

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

**EtherNet/IP + Modbus TCP in one device**

**OPC UA server**

**Integrated switch**

**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**

**Significantly improved response times**



(Figure similar)



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	Gateway	EtherNet/IP + Modbus TCP, OPC UA	2 ASi networks, 2 ASi Masters	yes, max. 4 A/ ASi network	Ethernet Fieldbus	yes	yes	optional	<b>BWU3736</b>
	EtherNet/IP + ModbusTCP ASi	Gateway	EtherNet/IP + Modbus TCP, OPC UA	2 ASi networks, 2 ASi Masters	no, max. 8 A/ ASi network, redundant supply	Ethernet Fieldbus	yes	yes	optional	<b>BWU3735</b>
	EtherNet/IP + ModbusTCP ASi	Gateway	EtherNet/IP + Modbus TCP, OPC UA	1 ASi network, 1 ASi Master	no, max. 8 A/ ASi network	Ethernet Fieldbus	yes	yes	optional	<b>BWU3734</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;

**"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.

**"no, max. 8 A/ASi network, redundant supply":** 1 power supply per ASi network. Gateway is powered in normal operation from one of the two ASi power supplies. Should one ASi power supply fail, switching to the other ASi power supply allows all the diagnostics functions to be maintained and the unaffected ASi network continues to operate.

**"no, max. 8 A/ASi network":** 1 power supply per ASi network.

**(4) Diagnostic and configuration interface**

**"Ethernet fieldbus":** Access to ASi master and safety monitor with Bihl+Wiedemann proprietary software by using the 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 slaves. 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.	BWU3734	BWU3735	BWU3736
<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		
Baud rate	10/100 MBaud		
Function	Device Level Ring (DLR) (Ethernet/IP only)		
Card slot	Chip card for storage of configuration data		
<b>ASi</b>			
ASi specification	3.0		
Cycle time	150 $\mu$ s * (number of slaves + 2)		
Operating voltage	30 V <sub>DC</sub> (20 ... 31,6 V) (PELV voltage)		
ASi Power24V capability <sup>(1)</sup>	no		yes
<b>Display</b>			
LCD	menu, ASi indication of slave 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 slave 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	0 °C ... +55 °C		
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.

Article no.	Operating current		
	Master power supply, max. 200 mA out of ASi circuit 1 (ca. 70 mA ... 200 mA), max. 200 mA out of ASi circuit 2 (ca. 70 mA ... 200 mA); in sum max. 270 mA	Version „1 gateway, 1 power supply for 2 ASi networks“, approx. 250 mA (PELV voltage)	Master power supply, ca. 200 mA out of ASi circuit
BWU3734	-	-	•
BWU3735	•	-	-
BWU3736	-	•	-

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

Article no.	BWU3734	BWU3735	BWU3736
Redundant power supply out of ASi: all fundamental functions of the device remain available even in case of power failure in one of the two ASi networks	-	•	-
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:

- Software for diagnostics, service approval and measurements (art. no. BW2902)
- Power supplies, e.g.: ASi power supply, 4 A (art. no. BW1649), ASi power supply, 8 A (art. no. BW1997)  
(further power supply units can be found at [www.bihl-wiedemann.de/en/products/accessories/power-supplies](http://www.bihl-wiedemann.de/en/products/accessories/power-supplies))
- Control III, Programming in C (art. no. BW2582)