

# ASi-5/ASi-3 Sercos Gateway with integrated Safety Monitor

**ASi-5 – Great data bandwidth, short cycle times**

**Compatible with all ASi generations**

**ASi-5/ASi-3 CIP Safety over Sercos Gateway with integrated Safety Monitor**

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

**CIP Safety over Sercos and Safe Link in one device**

- up to 450 Devices

**CIP Safety Originator integrated**

**2 ASi master, Sercos device**

- switch integrated

**Safe ASi outputs are supported**

- up to 64 independent ASi outputs
- Multiple safe ASi outputs possible via a single ASi address

**OPC UA server and integrated web server for simplified diagnostics**

**Selection of Mode of Safe Operation**

**Significantly improved response times**


**Applications up to category 4/PLe/SIL 3**

**Chip card for storage of configuration data**



(figure similar)



Figure	Type	Inputs Safety, SIL 3, cat. 4	Inputs Safety, expandable to	Outputs Safety, SIL 3, cat. 4	Safety outputs, independent according to SIL 3, expandable to	Safety communication	Number of ASi networks, number of ASi Master <sup>(1)</sup>	1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies <sup>(2)</sup>	Diagnostic and configuration interface <sup>(3)</sup>	Art. no.
	Safety, Sercos, ASi-5/ASi-3	–	max. 62 x 2 channels, max. 1922 in max. configuration	–	max. 64, max. 1984 in max. configuration	CIP Safety over Sercos + Safe Link	2 ASi networks, 2 ASi masters	yes, max. 4 A/ASi network	Ethernet diagnostic	BWU3845

<sup>(1)</sup> **Number of ASi networks, number of ASi Master**

"Double Master": 2 ASi networks, 2 ASi Masters.

<sup>(2)</sup> **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.

<sup>(3)</sup> **Diagnostic and configuration interface**

"Ethernet diagnostic": Access to ASi Master and Safety Monitor with Bihl+Wiedemann software by using the Ethernet diagnostic interface.

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

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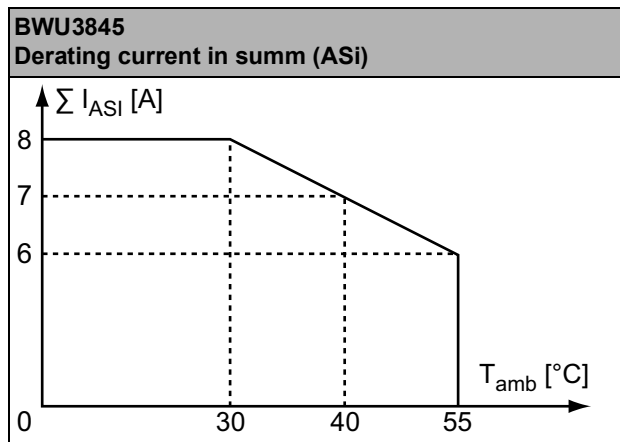
<b>Article no.</b>		<b>BWU3845</b>
<b>Interface</b>		
Ethernet interface		2 x RJ-45: 100MBaud, 2-Port-Switch, Sercos III
Baud rates		100 MBaud
CIP Safety Originator		up to 32 instances
Card slot		chip card (512 kB) for storage of configuration data
<b>ASi</b>		
ASi specification		ASi-3 + ASi-5
Cycle 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 voltage		30 V <sub>DC</sub> (20 ... 31,6 V) (PELV voltage)
Current per ASi network	up to 30 °C	4 A per ASi network, $\Sigma$ (ASi) 8 A <sup>(2)</sup>
	up to 40 °C	4 A per ASi network, $\Sigma$ (ASi) 7 A <sup>(2)</sup>
	up to 55 °C	4 A per ASi network, $\Sigma$ (ASi) 6 A <sup>(2)</sup>
ASi Power24V capability <sup>(1)</sup>		yes
<b>AUX</b>		
Operating voltage		–
Max current consumption		–
<b>Display</b>		
LCD		indication of ASi addresses and error messages in plain text
LED power (green)		power on
LED Sercos (green)		Sercos 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)		configuration mode active
LED AUX (green)		–
LEDs SI1 ... SI6 (yellow)		–
LEDs SO1 ... SO6 (yellow)		–
<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 62026-2 EN 61000-6-2 EN 61000-6-4 EN 62061, SIL 3 EN 61508, SIL 3 EN ISO 13849-1, PLe
Operating altitude		2000 m
Ambient temperature		-25 °C ... +55 °C (no condensation permitted)
Storage temperature		-25 °C ... +85 °C
Pollution degree		2
Housing		stainless steel, for DIN rail mounting
Protection category		IP20
Maximum tolerable shock and vibration stress		according to EN 61131-2
Voltage of insulation		$\geq 500$ V
Weight		800 g
Dimensions (W / H / D in mm)		85 / 120 / 106

# ASi-5/ASi-3 Sercos Gateway with integrated Safety Monitor

(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.

(2)

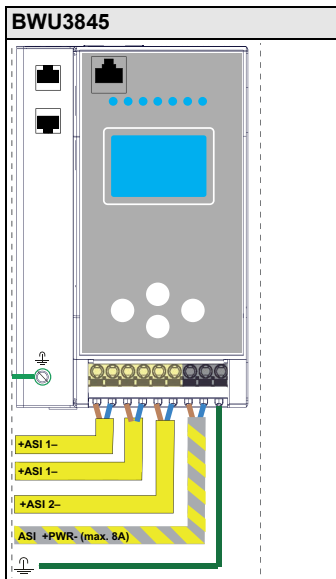


Article no.	Operating current		
	master power supply, approx 300 mA out of ASi network	master power supply, max. 300 mA out of ASi circuit 1 (approx. 70 mA ... 300 mA), max. 300 mA out of ASi circuit 2 (approx. 70 mA ... 300 mA); in sum max. 370 mA	Version „1 Gateway, 1 power supply for 2 ASi circuits“, ca. 350 mA (PELV voltage)
BWU3845	-	-	•

	BWU3845
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 is needed for both 2 ASi circuits	•

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## Connections: Gateway



## Accessories:

- Safe contact expander, 1 or 2 independent channels (art. no. BWU2548 / BWU2539)
- Chip card, memory capacity 512 kB (art. no. BW4055)
- Bihl+Wiedemann Safety Suite - Safety Software for Configuration, Diagnostics and Commissioning (art. no. BW2916)
- 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))