

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:

- 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.
	EtherNet/IP + Modbus TCP, OPC UA	ASi-5 + ASi-3 compatible	1 ASi network, 1 ASi-5/ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	BWU3849
	EtherCAT, OPC UA	ASi-5 + ASi-3 compatible	1 ASi network, 1 ASi-5/ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	BWU3854
	POWERLINK, OPC UA	ASi-5 + ASi-3 compatible	1 ASi network, 1 ASi-5/ASi-3 Master	yes, max. 4 A/ASi network	yes	yes	no	BWU4016

(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.

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-5/ASi-3 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.

24 Volt ASi-5/ASi-3 Gateways in stainless steel, 1 ASi-5/ASi-3 Master

- (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.	BWU3849	BWU3854	BWU4016
Fieldbus Interface			
Type	EtherNet/IP + Modbus TCP (RJ-45) • 2 x RJ-45, integrated 2-Port-Switch • Ethernet + Modbus TCP acc. to IEEE 802.3	EtherCAT (RJ-45) • 2 x RJ-45, integrated 2-Port-Switch • acc. to IEEE 802.3	POWERLINK (RJ-45) • 2 x RJ-45, integrated 2-Port-Hub • acc. to IEEE 802.3
IT interface	OPC UA server, web server, REST API		
Transmission rate	10/100 MBit	10/100 MBit	
Variably configurable Assembly Objects	yes		
Function	• Device Level Ring (DLR) (Ethernet/IP only)	–	
Card slot	chip card (BW5183) for storage of configuration data		
Diagnostic interface			
Type	–	Ethernet; RJ-45 according to IEEE 802.3	
Transmission rate	–	10/100 MBit	
IT interface	–	OPC UA server, web server, REST API	
ASi			
ASi specification	ASi-5 + ASi-3		
Cycle time	Cycle time ASi-5 (constant): 1,27 ms for 384 bits input data + 384 bits output data		
	Cycle time ASi-3 (variable): 150 µs * (number of ASi-3 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 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 net	LED ect run	LED POWERLINK
	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 voltage source with a PELV/SELV voltage ≤30 V _{DC} must have internal or external current limiting.		
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices.		

24 Volt ASi-5/ASi-3 Gateways in stainless steel, 1 ASi-5/ASi-3 Master

Article no.	BWU3849	BWU3854	BWU4016
Environment			
Applied standards	EN 61131-2 EN 60529 EN 61000-6-2 EN 61000-6-4		
Operating altitude	max. 2000 m		
Operating temperature	-25 °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.	BWU3849, BWU3854, BWU4016
Data decoupling integrated in the gateway	•
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 512 kB (art. no. BW5183)
- 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)