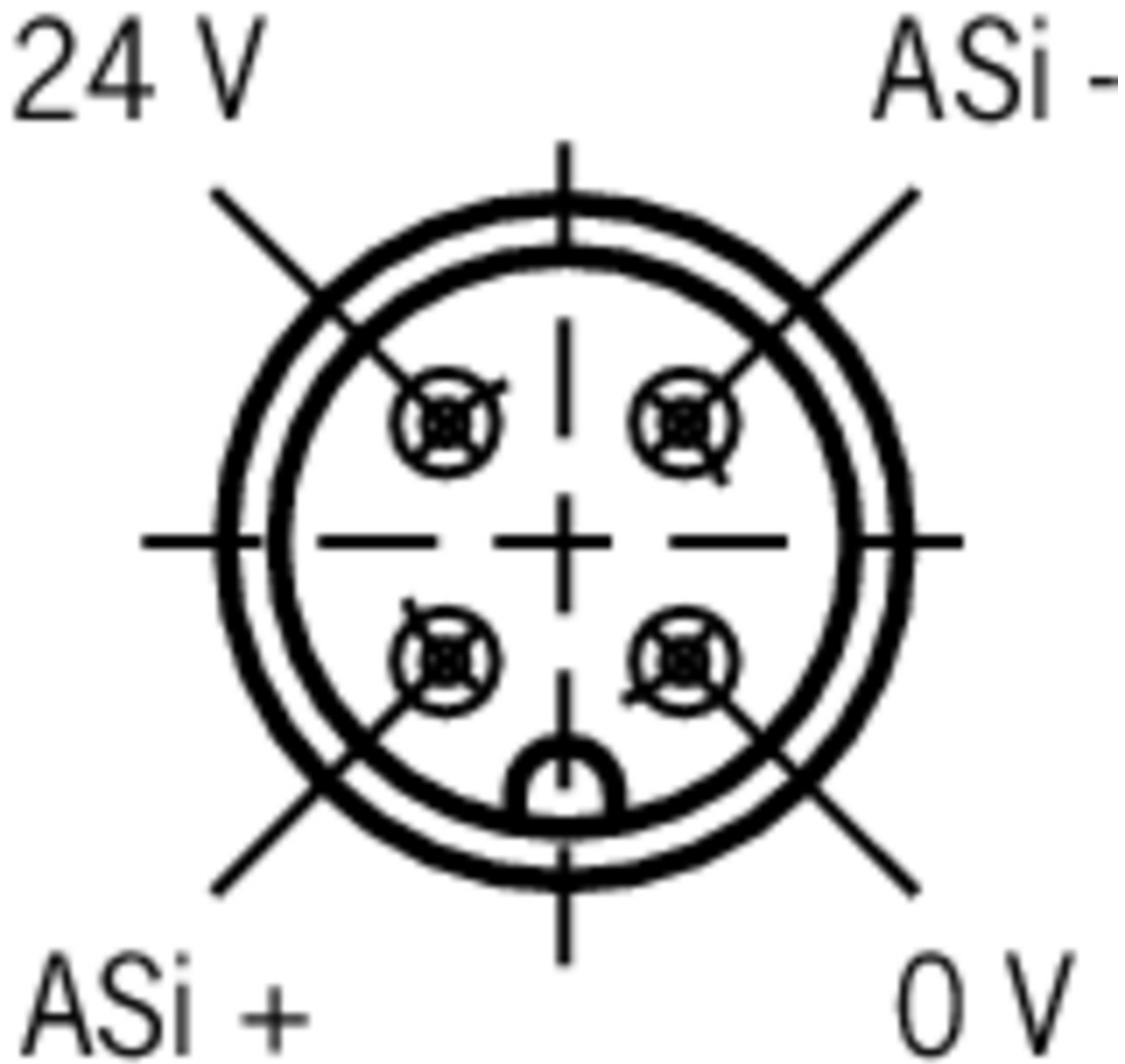
[9] Offline phase or address 0

Dimension drawing

Legende

1 Auxiliary release

2 Locking screw

3 LED indicator

Connector assignment

24 V   ASi -

ASi +   0 V

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 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