

Active Distributor ASi, IP67, self-configuring 4I/O



ASi-3 digital I/O module with self-configuring connections in active distributor housing

Sensors and actuators can be connected in any combination,
2 signals per M12 connection possible



(figure similar)



Figure	Inputs digital	Outputs digital	M12 connection ⁽¹⁾	Input voltage (sensor supply) ⁽²⁾	Output voltage (actuator supply) ⁽³⁾	Connection ⁽⁴⁾	ASi address ⁽⁵⁾	Art. no.
	up to 4, depending on configuration	up to 4 x electronic, depending on configuration	Y/mixed	out of AUX	out of AUX	2 x M12 cable sockets, straight, 5 poles	1 AB address	BWU4994

- (1) **M12 wiring**
Single wiring: 1 input or output per connection.
Y wiring: 2 inputs or outputs per connection.
Mixed wiring: 1 input and 1 output per connection.
- (2) **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.
- (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) **Connection:** further connection options are available on request.

M12 cable socket, angled	M12 cable socket, straight	M8 cable socket, straight	round cable / connecting wires	Push in terminals
PUR line: oil resistant				

- (5) **ASi address:** AB address (max. 62 ASi nodes with extended address allocation per ASi circuit), 2 AB addresses (max. 31 ASi-3 modules with 2 AB addresses), single address (max. 31 ASi-3 nodes with standard address allocation per ASi circuit) ASi-5 address (max. 62 ASi-5 nodes per ASi circuit), mixed use allowed (upon request, ASi modules are available with specific ASi profiles).

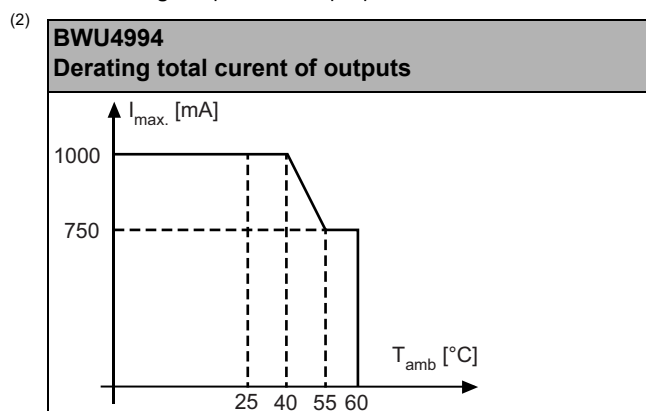
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Article No.		BWU4994
General data		
Device type		input / output
Connection		
ASi/AUX connection		profile cable and piercing technology
Periphery connection		2 x M12 cable sockets, straight, 5 poles
M12 wiring ⁽¹⁾		M12, Y or mixed wiring, freely selectable for each M12 connection
Cable		1 m
		max. allowed tensile strain 10 N
		max. allowed extension 14 m
ASi		
Profile		S-7.A.7 (ID1=7 fixed)
Address		1 AB address
Required Master profile		≥M4
As of ASi specification		3.0
Operating voltage		=== 30 V (18 ... 31.6 V _{DC}) (SELV/PELV)
Max. current consumption		45 mA
Max. current consumption without sensor/ actuator supply		45 mA
AUX		
Operating voltage		=== 24 V (18 ... 30 V _{DC}) (SELV/PELV)
Max. current consumption		2 A
Input		
Number		4
Power supply		out of AUX
Power supply of attached sensors	up to +25 °C	1,0 A per sensor supply/pin 1, $\Sigma(I_n)$ 1.0 A
	at +40 °C	
	at +55 °C	
	at +60 °C	
Switching threshold		U<5 V (low) U>15 V (high)
Output		
Number		4
Power supply		out of AUX
Max. output current	up to +25 °C	1000 mA per output $\Sigma(O1 \dots O4)$ 1000 mA ⁽²⁾
	at +40 °C	1000 mA per output $\Sigma(O1 \dots O4)$ 1000 mA ⁽²⁾
	at +55 °C	750 mA per output $\Sigma(O1 \dots O4)$ 750 mA ⁽²⁾
	at +60 °C	750 mA per output $\Sigma(O1 \dots O4)$ 750 mA ⁽²⁾

