ASi-5/ASi-3 PROFINET-Gateways 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, PROFINET device

PROFINET IO
- **offers IRT-technology**
- **1 integrated Switch**

OPC UA interface and REST API for IIoT applications

Integrated web server for simple diagnostics and maintenance

Ethernet diagnostic interface

Recognition of duplicate ASi addresses

ASi Earth Fault Detector integrated

ASi Noise Detector integrated

Optional Control III, programming in C

(figure similar)

Figure	Interface, fieldbus (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.
	PROFINET, 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	**BWU3852**

(1) **Interface, fieldbus**
Communication interface between fieldbus and gateway: interfaces for standardized fieldbus systems in industrial automation.
PROFINET ASi Gateway: interface for a PROFINET 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": Access to ASi Master and Safety Monitor with Bihl+Wiedemann 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 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.

Article no.	BWU3852
Fieldbus Interface	
Type	PROFINET; 2 x RJ-45, integrated 2-Port-Switch, IRT capability Conformance Class B integrated switch complies with Class C (IRT capability)
Baud rate	100 MBaud
IT interface	OPC UA server, web server, REST API
Conformance Class	Class B integrated switch complies with Class C (IRT capability)
Function	PROFINET IO Device Media Redundancy Protocol (MRP) Shared Device
Card slot	Chip card (BW4055) for storage of configuration data
Diagnostic Interface	
Type	Ethernet; RJ-45 acc. IEEE 802.3
Baud rate	100 MBaud half/full duplex
IT interface	OPC UA server, web server, REST API
ASi	
ASi specification	ASi-5 + ASi-3
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	ca. 250 mA
ASi Power24V capability (1)	yes
Display	
LCD	menu, indication of ASi addresses, error messages in plain text
LED power (green)	power ON
LED PROFINET (green/red)	green: PROFINET communication active red: PROFINET communication not 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
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.

Article no.	BWU3852
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
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	500 g
Dimensions (W / H / D in mm)	85 / 120 / 93

(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.

Article no.	BWU3852
Data decoupling integrated in the gateway	•
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	•
Cost-effective power for 2 ASi networks with 1 power supply	•

Accessories:

- **Chip card, memory capacity 512 kB (art. no. BW4055)**
- **Bihl+Wiedemann Safety Suite - Safety 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*)**
- **PROFINET Master Simulators Licenses (art. no. BW4754, BW4755)**