AS-i 3.0 PROFINET Gateway with integrated Safety Monitor

Bihl+Wiedemann
THE AS-INTERFACE MASTERS

2 AS-i 3.0 Master, PROFINET-Slave

- **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
- **Full functional range**
  of Bihl+Wiedemann PROFINET Gateway BWU2239!
- **Enhanced functional range**
  of Bihl+Wiedemann Safety Monitor BWU2000!
- **Compatible with the wide range of**
  Bihl+Wiedemann power supplies

1 AS-i Safety Monitor in Stainless Steel for 2 AS-i networks

- **Operation using a single Monitor configuration**
  Monitor processes safety slaves on two AS-i networks
  Coupling between the two networks superfluous

16 release circuits

- **4 CAT4, SIL 3 safe output circuits on the Monitor**
  two sets of safe relays
  two sets of fast electronic safe outputs

Safe AS-i outputs are supported on both AS-i networks

- **16 independent AS-i outputs**
  Multiple safe AS-i outputs possible via a single AS-i address

Monitor configuration can be „arbitrarily" large

- **256 configuration blocks (previously 48)**
  Identical reaction time due to artificial limitation to 256 configuration blocks
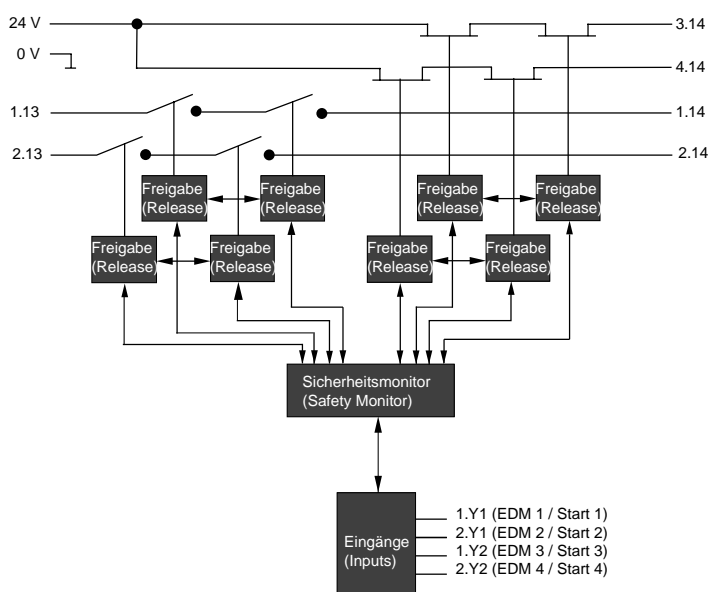
Chip card for storage of configuration data

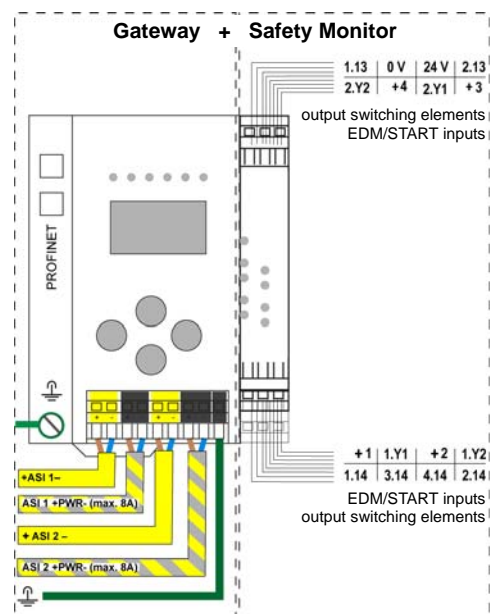| Article no.	BWU2534
PROFINET interface	RJ-45
Conformance class	B
Baud rates	10/100 MBaud
Serial interface	RS 232
AS-i cycle time	150 µs $*$ (number of slaves + 2)
Safety monitor	
Release circuits	4
Start delay	< 10 s
Respond delay	< 40 ms
Inputs: 4 x EDM/Start	EDM: inputs to monitor external devices Start: Start inputs switching current statical 4 mA at 24 V, dynamic 30 mA at 24 V (T=100 µs)
Outputs: 4 x output switching elements	relay outputs (output circuits 1 and 2) max. contact load: 3 A AC-15 at 30 V, 3 A DC-13 at 30 V
	semiconductor outputs (output circuits 3 and 4) max. contact load: 0,5 A DC-13 at 30 V
Card slot	chip card for storage of configuration data
Displays	
LCD	indication of slave adresses and error messages
LED *power*	power on
LED *PROFINET*	PROFINET master recognized
LED *config error*	configuration error
LED *U AS-i*	AS-i voltage OK
LED *AS-i active*	AS-i normal operation active
LED *prg enable*	automatic addresses programming enabled
LED *prj mode*	configuration mode active
LED *AUX*	auxiliary power

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Article no.	BWU2534
4 x LED EDM/Start	state of inputs: *LED off:* *open* *LED on:* *closed*
4 x LED output circuit	state of output circuits: *LED off:* *open* *LED on:* *closed*
Operating current	master power supply, max. 300 mA out of AS-i circuit 1 (approx. 70 mA ... 300 mA), max. 300 mA out of AS-i circuit 2 (approx. 70 mA ... 300 mA); in sum max. 370 mA
Operating voltage	30 V, 9 W
Voltage of insulation	$\geq$ 500 V
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.
c**TÜV**us	The devices BWU2534 from Bihl + Wiedemann GmbH were safety certified by TÜV Rheinland of North America, Inc. according to UL-standards and meet the safety requierements for the North American market.
Standards	EN 61 000-6-2 EN 61 000-6-4 EN 62 061:2005, SILCL 3 EN 61 508:2001, SIL 3 EN ISO 13 849-1:2008, performance level e
Housing	AS-i master housing in stainless steel
Ambient operating temperature	0°C … +55°C
Storage temperature	-25°C … +85°C
Dimensions (L / W / H in mm)	120 / 100 / 96
Protection category IEC 60 529	IP20
Tolerable loading referring to impacts and vibrations	according to EN 61 131-2
Weight	800 g

Safety Monitor block diagram:

Connections:

Accessories:

• Serial cable and adapter for AS-i Gateways in Stainless Steel (Art. no. BW2513)
ASIMON and AS-i-Control-Tools for AS-i-Master/Monitors in Stainless Steel (Art. no. BW2501)