

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

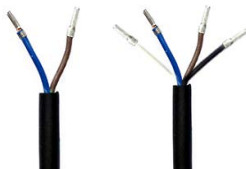


(figure similar)



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	BWU4727

- (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).

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

Article No.		BWU4727	
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			
Profil		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		2,4 A	
Input			
Number		4	
Power supply		out of AUX	
Power supply of attached sensors	up to +40 °C	1,0 A per sensor supply/pin 1, Σ(In) 1.0 A, Σ(In/Out) 2,4 A	
	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 +45 °C	0,35 A per output Σ(Out) 1,4 A, Σ(In/Out) 2,4 A	
	at +55 °C		
	at +70 °C		
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 ⁽²⁾ 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 ⁽²⁾	
LEDs I1 ... In (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 ... On (yellow/red)		state of inputs O1 ... O4, depending on configuration off : the corresponding output is turned off yellow : the corresponding output is turned on red : output short circuit ⁽²⁾	

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

Article No.	BWU4727
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 ⁽³⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +60 °C ⁽⁴⁾ (no condensation permitted)
Storage temperature	-25 °C ... +85 °C
Intended environment	for indoor use only ⁽⁵⁾
Housing	plastic, for screw mounting, suitable for cable ducts (≥35 mm installation depth)
Pollution degree	2
Overvoltage category	II
Protection category	IP67 ⁽⁶⁾ ⁽⁷⁾
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.
- (2) **See table "Peripheral fault indication"**
- (3) 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.
- (4) Down to -25 °C with flexibly mounted cable, -30 °C only with fixed mounted cable.
- (5) Intended environment according to UL certificate for the use in the USA and Canada.
- (6) Protection category IP67 can only be achieved, if also the cable connector fulfills IP67
- (7) Manufacturer specification, IP rating not evaluated by UL.

UL-specifications (UL61010) BWU4727	
Model ⁽¹⁾	PCY.DBA3-4727
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
BWU4727	•	•	•

Programming	ASi bit assignment			
	D3	D2	D1	D0
	Input			
BWU4727	I4	I3	I2	I1
	Output			
BWU4727	O4	O3	O2	O1

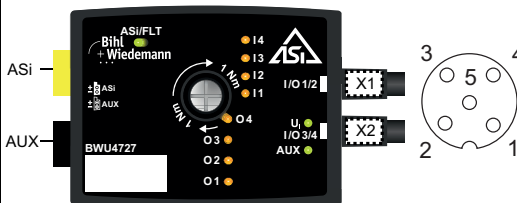
Active Distributor ASi, IP67, self-configuring 4I/O

Programming	ASi bit assignment			
	Parameterbit			
	P3	P2	P1	P0
BWU4727	not used	0= on / 1= off (synchronous I/O mode)	0= on / 1= off (data input filter 128 µs)	(0 = off / 1 = on) (Watchdog)

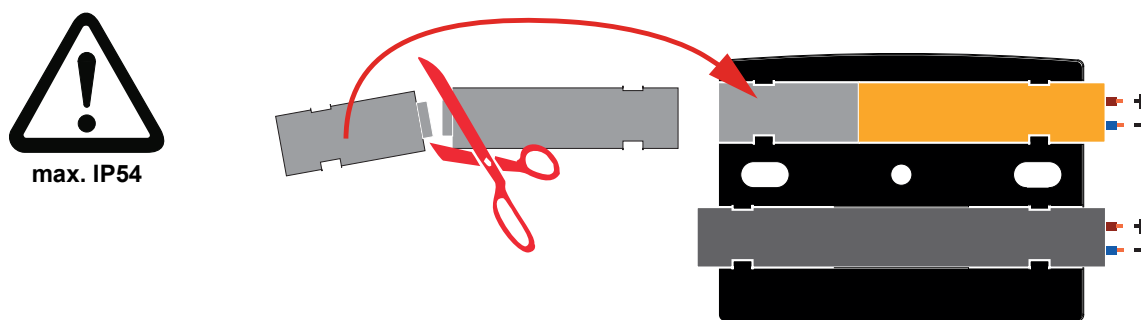
Pin assignment

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/angled, 5 poles

Artikel Nr.	M12 Anschluss	Pin1	Pin2	Pin3	Pin4	Pin5	
BWU4727	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.	

Line termination with sealing profiles



Accessories:

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