

ASi-3 EtherNet/IP + Modbus TCP Gateway in stainless steel

ASi-3 EtherNet/IP + Modbus TCP-Gateway in stainless steel

OPC UA server and integrated web server for simplified diagnostics

1 ASi-3 Master, EtherNet/IP + Modbus TCP device
• switch integrated

Duplicate ASi address recognition

ASi Earth Fault Detector integrated


ASi Noise Detector integrated

Optional Control III, programming in C



(figure similar)



| Figure | Fieldbus interface ⁽¹⁾ | Number of ASi networks, number of ASi Master ⁽²⁾ | Integrated de-coupling, ASi current measurement in the gateway ⁽³⁾ | Diagnostic and configuration interface ⁽⁴⁾ | Recognition of duplicate ASi addresses ⁽⁵⁾ | ASi fault detector ⁽⁶⁾ | Prog. in C ⁽⁷⁾ | Art. no. |
|---|-----------------------------------|---|---|---|---|-----------------------------------|---------------------------|----------------|
|  | EtherNet/IP + Modbus TCP, OPC UA | 1 ASi network, 1 ASi-3 master | yes, max. 8 A/ASi network | Ethernet fieldbus, Ethernet diagnostic | yes | yes | optional | BWU4958 |

(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 a Ethernet/IP+ Modbus TCP fieldbus
OPC UA server: interface for OPC UA communication.

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

"Double Master": 1 ASi network, 1 ASi-3 Master.

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

"yes, max. 8 A/ASi network": Data decoupling integrated in the gateway. Cost-effective power for 2 ASi 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.

(4) Diagnostic and configuration interface

"Ethernet fieldbus + Ethernet diagnostic": Access to ASi Master and Safety Monitor with Bihl+Wiedemann software by using the Ethernet diagnostic interface or Ethernet fieldbus 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 AS-i 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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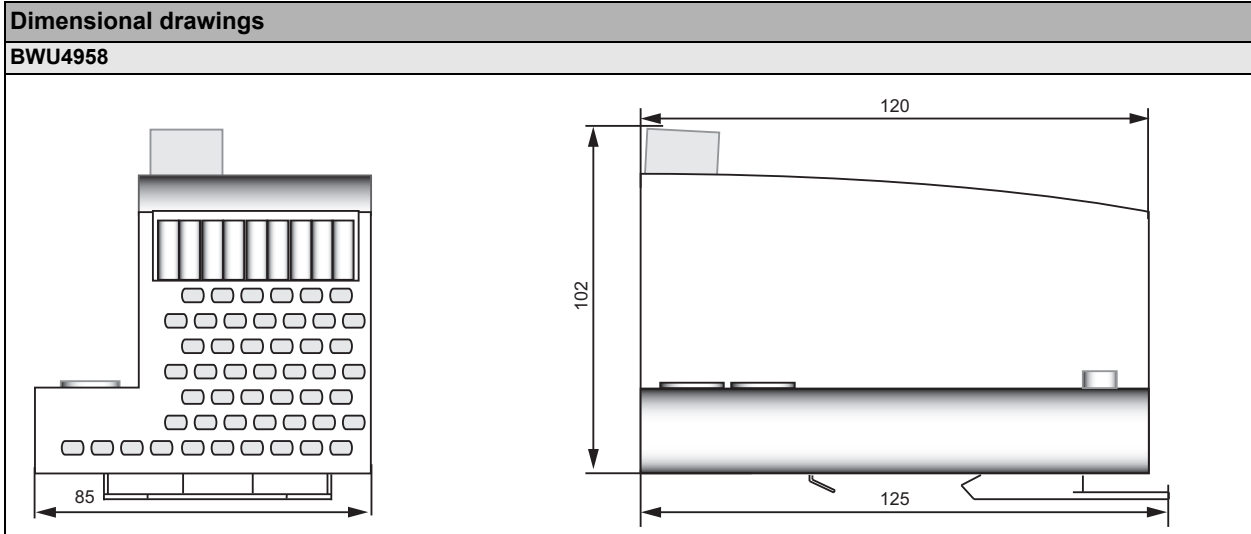
| | |
|--|---|
| Article no. | BWU4958 |
| Fieldbus interface | |
| Type | EtherNet/IP + Modbus TCP acc. to IEEE 802.3 2 x RJ-45, integrated 2-Port-Switch, |
| Baud rate | 10/100 MBaud |
| OPC UA interface | OPC UA server + web server |
| Function | Device Level Ring (DLR) (Ethernet/IP only) |
| Card slot | chip card (128 kB) for storage of configuration data |
| Diagnostic interface | |
| Type | Ethernet; RJ-45 acc. to IEEE 802.3 |
| Baud rate | 10/100 MBaud half duplex/full duplex |
| OPC UA interface | OPC UA server + web server |
| ASi | |
| ASi specification | ASi-3 |
| Number of ASi networks, number of ASi Master | 1 ASi network, 1 ASi-3 master |
| Cycle time | 150 μ s * (number of ASi-3 nodes + 2) |
| Operating current | approx. 250 mA |
| Current per ASi network | max. 8 A |
| ASi Power24V capability ⁽¹⁾ | yes |
| Display | |
| LCD | menu, indication of ASi addresses and error messages in plain text |
| LED power (green) | power on |
| LED net (green) | Ethernet network 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 addresses programming enabled |
| LED prj mode (yellow) | configuration mode active |
| UL-specifications (UL61010) | |
| 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 EN 61131-2 |
| Operating altitude | max. 2000 m |
| Ambient temperature | -25 °C ... +50 °C (up to max. 55 °C) ⁽²⁾ (no condensation permitted) |
| Storage temperature | -25 °C ... +85 °C |
| Intended environment | for indoor use only |
| Housing | stainless steel, for DIN rail mounting |
| Pollution Degree | 2 |
| Overvoltage category | III |
| Protection category | IP20 |
| Tolerable loading referring to humidity | according to EN 61131-2 |
| Maximum tolerable shock and vibration stress | according to EN 61131-2 |
| Voltage of insulation | \geq 500 V |
| Weight | 625 g |
| Dimensions (W / H / D in mm) | 85 / 120 / 106 |

