Digital Modules ASi in IP20, 22,5 mm

Cost efficient solution in IP20

(Figure similar)

Figure	Type	Primary application [1]	Inputs digital	Outputs digital	Input voltage (sensor supply) [2]	Output voltage (actuator supply) [3]	ASi connection [4]	ASi address [5]	Article No.
	IP20, 22,5 mm x 50 mm, 4 x 4 contacts	decentralized control cabinet	4	4 x electronic	out of ASi	out of ASi	Push-in terminals	1 AB address	**BWU2783**
	IP20, 22,5 mm x 50 mm, 4 x 4 contacts	decentralized control cabinet	4	4 x electronic	out of ASi	out of ASi	Push-in terminals	1 single address	**BWU3272**
	IP20, 22,5 mm x 50 mm, 4 x 4 contacts	decentralized control cabinet	4	–	out of ASi	–	Push-in terminals	1 AB address (S-0.A.7.0)	**BWU3747**
	IP20, 22,5 mm x 92 mm 4 x 4 contacts	control cabinet	4	4 x electronic	out of AUX	out of AUX	Push-in terminals	1 AB address	**BWU3559**
	IP20, 22,5 mm x 92 mm 4 x 4 contacts	control cabinet	4	4 x electronic	out of AUX	out of AUX	Push-in terminals	1 AB address	**BWU3842**
	IP20, 22,5 mm x 92 mm 4 x 4 contacts	control cabinet	4	3 x electronic	out of AUX	out of AUX	Push-in terminals	1 AB address	**BWU3733**
	IP20, 22,5 mm x 114 mm, 4 x 4 contacts	control cabinet	4	4 x electronic	out of AUX	out of AUX	Push-in terminals	1 AB address	**BWU1938**
	IP20, 22,5 mm x 114 mm, 4 x 4 contacts	control cabinet	4	4 x electronic	out of AUX	out of AUX	Push-in terminals	1 single address	**BWU2759**
	IP20, 22,5 mm x 114 mm, 4 x 4 contacts	decentralized control cabinet	4	–	out of ASi	–	Push-in terminals	1 AB address	**BWU3265**
	IP20, 22,5 mm x 114 mm, 4 x 4 contacts	decentralized control cabinet	4	–	out of AUX	–	Push-in terminals	1 AB address	**BWU3266**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	control cabinet	4	3 x relay	out of ASi	–	Push-in terminals	1 AB address	**BWU3878**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	control cabinet	4	4 x relay	out of ASi	–	Push-in terminals	1 single address (S-7.0.F.E)	**BWU3658**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	control cabinet	8	8 x electronic	out of ASi	out of AUX	Push-in terminals	2 AB addresses	**BWU3364**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	control cabinet	8	8 x electronic	out of AUX	out of AUX	Push-in terminals	2 AB addresses	**BWU2490**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	control cabinet	8	8 x electronic	out of AUX	out of AUX	Push-in terminals	2 single addresses	**BWU2800**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	control cabinet	8 (NPN)	8 x electronic (NPN)	out of AUX	out of AUX	Push-in terminals	2 AB addresses	**BWU3359**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	decentralized control cabinet	4	4 x electronic	out of ASi	out of AUX	Push-in terminals	1 AB address	**BWU3267**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	decentralized control cabinet	4	4 x electronic	out of AUX	out of AUX	Push-in terminals	1 AB address	**BWU3268**
	IP20, 22,5 mm x 114 mm, 6 x 4 contacts	decentralized control cabinet	4	4 x electronic	out of ASi	out of AUX	Push-in terminals	1 single address	**BWU3754**

(1) **Primary Application**
Control cabinet: Cost-optimized modules whereby the supply voltage for the sensors and actuators is connected via additional patch terminals. Optimal application in the main control cabinet.
Decentralized control cabinet: Ideal for use in decentralized control cabinets. 3-wire sensors or actuators can be connected directly to terminals in the module without additional patch terminals or the module has an extremely flat design.

(2) I**nput 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.

(3) **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

(4) **ASi connection:** the connection to ASi as well to AUX (auxiliary 24 V power) is made via yellow resp. black ASi profile cable with piercing technology or via M12 socket (in IP20 via clamps).

(5) **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. For modules with two ASi nodes the 2nd ASi node is turned off as long as the 1st ASi node is addressed to address "0". Upon request, ASi nodes are available with specific ASi node profiles.

