**General Data**

Type Reference: ASI_BZ, ASI_BZL5

Description: AS-Interface-Slave

Approvals: ASI, cCSAus, GOST-R, UkrSepro

**Communication**

- AS-Interface Specification: V2.11
- Slave profile: S-B.A.E
- Connection: via 2-pole IDC connector (3.96mm), type ref. “ASI_SB2AWG18”
- Connection cable: double-core flexible wire, AWG18, e.g. “ASI_SL2AWG18”
- Max. network length: 100m (without repeater)
- Max. cycle time: < 10ms (62 A/B slaves)

**Ambient Conditions**

- Operating temperature: -25°C ... +70°C
- Storage temperature: -40°C ... +80°C
- Humidity: up to 95%, non-condensing

**Mechanical Data**

- Operating travel: <= 3mm
- Operating cycles: >= 1 million

**Electrical Data**

- Power supply: 26.5...31.6 V, through the AS-Interface line
- Total power consumption: <= 30 mA
- Signalling unit - output*: supply through AS-Interface line, continuously short-circuit proof, overload protection
- Max. load current of LED: 20 mA
- Luminous intensity: via D0/D1 individually controllable/dimmable in 4 steps
- Rated voltage: 24 VDC [+10%]
- Socket: T5,5k, LED, Schlegel ref.: L5,5k24U...

**Norms and Standards**

CE, IEC 62026-2, cCSAus

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

*) only ASI_BZL5
### Contact Blocks

#### 2-pole connector (3.96 mm spacing)

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Description</th>
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</tr>
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<tbody>
<tr>
<td><img src="image1.png" alt="AS-Interface Slave" /></td>
<td><strong>AS-Interface Slave</strong>&lt;br&gt;bus-compatible (2 I/2O)&lt;br&gt;2-pole connector (3.96 mm spacing)&lt;br&gt;- unlighted&lt;br&gt;- small mounting depth due to built-in IDC connector&lt;br&gt;- with 2 integrated inputs D2/D3&lt;br&gt;- profile: S-B.A.E&lt;br&gt;- applicable standard: V2.11&lt;br&gt;- reversely compatible to type ASI_BZII5</td>
<td>ASI_BZ</td>
</tr>
<tr>
<td><img src="image2.png" alt="AS-Interface Slave" /></td>
<td><strong>AS-Interface Slave with T5,5K socket</strong>&lt;br&gt;bus-compatible (2 I/2O)&lt;br&gt;2-pole connector (3.96 mm spacing)&lt;br&gt;- illuminated, LED socket T5,5K&lt;br&gt;- small mounting depth due to built-in IDC connector&lt;br&gt;- with 2 integrated inputs D2/D3&lt;br&gt;- with 1 integrated LED output, individually controllable/dimmable (4 steps) via D0/D1&lt;br&gt;- profile: S-B.A.E&lt;br&gt;- applicable standard: V2.11&lt;br&gt;- reversely compatible to type ASI_BZII5</td>
<td>ASI_BZLS</td>
</tr>
<tr>
<td><img src="image3.png" alt="Ultra-bright LED, T5.5K socket - 24V" /></td>
<td><strong>Ultra-bright LED, T5.5K socket - 24V</strong>&lt;br&gt;with integrated series resistor and single-wave rectifier&lt;br&gt;for 24V AC/DC (7/14 mA)&lt;br&gt;When connecting to DC, the correct polarity must be observed:&lt;br&gt; +... X1 / ... X2&lt;br&gt;storage temperature: -25°C ... +80°C&lt;br&gt;ambient temperature: -20°C ... +60°C&lt;br&gt;voltage tolerance: +10 %&lt;br&gt;colour</td>
<td>L5,5K24UB blue&lt;br&gt;L5,5K24UG green&lt;br&gt;L5,5K24UR red&lt;br&gt;L5,5K24UW white&lt;br&gt;L5,5K24UY yellow</td>
</tr>
</tbody>
</table>
### Contact Blocks