(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) Maximum ambient operating temperature +50 °C according UL certificate for the use in the USA and Canada.

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Wiring rules ASi connection and power supply

| Push-in terminals, 2 /3 /4 poles (pitch 5 mm) | |
|--|--|
| General | |
| Nominal cross section | 2.5 mm ² |
| Conductor cross section | |
| Conductor cross section solid | 0.2 ... 2.5 mm ² |
| Conductor cross section flexible | 0.2 ... 2.5 mm ² |
| Conductor cross section flexible, with ferrule | without plastic sleeve: 0.25 ... 2.5 mm ² |
| | with plastic sleeve: 0.25 ... 2.5 mm ² |
| 2 conductors with same cross section, stranded, with TWIN ferrules | without plastic sleeve: 0.5 ... 1.5 mm ² |
| AWG | 24 ... 14 |
| Stripped insulation length | 10 mm |

| | BWU4958 |
|--|---------|
| Data decoupling integrated in the gateway | • |
| 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:

- Chip card, memory capacity 128 kByte (art. no. BW2222)
- Bihl+Wiedemann Suite - Software for Configuration, Diagnostics and Commissioning (art. no. BW2902)
- Power supplies, e.g.: 30 V power supply, 4 A, 1 phase (art. no. BW4218), 30 V power supply, 8 A, 1 phase (art. no. BW4219), 30 V power supply, 8 A, 3 phases (art. no. BW4220), 30 V Power Supply, 16 A, 1 phase (art. no. BW4221), 30 V Power Supply, 16 A, 3 phases (art. no. BW4222) (for further power supply units visit www.bihl-wiedemann.de/en/products/accessories/power-supplies)