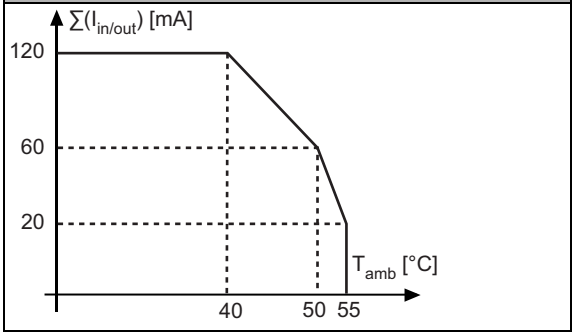
Article no.		BWU3272	BWU2783	BWU3747
General data				
Device type		input / output		input
Connection				
ASi / AUX connection		Push-in terminals		
Periphery connection		Push-in terminals		
Primary application		decentralized control cabinet		
Length of connector cable		I/O: max. 15 m (1)		
ASi				
Profile		S-7.0.E, ID1=F (default)	S-7.A.7, ID1=7 (fixed)	S-0.A.0, ID1=7 (default)
Address		1 single address	1 AB address	
Required Master profile		≥M0	≥M4	≥M3
Since ASi specification		2	3.0	2.1
Operating voltage		30 V (18 … 31.6 V)		
Max. current consumption		165 mA		
Max. current consumption without sensor/ actuator supply		45 mA		
Input				
Number		4		
Power supply		out of ASi		
Sensor supply		short-circuit and overload protected according to EN 61131-2		
Power supply of attached sensors	up to +40 °C	120 mA, ∑ (In/Out) 120 mA (2)		120 mA, ∑ (In) 120 mA (5)
	at +55 °C	20 mA, ∑ (In/Out) 20 mA (2)		20 mA, ∑ (In) 20 mA (5)
Switching threshold		U<5 V (low) U>15 V (high)		
Output				
Number		4 x electronic		–
Power supply		out of ASi		–
Actuator supply		short-circuit and overload protected according to EN 61131		–
Max. output current	up to +40 °C	120 mA per output, ∑ (In/Out) 120 mA (2)		–
	at +55 °C	20 mA, ∑ (In/Out) 20 mA (2)		–
Display				
LED ASI (green)		on: ASi voltage on, flashing: ASi voltage on, but peripheral fault (3) or address 0 off: no ASi Voltage		
LED FLT/FAULT (red)		on: address 0 or offline flashing: peripheral fault (3) off: online		
LEDs I1 ... In (yellow)		state of inputs I1 ... I4		
LEDs O1 ... On (yellow)		state of outputs O1 ... O4		–

Article no.	BWU3272	BWU2783	BWU3747
Environment			
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529		
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes (4)		
Operating altitude	max. 2000 m		
Ambient temperature	-25 °C ... +40 °C (up to max. +55 °C) (2)		
	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 EN 61131-2		
Voltage of insulation	≥500 V		
Weight	65 g		
Dimensions (W / H / D in mm)	22,5 / 99 / 50,5		

(1) Loop resistance ≤150 Ω

(2)

BWU2783, BWU3272
Derating total current of inputs + outputs

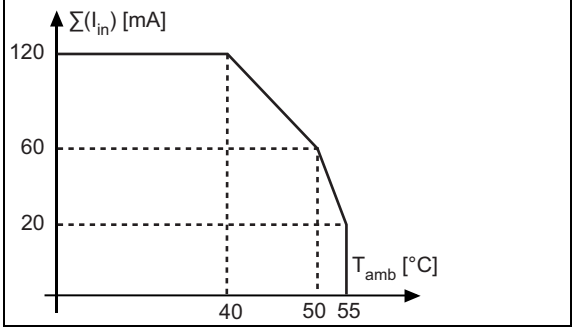


(3) see table „Peripheral fault indication“

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

(5)

BWU3747
Derating total current of inputs



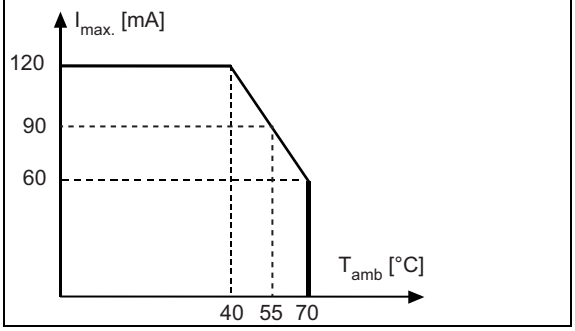
Article no.		BWU3265	BWU3266	BWU3268	BWU3267	BWU3754
General data						
Device type		input		input / output		
Connection						
ASi / AUX Connection		Push-in terminals				
Periphery connection		Push-in terminals				
Primary application		decentralized control cabinet				
Length of connector cable		I/O: unlimited (1)				
ASi						
Profile		S-7.A.E, ID1=7 (default)		S-7.A.7, ID1=7 (fixed)		S-7.0.E, ID1=F (default)
Address		1 AB address				1 single address
Required Master profile		≥M3		≥M4		≥M0
Since ASi specification		2.1		3.0		2
Operating voltage		30 V (18 … 31.6 V)				
Max. current consumption		165 mA	35 mA		165 mA	
Max. current consumption without sensor/ actuator supply		45 mA	35 mA		45 mA	
AUX						
Voltage		–	24 V (18 … 30 V)			
Max. current consumption		–	1,2 A	4,2 A	3 A	
Input						
Number		4				
Power supply		out of ASi	out of AUX		out of ASi	
Sensor supply		short-circuit and overload protected according to EN 61131-2				
power supply of attached sensors	up to +40 °C	120 mA (2)	1200 mA permanent operation (6)		120 mA (2)	
	at +55 °C	90 mA (2)	900 mA permanent operation (6)		90 mA (2)	
	at +70 °C	60 mA (2)	600 mA permanent operation (6)		60 mA (2)	
Switching threshold		U<5 V (low) U>15 V (high)				
Output						
Number		–		4 x electronic		
Power supply		–		out of AUX		
Actuator supply		short-circuit and overload protected according to EN 61131-2				
Max. output current	up to +50 °C	–		1 A per output, ∑ (Out) 3,0 A (8)		
	at +55 °C			1 A per output, ∑ (Out) 2,5 A (8)		
	at +70 °C			1 A per output, ∑ (Out) 1,0 A (8)		
Display						
LED ASI (green)		on: ASi voltage on, flashing: ASi voltage on, but peripheral fault (3) or address 0 off: no ASi Voltage				
LED FLT/FAULT (red)		on: address 0 or offline flashing: peripheral fault (3) off: online				
LEDs I1 ... In (yellow)		state of inputs I1 ... I4				
LEDs O1 ... On (yellow)		–		state of outputs O1 ... O4		
LED AUX (green)		–	on: 24 V_{DC} AUX off: no 24 V_{DC} AUX			