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Article No.	BWU4994
Display	
LED ASi/FLT (red/green)	green: ASi voltage on, ASi node online green/red: ASi voltage on, but ASi node offline green flashing/red: address 0 alternating green flashing/red flashing: peripheral fault ⁽³⁾ off: no ASi voltage
LED AUX (green)	on: 24 V _{DC} AUX off: no 24 V _{DC} AUX
LED UI (green)	on: sensor supply on off: no sensor supply/overload sensor supply ⁽³⁾
LEDs I1 ... I4 (yellow)	state of inputs I1 ... I4, depending on configuration off: the corresponding input is turned off yellow: the corresponding input is turned on
LEDs O1 ... O4 (yellow/red)	state of outputs O1 ... O4, depending on configuration off: the corresponding output is turned off yellow: the corresponding output is turned on
Environment	
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131-2 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	-30 °C ... +60 °C ⁽⁵⁾ (no condensation permitted)
Storage temperature	-25 °C ... +85 °C
Intended environment	for indoor use only ⁽⁶⁾
Housing	plastic, for screw mounting, suitable for cable ducts (≥35 mm installation depth)
Pollution degree	2
Overvoltage category	II
Protection category	IP67 ⁽⁷⁾ ⁽⁸⁾
Max. tolerable vibration stress	≤15g, T≤11 ms 10 ... 55 Hz, 0,5 mm amplitude
Insulation voltage	≥ 500 V
Weight	100 g
Dimensions (W / H / D) in mm	60 / 45 / 35

- (1) **M12 wiring**
Single wiring: 1 input or output per connection.
Y wiring: 2 inputs or outputs per connection.
Mixed wiring: 1 input and 1 output per connection.



- (3) See table "Peripheral fault indication"

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- (4) 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.
- (5) Down to -25 °C with flexibly mounted cable, -30 °C only with fixed mounted cable.
- (6) Intended environment according to UL certificate for the use in the USA and Canada.
- (7) Protection category IP67 can only be achieved, if also the cable connector fulfills IP67
- (8) Manufacturer specification, IP rating not evaluated by UL.

UL-specifications (UL61010) BWU4994	
Model ⁽¹⁾	PCX.DBA3-4994
External protection	The supply source to these devices shall meet the requirements of Class 2 of NEC, or Limited Energy of UL/CSA 61010-1, -2-201 or Limited Power Source of UL/CSA 60950/62368-1.

(1) See reference of UL file E227214 "Programmable Controllers "Active Distributor Family""

Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU4994	•	•	•

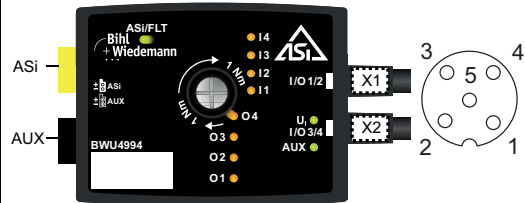
Programming	ASi bit assignment			
	D3	D2	D1	D0
	Input			
BWU4994	I4	I3	I2	I1
	Output			
BWU4994	O4	O3	O2	O1

Pin assignment

Programming	ASi bit assignment			
	Parameterbit			
	P3	P2	P1	P0
BWU4994	not used	0= on / 1= off (synchronous I/O mode)	0= on / 1= off (data input filter 128 µs)	(0 = off / 1 = on) (Watchdog)

Signal name	Explanation
I/Ox	either digital input x or digital output x
24 V _{ext out}	power supply, out of external voltage, positive pole (AUX, actuator supply)
0 V _{ext out}	power supply, out of external voltage, negative pole (AUX, actuator supply)
ASi +, ASi -	connection to ASi bus
n.c. (not connected)	not connected

Connections: M12 cable socket, straight, 5 poles

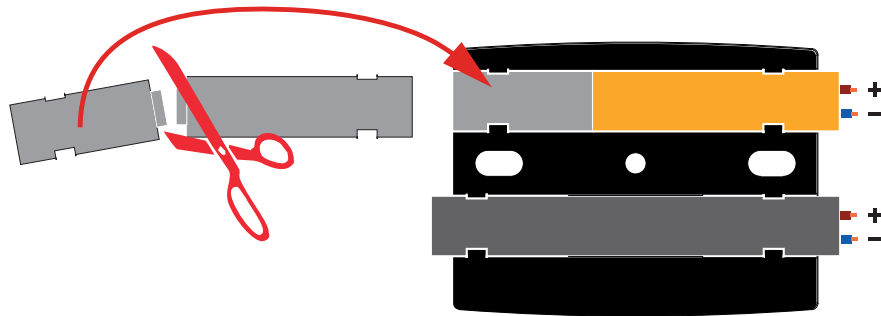
Artikel Nr.	M12 Anschluss	Pin1	Pin2	Pin3	Pin4	Pin5	
BWU4994	X1	24 V _{ext out}	I/O2	0 V _{ext out}	I/O1	n.c.	
	X2	24 V _{ext out}	I/O4	0 V _{ext out}	I/O3	n.c.	

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Line termination with sealing profiles



max. IP54



Accessories:

- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)