

# ASi-5/ASi-3 PROFINET-Gateways in Stainless Steel, 2 ASi-5/ASi-3 Masters

**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 masters, PROFINET device**

## PROFINET IO

- offers IRT-technology
- 1 integrated Switch

**OPC UA server and  
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**



(figure similar)



| Figure  | Fieldbus interface (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                          | yes  | yes                    | optional             | <b>BWU3855</b> |

**(1) Fieldbus interface**

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.

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|  |   |
|--|---|
| <b>Article no.</b>                           | <b>BWU3855</b>  |
| <b>Fieldbus Interface</b>                    |   |
| Type   | PROFINET;<br>2 x RJ-45, integrated 2-Port-Switch, IRT capability<br>Conformance Class B<br>integrated switch complies with Class C (IRT capability)   |
| Baud rate                                    | 100 MBaud   |
| OPC UA interface                             | OPC UA server + webservice  |
| Function                                     | PROFINET IO Device<br>Media Redundancy Protocol (MRP)<br>Shared Device  |
| Card slot                                    | Chip card (512 KB) for storage of configuration data  |
| <b>Diagnostic Interface</b>                  |   |
| Type   | Ethernet;<br>RJ-45 acc. to IEEE 802.3   |
| Baud rate                                    | 10/100 MBaud half/full duplex   |
| OPC UA interface                             | OPC UA server + webservice  |
| <b>ASi</b>                                   |   |
| ASi specification                            | ASi-3 + ASi-5   |
| Cycle time                                   | <b>Cycle time ASi-3 (variable):</b><br>150 $\mu$ s * (number of ASi-3 nodes + 2)  |
|  | <b>Cycle time ASi-5 (constant):</b><br>1,27 ms for 384 bits input data + 384 bits output data   |
| Operating current                            | ca. 250 mA  |
| Current per ASi network                      | max. 4 A  |
| ASi Power24V capability <sup>(1)</sup>       | yes   |
| <b>Display</b>                               |   |
| LCD  | menu, indication of ASi addresses, error messages in plain text   |
| LED power (green)                            | power ON  |
| LED PROFINET (green/red)                     | green: PROFINET communication active<br>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   |
| <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 61131-2<br>EN 60529<br>EN 61000-6-2<br>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                        | $\geq 500$ V  |
| Weight                                       | 500 g   |
| Dimensions (W / H / D in mm)                 | 85 / 120 / 93   |

## ASi-5/ASi-3 PROFINET-Gateways in Stainless Steel, 2 ASi-5/ASi-3 Masters

(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.  | BWU3855 |
|--|---------|
| 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 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))
- PROFINET Master Simulators Licenses (art. no. BW4754, BW4755)