Article no.	BWU3265	BWU3266	BWU3268	BWU3267	BWU3754
Environment					
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529				
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes (4)	yes (7)	yes (9)	yes (10)	yes (11)
Operating altitude	max. 2000 m				
Ambient temperature	-25 °C … +55 °C (up to max. +70 °C) (2) (5)	-25 °C … +55 °C (up to max. +70 °C) (5) (6) (8)		-25 °C … +55 °C (up to max. +70 °C) (2) (5) (8)	
	no condensation permitted				
Storage temperature	-25 °C … +85 °C (2) (3)				
Housing	plastic, for DIN rail mounting				
Pollution Degree	2				
Protection category	IP20				
Tolerable loading referring to humidity	according to EN 61131-2				
Voltage of insulation	≥500 V				
Weight	120 g				
Dimensions (W / H / D in mm)	22,5 / 99 / 114				

(1) Loop resistance ≤150 Ω

(2)

BWU3265, BWU3267, BWU3754
Derating power supply of attached sensors



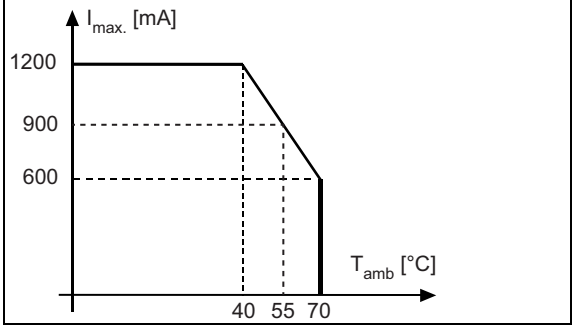
(3) see table „peripheral fault indication“

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

(5) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada.

(6)

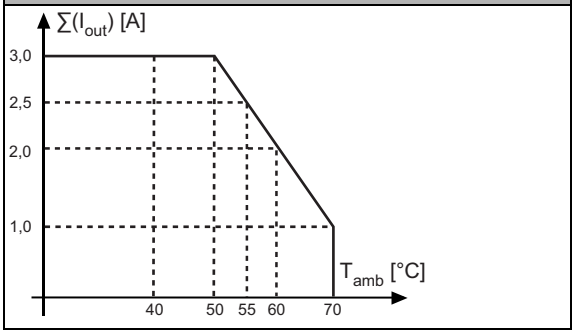
BWU3266, BWU3268
Derating power supply of attached sensors



(7) BWU3266 from Ident. No. 18368; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

(8)

BWU3267, BWU3268, BWU3754
Derating total current of outputs



(9) BWU3266 from Ident. No. 18368; BWU3268 from Ident. No. 17368; BWU3267 from Ident. No. 17051; BWU3754 from Ident. No. 17355; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

(10) BWU3266 from Ident. No. 18368; BWU3268 from Ident. No. 17368; BWU3267 from Ident. No. 17051; BWU3754 from Ident. No. 17355; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

(11) BWU3266 from Ident. No. 18368; BWU3268 from Ident. No. 17368; BWU3267 from Ident. No. 17051; BWU3754 from Ident. No. 17355; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

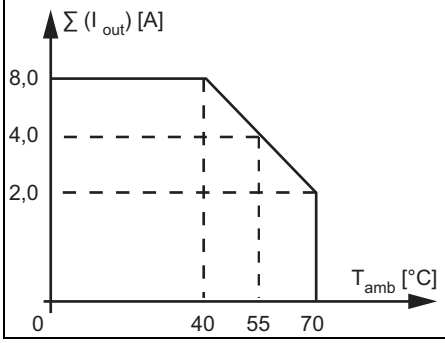
Article no.	BWU3842	BWU1938	BWU3559	BWU3733	BWU2759
General data					
Device type	inputs / output				
Connection					
ASi / AUX Connection	Push-in terminals				
Periphery connection	Push-in terminals				
Primary application	control cabinet				
Length of connector cable	I/O: unlimited (1)				
ASi					
Profile	S-7.A.7, ID1=7 (fixed)			S-7.A.0, ID1=7 (default)	S-7.0.E, ID1=F (default)
Address	1 AB address				1 single address
Required Master profile	≥M4			≥M3	≥M0
Since ASi specification	3.0			2.1	2
Operating voltage	30 V (18 … 31.6 V)				
Max. current consumption	35 mA				
Max. current consumption without sensor/ actuator supply	35 mA				
AUX					
Voltage	24 V (18 … 30 V)				
Max. current consumption	8 A	4 A			
Input					
Number	4				
Power supply	out of AUX				
Sensor supply	short-circuit and overload protected according to EN 61131				
power supply of attached sensors, up to +40 °C	< 500 mA	1200 mA permanent operation (6)			
power supply of attached sensors, at +55 °C	< 500 mA	900 mA permanent operation (6)			
power supply of attached sensors, at +70 °C	< 500 mA	600 mA permanent operation (6)			
Switching threshold	U<5 V (low) U>15 V (high)				

