

AS-i 3.0 DeviceNet Gateway in Stainless Steel

DeviceNet to AS-i bridge

AS-i Earth Fault Detector integrated

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⁾	1 power supply, 1 gateway for 2 AS-i networks, inexpensive power supplies ⁽³⁾	Recognition of duplicate AS-i addresses ⁽⁴⁾	AS-i fault detector ⁽⁵⁾	Programming in C ⁽⁶⁾	Article no.
	DeviceNet AS-i	Gateway	DeviceNet	2 AS-i networks, 2 AS-i Masters	yes, max. 4 A/AS-i network	yes	yes	no	BWU1820
	DeviceNet AS-i	Gateway	DeviceNet	2 AS-i networks, 2 AS-i Masters	no, max. 8 A/AS-i network, redundant supply	yes	yes	no	BWU1819
	DeviceNet AS-i	Gateway	DeviceNet	1 AS-i network, 1 AS-i Master	no, max. 8 A/AS-i network	yes	yes	no	BWU1818

(1) Fieldbus interface

Communication interface between fieldbus and gateway: interfaces for standardized fieldbus systems in industrial automation.
DeviceNet AS-i Gateway: interface for a DeviceNet fieldbus

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

"Single Master": 1 AS-i network, 1 AS-i Master;
"Double Master": 2 AS-i networks, 2 AS-i Masters.

(3) 1 power supply, 1 gateway for 2 AS-i networks, inexpensive power supplies

"yes, max. 4 A/AS-i network": Cost-effective power for 2 AS-i 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.
"no, max. 8 A/AS-i network, redundant supply": 1 power supply per AS-i network. Gateway is powered in normal operation from one of the two AS-i power supplies. Should one AS-i power supply fail, switching to the other AS-i power supply allows all the diagnostics functions to be maintained and the unaffected AS-i network continues to operate.
"no, max. 8 A/AS-i network": 1 power supply per AS-i network.

(4) Recognition of duplicate AS-i addresses

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

(5) AS-i fault detector

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

(6) Programming in C

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

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Article no.	BWU1820	BWU1819	BWU1818
Interface			
Interface	DeviceNet interface (5-pin plug) RS 232 diagnostic interface		
Baudrate	125 kBaud, 250 kBaud, 500 kBaud		
AS-i			
AS-i specification	3.0		
Cycle time	150µs * (number of slaves + 2)		
Operating voltage	30 V _{DC} (20 ... 31,6 V)		
Display			
LCD	displaying AS-i slave addresses and error messages		
LED power (green)	voltage ON		
LED ser active (green)	module/network-status (MNS)		
LED config error (red)	configuration error		
LED U AS-i (green)	AS-i voltage OK		
LED AS-i active (green)	AS-i in normal operation		
LED prg enable (green)	automatic address programming enabled		
LED prj mode (yellow)	configuration mode active		
UL-specifications (UL508)			
Applied standards	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.		
Umwelt			
Applied standards	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		
Pollution degree	2		
Housing	stainless steel, for DIN rail mounting		
Protection category	IP20		
Tolerable loading referring to humidity	according to EN 61131-2		
Tolerable loading referring to impacts and vibrations	according to EN 61131-2		
Voltage of insulation	≥ 500 V		
Weight	590 g		520 g
Dimensions (W / H / D in mm)	85 / 120 / 83		

Article no.	Operating current		
	Master power supply, ca. 200 mA out of AS-i circuit	Master power supply, max. 200 mA out of AS-i circuit 1 (ca. 70 mA ... 200 mA), max. 200 mA out of AS-i circuit 2 (ca. 70 mA ... 200 mA); in sum max. 270 mA	Version „1 gateway, 1 power supply for 2 AS-i networks“, approx. 250 mA (PELV voltage)
BWU1820	-	-	•
BWU1819	-	•	-
BWU1818	•		-

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Pin assignment:

	Signal	Color
1	V+	red
2	CAN_H	white
3	Shield	n/a
4	CAN_L	blue
5	V-	black

Accessories:

- Software "AS-i Control Tools" with serial transmission cord for connection of the AS-i Master (art. no. BW1602)
- DeviceNet Master Simulator with USB interface (art. no. BW1420)
- Data transmission cord for AS-i Gateways with CAN interface (art. no. BW1226)
- 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)