**2-pole connector (3.96 mm spacing)**

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<tr>
<td><img src="image.jpg" alt="Image" /></td>
<td><strong>IDC Connector</strong> <strong>ASI_SB2AWG18</strong></td>
<td>2 poles, for AWG18, to connect the AS-Interface slaves by insulation piercing (IDC technology); with lock mechanism and strain relief</td>
</tr>
<tr>
<td></td>
<td>Technical data:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· connector spacing 3.96 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· wire size: AWG18 (0.8...1.0 mm²)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· outside dia.: 1.0...2.28 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recommendation: optimal strain relief when used with „ASI_K2“</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cover with integrated strain relief</strong> <strong>ASI_K2</strong></td>
<td>for 2-pole IDC connector</td>
</tr>
<tr>
<td></td>
<td><strong>Hand Tool</strong> <strong>ASI_MRT</strong></td>
<td>serves to press the single conductors into the IDC connector, connector spacing 3.96 mm</td>
</tr>
<tr>
<td></td>
<td><strong>AS-Interface Addressing Cable</strong> <strong>ASI_PK500M12</strong></td>
<td>serves to address the slaves ASI_BZ, ASI_BZL5 with a commercial AS-Interface hand addressing device.</td>
</tr>
<tr>
<td></td>
<td>Technical data:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· PVC cable 500 mm, 2 x 0.75 mm²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· M12 straight-line plug</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Flexible Equipment Wire</strong> <strong>ASI_SL2AWG18</strong></td>
<td>suitable for insulation piercing [IDC technology], serves to connect the AS-Interface slaves, twisted 2-core cable, brown/blue; 50 m per unit</td>
</tr>
<tr>
<td></td>
<td>Technical data:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· AWG18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· 19 wires</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· conductor resistance 21 Ohm/km</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· style no. 1007 / TR4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· operating temperature max. 80/90 °C (UL/CSA)</td>
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<tr>
<td></td>
<td>· storage temperature down to -55 °C</td>
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<tr>
<td></td>
<td>· acid/alkali-proof and oil-resistant</td>
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<td></td>
<td>· flame-resistant</td>
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<tr>
<td></td>
<td>· keeps its elasticity under heat and cold</td>
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</tr>
<tr>
<td>Illustration</td>
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<tr>
<td>--------------</td>
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</tr>
<tr>
<td><img src="image1.png" alt="Flat Cable Branch with spring clamp connection" /></td>
<td><strong>Flat Cable Branch with spring clamp connection</strong>&lt;br&gt;<strong>LA9Z-SNTB</strong>&lt;br&gt;serves to connect the AS-Interface slaves to the yellow profile line; Technical data:&lt;br&gt;- AWG20-AWG18&lt;br&gt;- 31.6V / &lt;= 3A&lt;br&gt;- IP20&lt;br&gt;- ambient temperature: -25 up to 55°C&lt;br&gt;- outside dia. of wire: 1.0...2.28 mm</td>
<td></td>
</tr>
<tr>
<td><img src="image2.png" alt="Flat Cable Branch with M12 socket" /></td>
<td><strong>Flat Cable Branch with M12 socket</strong>&lt;br&gt;<strong>ASI_AZM12</strong>&lt;br&gt;without mounting straps, allows connection of a cable with M12 connector to the yellow profile line; Technical data:&lt;br&gt;- 2 A max.&lt;br&gt;- IP20</td>
<td></td>
</tr>
<tr>
<td><img src="image3.png" alt="Flat Cable Branch with M12 socket and mounting straps" /></td>
<td><strong>Flat Cable Branch with M12 socket and mounting straps</strong>&lt;br&gt;<strong>ASI_AZM12L</strong>&lt;br&gt;and mounting straps, allows the connection of a cable with M12 connector to the yellow profile line; Technical data:&lt;br&gt;- 2 A max.&lt;br&gt;- IP20</td>
<td></td>
</tr>
<tr>
<td><img src="image4.png" alt="M12 Straight-line Plug" /></td>
<td><strong>M12 Straight-line Plug</strong>&lt;br&gt;<strong>ASI_M12</strong>&lt;br&gt;with plastic nut, self-assembly via screw connections, serves to connect the AS-Interface flexible equipment wire to a M12 connector Technical data:&lt;br&gt;- 4 A max.&lt;br&gt;- 4 poles&lt;br&gt;- PG7</td>
<td></td>
</tr>
<tr>
<td>Illustration</td>
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</table>
| ![M12 Right-angle Plug](image1) | **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](image2) | **Flat Cable Branch**  
self-assembly via screw connections, with mounting straps, serves to connect the AS-Interface flexible equipment wire to the yellow profile line.  
Technical data:  
· 2 poles  
· 4 A max. | **ASI_AZL** |
| ![Flat Cable Branch](image3) | **Flat Cable Branch**  
self-assembly via screw connections, without mounting straps, serves to connect the AS-Interface flexible equipment wire to the yellow profile line.  
Technical data:  
· 2 poles  
· 4 A max. | **ASI_AZ** |
General Data
Type Reference: ASI_SAW16A, ASI_SAW16E, ASI_SAW22A, ASI_SAW22E
Description: AS-Interface Slave (Safety at Work)
Approvals: ASI, cCSAus, GOST-R, TÜV_SÜD, CE, UkrSepro