Article no.		BWU3842	BWU1938	BWU3559	BWU3733	BWU2759
Output						
Number		4 x electronic			3 x electronic	4 x electronic
Power supply		out of AUX				
Actuator supply		short-circuit and overload protected according to EN 61131				
Max. output current	up to +40 °C	2 A per output, ∑ (In/Out) 8 A (2)	1 A per output, ∑ (Out) 3,0 A (7)			
	at +55 °C	2 A per output, ∑ (In/Out) 4 A (2)	1 A per output, ∑ (Out) 2,5 A (7)			
	at +70 °C	2 A per output, ∑ (In/Out) 2 A (2)	1 A per output, ∑ (Out) 1,0 A (7)			
Display						
LED ASI (green)		on: ASi voltage on, flashing: ASi voltage on, but peripheral fault (3) or address 0 off: no ASi Voltage				
LED FLT/FAULT (red)		on: address 0 or offline flashing: peripheral fault (3) off: online				
LEDs I1 ... In (yellow)		state of inputs I1 ... I4				
LEDs O1 ... On (yellow)		state of outputs O1 ... O4				
LED AUX (green)		on: 24 V_{DC} AUX off: no 24 V_{DC} AUX				
Environment						
Applied standards		EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529				
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe		yes (4)	yes (8)	yes (9)	no (10)	yes (11)
Operating altitude		max. 2000 m				
Ambient temperature		-25 °C … +55 °C (up to max. +70 °C) (6) (5) (6) (7)				
		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 EN 61131-2				
Voltage of insulation		≥500 V				
Weight		120 g				
Dimensions (W / H / D in mm)		22,5 / 99 / 92	22,5 / 99 / 114	22,5 / 99 / 92		22,5 / 99 / 114

(1) Loop resistance ≤150 Ω

(2)

BWU3842
Derating total current of outputs



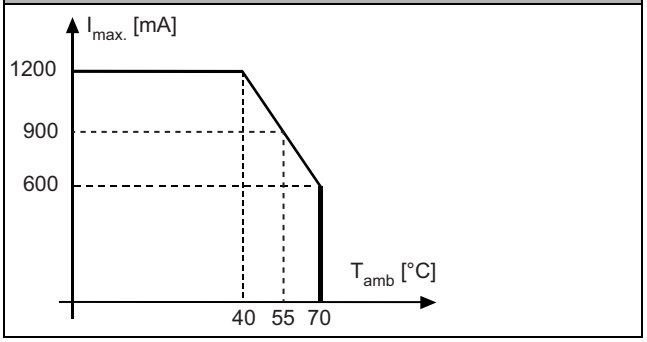
(3) see table „peripheral fault indication“

(4) BWU3842 from Ident. No. 18488; the module is suitable for use in passively safe paths because an exclusion of errors can be assumed for the connection of the two potentials, ASi and AUX.

(5) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada.

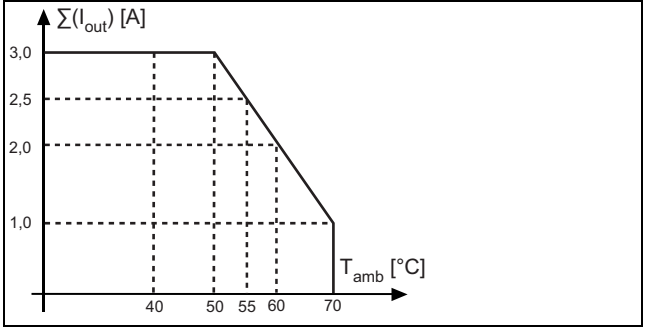
(6)

BWU1938, BWU2759, BWU3559, BWU3733
Derating power supply of attached sensors



(7)

BWU1938, BWU2759, BWU3559, BWU3733
Derating total current of outputs



(8) BWU1938 from Ident. No. 18430; the module is suitable for use in passively safe paths because an exclusion of errors can be assumed for the connection of the two potentials, ASi and AUX.

(9) BWU3559 from Ident. No. 18507; the module is suitable for use in passively safe paths because an exclusion of errors can be assumed for the connection of the two potentials, ASi and AUX.

(10) The module is not suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors cannot be assumed for the connection of the two ASi and AUX potentials.
If the module is supplied from an unswitched AUX cable, this has no influence on the safety consideration for the paths with passively safe-switched AUX cable. In an ASi circuit, paths supplied from a passively safe-switched AUX cable and paths supplied from unswitched AUX potential can be used together.

