General Data

Type reference:	ASI_SAW16A, ASI_SAW16E, ASI_SAW22A, ASI_SAW22E,
Description:	AS-Interface slave (safety at work)
Approvals:	ASI, cCSAus, TÜV_Süd

Note

Communication	
- AS-Interface specification:	V 2.1
- Slave profile:	ASI_SAWxxA S-7.B.E
	ASI_SAWxxE S-0.B.E
- Standby delay time:	< 1s
- Input delay:	< 5ms
- Connection:	via 2-pole IDC connector(3.96mm) with lock mechanism and strain relief type ref.: "ASI_SL2AWG18"
- Addressing:	via integrated connector or separate addressing connector *)
Ambient Conditions	
- Operating temperature:	-25 °C ...+70 °C
- Humidity:	up to 95%, non-condensing
- Degree of protection/slave:	IP20
- Pollution degree:	2 (acc. to IEC 60947-1)

Electrical Data

- Operating voltage:	26.5...31,6 V, through the AS-Interface line
- Total power consumption:	ASI_SAWxxA: <= 60 mA
	ASI_SAWxxE: <= 50 mA
- Reverse polarity protection:	available
- Contacts:	two positive opening contacts acc. to IEC60947-5-5
- Safety integrity level:	SIL 3
- Output (not safe):	for the control of a LED *)
Rated voltage:	24 V DC (+10%)
Max. power consumption:	approx. 15mA
Short circuit/overload:	LED output
Connection cable:	type ref.: "VK_JST025BKL", "VK_JST034"

Norms and Standards

- Complete AS-Interface Specification, Version 2.11 Rev.1, V3.0 Rev. 0
- IEC 62026-2, IEC 60204-1,IEC 61508, EN 13850, IEC 60947-5-5
- TÜV Type Approval, UL/CSA Approval - AS-Interface Certificate 62801 *) refers only to types ASI_SAW16A, ASI_SAW22A (with additional addressing connector)

Use in AS-Interface POWER24V networks:

- The Schlegel ASi slaves ASI_SAWxxE comply with the specification AS-Interface POWER24 and can also be operated at 24V.

Notes on the use in AS-Interface Power24V networks:

Requirements for the power supply unit:

1. The power supply unit must supply a PELV voltage according to IEC 61140
2. The min. DC voltage may not be lower than 21.6V (24V - 10%) and the max. DC voltage of 31V must not be exceeded.
3. The power supply unit must supply an additional current of 0.4A above the rated current in case of voltage recovery and during operation.

Master and Slaves:

All components in the network, both master and slaves, must be suitable for the operation of AS-Interface Power24V.

Network:

The network can be arranged in a free tree structure, same as on AS-Interface, but the net expansion may not exceed 50m.

Note: For operation, use earth fault monitors which are specially designed for AS-Interface Power24V.

AS-Interface safety at work

MADE IN GERMANY

SCHLEGEL ELEKTROKONTAKT

Illustration	Description	Type

AS-Interface slave with output (Safety at Work) 16 mm

for safety-related pushbuttons and switches of 16 mm mounting diameter, e.g. emergency-stop buttons
- with short-circuit proof, individually controllable, digital output
- permanent monitoring and safety shutdown if contact block and actuator are separated - profile: S-7.B.E
- applicable standard: V 2.1
- safety integrity level: SIL 3

suitable pushbuttons and switches:

ASI_SAW16A

AS-Interface slave (Safety at Work) 16 mm

for safety-related pushbuttons and switches of 16 mm mounting diameter, e.g. emergency-stop buttons
- profile: S-0.B.E, - applicable standard: V 2.1
- safety integrity level: SIL 3

suitable pushbuttons and switches:

