

# 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**

**1 ASi-5/ASi-3 master, 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 similar)



Figure	Type	Model	Fieldbus interface (1)	Number of ASi networks, number of ASi Master (2)	1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies (3)	Diagnostic and configuration interface (4)	Recognition of duplicate ASi addresses (5)	ASi fault detector (6)	Programming in C (7)	Article no.
	EtherNet/IP + ModbusTCP ASi-5 / ASi-3	Gateway	EtherNet/IP + Modbus TCP, OPC UA	1 ASi network, 1 ASi master	yes, max. 8 A/ ASi network	Ethernet fieldbus + Ethernet diagnostic	yes	yes	optional	<b>BWU4019</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**

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

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

**"yes, max. 8 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 handheld addressing device.

**(6) ASi fault detector**

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

**(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>BWU4019</b>
<b>Interface</b>	
PROFINET 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	100 MBaud
Function	Device Level Ring (DLR) (Ethernet/IP only)
Card slot	Chip card (512 KB) for storage of configuration data
<b>ASi</b>	
ASi specification	ASi-3 + ASi-5
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 current	ca. 250 mA
Current per ASi network	max. 8 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
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 net (green/red)	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)	in configuration mode
<b>UL-specifications (UL508)</b>	
External protection	An isolated source with a secondary open circuit voltage of $\leq 30 V_{DC}$ 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.
<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)
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	$\geq 500$ V
Weight	625 g
Dimensions (W / H / D in mm)	85 / 120 / 106

<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.

<b>Article no.</b>	<b>BWU4019</b>
<b>Current measurement of the ASi circuits</b>	•
<b>Self-resetting adjustable fuses</b>	•

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



### 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))