(11) BWU2759 from Ident. No. 18506; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

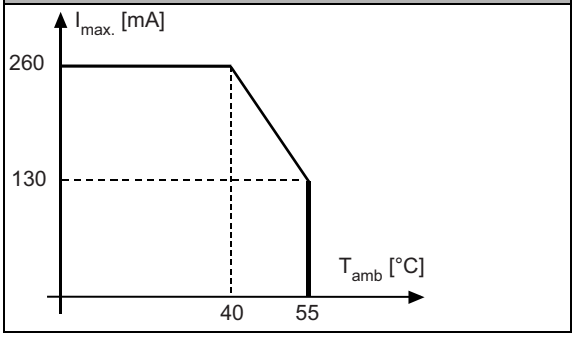
Article no.		BWU3364	BWU2490	BWU2800	BWU3359
General data					
Device type		input / output			input / output
Connection					
ASi / AUX connection		Push-in terminals			
Periphery connection		Push-in terminals			
Primary application		control cabinet			
Length of connector cable		I/O: unlimited (1)			
ASi					
Profile		ASi node 1: S-7.A.7, ID1=7 (fixed), ASi node 2: S-7.A.7, ID1=6 (default)		ASi node 1: S-7.0.E, ID1=F (default) ASi node 2: S-7.0.E, ID1=E (default)	ASi node 1: S-7.A.7, ID1=7 (fixed), ASi node 2: S-7.A.7, ID1=6 (default)
Address		2 AB addresses		2 single addresses	2 AB addresses
Required Master profile		≥M4		≥M0	≥M4
Since ASi specification		3.0		2.0	3.0
Operating voltage		30 V (18 … 31.6 V)			
Max. current consumption		320 mA	60 mA		
Max. current consumption without sensor/ actuator supply		60 mA	60 mA		
AUX					
Voltage		24 V (18 … 30 V)			
Max. current consumption		8 A			8 A
Input					
Number		8			8 (NPN)
Power supply		out of ASi	out of AUX		
Sensor supply		short-circuit and overload protected according to EN 61131			
Power supply of attached sensors	up to +40 °C	260 mA (2)	900 mA permanent operation (6)		1200 mA permanent operation (12)
	at +55 °C	130 mA (2)	700 mA permanent operation (6)		900 mA permanent operation (12)
	at +70 °C	–	600 mA permanent operation (6)		600 mA permanent operation (12)
Switching threshold		U<5 V (low) U>15 V (high)			ground I+ -U<5 V (low) -U>15 V (high)
Output					
Number		8 x electronic			8 x electronic (NPN)
Power supply		out of AUX			out of AUX
Actuator supply		short-circuit and overload protected according to EN 61131			
Max. output current	up to +40 °C	1 A per output, ∑ (O1 ... O4) 3 A + ∑ (O5 ... O8) 3 A (3)	1 A per output, ∑ (O1 ... O4) 3 A + ∑ (O5 ... O8) 3 A (7)		0,5 A per output, ∑ (Out) 4 A (13)
	at +55 °C	1 A per output, ∑ (O1 ... O4) 2 A + ∑ (O5 ... O8) 2 A (3)			
	at +70 °C	–	1 A per output, ∑ (O1 ... O8) 1 A (7)		0,5 A per output, ∑ (Out) 0,5 A (13)

Article no.	BWU3364	BWU2490	BWU2800	BWU3359
Display				
LED ASI/FLT 1 (red/green)	green: online red: offline yellow/red flashing: address 0			
LED ASI/FLT 2 (red/green)	green: online red: offline yellow/red flashing: address 0 red/green flashing: peripheral fault (4) red flashing: ASi node 2 is switched off, because ASi node 1 is offline			
LEDs I1 ... In (yellow)	state of inputs I1 ... I8			
LEDs O1 ... On (yellow)	state of outputs O1 ... O8			state of outputs O1 ... O8
LED AUX (green)	on: 24 V_{DC} AUX off: no 24 V_{DC} AUX			
Environment				
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529			
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes (5)	yes (8)	yes (11)	no (14)
Operating altitude	max. 2000 m			
Ambient temperature	30 °C … +55 °C (2) (3)	-30 °C … +55 °C (up to max. +70 °C) (6) (7) (9) (10)		-30 °C ... +55 °C (up to max. +70 °C) (9) (12) (13)
	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 EN 61131-2			
Voltage of insulation	≥500 V			
Weight	120 g			
Dimensions (W / H / D in mm)	22,5 / 99 / 114			

(1) Loop resistance ≤150 Ω

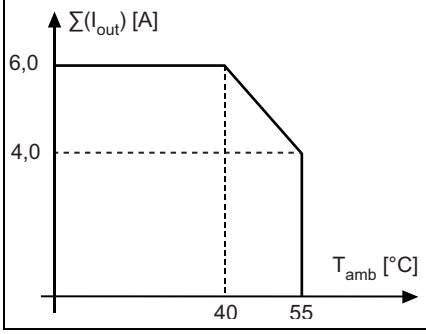
(2)

BWU3364
Derating power supply of attached sensors



(3)

BWU3364
Derating total current of outputs

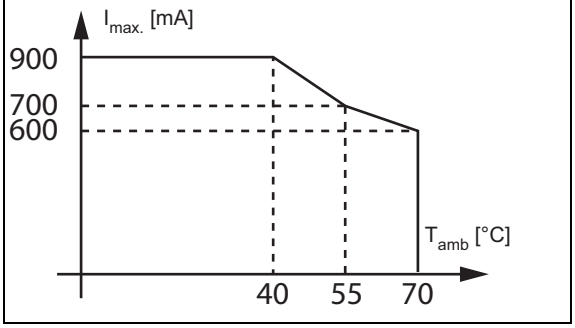


(4) see table „peripheral fault indication“

(5) BWU3364 from Ident. No. 18441; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

