

# AS-i 3.0 PROFIBUS Gateway with integrated Safety Monitor

## 1 AS-i 3.0 Single Master, PROFIBUS-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
- Version "1 gateway + 1 power supply + 1 Safety Monitor for 2 AS-i networks"
- Full functional range  
of Bihl+Wiedemann PROFIBUS Gateway BWU1891!
- 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

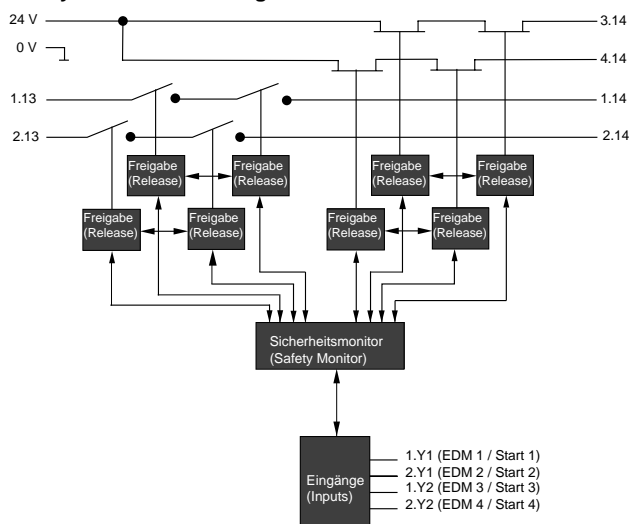


<b>Article number</b>	<b>BWU2004</b>
<b>PROFIBUS interface</b>	according to DIN 19 245, part 3
Baud rates	9,6 kBaud up to 12 000 kBaud, automatic recognition
DP functions	imaging of the AS-i slaves as I/O data of the PROFIBUS complete diagnosis and configuration via the PROFIBUS DP
<b>Serial interface</b>	RS 232
<b>AS-i cycle time</b>	150 µs · (number of slaves + 2)
<b>Safety Monitor</b>	
Release circuits	4
Start delay	< 10 s
Respond delay	< 40 ms
<b>Inputs:</b> 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=100µs)
<b>Outputs:</b> 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
<b>Display</b>	
LCD	indication of slave addresses and error messages
LED power	power on
LED PROFIBUS	PROFIBUS 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 address programming enabled
LED prj mode	configuration mode active
LED AUX	auxiliary power

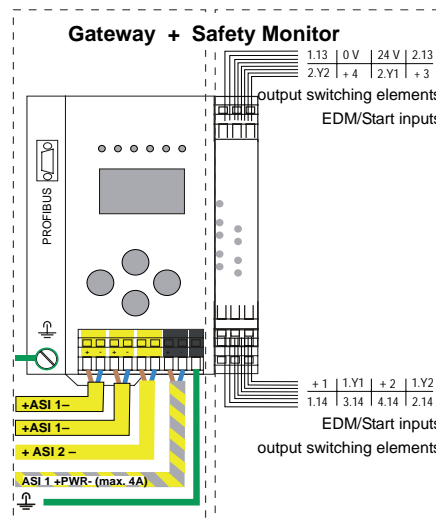
# AS-i 3.0 PROFIBUS Gateway with integrated Safety Monitor

<b>Article number</b>	<b>BWU2004</b>
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
<b>Electrical data</b>	
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	≥ 500 V
<b>UL-specifications (UL508)</b>	
External Protection	An isolated source with a secondary open circuit voltage of ≤ 30 V <sub>DC</sub> 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.
<b>cTUVus</b>	The devices BWU2004 from Bihl + Wiedemann GmbH were safety certified by TÜV Rheinland of North America, Inc. according to UL-standards and meet the safety requirements for the North American market.
<b>Standards</b>	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
<b>Housing</b>	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:

- Software ASIMON 3 G2 and AS-i Control Tools with serial cable for AS-i Master/monitor in stainless steel (art. no. BW2071)
- Serial PROFIBUS Master (art. no. BW1258)
- PROFIBUS DP Master Simulator (art. no. BW1257)