ASi-5/ASi-3 EtherCAT-Gateway in Stainless Steel, 2 ASi-5/ASi-3 master

Bihl+Wiedemann

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, EtherCAT device

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.
	EtherCAT, OPC UA	ASi-5 + ASi-3 compatible	2 ASi networks, 2 ASi-5/ASi-3 Masters	yes, max. 4 A/ASi network	Ethernet diagnostic	yes	yes	optional	**BWU3853**

[1] **Interface, fieldbus**
Communication interface between fieldbus and gateway: interfaces for standardized fieldbus systems in industrial automation.
OPC UA server: interface for the OPC UA communication.

The latest version of the device description file of the gateway is available in the "Downloads" section of the respective device.

[2] **Number of ASi networks, number of ASi Master**
"Double Master": 2 ASi networks, 2 ASi-5/ASi-3 Master.

[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.

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Article no.	BWU3853
Fieldbus Interface	
Type	2 x RJ-45, integrated 2-Port-Switch acc. to IEEE 802.3
Baud rates	100 MBaud
IT interface	–
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
IT interface	OPC UA server, web server, REST API
ASi	
ASi specification	ASi-5 + ASi-3
Number of ASi networks, number of ASi masters	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 voltage	30 V_{DC} (20 ... 31,6 V) (PELV voltage)
Operating current	approx. 250 mA
Current per ASi network	max. 4 A
ASi Power24V capability [1]	yes
Display	
LCD	menu, ASi indication of ASi addresses, error messages in plain text
LED power (green)	power ON
LED ect run (green)	EtherCAT 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
UL-specifications (UL508)	
External protection	An isolated source with a secondary open circuit voltage of ≤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.
Environment	
Applied standards	EN 61131-2 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
Intended environment	for indoor use only
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.	BWU3853
Data decoupling integrated in the gateway	●
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 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*)

Bihl+Wiedemann GmbH · Floßwörthstr. 41 · D-68199 Mannheim · Phone: (+49) 621/33996-0 · Fax: (+49) 621/3392239 · eMail: mail@bihl-wiedemann.de

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