

24 Volt AS-i Gateways in Stainless Steel

24 Volt AS-i:

- The devices can be operated directly on a 24 V (PELV) power supply.
- With integrated data coupling coils and adjustable self-resetting fuses optimized for safe use also of powerful 24 V power supplies.

Available fieldbus interfaces:

- PROFIBUS
- PROFINET IO: IRT-technology and 1 integrated Switch
- EtherNet/IP + Modbus/TCP in one device
- EtherCAT
- POWERLINK
- CC-Link



(figure similar)

Recognition of duplicate AS-i addresses

AS-i Noise Detector integrated



Figure	Type	Model	Fieldbus interface ⁽¹⁾	Number of AS-i networks, number of AS-i Master ⁽²⁾	Recognition of duplicate AS-i addresses ⁽³⁾	AS-i fault detector ⁽⁴⁾	Programming in C ⁽⁵⁾	Article no.
	24 Volt AS-i Gateway	Gateway	PROFIBUS	1 AS-i network, 1 AS-i Master	yes	yes	no	BWU3053
	24 Volt AS-i Gateway	Gateway	PROFINET	1 AS-i network, 1 AS-i Master	yes	yes	optional	BWU2919
	24 Volt AS-i Gateway	Gateway	EtherNet/IP + Modbus TCP	1 AS-i network, 1 AS-i Master	yes	yes	no	BWU3050
	24 Volt AS-i Gateway	Gateway	EtherCAT	1 AS-i network, 1 AS-i Master	yes	yes	no	BWU3058
	24 Volt AS-i Gateway	Gateway	POWERLINK	1 AS-i network, 1 AS-i Master	yes	yes	no	BWU3312
	24 Volt AS-i Gateway	Gateway	CC-Link	1 AS-i network, 1 AS-i Master	yes	yes	no	BWU3051

(1) Fieldbus interface

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

(2) Number of AS-i networks, number of AS-i Master

"Single Master": 1 AS-i network, 1 AS-i Master.

(3) Recognition of duplicate AS-i addresses

Detects whether the same address has been assigned to two AS-i slaves. Frequent error when using a handheld addressing device.

(4) AS-i fault detector

Checks the AS-i line for interference effects such as noise, external voltages, ...

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⁽⁵⁾ **Programming in C**

Using a C-program offers the possibility to run mini-PLC functions with a gateway.

Article no.	BWU3053	BWU2919	BWU3050	BWU3058	BWU3312	BWU3051
Interface						
Fieldbus interface	PROFIBUS (RS 485)	PROFINET (RJ-45)	EtherNet/IP + Modbus TCP (RJ-45)	EtherCAT (RJ-45)	POWERLINK (RJ-45)	CC-Link (screw terminal blocks)
	<ul style="list-style-type: none"> acc. to IEC 61158 / IEC 61784-1 imaging of the AS-i Slaves as I/O of the PROFIBUS complete diagnosis and configuration via the DP Master 	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Switch IRT capability Conformance Class B integrated switch complies with Class C (IRT capability) 	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Switch Ethernet + Modbus TCP acc. to IEEE 802.3 	<ul style="list-style-type: none"> 2 x RJ-45, integrated 2-Port-Switch acc. to IEEE 802.3 	<ul style="list-style-type: none"> 2 x RJ-45 Ethernet acc. to IEEE 802.3 integrated 2-Port-Switch POWERLINK acc. to IEC 61748-2 and IEC 61158 	<ul style="list-style-type: none"> acc. to CC-Link specification remote device 2-4 occupied stations (depending on operating mode)
Baud rates	9,6 Kbaud ... 12 Mbaud, automatic recognition	100 Mbaud	10/100 Mbaud	100 Mbaud		156 Kbaud ... 10 Mbaud
Function	–	<ul style="list-style-type: none"> PROFINET IO Device Media Redundancy Protocol (MRP) Shared Device 	<ul style="list-style-type: none"> Device Level Ring (DLR) (Ethernet/IP only) 	–	–	–
Card slot	chip card for storage of configuration data					
AS-i						
AS-i specification	3.0					
Cycle time	150 µs * (number of slaves + 2)					
Operating voltage	24 V _{DC} (20 ... 31,6 V) (PELV voltage)					
Operating current	approx. 250 mA					
Current per AS-i network	max. 4 A					
Length of AS-i cable	with 24 V standard power supply: max. 50 m with 30 V AS-i power supply: max. 100 m					
Display						
LCD	menu, AS-i indication of slave addresses, error messages in plain text					
LED power (green)	power ON					
Fieldbus	LED PROFIBUS	LED PROFINET	LED net	LED status	LED POWERLINK	LED CC-Link
	green: PROFIBUS communication active	green: PROFINET communication active red: no PROFINET communication	green: EtherNet communication active	green: EtherCAT communication active	green: POWERLINK communication active	green: CC-Link communication active
LED config error /red)	configuration error					
LED U AS-i (green)	AS-i voltage o.k.					
LED AS-i active (green)	AS-i normal operation active					
LED prg enable (green)	automatic address programming enabled					
LED prj mode (yellow)	in configuration mode					

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UL-specifications (UL508)						
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.					
Environment						
Applied standards	EN 60529 EN 61000-6-2 EN 61000-6-4					
Operating altitude	max. 2000 m					
Operating temperature	0 °C ... +55 °C					
Storage temperature	-25 °C ... +85 °C					
Housing	Stainless Steel, for DIN rail mounting					
Protection category	IP20					
Tolerable loading referring to impacts and vibrations	according to EN 61131-2					
Voltage of insulation	$\geq 500 V$					
Weight	500 g					
Dimensions (W / H / D in mm)	75 / 120 / 83					85 / 120 / 83

Article no.	BWU3053, BWU2919, BWU3050, BWU3058, BWU3312, BWU3051
Redundant power supply out of AS-i: all fundamental functions of the device remain available even in case of power failure in one of the two AS-i networks	-
Current measurement of the AS-i circuits	-
Self-resetting fuses	•
Adjustable fuses	-
AS-i earth fault monitor distinguishes between AS-i cable and sensor cable	-
In version 1 gateway, 1 power supply for 2 AS-i circuits: only 1 Gateway + 1 AS-i power supply for 2 AS-i networks	•

Accessories:

- Diagnostic Software (art. no. BW2902)
- PROFINET Master Simulator (art. no. BW3035, BW3057)
- PROFIBUS Master Simulator (art. no. BW1131, BW1257)
- Power supplies, e.g.: AS-i power supply, 4 A (art. no. BW1649), AS-i power supply, 8 A (art. no. BW1997)
(further power supply units can be found at www.bihl-wiedemann.de/en/products/accessories/power-supplies)
- Control III, Programming in C (art. no. BW2582)