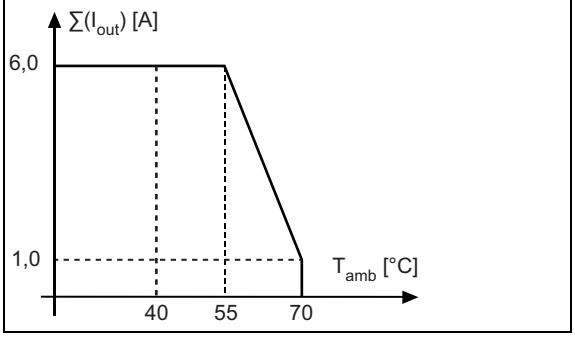
(6)

BWU2490, BWU2800
Derating power supply of attached sensors



(7)

BWU2490, BWU2800
Derating total current of outputs



(8) BWU2490 from Ident. No. 18307; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

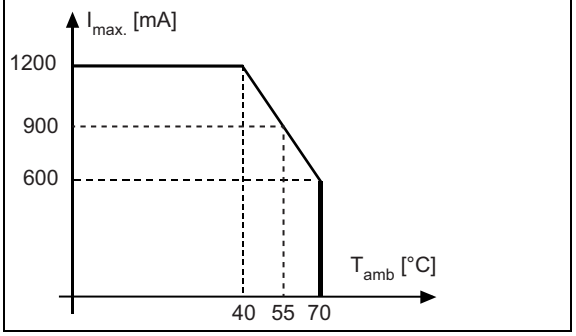
(9) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada.

(10) Temperature range up to -30°C from Ident.No. ≥16283 (BWU2490); Ident.No. ≥16299 (BWU2800).

(11) BWU2800 from Ident No. 18544; The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

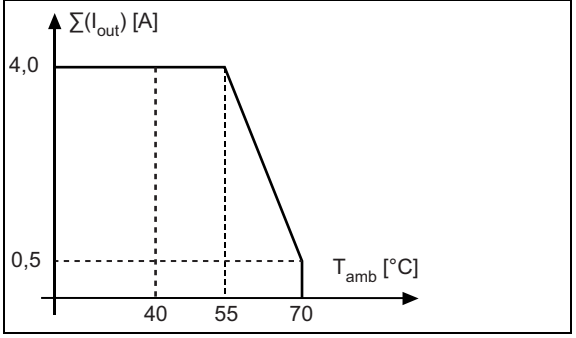
(12)

BWU3359
Derating power supply of attached sensors



(13)

BWU3359
Derating total current of outputs



(14) The module is not suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors cannot be assumed for the connection of the two ASi and AUX potentials.
If the module is supplied from an unswitched AUX cable, this has no influence on the safety consideration for the paths with passively safe-switched AUX cable. In an ASi circuit, paths supplied from a passively safe-switched AUX cable and paths supplied from unswitched AUX potential can be used together.

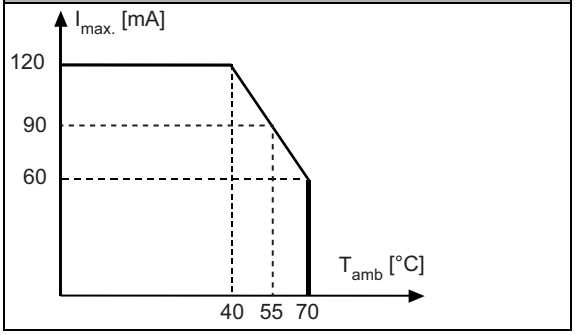
Article no.	BWU3878	BWU3658
General data		
Device type	input / output	
Connection		
ASi / AUX Connection	Push-in terminals	
Periphery connection	Push-in terminals	
Primary application	control cabinet	
Length of connector cable	I/O: unlimited (1)	
ASi		
Profile	S.7.A.7.0	S-7.0.E, ID1=F (default)
Address	1 AB address	1 single address
Required Master profile	≥M3	≥M0
Since ASi specification	2	
Operating voltage	30 V (26,5 … 31.6 V)	
Max. current consumption	200 mA	
Max. current consumption without sensor/ actuator supply	45 mA	

Article no.		BWU3878	BWU3658
Input			
Number		4	
Power supply		out of ASi	
Sensor supply		short-circuit and overload protected according to EN 61131	
Power supply of attached sensors	up to +40 °C	120 mA (2)	
	at +55 °C	90 mA (2)	
	at +70 °C	60 mA (2)	
Switching threshold		U<5 V (low) U>15 V (high)	
Output			
Number		3 x relay outputs, normally open, 230 VAC/2A/AC-14, 30 VDC/2A/DC-13 ∑ (Out) 8 A	4 x relay outputs, normally open, 230 VAC/2A/AC-14, 30 VDC/2A/DC-13 ∑ (Out) 8 A
Relay control		out of ASi	
Max. output current		–	
Display			
LED ASI (green)		on: ASi voltage on, flashing: ASi voltage on, but peripheral fault (3) or address 0 off: no ASi Voltage	
LED FLT/FAULT (red)		on: address 0 or offline flashing: peripheral fault (3) off: online	
LEDs I1 ... In (yellow)		state of inputs I1 ... I4	
LEDs O1 ... On (yellow)		state of outputs O1 ... O3	state of outputs O1 ... O4
Environment			
Applied standards		EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529	
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe		yes (4)	
Operating altitude		max. 2000 m	
Ambient temperature		-25 °C … +55 °C (up to max. +70 °C) (2) (5)	
		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 EN 61131-2	
Voltage of insulation		≥500 V	
Weight		120 g	
Dimensions (W / H / D in mm)		22,5 / 99 / 114	

(1) Loop resistance ≤150 Ω

(2)

BWU3435, BWU3658, BWU3878
Derating power supply of attached sensors



(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.

