

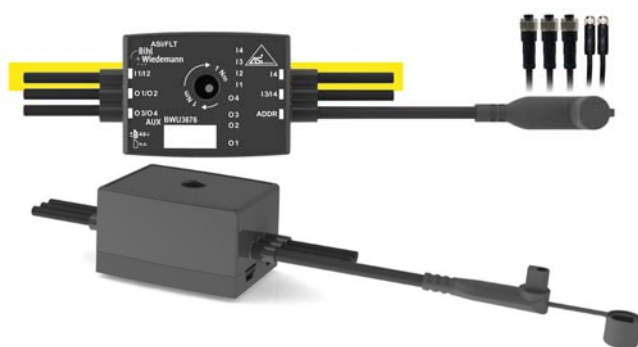
1 x connector for profile cable

Periphery connection via  
 3 x M12 cable sockets, straight, 5 poles +  
 2 x M8 snap-in cable sockets, straight, 4 poles

ASi connection via profile cable and  
 piercing technology

AUX connection via M12 cable socket

1 x connection for ASi addressing device



(Figure similar)



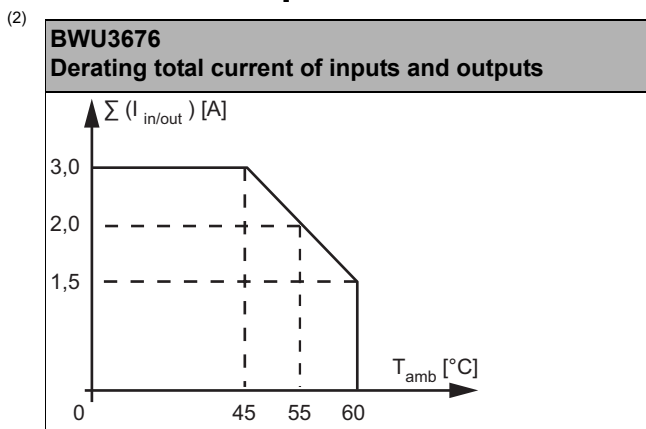
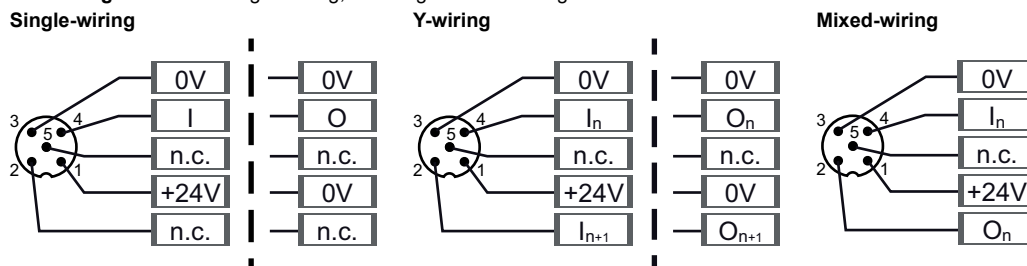
Figure	Type	Inputs digital	Outputs digital	Input voltage (sensor supply) <sup>(1)</sup>	Output voltage (actuator supply) <sup>(2)</sup>	ASi connection <sup>(3)</sup>	Connection <sup>(4)</sup>	ASi address <sup>(5)</sup>	Art. no.
	IP54, depth 35 mm	4	4 x electronic	out of AUX	out of AUX	ASi profile cable	3 x M12 cable sockets, straight, 5 poles + 2 x M8 snap-in cable sockets, straight, 4 poles + 1 x ASi addressing cable socket	1 AB slave	<b>BWU3676</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 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) **Connection:** further connection options are available on request.
- (5) **ASi address:** 1 AB slave (max. 62 AB slaves/ASi network), 2 AB slaves (max. 31 modules with 2 AB slaves), Single Slaves (max. 31 Single Slaves/ASi network), mixed use allowed.  
 For modules with two slaves the second slave is turned off as long as the first slave is addressed to address "0".  
 Upon request, slaves are available with specific ASi Slave profiles.

<b>Article No.</b>		<b>BWU3676</b>
<b>General data</b>		
Device type	input/output	
<b>Connection</b>		
ASi/AUX connection	ASi: profile cable and piercing AUX: M12 cable socket, straight, 5 poles	
Periphery connection	3 x M12 cable sockets, straight, 5 poles + 2 x M8 snap-in cable sockets, straight, 4 poles + 1 x ASi addressing cable socket	
M12 wiring <sup>(1)</sup>	-	
Round cable	I1/I2: 0,1 m I3/I4: 0,3 m O1/O2: 0,2 m O3/O4: 0,3 m ASi addressing cable socket: 0,05 m max. allowed tensile strain 10 N	
<b>ASi</b>		
Profile	S-7.A.7 (ID1=7 fixed)	
Address	1 AB slave	
Required Master profile	≥M4	
As of ASi specification	3.0	
Operating voltage	30 V <sub>DC</sub> (18 ... 31.6 V)	
Max. current consumption	45 mA	
Max. current consumption without sensor/ actuator supply	45 mA	
<b>AUX</b>		
Operating voltage	24 V <sub>DC</sub> (18 ... 30 V)	
Max. current consumption	3 A	
<b>Input</b>		
Number	4	
Power supply	out of AUX	
Power supply of attached sensors	up to +45 °C	1 A, $\sum (In/Out) \leq 3 \text{ A}^{(2)}$
	at +55 °C	1 A, $\sum (In/Out) \leq 2 \text{ A}^{(2)}$
	at +60 °C	1 A, $\sum (In/Out) \leq 1,5 \text{ A}^{(2)}$
Switching threshold	U < 5 V (low) U > 15 V (high)	
<b>Output</b>		
Number	4	
Power supply	out of AUX	
Max. output current	up to +45 °C	1 A per output, $\sum (In/Out) \leq 3 \text{ A}^{(2)}$
	at +55 °C	1 A per output, $\sum (In/Out) \leq 2 \text{ A}^{(2)}$
	at +60 °C	1 A per output, $\sum (In/Out) \leq 1,5 \text{ A}^{(2)}$
<b>Display</b>		
LED ASi/FLT (red/green)	green: ASi voltage on, slave online red: ASi voltage on, but slave offline yellow/red flashing: address 0 red/green flashing: peripheral fault <sup>(3)</sup> off: no ASi voltage	
LED AUX (green)	on: 24 V <sub>DC</sub> AUX off: no 24 V <sub>DC</sub> AUX	
LEDs I1 ... In (yellow)	state of inputs I1 ... I4	
LED O1 ... On (yellow)	state of outputs O1 ... O4	

