

## ASi Safety Input Module, IP20

- for antivalent switches



(Figure similar)

Figure	Inputs Safety, SIL 3, Kat. 4	Safety signal Inputs	Outputs digital	Input voltage (sensor supply.) <sup>(1)</sup>	Output voltage (actuator supply.) <sup>(2)</sup>	ASi address <sup>(3)</sup>	Article no.
	1 x 2-channels	antivalent switches	2 x electronic	out of ASi	out of ASi	1 Single address	<b>BWU3882</b>

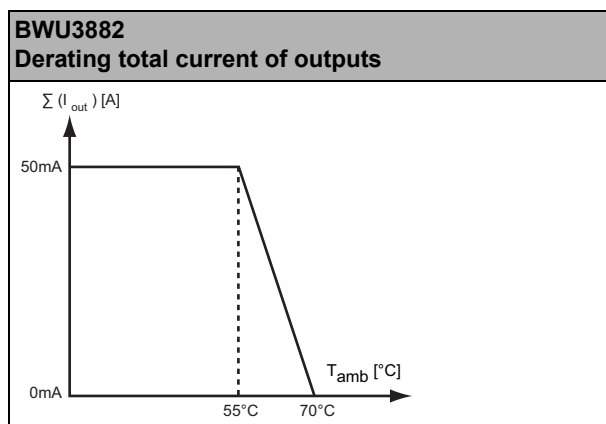
- (1) **Input voltage (sensor supply):** inputs are supplied by ASi or by AUX (auxiliary 24 V power). If supplied by ASi, inputs shall not be connected to earth or to external potential.
- (2) **Output voltage (actuator supply):** outputs are supplied by ASi or by AUX (auxiliary 24 V power). If supplied by ASi, outputs shall not be connected to earth or to external potential
- (3) **ASi address:** 1 AB address (max. 62 AB addresses/ASi network), 2 AB addresses (max. 31 modules with 2 AB addresses), Single addresses (max. 31 Single addresses/ASi network), mixed use allowed.

<b>Article no.</b>	<b>BWU3882</b>	
<b>Connection</b>		
ASi/AUX connection	Push-in terminals <sup>(1)</sup>	
Periphery connection	Push-in terminals <sup>(1)</sup>	
Length of connector cable	E/A: max. 15 m	
<b>ASi</b>		
Profile	S-7.B.0, ID1=F	
Address	1 Single address	
Operating voltage	30 V <sub>DC</sub> (22 ... 31,6 V)	
Required Master profile	≥M3	
As of ASi specification	2.1	
Max. current consumption	100 mA	
<b>AUX</b>		
Voltage	-	
Max. current consumption	-	
<b>Input</b>		
Number	1 x 2-channels safe input for floating contacts	
Safety signal Input	antivalent switches	
Switching current	static 4 mA at 24 V, dynamic 15 mA at 24 V (T = 100 µs)	
Power supply	out of ASi	
Switching threshold	10 mA, R < 150 Ω	
<b>Output</b>		
Number	2, electronic, short-circuit protected	
Power supply	out of ASi	
Max. current consumption	up to 40 °C	Σ(Out) 50 mA <sup>(2)</sup>
	at 45 °C	
	at 55 °C	
	at 70 °C	Σ(Out) 0 mA <sup>(2)</sup>

<b>Article no.</b>	<b>BWU3882</b>
<b>Display</b>	
LED ASI (green)	on: ASi voltage on flashing: ASi voltage on, but peripheral fault <sup>(3)</sup> or address 0 off: no ASi voltage
LED FLT/FAULT (red)	on: no exchange of data or address 0 flashing: peripheral fault <sup>(3)</sup>
LED ASI/FLT (red/green)	–
LED ASI/FLT2 (red/green)	–
LED AUX (green)	–
LED CC (red)	Cross-connection <sup>(3)</sup>
LEDs O1 ... On (yellow)	state of outputs O1, O2
LED S1 ... Sn (yellow)	state of inputs S1, S2
<b>Environment</b>	
Applied standards	EN 60529 EN ISO 13849-2 EN 61000-6-2 EN 61000-6-4 EN 61131-2 EN 62026-2  EN 62061 SIL3 EN ISO 13849-1 PLe Kat 4
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes <sup>(4)</sup>
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +55 °C (up to max. +70 °C) <sup>(2) (5)</sup> no condensation permitted
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for DIN rail mounting
Pollution degree	2
Protection category	IP20
Tolerable loading referring to humidity	according to EN61131-2
Maximum tolerable shock and vibration stress	≤ 15 g, T ≤ 11 ms 10 ... 55 Hz, 0,5 mm amplitude
Weight	60 g
Dimensions (W / H / D in mm)	22,5 / 99,6 / 50,5