(5) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada.

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

UL-specifications (UL508)	
External protection	An isolated source with a secondary open circuit voltage of ≤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	
	Overload sensor supply	AUX voltage missing
BWU1938	–	●
BWU2490	–	●
BWU2759	–	●
BWU2783	●	–
BWU2800	–	●
BWU3265	●	–
BWU3266	●	●
BWU3267	●	●
BWU3268	●	●
BWU3272	●	–
BWU3359	–	●
BWU3364	●	●
BWU3559	–	●
BWU3658	●	–
BWU3733	–	●
BWU3747	●	–
BWU3754	●	●
BWU3842	–	●
BWU3878	●	–

Programming	Bit setting			
	D3	D2	D1	D0
	input			
BWU1938 / BWU2759 / BWU2783 / BWU3265 / BWU3266 / BWU3267 / BWU3268 / BWU3272 / BWU3559 / BWU3658 / BWU3733 / BWU3747 / BWU3754 / BWU3842 / BWU3878	I4	I3	I2	I1
BWU2490 / BWU2800 / BWU3359 / BWU3364	ASi node 1: I4	ASi node 1: I3	ASi node 1: I2	ASi node 1: I1
	ASi node 2: I8	ASi node 2: I7	ASi node 2: I6	ASi node 2: I5
	output			
BWU1938 / BWU2759 / BWU2783 / BWU3267 / BWU3268 / BWU3272 / BWU3559 / BWU3658 / BWU3754 / BWU3842	O4	O3	O2	O1
BWU3733, BWU3878	–	O3	O2	O1
BWU2490 / BWU2800 / BWU3359 / BWU3364	ASi node 1: O4	ASi node 1: O3	ASi node 1: O2	ASi node 1: O1
	ASi node 2: O8	ASi node 2: O7	ASi node 2: O6	ASi node 2: O5

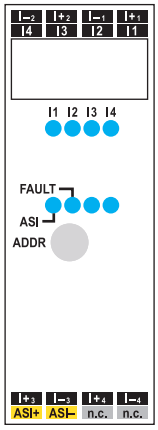
Programming	Bit setting			
	parameter bit			
	P3	P2	P1	P0
BWU3364 / BWU3265 / BWU3266	not used	0 = on / 1 = off (synchronous I/O mode)	0 = on / 1 = off (data input filter 128 µs)	0 = off / 1 = on (peripheral fault, if AUX voltage missing)
BWU1938 / BWU2759 / BWU2783 / BWU3267 / BWU3268 / BWU3272 / BWU3559 /BWU3658 / BWU3733 / BWU3754 / BWU3842 / BWU3878				0 = off / 1 = on (watchdog)
BWU2490 / BWU2800 / BWU3359 / BWU3747				not used, watchdog always on

Connections

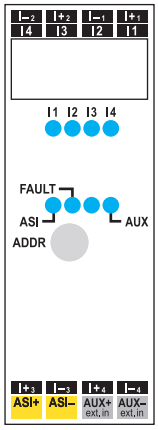
Name	Explanation
Ix	digital input x
Ox	digital output x
Ox3, Ox4	relay output x
I+, I-, $I+_n$, $I-_n$	sensor supply
$O-_n$	GND for outputs (PNP)
$O+_n$	GND for outputs (NPN)
AUX $+_{ext.in}$	power supply, out of external voltage, positive pole (AUX, actuator supply)
AUX $-_{ext.in}$	power supply, out of external voltage, negative pole (AUX, actuator supply)
ASi +, ASi -	connection to ASi bus
ADDR	connection for ASi addressing device
n.c. (not connected)	not connected

