

Safety Basic Monitors

2 x electronic safe outputs

Up to 4 x 2 channels safe inputs

- optionally the safe inputs will be used as well as standard inputs and signal outputs

Safe ASi outputs are supported

- max. 32 independent ASi outputs
multiple safe ASi outputs possible via a single address

Chip card for storage of configuration data

Protection category IP20



(Figure similar)



Figure	Model	Inputs Safety, SIL 3, Cat. 4	Inputs safety, expandable to	Outputs Safety, SIL 3, cat. 4	Safety outputs, independent according to SIL 3, expandable to	Safety communication	Fieldbus interface	1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies	Diagnostic and configuration interface ⁽¹⁾	Article no.
	Safety Basic Monitor with extended features	4 x 2 channels, inputs 3+4 compatible as replacement with consortial monitor	max. 31 x 2 channels	2 release circuits; 2 x electronic safe output	max. 16	–	ASi monitors	no, max. 8 A/ASi network	USB	BWU2567

(1) **Diagnostic and configuration interface**

"USB": Access to Safety Monitor with Bihl+Wiedemann proprietary software by using the USB interface.

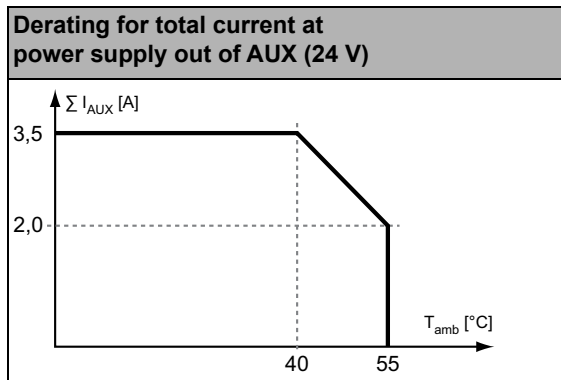
"Ethernet diagnostic": Access to Safety Monitor with Bihl+Wiedemann software by using the Ethernet diagnostic interface.

Article no.	BWU2567
Connection	
ASI/AUX connection	push-in terminals
Periphery connection	push-in terminals
Length of connector cable	unlimited ⁽¹⁾
Safety Monitor	
Respond delay	< 40 ms
Diagnostic interface	
Type	USB
Baud rate	–
Safety communication	–
Card slot	chip card (32 kB) for storage of configuration data
ASI	
Voltage	30 V (18 ... 31,6 V)
Max. current consumption	200 mA ⁽²⁾
Max. current with internal decoupling out of AUX	–
AUX	
Voltage	24 V (20 ... 30 V) (PELV)
Max. current consumption	max. 4 A
Input	
Number	4 x 2-channel safe inputs SIL3, cat. 4 or 8 standard inputs and signaling outputs
Switching current	15 mA (T = 100 µs), continuously 4 mA at 24 V
Safety signal	floating contacts inputs 3+4 optional for OSSDs
Supply voltage	out of AUX
Sensor supply	short-circuit and overload protected according to EN 61131
Network connection between the safe input terminals	max. resistance 150 Ω
Output	
Number	2 (4) output switching elements; semiconductor outputs (output circuits 1 and 2) max. contact load: 700 mA _{DC-13} at 24 V ⁽²⁾
Supply voltage	out of AUX
Actuator supply	short-circuit and overload protected according to EN 61131
Max. output current signal outputs	10 mA per output
Max. output current for OSSD supply	1,4 A (S71) ⁽²⁾
Test pulse	if output is on: minimum interval between 2 test pulses: 250 ms (from safety version 4.3); maximum pulse width 1 ms
Speed monitor function	
Safe monitoring	–
Signal	–
Number of monitored axes	–

Article no.	BWU2567
Display	
LED S1 ... Sn (yellow)	state of safe input S1 ... S8
LED SM (green/yellow/red)	state of Safety Monitor
LED ASi M (green/yellow/red)	state of ASi monitor
LED O1 (green/yellow/red)	output 1 has switched
LED O2 (green/yellow/red)	output 2 has switched
LED NET (green)	–
1 button	Service
UL-specifications (UL508)	
External protection	An isolated source with a secondary open circuit voltage of $\leq 30 V_{DC}$ has to be protected with a 3 A maximum over current. 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.
Ambient	
Applied standards	EN 60529 EN 61508 EN 62061 EN 61131 EN 61000-6-2 EN 61000-6-4 EN ISO 13849-1
Operation altitude	max. 2000 m
Ambient temperature	0 °C ... +55 °C no condensation permitted
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for DIN rail mounting
Protection class	IP20
Tolerable loading referring to humidity	according to EN 61131-2
Voltage of insulation	$\geq 500 V$
Weight	160 g
Dimensions (W / H / D in mm)	22,5 / 99 / 114
Mounting position	vertical (mounting rail horizontal, ASi clamps pointing downwards) ⁽³⁾
Mounting	Can be combined with Bihl+Wiedemann devices of the same design and neighboring devices with max. 3 W heat radiation. For higher heat radiation, a minimum distance of one module width (22.5 mm) must be provided. There is no fixed limit for the connecting cable between the speed monitor and the encoder. However, it is recommended to keep the connecting cable between the speed monitor and the encoder as short as possible in order to avoid possible interference, e.g. EMC.

(1) Loop resistance $\leq 150 \Omega$

(2)



(3) Make sure there is adequate ventilation. The supply air temperature at the bottom of the housing may not exceed values specified under ambient temperature.

Article no.	BWU2567
ASi Safety Monitor	
Safety Monitor	Safety Basis Monitor, successor for ASi consortial Safety Monitor, replacement compatible
Optimized to ASi Monitor operations	yes
Release circuits	16
Antivalent switches for local inputs	yes
Standstill monitors of local inputs	4 x 50 Hz
Standstill/speed monitors of local inputs	2-4 axes, up to 400 Hz
Electrical data	
Power supply decoupling unit	–

Wiring rules

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

BWU2567	Terminals	Description
	S22, S21, S12, S11	safety input terminal input 1
	S42, S41, S32, S31	safety input terminal input 2
	S62, S61, S52, S51	safety input terminal input 3
	S71, S72, S81, S82	safety input terminal input 4 (except BWU2852)
	1.14 _{ext.out}	semiconductor output 1
	2.14 _{ext.out}	semiconductor output 2
	0 V _{ext.out}	ground for semiconductor output
	ASi +, ASi -	connection to the ASi Bus
	AUX + _{ext.in} , AUX - _{ext.in}	power supply input

Accessories:

- Safety Software for Configuration, Diagnosis and Programming (art. no. BW2916)
- Chip card, memory capacity 32 kB (art. no. BW2079)
- Safe Contact Expander 1 or 2 independent channels (art. no. BWU2548 / BWU2539)
- Safe Contact Expander 10 A or 20 A (art. no. BW3016 / BW3281)
- ASi Safety 4I/2O Module, 4 x 2 channels safety inputs and 2 fast electronic safety outputs in IP20 (art. no. BWU2314) as supplementary module
- ASi Speed Monitor (art. no. BWU2427 / BWU2849) as supplementary module
- USB cable for Safety Basic Monitor (art. no. BW2530)