(1) See table "Wiring rules"

(2)



(3) See table „Peripheral fault indication“

(4) The module is suitable for use in passively safe paths as it has no connection to an AUX potential.

<sup>(5)</sup> Maximum ambient operating temperature +55 °C according to UL certificate for use in the USA and Canada

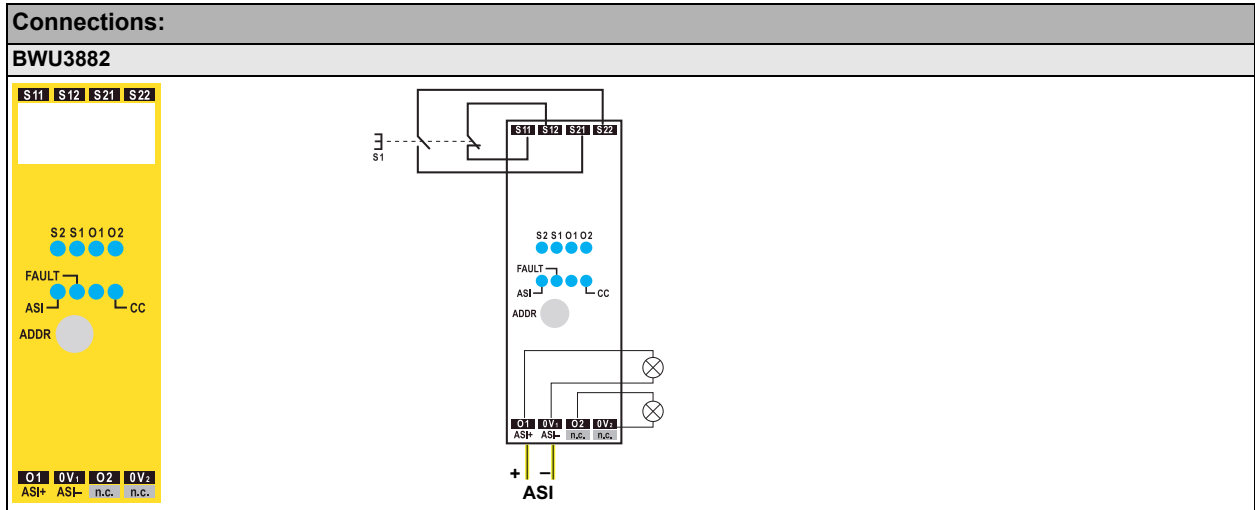
## Wiring rules

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

UL-Specifications (UL508) BWU3882	
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.

Article no.	Peripheral fault indication				
	Cross-connection	Overload sensor supply	output overload	AUX voltage missing	Sensor cable break
BWU3882	•	-	•	-	-

Programming:	ASi bit assignment			
	D3	D2	D1	D0
<b>safe input</b>				
BWU3882	S21 / S22 negated		S11 / S12	
<b>standard output</b>				
BWU3882	not used	not used	O2	O1
<b>parameter bit</b>				
	P3	P2	P1	P0
BWU3882	not used	not used	not used	0: off / 1: on (Watchdog)



### Accessories:

- Asi-5/Asi-3 Address Programming Device (art. no. BW4925)
- Bihl+Wiedemann Safety Suite License - Safety Software for Configuration, Diagnostics and Commissioning (art. no. BW2916)