

# 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 + Modbus TCP device**

- switch integrated

**OPC UA server and integrated web server for simple diagnostics**


**Recognition of duplicate ASi addresses**

**ASi Earth Fault Detector integrated**

**ASi Noise Detector integrated**

**Optional Control III, programming in C**



Figure	Type	Model	Fieldbus interface <sup>(1)</sup>	Number of ASi networks, number of ASi Master <sup>(2)</sup>	1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies <sup>(3)</sup>	Diagnostic and configuration interface <sup>(4)</sup>	Recognition of duplicate ASi addresses <sup>(5)</sup>	ASi fault detector <sup>(6)</sup>	Programming in C <sup>(7)</sup>	Article no.
	EtherNet/IP + ModbusTCP ASi-5 / ASi-3	Gateway	EtherNet/IP + Modbus TCP, OPC UA	2 ASi networks, 2 ASi Masters	yes, max. 4 A/ ASi network	Ethernet Fieldbus + Ethernet diagnostic	yes	yes	optional	<b>BWU3851</b>

**(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 Masters.

**(3) 1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies**

**"yes, max. 4 A/ASi network":** 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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<b>Article no.</b>	<b>BWU3851</b>
<b>Interface</b>	
Ethernet interface	2 x RJ-45, integrated 2-Port-Switch, Ethernet + Modbus TCP acc. to IEEE 802.3
OPC UA interface	OPC UA server + web server
Baud rate	10/100 MBaud
Function	Device Level Ring (DLR) (Ethernet/IP only)
Card slot	Chip card (512 kB) for storage of configuration data
<b>Ethernet interface</b>	
Baud rate	10/100 MBaud half-duplex or full-duplex
<b>ASi</b>	
Cycle time	<b>Cycle time ASi-3 (variable):</b> 150 $\mu$ s * (number of ASi-3 nodes + 2)
	<b>Cycle time ASi-5 (constant):</b> 1,27 ms for 384 bits input data + 384 bits output data
Operating voltage	30 V <sub>DC</sub> (20 ... 31,6 V) (PELV voltage)
Operating current	ca. 250 mA
Current per ASi network	max. 4 A
ASi Power24V capability <sup>(1)</sup>	yes
<b>Display</b>	
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
<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.
<b>Environment</b>	
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
Voltage of insulation	$\geq 500$ V
Weight	500 g
Dimensions (W / H / D in mm)	85 / 120 / 83

<sup>(1)</sup> **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
Current measurement of the ASi circuits	•
Self-resetting 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](http://www.bihl-wiedemann.de/en/products/accessories/power-supplies))