

AS-i 3.0 CANopen Gateway in Stainless Steel

Recognition of duplicate AS-i addresses




AS-i Earth Fault Detector integrated

AS-i Noise Detector integrated



(figure similar)



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⁾	Diagnostic and configuration interface ⁽⁴⁾	Recognition of duplicate AS-i addresses ⁽⁵⁾	AS-i fault detector ⁽⁶⁾	Article no.
	CANopen AS-i	Gateway	CANopen	2 AS-i networks, 2 AS-i Masters	yes, max. 4 A/ AS-i network	RS 232	yes	yes	BWU1823
	CANopen AS-i	Gateway	CANopen	2 AS-i networks, 2 AS-i Masters	no, max. 8 A/ AS-i network, redundant supply	RS 232	yes	yes	BWU1822
	CANopen AS-i	Gateway	CANopen	1 AS-i network, 1 AS-i Master	no, max. 8 A/ AS-i network	RS 232	yes	yes	BWU1821

(1) Fieldbus interface

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

"RS 232": Access to AS-i 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 AS-i addresses

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

(6) AS-i fault detector

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

AS-i 3.0 CANopen Gateway in Stainless Steel

Article no.	BWU1821	BWU1822	BWU1823
Interface			
Interface	CANopen (5-pin plug), RS 232 diagnostic interface		
Baud rates	10/1000 Kbaud		
CANopen features	extended boot-up, minimum boot-up, life guarding COB ID Distribution: DBT, SDO, Default Node ID Distribution: SDO, Switch No of PDOs: up to 35 Rx, 35Tx PDO Modes: async, cyclic, acyclic Device Specification: CiA DS-301		
AS-i			
AS-i specification	3.0		
Cycle time	150 μ s * (number of slaves + 2)		
Operating voltage	30 V _{DC} (20 ... 31,6 V) (PELV voltage)		
Display			
LCD	menu, AS-i indication of slave addresses, error messages in plain text		
LED power (green)	power ON		
LED ser.active (green/red)	CANopen 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		
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 62026-2, EN 61000-6-2, EN 61000-6-4, EN 50581 EN 60529		
Operating altitude	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	acc. EN 61131-2		
Voltage of insulation	≥ 500 V		
Dimensions (W / H / D in mm)	85 / 120 / 83		
Weight	520 g		

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)
BWU1821	•	-	-
BWU1822	-	•	-
BWU1823	-	-	•

AS-i 3.0 CANopen Gateway in Stainless Steel

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)
- CANopen master simulator (art. no. BW1453)
- 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)