ASI_SAW16E

AS-Interface slave with output (Safety at Work) 22 mm

for safety-related pushbuttons and switches of 22 mm mounting diameter, e.g. emergency-stop buttons
- with short-circuit proof, individually controllable, digital output
- permanent monitoring and safety shutdown if contact block and actuator are separated - profile: S-7.B.E,
- applicable standard: V 2.1
- safety integrity level: SIL 3

suitable pushbuttons and switches:

ASI_SAW22A

AS-Interface slave (Safety at Work) 22 mm

for safety-related pushbuttons and switches of 22 mm mounting diameter, e.g. emergency-stop buttons
- profile: S-0.B.E, - applicable standard: V 2.1
- safety integrity level: SIL 3

suitable pushbuttons and switches:

ASI_SAW22E

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AS-Interface safety at work

Illustration	Description	Type

Accessories

Connection cable
to connect an illuminated emergency-stop pushbutton to an AS-Interface slave (Safety at Work)
two-wired strand, red/black, 0.25 mm², with crimped connectosr on both sides
length: approx. 10 cm

VK_JST025BKL

Connecting cable with open cable end
to connect e.g. an external LED signal lamp to an AS-Interface slave (Safety at Work), two-wired strand, red/black, 0.34mm², with crimped connector on one side.
Length: abt. 10 cm

VK_JST034

Please refer to the e-stop enclosures for AS-Interface systems starting on page 678

IDC connector
2 poles, for AWG18, to connect the AS-Interface slaves by insulation piercing (IDC technology); with lock mechanism and strain relief
Technical data:
· connector spacing 3.96 mm
· wire size: AWG18 (0.8...1.0 mm²)
· outside dia.: 1.0...2.28 mm
Recommendation: optimal strain relief when used with „ASI_K2"

ASI_SB2AWG18

Cover with integrated strain relief
for 2-pole IDC connector

ASI_K2

Hand tool
serves to press the single conductors into the IDC connector, connector spacing 3.96 mm

ASI_MRT

AS-Interface safety at work

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Illustration	Description	Type
	**AS-Interface addressing cable** serves to address the slaves ASI_BZ, ASI_BZL5 with a commercial AS-Interface hand addressing device Technical data: · PVC cable 500 mm, 2 x 0.75 mm² · M12 straight-line plug	**ASI_PK500M12**
	**Flexible equipment wire** suitable for insulation piercing (IDC technology), serves to connect the AS-Interface slaves, twisted 2-core cable, brown/blue; 50 m per unit Technical data: · AWG18 · 19 wires · conductor resistance 21 Ohm/km · style no. 1007 / TR4 · operating temperature max. 80/90 °C (UL/CSA) · storage temperature down to -55 °C · acid/alkali-proof and oil-resistant · flame-resistant · keeps its elasticity under heat and cold	
	**Flat cable branch with M12 socket** without fastening lugs, to connect a cable with M12 connector to the yellow profile cable Technical data: · 2 A max. · IP20	**ASI_AZM12**
	**Flat cable branch with M12 socket with fastening lugs** to connect a cable with M12 connector to the yellow profile cable Technical data: · max. 2 A · IP20	**ASI_AZM12L**
	**M12 straight-line plug** with plastic nut, self-assembly via screw connections, serves to connect the AS-Interface flexible equipment wire to a M12 connector Technical data: · 4 A max. · 4 poles · PG7	**ASI_M12**

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AS-Interface safety at work

Illustration	Description	Type
	**M12 right-angle plug** with plastic nut, self-assembly via screw connections, serves to connect the AS-Interface flexible equipment wire to a M12 connector Technical data: · 4 A max. · 4 poles · PG7	**ASI_M12W**
	**Flat cable branch with fastening lugs** self-assembly via screw connections, to connect the AS-Interface strand to the yellow profiel cable Technical data: · 2-pole · max. 4 A	**ASI_AZL**
	**Flat cable branch** self-assembly via screw connections, without fastening lugs, to connect the AS-Interface flexible equipment wire to the yellow profile cable Technical data: · 2 poles · 4 A max.	**ASI_AZ**