

ASi-3 PROFIBUS Gateways in Stainless Steel

Recognition of duplicate ASi addresses

ASi Earth Fault Detector integrated

ASi Noise Detector integrated

Optional Control III, programmable in C

GSD file integrated



(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⁾	Article no.
	PROFIBUS	ASi-3 compatible	2 ASi networks, 2 ASi-3 Masters	no, max. 8 A/ ASi network	–	no	yes	BWU1774
	PROFIBUS	ASi-3 compatible	2 ASi networks, 2 ASi-3 Masters	no, max. 8 A/ ASi network, redundant supply	Ethernet diagnostic	yes	yes	BWU2545
	PROFIBUS	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	no, max. 8 A/ ASi network, redundant supply	Ethernet diagnostic	yes	yes	BWU2544
	PROFIBUS	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	no, max. 8 A/ ASi network	–	no	yes	BWU1773
	PROFIBUS	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	no, max. 8 A/ ASi network	–	no	yes	BWU1746

(1) Fieldbus interface

Communication interface between fieldbus and gateway: interfaces for standardized fieldbus systems in industrial automation.

PROFIBUS ASi Gateway: interface for a PROFIBUS fieldbus

PROFIBUS ASi Basic Gateway: interface for a PROFIBUS fieldbus

(2) Number of ASi networks, number of ASi Master

"Single Master": 1 ASi network, 1 ASi Master;

"Double Master": 2 ASi networks, 2 ASi-3 Masters.

(3) Integrated decoupling, ASi current measurement in the gateway

"no, max. 8 A/ASi network, redundant supply": 1 power supply per ASi network. Gateway is powered in normal operation from one of the two ASi power supplies. Should one ASi power supply fail, switching to the other ASi power supply allows all the diagnostics functions to be maintained and the unaffected ASi network continues to operate.

"no, max. 8 A/ASi network": 1 power supply per ASi network.

(4) Diagnostic and configuration interface

"Ethernet diagnostic": Access to ASi master and safety monitor with Bihl+Wiedemann proprietary software by using the Ethernet diagnostics interface.

"RS 232": Access to ASi master and safety monitor with Bihl+Wiedemann proprietary software by using an adapter cable via RS 232 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 ASi line for interference effects such as noise, external voltages, etc.

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Article no.	BWU1746	BWU1773 BWU1774	BWU2544 BWU2545
Fieldbus Interface			
Type	PROFIBUS; IEC 61158 / IEC 61784-1		
Baud rates	9,6 Kbaud up to 12 000 Kbaud, automatic recognition		
DP functions	imaging of the ASi nodes as I/O Data of the PROFIBUS complete diagnosis and configuration via the DP Master		
Card slot	–	Chip card for storage of configuration data	
Diagnostic Interface			
Type	–	Ethernet; Rj-45 acc. to IEEE 802.3	
ASi			
ASi specification ⁽¹⁾	3.0		
Cycle time	150 μ s * (number of ASi-3 nodes + 2)		
Operating voltage	30 V _{DC} (20 ... 31,6 V)		
ASi Power24V capability ⁽²⁾	no		
Display			
7-Segment display	ASi node addresses, error codes	–	
LCD	–	menu, ASi indication of node addresses, error messages in plain text	
LED power (green)	power ON		
LED PROFIBUS (green)	PROFIBUS Master recognized		
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)	master is 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 61000-6-2 EN 61000-6-4 EN 62026-2 EN 60529		
Housing	Stainless Steel, for DIN rail mounting		
Operating temperature	0 °C ... +55 °C		
Storage temperature	-25 °C ... +85 °C		
Pollution degree	2		
Protection category DIN EN 60529	IP20		
Tolerable loading referring to humidity	according to EN 61131-2		
Maximum tolerable shock and vibra- tion stress	according to EN 61131-2		
Voltage of insulation	≥ 500 V		
Weight	300 g	460 g	
Dimensions (W / H / D in mm)	42 / 120 / 40	75 / 120 / 83	75 / 120 / 93

⁽¹⁾ **ASi 3.0 from ID no. 12003** (see lateral label) for BWU1773, BWU1774.
All currently supplied devices comply with standard ASi 3.0.

⁽²⁾ **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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Article no.	Operating current			
	Master power supply, max. 200 mA out of ASi circuit 1 (ca. 70 mA ... 200 mA), max. 200mA out of ASi circuit 2 (ca. 70 mA ... 200 mA); in sum max. 270 mA	Master power supply, ca. 200 mA out of ASi circuit 1 ca. 70 mA out of ASi circuit 2	Cost-effective power for 2 ASi networks with 1 power supply, approx. 250 mA (PELV voltage)	Master power supply, ca. 200 mA out of ASi circuit
BWU1746	-	-	-	•
BWU1773	-	-	-	•
BWU1774	-	•	-	-
BWU2544	-	-	-	•
BWU2545	•	-	-	-

	BWU1746 BWU1773 BWU1774 BWU2544	BWU2545
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:

- Software for diagnostics, service and approval measurements (art. no. BW2902)
- PROFIBUS DP master simulator (art. no. BW1257)
- Control III, Programming in C (art. no. BW2582)
- Power supplies, e.g.: ASi power supply, 4 A (art. no. BW1649), ASi power supply, 8 A (art. no. BW1997)
(further power supply units can be found at www.bihl-wiedemann.de/en/products/accessories/power-supplies)