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...3.6 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
- The Schlegel AS slaves comply with the specification
  AS-Interface POWER24 and can also be operated at 24 V.

*) refers only to types ASI_SAW16A, ASI_SAW22A (with additional addressing connector)
Contact Blocks

2-pole connector (3.96 mm spacing)

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<tr>
<td><img src="image1" alt="AS-Interface Slave (Safety at Work) 16 mm" /></td>
<td><strong>AS-Interface Slave (Safety at Work) 16 mm</strong>&lt;br&gt;for safety-related control units of 16 mm mounting diameter, e.g. emergency-stop actuators&lt;br&gt;- with short-circuit proof, individually controllable, digital output&lt;br&gt;- permanent monitoring and safety shutdown if contact block and actuator are separated&lt;br&gt;- profile: S-7.B.E&lt;br&gt;- applicable standard: V 2.1&lt;br&gt;- safety integrity level: SIL 3</td>
<td><strong>ASI_SAW16A</strong></td>
</tr>
<tr>
<td><img src="image2" alt="AS-Interface Slave (Safety at Work) 16 mm" /></td>
<td><strong>AS-Interface Slave (Safety at Work) 16 mm</strong>&lt;br&gt;for safety-related control units of 16 mm mounting diameter, e.g. emergency-stop actuators&lt;br&gt;- profile: S-0.B.E&lt;br&gt;- applicable standard: V 2.1&lt;br&gt;- safety integrity level: SIL 3</td>
<td><strong>ASI_SAW16E</strong></td>
</tr>
<tr>
<td><img src="image3" alt="AS-Interface Slave (Safety at Work) 22 mm" /></td>
<td><strong>AS-Interface Slave (Safety at Work) 22 mm</strong>&lt;br&gt;for safety-related control units of 22 mm mounting diameter, e.g. emergency-stop actuators&lt;br&gt;- with short-circuit proof, individually controllable, digital output&lt;br&gt;- permanent monitoring and safety shutdown if contact block and actuator are separated&lt;br&gt;- profile: S-7.B.E&lt;br&gt;- applicable standard: V 2.1&lt;br&gt;- safety integrity level: SIL 3</td>
<td><strong>ASI_SAW22A</strong></td>
</tr>
<tr>
<td><img src="image4" alt="AS-Interface Slave (Safety at Work) 22 mm" /></td>
<td><strong>AS-Interface Slave (Safety at Work) 22 mm</strong>&lt;br&gt;for safety-related control units of 22 mm mounting diameter, e.g. emergency-stop actuators&lt;br&gt;- profile: S-0.B.E&lt;br&gt;- applicable standard: V 2.1&lt;br&gt;- safety integrity level: SIL 3</td>
<td><strong>ASI_SAW22E</strong></td>
</tr>
<tr>
<td><img src="image5" alt="Connection Cable" /></td>
<td><strong>Connection Cable</strong>&lt;br&gt;serves to connect an illuminated emergency-stop pushbutton to an AS-Interface slave (Safety at Work),&lt;br&gt;2-core strand, red/black, 0.25 mm², with male connector crimped on both sides, length: approx. 10 cm</td>
<td><strong>VK_JST025BKL</strong></td>
</tr>
</tbody>
</table>
Contact Blocks
2-pole connector (3.96 mm spacing)

