ASi-5/ASi-3 EtherNet/IP + Modbus TCP-Gateway in stainless steel

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New standard ASi-5

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

OPC UA server and integrated web server for simplified diagnostics

2 ASi-5/ASi-3 Master, EtherNet/IP + Modbus TCP device
• switch integrated

Duplicate ASi address recognition

ASi Earth Fault Detector integrated

ASi Noise Detector integrated

Optional Control III, programming in C

Figure	Fieldbus interface (1)	Number of ASi networks, number of ASi Master (2)	Integrated de-coupling, ASi current measurement in the gateway (3)	Diagnostic and configuration interface (4)	Recognition of duplicate ASi addresses (5)	ASi fault detector (6)	Prog. in C (7)	Art. no.
	EtherNet/IP + Modbus TCP, OPC UA	2 ASi networks, 2 ASi-5/ASi-3 masters	yes, max. 8 A/ASi network	Ethernet fieldbus, Ethernet diagnostic	yes	yes	optional	**BWU4258**

(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 a Ethernet/IP+ Modbus TCP fieldbus
OPC UA server: interface for 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. 8 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 AS-i 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.	BWU4258
Fieldbus interface	
Type	EtherNet/IP + Modbus TCP acc. to IEEE 802.3 2 x RJ-45, integrated 2-Port-Switch,
Baud rate	10/100 MBaud
OPC UA interface	OPC UA server + web server
Variably configurable Assembly Objects	yes
Function	Device Level Ring (DLR) (Ethernet only)
Card slot	chip card (BW4055) for storage of configuration data
Diagnostic interface	
Type	Ethernet; RJ-45 acc. to IEEE 802.3
Baud rate	10/100 MBaud half duplex/full duplex
OPC UA interface	OPC UA server + web server
ASi	
ASi specification	ASi-5 + ASi-3
Number of ASi networks, number of ASi Master	2 ASi networks, 2 ASi-5/ASi-3 masters
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 current	approx. 250 mA
Current per ASi network	max. 8 A
ASi Power24V capability [1]	yes
Display	
LCD	menu, indication of ASi addresses and error messages in plain text
LED power (green)	power on
LED net (green)	Ethernet network 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 addresses programming enabled
LED prj mode (yellow)	configuration mode active
Environment	
Applied standards	EN 60529 EN 61000-6-2 EN 61000-6-4 EN 61131-2
Operating altitude	max. 2000 m
Ambient temperature	-25 °C … +55 °C (no condensation permitted)
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	625 g
Dimensions (W / H / D in mm)	85 / 127 / 148

[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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Wiring rules ASi connection

Push-in terminals, 5 poles (pitch 3.5 mm)	
General	
Nominal cross section	1.5 mm^2
Conductor cross section	
Conductor cross section solid	0.14 ... 1.5 mm^2
Conductor cross section flexible	0.14 ... 1.5 mm^2
Conductor cross section flexible, with ferrule	without plastic sleeve: 0.25 ... 1.5 mm^2
	with plastic sleeve: 0.25 ... 0.5 mm^2
2 conductors with same cross section, stranded, with TWIN ferrules	–
AWG	26 ... 16
Stripped insulation length	10 mm

Wiring rules power supply

Push-in terminals, 3 poles (pitch 7.62 mm)	
General	
Nominal cross section	2.5 mm^2
Conductor cross section	
Conductor cross section solid	0.5 ... 1.5 mm^2
Conductor cross section flexible	0.5 ... 2.5 mm^2 (with or without plastic sleeve)
AWG	20 ... 12
Stripped insulation length	10 mm

	BWU4258
Data decoupling integrated in the gateway	●
Current measurement of the ASi circuits	●
Self-resetting adjustable fuses	●
Cost-effective power for 2 ASi networks with 1 power supply	●

Accessories:

- **ASi-5 Bus Termination, IP67 (art. no. BWU4705)**
- **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*)**

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