

24 Volt ASi-5/ASi-3 Gateways in Stainless Steel, 1 ASi-5/ASi-3 Master



ASi-5 – Great data bandwidth, short cycle times

Compatible with all ASi generations

ASi-5 master and ASi-3 master in one device

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 + Modbus/TCP in one device
- EtherCAT
- POWERLINK



(figure similar)

OPC UA server and integrated web server for simplified diagnostics

Recognition of duplicate ASi addresses

ASi Noise Detector integrated



Figure	Type	Model	Fieldbus interface (1)	Number of ASi networks, number of ASi Master (2)	Recognition of duplicate ASi addresses (3)	ASi fault detector (4)	Programming in C (5)	Article no.
	24 Volt ASi-5/ASi-3 Gateway	Gateway	PROFINET, OPC UA	1 ASi network, 1 ASi Master	yes	yes	no	BWU3847
	24 Volt ASi-5/ASi-3 Gateway	Gateway	EtherNet/IP + Modbus TCP, OPC UA	1 ASi network, 1 ASi Master	yes	yes	no	BWU3849
	24 Volt ASi-5/ASi-3 Gateway	Gateway	EtherCAT, OPC UA	1 ASi network, 1 ASi Master	yes	yes	no	BWU3854
	24 Volt ASi-5/ASi-3 Gateway	Gateway	POWERLINK, OPC UA	1 ASi network, 1 ASi Master	yes	yes	no	BWU4016

(1) Fieldbus interface

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

OPC UA server: interface for the OPC UA communication.

The latest version of the device description file of the gateway is available in the "Downloads" section of the respective device.

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

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

(3) 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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- (4) **ASi fault detector**
Checks the ASi line for interference effects such as noise, external voltages, ...
- (5) **Programming in C**
Using a C-program offers the possibility to run mini-PLC functions with a gateway.

Article no.	BWU3847	BWU3849	BWU3854	BWU4016
Interface				
Fieldbus interface	PROFINET (RJ-45)	EtherNet/IP + Modbus TCP (RJ-45)	EtherCAT (RJ-45)	POWERLINK (RJ-45)
	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Switch IRT capability Conformance Class B integrated switch complies with Class C (IRT capability) 	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Switch Ethernet + Modbus TCP acc. to IEEE 802.3 	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Switch acc. to IEEE 802.3 	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Hub acc. to IEEE 802.3
OPC UA interface	OPC UA server + web server			
Baud rates	100 MBaud	10/100 MBaud	100 MBaud	100 MBaud
Function	<ul style="list-style-type: none"> PROFINET IO Device Media Redundancy Protocol (MRP) Shared Device 	<ul style="list-style-type: none"> Device Level Ring (DLR) (Ethernet/IP only) 	–	–
Card slot	chip card (512 KB) for storage of configuration data			
ASi				
ASi specification	ASi-3 + ASi-5			
Cycle time	Cycle time ASi-3 (variable): $150 \mu\text{s} * (\text{number of ASi-3 nodes} + 2)$ Cycle time ASi-5 (constant): 1,27 ms for 384 bits input data + 384 bits output data			
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 power supply: max. 50 m with 30 V power supply: max. 100 m with ASi-3 / max. 200 m with ASi-5			
Display				
LCD	menu, ASi indication of ASi addresses, error messages in plain text			
LED power (green)	power ON			
Fieldbus	LED PROFINET green: PROFINET communication active red: no PROFINET communication	LED net green: EtherNet communication active	LED status green: EtherCAT communication active	LED POWERLINK 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 $\leq 30 \text{ V}_{\text{DC}}$ 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.			

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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		85 / 120 / 93	

Article no.	BWU3847, BWU3849, BWU3854, BWU4016
Current measurement of the ASi circuits	-
Self-resetting fuses	•
Adjustable fuses	-
ASi earth fault monitor distinguishes between ASi cable and sensor cable	-
In version 1 gateway, 1 power supply for 2 ASi circuits: only 1 Gateway + 1 ASi power supply for 2 ASi networks	•

Accessories:

- Chip card, memory capacity 512 kB (art. no. BW4055)
- Bihl+Wiedemann Suite - Software for Configuration, Diagnostics and Commissioning (art. no. BW2902)
- 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)
- PROFINET Master Simulators Licenses (art. no. BW4754, BW4755)



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