

# 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:

- PROFINET IO: IRT-technology and 1 integrated Switch
- EtherNet/IP™ (1) + Modbus/TCP in one device
- EtherCAT
- POWERLINK

## OPC UA interface and REST API for IIoT applications

## Integrated web server for simple diagnostics and maintenance

## Recognition of duplicate ASi addresses

## ASi Noise Detector integrated



(figure similar)



(1) EtherNet/IP™, CIP™ and CIP Safety™ are registered trademarks of ODVA®, Inc.

Figure	Interface, fieldbus (1)	ASi-5/ASi-3	Number of ASi networks, number of ASi Master (2)	Integrated decoupling, ASi current measurement in the gateway (3)	Recognition of duplicate ASi addresses (4)	ASi fault detector (5)	Programming in C (6)	Article no.
	PROFINET, OPC UA	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	<b>BWU3760</b>
	EtherNet/IP + Modbus TCP, OPC UA	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	<b>BWU3822</b>
	EtherCAT	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	<b>BWU3058</b>
	POWERLINK	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	<b>BWU3312</b>

### (1) Interface, fieldbus

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

**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":** 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.

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- (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.

Article no.	BWU3760	BWU3822	BWU3058	BWU3312
<b>Fieldbus Interface</b>				
Type	<b>PROFINET</b> (RJ-45)	<b>EtherNet/IP + Modbus TCP</b> (RJ-45)	<b>EtherCAT</b> (RJ-45)	<b>POWERLINK</b> (RJ-45)
	<ul style="list-style-type: none"> <li>2 x RJ-45, integrated 2-Port-Switch IRT capability</li> <li>Conformance Class B</li> <li>integrated switch complies with Class C (IRT capability)</li> </ul>	<ul style="list-style-type: none"> <li>2 x RJ-45, integrated 2-Port-Switch</li> <li>Ethernet + Modbus TCP acc. to IEEE 802.3</li> </ul>	<ul style="list-style-type: none"> <li>2 x RJ-45, integrated 2-Port-Switch</li> <li>acc. to IEEE 802.3</li> </ul>	<ul style="list-style-type: none"> <li>2 x RJ-45 Ethernet acc. to IEEE 802.3</li> <li>integrated 2-Port-Switch</li> <li>POWERLINK acc. to IEC 61748-2 and IEC 61158</li> </ul>
Baud rates	100 MBaud	10/100 MBaud	100 MBaud	
IT interface	OPC UA server, web server, REST API		–	–
Variably configurable Assembly Objects	no	yes	no	
Function	PROFINET IO Device Media Redundancy Protocol (MRP) Shared Device	Device Level Ring (DLR) (Ethernet/IP only)	–	–
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 PROFINET</b>	<b>LED net</b>	<b>LED status</b>	<b>LED POWERLINK</b>
	green: PROFINET communication active red: no PROFINET communication	green: EtherNet communication active	green: EtherCAT communication active	green: POWERLINK 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.			

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<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	≥500 V			
Weight	500 g			
Dimensions (W / H / D in mm)	85 / 120 / 83			

Article no.	BWU3760, BWU3822, BWU3058, BWU3312
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)
- PROFINET Master Simulator (art. no. BW3035, BW4754)
- 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))