

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	BWU3760
	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	BWU3822
	EtherCAT	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	BWU3058
	POWERLINK	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	BWU3312

(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
Fieldbus Interface				
Type	PROFINET (RJ-45)	EtherNet/IP + Modbus TCP (RJ-45)	EtherCAT (RJ-45)	POWERLINK (RJ-45)
	2 x RJ-45, integrated 2-Port-Switch IRT capability - Conformance Class B - integrated switch complies with Class C (IRT capability)	2 x RJ-45, integrated 2-Port-Switch - Ethernet + Modbus TCP acc. to IEEE 802.3	2 x RJ-45, integrated 2-Port-Switch - acc. to IEEE 802.3	2 x RJ-45 Ethernet acc. to IEEE 802.3 - integrated 2-Port-Switch - POWERLINK acc. to IEC 61748-2 and IEC 61158
Transmission rate	100 MBit/s	10/100 MBit/s	100 MBit/s	
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			
ASi				
ASi specification	ASi-3			
Cycle time	150 µs * (number of nodes + 2)			
Operating voltage	24 V _{DC} (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			
Display				
LCD	menu, ASi indication of node addresses, error messages in plain text			
LED power (green)	power ON			
Fieldbus	LED PROFINET	LED net	LED status	LED POWERLINK
	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			
UL-specifications (UL508)				
External protection	An isolated source with a secondary open circuit voltage of ≤30 V _{DC} 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.			

Article no.	BWU3760	BWU3822	BWU3058	BWU3312
Environment				
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. BW4938, BW4939)
- 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)