

# 24 Volt ASi Gateways in Stainless Steel

## 24 Volt ASi:

- The devices can be operated directly on a 24 V (PELV) power supply.
- With integrated data coupling coils and adjustable self-resetting fuses optimized for safe use also of powerful 24 V power supplies.

## Available fieldbus interfaces:

- PROFIBUS
- CC-Link



## Recognition of duplicate ASi addresses

## ASi Noise Detector integrated



(figure similar)



Figure	Fieldbus interface <sup>(1)</sup>	ASi-5/ASi-3	Number of ASi networks, number of ASi Master <sup>(2)</sup>	Integrated decoupling, ASi current measurement in the gateway <sup>(3)</sup>	Recognition of duplicate ASi addresses <sup>(4)</sup>	ASi fault detector <sup>(5)</sup>	Programming in C <sup>(6)</sup>	Article no.
	PROFIBUS	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network, no ASi current measurement	yes	yes	no	BWU3053
	CC-Link	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network, no ASi current measurement	yes	yes	no	BWU3051

**(1) Fieldbus interface**

Communication interface between fieldbus and gateway: interfaces for standardized fieldbus systems in industrial automation.

**PROFIBUS ASi gateway:** interface for a PROFIBUS fieldbus

**CC-Link ASi gateway:** interface for a CC-Link fieldbus

**OPC UA server:** interface for the OPC UA communication.

**(2) Number of ASi networks, number of ASi Master**

**"Single Master":** 1 ASi network, 1 ASi Master.

**(3) Integrated decoupling, ASi current measurement in the gateway**

**"yes, max. 4 A/ASi network, no ASi current measurement":** Data decoupling integrated in the gateway. Cost-effective power for 2 ASi networks with 1 power supply (optionally supply of multiple Single Gateways by 1 power supply). Operation with short cable lengths with standard 24 V power supply possible.

**(4) Recognition of duplicate ASi addresses**

Detects whether the same address has been assigned to two ASi nodes. Frequent error when using a handheld addressing device.

**(5) ASi fault detector**

Checks the ASi line for interference effects such as noise, external voltages, ...

**(6) Programming in C**

Using a C-program offers the possibility to run mini-PLC functions with a gateway.

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Article no.	BWU3053	BWU3051
<b>Fieldbus Interface</b>		
Type	<b>PROFIBUS</b> (RS 485)	<b>CC-Link</b> (screw terminal blocks)
	<ul style="list-style-type: none"> <li>acc. to IEC 61158 / IEC 61784-1</li> <li>imaging of the ASi nodes as I/O of the PROFIBUS</li> <li>complete diagnosis and configuration via the DP Master</li> </ul>	<ul style="list-style-type: none"> <li>acc. to CC-Link specification</li> <li>remote device</li> <li>2-4 occupied stations (depending on operating mode)</li> </ul>
OPC UA interface	–	–
Baud rates	9,6 Kbaud ... 12 Mbaud, automatic recognition	156 Kbaud ... 10 Mbaud
Function	–	–
Card slot	chip card for storage of configuration data	
<b>ASi</b>		
ASi specification	ASi-3	
Cycle time	150 $\mu$ s * (number of nodes + 2)	
Operating voltage	24 V <sub>DC</sub> (20 ... 31,6 V) (PELV voltage)	
Operating current	approx. 250 mA	
Current per ASi network	max. 4 A	
Length of ASi cable	with 24 V standard power supply: max. 50 m with 30 V ASi power supply: max. 100 m	
<b>Display</b>		
LCD	menu, ASi indication of node addresses, error messages in plain text	
LED power (green)	power ON	
Fieldbus	<b>LED PROFIBUS</b>	<b>LED CC-Link</b>
	green: PROFIBUS communication active	green: CC-Link communication active
LED config error (red)	configuration error	
LED U ASi (green)	ASi voltage o.k.	
LED ASi active (green)	ASi normal operation active	
LED prg enable (green)	automatic address programming enabled	
LED prj mode (yellow)	in configuration mode	
<b>UL-specifications (UL508)</b>		
External protection	An isolated source with a secondary open circuit voltage of $\leq 30$ V <sub>DC</sub> with a 3 A maximum over current protection. Over current protection is not required when a Class 2 source is employed.	
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices.	
<b>Environment</b>		
Applied standards	EN 61131-2 EN 60529 EN 61000-6-2 EN 61000-6-4	
Operating altitude	max. 2000 m	
Operating temperature	0 °C ... +55 °C	
Storage temperature	-25 °C ... +85 °C	
Housing	Stainless Steel, for DIN rail mounting	
Pollution degree	2	
Protection category	IP20	
Tolerable loading referring to humidity	according to EN 61131-2	
Maximum tolerable shock and vibration stress	according to EN 61131-2	
Voltage of insulation	$\geq 500$ V	
Weight	500 g	
Dimensions (W / H / D in mm)	75 / 120 / 83	85 / 120 / 83

Article no.	BWU3053, BWU3051
Data decoupling integrated in the gateway	•
Redundant power supply out of ASi: all fundamental functions of the device remain available even in case of power failure in one of the two ASi networks	-
Current measurement of the ASi circuits	-
Self-resetting fuses	•
Adjustable fuses	-
ASi earth fault monitor distinguishes between ASi cable and sensor cable	-
Cost-effective power for 2 ASi networks with 1 power supply	•

### Accessories:

- Chip card, memory capacity 128 kB (art. no. BW2222)
- Bihl+Wiedemann Suite - Software for Configuration, Diagnostics and Commissioning (art. no. BW2902)
- PROFIBUS Master Simulator (art. no. BW1131, BW1257)
- Power supplies, e.g.: 30 V power supply, 4 A, 1 phase (art. no. BW4218), 30 V power supply, 8 A, 1 phase (art. no. BW4219), 30 V power supply, 8 A, 3 phases (art. no. BW4220), 30 V Power Supply, 16 A, 1 phase (art. no. BW4221), 30 V Power Supply, 16 A, 3 phases (art. no. BW4222) (for further power supply units visit [www.bihl-wiedemann.de/en/products/accessories/power-supplies](http://www.bihl-wiedemann.de/en/products/accessories/power-supplies))