

ASi-3 EtherNet/IP + Modbus TCP Gateway in Stainless Steel

EtherNet/IP + Modbus TCP in one device

Integrated switch

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.
	EtherNet/IP + Modbus TCP	ASi-3 compatible	1 ASi network, 1 ASi-3 Master	no, max. 8 A/ ASi network	Ethernet Fieldbus + RS 232	yes	yes	optional	BWU2379
	EtherNet/IP + Modbus TCP	ASi-3 compatible	2 ASi networks, 2 ASi-3 Masters	no, max. 8 A/ ASi network, redundant supply	Ethernet Fieldbus + RS 232	yes	yes	optional	BWU2380

(1) **Fieldbus interface**

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

EtherNet/IP+ Modbus TCP ASi Gateway: interface for an EtherNet/IP+ Modbus TCP fieldbus

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

"Single Master": 1 ASi network, 1 ASi-3 Master;

(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 fieldbus + RS 232": Access to ASi master and safety monitor with Bihl+Wiedemann proprietary software by using the Ethernet fieldbus interface or 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.

(7) **Programming in C**

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

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Article no.	BWU2379 / BWU2380
Fieldbus Interface	
Type	Ethernet + Modbus TCP acc. to IEEE 802.3 2 x RJ-45, integrated 2-Port-Switch,
Baud rate	10/100 MBaud
Function	Device Level Ring (DLR) (Ethernet/IP only)
Card slot	Chip card for storage of configuration data
Diagnostic Interface	
Type	Ethernet + RS232; RJ-45 acc. to IEEE 802.3
Baud rates	Full duplex (10/100 MBaud, both fieldbus ports must use the same data rate) ⁽²⁾
ASi	
ASi specification	3.0
Cycle time	150 µs * (number of ASi-3 nodes + 2)
Operating voltage	30 V _{DC} (20 ... 31,6 V) (PELV voltage)
ASi Power24V capability ⁽¹⁾	no
Display	
LCD	menu, ASi indication of ASi addresses, error messages in plain text
LED power (green)	power ON
LED ser active (green)	Ethernet communication 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)	configuration mode active
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 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
Maximum tolerable shock and vibration stress	according to EN 61131-2
Voltage of insulation	≥500 V
Weight	500 g
Dimensions (W / H / D in mm)	85 / 120 / 83

(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.

- (2)** BWU2379 from Ident. No. ≥20222 full duplex (10/100 MBaud)
 BWU2380 from Ident. No. ≥20165 full duplex (10/100 MBaud)

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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. 200 mA out of ASi circuit 2 (ca. 70 mA ... 200 mA); in sum max. 270 mA	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
BWU2379	-	-	•
BWU2380	•	-	-

Article no.	BWU2379	BWU2380
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 approval and measurements (art. no. BW2902)
- 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)
- Control III, Programming in C (art. no. BW2582)