

ASi-5/ASi-3 Ethernet/IP + Modbus TCP Gateway in Stainless Steel

ASi-5 – Great data bandwidth, short cycle times

Compatible with all ASi generations

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

2 ASi-5/ASi-3 masters, EtherNet/IP™ (1) + Modbus TCP device
• switch integrated

OPC UA interface and REST API for IIoT applications

Integrated web server for simple diagnostics and maintenance

Recognition of duplicate ASi addresses

ASi Earth Fault Detector integrated

ASi Noise Detector integrated

Optional Control III, programming in C



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Figure	Fieldbus interface (1)	ASi-5/ASi-3	Number of ASi networks, number of ASi Master (2)	Integrated decoupling, ASi current measurement in the gateway (3)	Diagnostic and configuration interface (4)	Recognition of duplicate ASi addresses (5)	ASi fault detector (6)	Programming in C (7)	Article no.
	EtherNet/IP + Modbus TCP, OPC UA	ASi-5 + ASi-3 compatible	2 ASi networks, 2 ASi-5/ASi-3 Masters	yes, max. 4 A/ ASi network	Ethernet Fieldbus + Ethernet diagnostic	yes	yes	optional	BWU3851

(1) Fieldbus interface

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

EtherNet/IP+ Modbus TCP ASi Gateway: interface for an EtherNet/IP+ Modbus TCP fieldbus

OPC UA server: interface for the OPC UA communication.

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

"Double Master": 2 ASi networks, 2 ASi-5/ASi-3 Masters.

(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) Diagnostic and configuration interface

"Ethernet fieldbus + Ethernet diagnostic":

Access to ASi Master and Safety Monitor with Bihl+Wiedemann software by using the Ethernet diagnostic interface or Ethernet fieldbus interface..

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

(5) Recognition of duplicate ASi addresses

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

(6) ASi fault detector

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

(7) Programming in C

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

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Article no.	BWU3851
Fieldbus Interface	
Type	Ethernet + Modbus TCP acc. IEEE 802.3; 2 x RJ-45, integrated 2-Port-Switch,
Transmission rate	10/100 MBit/s
IT interface	OPC UA server, web server, REST API
Variably configurable Assembly Objects	yes
Function	Device Level Ring (DLR) (Ethernet/IP only)
Card slot	Chip card (BW5183) for storage of configuration data
Ethernet Interface	
Type	Ethernet; RJ-45 acc. IEEE 802.3
Transmission rate	10/100 MBit/s
IT interface	OPC UA server, web server, REST API
ASi	
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 μ s * (number of ASi-3 nodes + 2)
Operating voltage	30 V _{DC} (20 ... 31,6 V) (PELV voltage)
Operating current	ca. 250 mA
Current per ASi network	max. 4 A
ASi Power24V capability ⁽¹⁾	yes
Display	
LCD	menu, indication of ASi addresses, error messages in plain text
LED power (green)	power ON
LED ser active (green)	Ethernet 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)	configuration mode active
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.
Environment	
Applied standards	EN 60529 EN 61000-6-2 EN 61000-6-4
Operating altitude	max. 2000 m
Operating temperature	-25 °C ... +55 °C (no condensation permitted)
Storage temperature	-25 °C ... +85 °C
Housing	Stainless Steel, for DIN rail mounting
Protection category	IP20
Tolerable loading referring to impacts and vibrations	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

⁽¹⁾ **ASi Power24V**

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

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Article no.	BWU3851
Data decoupling integrated in the gateway	•
Current measurement of the ASi circuits	•
Self-resetting 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)
- EtherNet/IP Master Simulator Plus, One-Year License (art. no. BW4693)