<b>Article No.</b>		<b>BWU3676</b>
<b>Environment</b>		
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131-2 EN 60529	
Passive safety (up to PLe/SIL 3)	yes <sup>(4)</sup>	
Operating altitude	max. 2000 m	
Ambient temperature	-30 °C ... +60 °C <sup>(2) (5)</sup>	
Storage temperature	-25 °C ... +85 °C	
Housing	plastic, for screw mounting, suitable for cable ducts (≥35 mm installation depth)	
Pollution degree	2	
Protection category	IP54	
Maximum tolerable shock and vibration stress	≤15g, T≤11 ms 10 ... 55 Hz, 0,5 mm amplitude	
Insulation voltage ASi/AUX (internal)	2 kV RMS AC for 60s (performance test)	
Insulation voltage (external)	any wire to all surfaces, except screws of M8 connectors	3 kV RMS AC for 60 s (performance test)
	any wire to screws of M8 connectors	1 kV RMS AC for 60 s (performance test)
External protection	UL - Class 2 source required	
Weight	100 g	
Dimensions (W / H / D) in mm	60 / 45 / 35	

(1) **M12 wiring:** either as a single-wiring, Y-wiring or mixed-wiring.



(3) **see table "Peripheral fault indication"**

(4) Exclusion of errors for the connection of the two ASi and AUX potentials can be assumed in the module. Passive safety for the application can only be achieved if this is ensured for all components used.

(5) Down to -25 °C with flexibly mounted cable, -30 °C only with fixed mounted cable.

UL-specifications (UL61010) BWU3676	
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		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3676	-	-	•

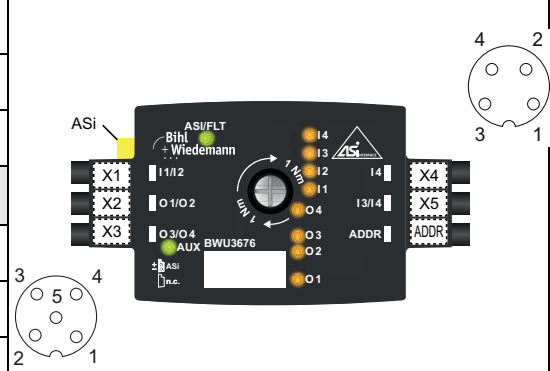
Programming	ASi bit assignment			
	D3	D2	D1	D0
	input			
BWU3676	I4	I3	I2	I1
	output			
BWU3676	O4	O3	O2	O1
	parameter bit			
	P3	P2	P1	P0
BWU3676	not used	0= on / 1= off (synchronous I/O mode)	0= off / 1= on (peripheral fault, if AUX missing)	0= off / 1= on (Watchdog)

## Pin assignment

Signal name	Explanation
Ix	digital input x
Ox	digital output x
24V <sub>ext out</sub>	power supply, out of external voltage, positive pole (AUX, actuator supply)
0V <sub>ext out</sub>	power supply, out of external voltage, negative pole (AUX, actuator supply)
24V <sub>out of ASi</sub>	power supply, out of ASi, positive pole (sensor supply)
0V <sub>out of ASi</sub>	power supply, out of ASi, negative pole (sensor supply)
ASi +, ASi -	connection to ASi bus
n.c. (not connected)	not connected

## Connections:

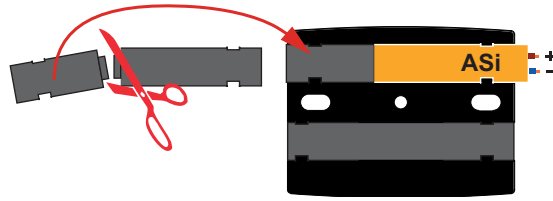
Article no.	M12 Connection	Cable length	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3676	X1 (I1/I2)	0,1 m	24 V ext in	I2	0 V ext in	I1	n.c.
	X2 (O1/O2)	0,2 m	n.c.	O2 (RUN2)	n.c.	O1 (RUN1)	n.c.
	X3 (O3/O4)	0,3 m	n.c.	O4 (DIR2)	n.c.	O3 (DIR1)	n.c.
	M8 Connection		Pin1	Pin2	Pin3	Pin4	
	X4 (I4)	0,3 m	24 V ext out	n.c.	0 V ext out	I4	-
	X5 (I3/I4)	0,3 m	24 V ext out	I4	0 V ext out	I3	-
	ADDR	0,1 m	connection for ASi addressing device				



Line termination with sealing profile



max. IP54



### Accessories:

- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- ASi addressing cable with M12 connector, connecting cable for handheld ASi address programming devices for the addressing of active distributors (art. no. BW3304)
- ASi addressing cable with COMBICON connector, connecting cable for ASi Master/Gateways for the addressing of active distributors (art. no. BW3305)