Digital Module ASi in IP20, 22,5 mm

Cost efficient solution in IP20

(Figure similar)

Figure	Housing	Inputs digital	Outputs digital	Input voltage (sensor supply) (1)	Output voltage (actuator supply) (2)	Periphery connection	ASi/AUX connection (3)	ASi address (4)	Article No.
	22,5 mm x 99,0 mm x 114,5 mm, 6 x 4 contacts	4	4 x electronic	out of AUX	out of AUX	Push-In terminals	Push-In terminals	1 AB address	**BWU4266**

(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 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).

(4) **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.	BWU4266
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)
Address	1 AB address
Required Master profile	≥M4
Since ASi specification	3.0
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	2,2 A

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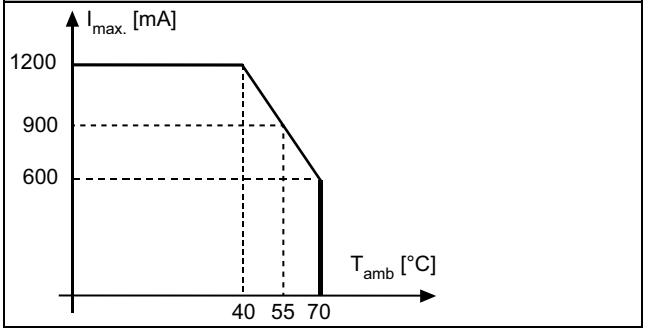
Article no.		BWU4266
Input		
Number		4
Power supply		out of AUX
Sensor supply		short-circuit and overload protected according to EN 61131-2
power supply of attached sensors	up to +25 °C	1200 mA permanent operation (2)
	at +40 °C	1200 mA permanent operation (2)
	at +55 °C	900 mA permanent operation (2)
	at +70 °C	600 mA permanent operation (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 +25 °C	1000 mA per output, ∑ (O1 ... O4) 1000 mA (3)
	at +40 °C	900 mA per output, ∑ (O1 ... O4) 900 mA (3)
	at +55 °C	750 mA per output, ∑ (O1 ... O4) 750 mA (3)
	at +70 °C	500 mA per output, ∑ (O1 ... O4) 500 mA (3)
Display		
LED ASI (green)		an: ASi voltage on, flashing: ASi voltage on, but peripheral fault (4) or address 0 off: no ASi Voltage
LED FLT/FAULT (red)		an: address 0 or offline flashing: peripheral fault (4) 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 (5)
Operating altitude		max. 2000 m
Ambient temperature		-25 °C … +55 °C (up to max. +70 °C) (2) (3)
		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 (without terminals)

(1) Loop resistance ≤150 Ω

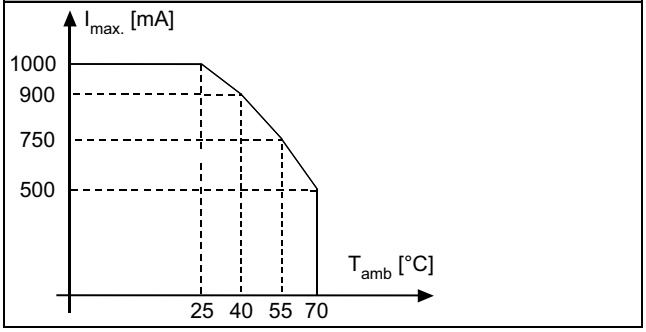
(2)

BWU4266
Derating supply of attached sensors



(3)

BWU4266
Derating total current of outputs



(4) see table „peripheral fault indication“

(5) 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.

Wiring rules

	Push-in terminals, 2 poles/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
BWU4266	–	•

Digital Module ASi in IP20, 22,5 mm

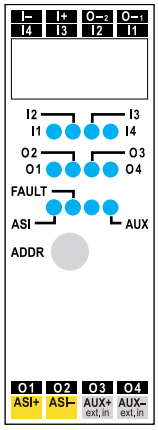
Programming	Bit setting			
	D3	D2	D1	D0
	input			
BWU4266	I4	I3	I2	I1
	output			
BWU4266	O4	O3	O2	O1

Programming	Bit setting			
	parameter bit			
	P3	P2	P1	P0
BWU4266	not used	0 = on / 1 = off (synchronous I/O mode)	0 = on / 1 = off (data input filter 128 µs)	0 = off / 1 = on (watchdog)

Connections

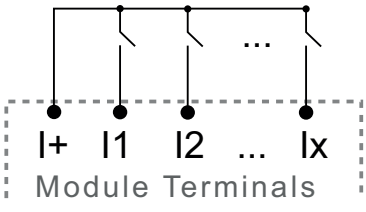
Name	Explanation
Ix	digital input x
Ox	digital output x
Ox3, Ox4	relay output x
I+, I-, $I+_n$, $I-_n$	sensor supply
$O-_n$	GND for outputs (PNP)
$O+_n$	GND for outputs (NPN)
AUX $+_{ext.in}$	power supply, out of external voltage, positive pole (AUX, actuator supply)
AUX $-_{ext.in}$	power supply, out of external voltage, negative pole (AUX, actuator supply)
ASi +, ASi -	connection to ASi bus
ADDR	connection for ASi-3 addressing plug
n.c. (not connected)	not connected

Connections
BWU4266

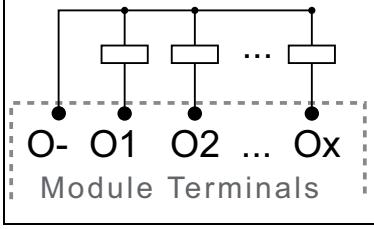


Power supply PNP via the module (recommended)

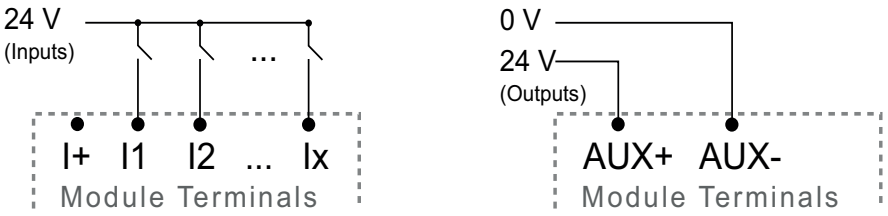
Input
BWU4266



Output
BWU4266



Separate power supply via external 24 V

BWU4266


	Note
IP54	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. BW4708)**