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</tr>
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<tbody>
<tr>
<td><img src="vk_jst034.png" alt="Connection Cable" /></td>
<td><strong>Connection Cable</strong>&lt;br&gt;with open end, to connect e.g. an external LED signal lamp to an AS-Interface slave (Safety at Work), 2-core strand, red/black, 0.34 mm², with male connector crimped on one side, length: approx. 10 cm</td>
<td><strong>VK_JST034</strong></td>
</tr>
<tr>
<td><img src="es_stop_enclosures.png" alt="Please refer to the E-stop enclosures for AS-Interface systems starting on page 592" /></td>
<td><strong>Please refer to the E-stop enclosures for AS-Interface systems starting on page 592</strong></td>
<td></td>
</tr>
<tr>
<td><img src="as_isb2awg18.png" alt="IDC Connector" /></td>
<td><strong>IDC Connector</strong>&lt;br&gt;2 poles, for AWG18, to connect the AS-Interface slaves by insulation piercing (IDC technology); with lock mechanism and strain relief&lt;br&gt;Technical data:&lt;br&gt;- connector spacing 3.96 mm&lt;br&gt;- wire size: AWG18 (0.8...1.0 mm²)&lt;br&gt;- outside dia.: 1.0...2.26 mm&lt;br&gt;Recommendation: optimal strain relief when used with „ASI_K2“</td>
<td><strong>ASI_SB2AWG18</strong></td>
</tr>
<tr>
<td><img src="asi_k2.png" alt="Cover with integrated strain relief" /></td>
<td><strong>Cover with integrated strain relief</strong>&lt;br&gt;for 2-pole IDC connector</td>
<td><strong>ASI_K2</strong></td>
</tr>
<tr>
<td><img src="asimrt.png" alt="Hand Tool" /></td>
<td><strong>Hand Tool</strong>&lt;br&gt;serves to press the single conductors into the IDC connector, connector spacing 3.96 mm</td>
<td><strong>ASI_MRT</strong></td>
</tr>
<tr>
<td><img src="asipk500m12.png" alt="AS-Interface Addressing Cable" /></td>
<td><strong>AS-Interface Addressing Cable</strong>&lt;br&gt;serves to address the slaves ASI_BZ, ASI_BZLS with a commercial AS-Interface hand addressing device.&lt;br&gt;Technical data:&lt;br&gt;- PVC cable 500 mm, 2 x 0.75 mm²&lt;br&gt;- M12 straightline plug</td>
<td><strong>ASI_PK500M12</strong></td>
</tr>
</tbody>
</table>
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 2.1 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 spring clamp connection
serves to connect the AS-Interface slaves to the yellow profile line;
Technical data:
- AWG20-AWG18
- 31.6V / <= 3A
- IP20
- ambient temperature: -25 up to 55 °C
- outside dia. of wire: 1.0...2.28 mm

Flat Cable Branch with M12 socket
without mounting straps, allows connection of a cable with M12 connector to the yellow profile line;
Technical data:
- 2 A max.
- IP20

Flat Cable Branch with M12 socket and mounting straps, allows the connection of a cable with M12 connector to the yellow profile line;
Technical data:
- 2 A max.
- IP20
## Contact Blocks

2-pole connector (3.96 mm spacing)

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| ![M12 Straight-line Plug](image1) | **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. | **ASI_M12** |
| ![M12 Right-angle Plug](image2) | **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. | **ASI_M12W** |
| ![Flat Cable Branch](image3) | **Flat Cable Branch**  
self-assembly via screw connections, with mounting straps, serves to connect the AS-Interface flexible equipment wire to the yellow profile line. | **ASI_AZL** |
| ![Flat Cable Branch](image4) | **Flat Cable Branch**  
self-assembly via screw connections, without mounting straps, serves to connect the AS-Interface flexible equipment wire to the yellow profile line. | **ASI_AZ** |

Technical data:
- 4 A max.
- 4 poles
- PG7