Connections

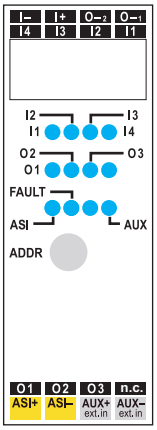
BWU3265



BWU3266

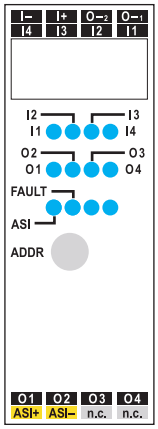


BWU3733

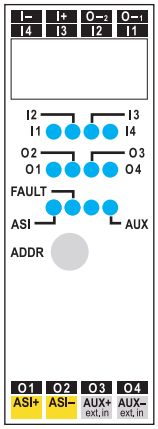


Connections

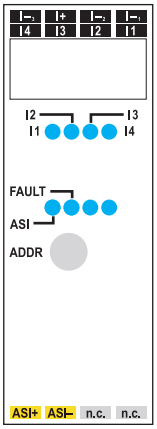
BWU2783 / BWU3272



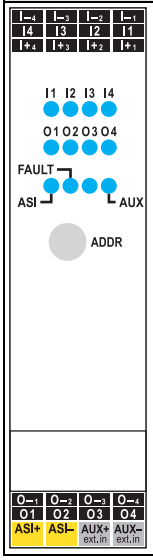
BWU1938 / BWU2759 / BWU3559 / BWU3842



BWU3747



BWU3267 / BWU3268

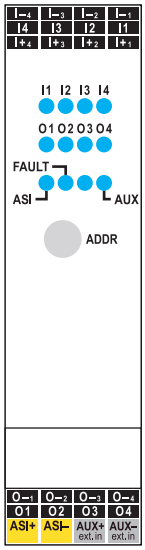


BWU2490 / BWU2800 / BWU3364

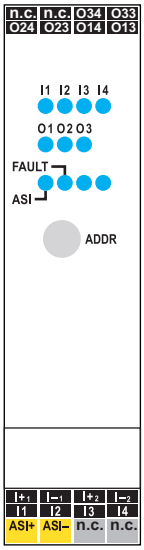
BWU3359

Connections

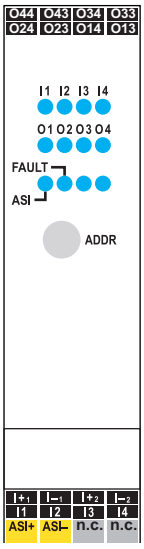
BWU3754



BWU3878

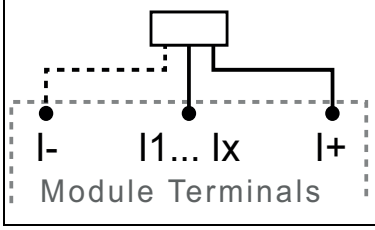


BWU3658

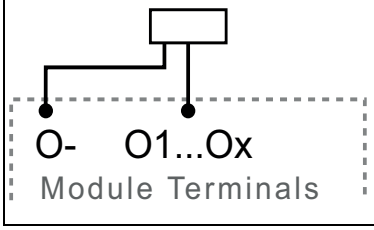


Power supply PNP

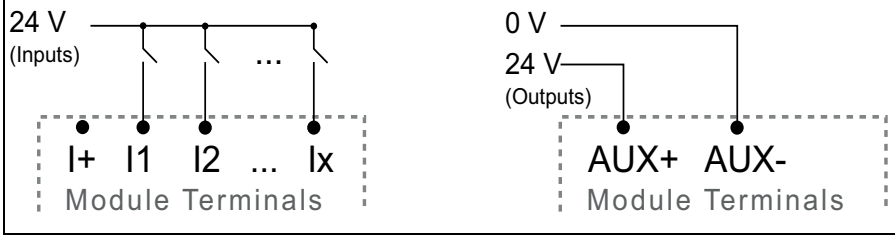
Input
BWU1938 / BWU2490 / BWU2759 / BWU2783 / BWU2800 / BWU3265 / BWU3266 / BWU3267 / BWU3268 / BWU3272 / BWU3364 / BWU3559 / BWU3658 / BWU3733 / BWU3747 / BWU3754 / BWU3842 / BWU3878



Output
BWU1938 / BWU2490 / BWU2759 / BWU2783 / BWU2800 / BWU3267 / BWU3268 / BWU3272 / BWU3364 / BWU3559 / BWU3733 / BWU3754 / BWU3842

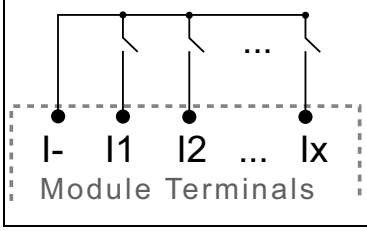


Separate power supply (recommended)
BWU1938 / BWU2490 / BWU2759 / BWU2800 / BWU3559 / BWU3733 / BWU3842

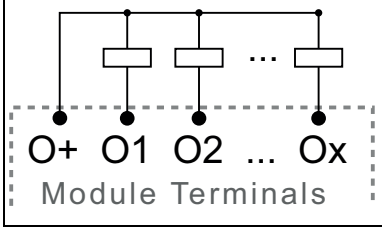


Power supply NPN

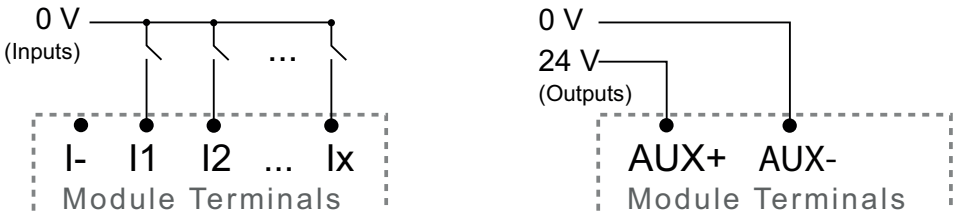
Input
BWU3359



Output
BWU3359

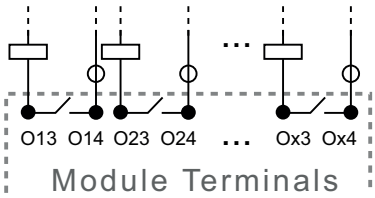


Separate power supply (recommended)
BWU3359



Connection relay output

Relay output
BWU3435 / BWU3658 / BWU3878



IP54	**Note** To achieve passive safety, the device must be installed in a switching cabinet with protection class IP54.

Accessories:

- **ASi-5/ASi-3 Address Programming Device (art. no. BW4925)**