

## AS-i Motor Module for Lenze Smart Motor, 4I/3O

2 x connectors for profile cable



(figure similar)

Figure	Type	Drive <sup>(1)</sup>	Number of drives	Inputs digital	Outputs digital	Input voltage (sensor supply) <sup>(2)</sup>	Output voltage (actuator supply) <sup>(3)</sup>	AS-i connection <sup>(4)</sup>	Connection <sup>(5)</sup>	AS-i address <sup>(6)</sup>	Art. no.
	IP67, depth 35 mm	Lenze Smart Motor	1	4	3 x electronic	out of AUX	out of AUX	AS-i profile cable	4 x M12 cable sockets, straight, 5 poles	1 AB slave	<b>BWU3436</b>
	IP67, depth 35 mm	Lenze Smart Motor	1	4	3 x electronic	out of AS-i	out of AS-i	AS-i profile cable	1 x M12 cable socket, straight, 8 poles + 2 x cable sockets, straight, 5 poles	1 AB Slave	<b>BWU3640</b>

- (1) **Drive:**  
**Lenze Smart Motor:** Motor module to control Lenze Smart motors and to control additional sensors.
- (2) **Input voltage (sensor supply):** inputs are supplied by AS-i or by AUX (auxiliary 24 V power). If supplied by AS-i, inputs shall not be connected to earth or to external potential.
- (3) **Output voltage (actuator supply):** outputs are supplied by AS-i or by AUX (auxiliary 24 V power). If supplied by AS-i, outputs shall not be connected to earth or to external potential
- (4) **AS-i connection:** the connection to AS-i as well to AUX (auxiliary 24 V power) is made via yellow resp. black AS-i profile cable with piercing technology or via M12 socket (in IP20 via clamps).
- (5) **Connection:** further connection options are available on request.

M12 cable socket, angled	M12 cable socket, straight	M8 cable socket, straight	round cable / connecting wires	Profile cable branch
PUR line, oil resistant				
				  1 2

- (6) **AS-i address:** 1 AB Slave (max. 62 AB Slaves/AS-i network), 2 AB Slaves (max. 31 modules with 2 AB Slaves), Single Slaves (max. 31 Single Slaves/AS-i 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 AS-i Slave profiles.

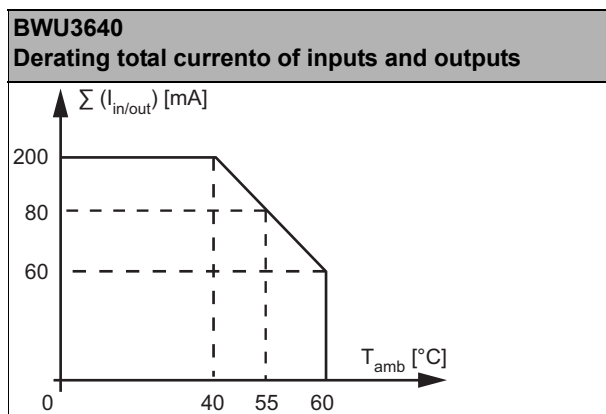
Article No.	BWU3436		BWU3640	
<b>Connection</b>				
AS-i/AUX connection	profile cable and piercing			
Periphery connection	4 x M12 cable sockets, straight, 5 poles		Motor: 1 x M12 cable socket, straight, 8 poles sensors: 2 x M12 cable sockets, straight, 5 poles	
Length of connector cable	1 m; max. allowed tensile strain 10 N		2 m; max. zulässige Zugbelastung 10 N	
<b>AS-i</b>				
Profile	S-7.A.E			
Adresse	1 AB Slave			
Required Master profile	≥M4			
As of AS-i specification	3.0			
Operating voltage	30 V (18 ... 31.6 V)			
Max. current consumption	35 mA		245 mA	
Max. current consumption without sensor/ actuator supply	35 mA		45 mA	
<b>AUX</b>				
Operating voltage	24 V (18 ... 30 V)		-	
Max. current consumption	max. 2,5 A		-	
<b>Input</b>				
Number	4			
Power supply	out of AUX		out of AS-i	
Sensor supply	short-circuit and overload protected according to EN 61131-2			
Power supply of attached sensors	up to +40 °C	max. 1 A		200 mA, $\sum (In/Out) \leq 200 \text{ mA}^{(3)}$
	at +55 °C			80 mA, $\sum (In/Out) \leq 80 \text{ mA}$
	at +60 °C			60 mA, $\sum (In/Out) \leq 60 \text{ mA}$
Switching threshold	U < 5 V (low) U > 15 V (high)			
<b>Output</b>				
Number	3			
Power supply	out of AUX		out of AS-i	
Output	short-circuit and overload protected according to EN 61131-2			
Max. output current	up to +40 °C	500 mA per output		200 mA, $\sum (In/Out) \leq 200 \text{ mA}$
	at +55 °C			80 mA, $\sum (In/Out) \leq 80 \text{ mA}$
	at +60 °C			60 mA, $\sum (In/Out) \leq 60 \text{ mA}$
<b>Display</b>				
LED ASI (green)	on: AS-i voltage on flashing: AS-i voltage on, but peripheral fault <sup>(1)</sup> or address 0 off: no AS-i voltage			
LED FLT/FAULT (red)	on: slave address 0 or slave offline flashing: peripheral fault <sup>(1)</sup> off: slave online			
LED AUX (green)	on: 24 V <sub>DC</sub> AUX off: no 24 V <sub>DC</sub> AUX		-	
LED I1 ... In (yellow)	state of inputs I1 ... I4			
LED O1 ... On (yellow)	state of outputs O1 ... O3			

Article No.	BWU3436	BWU3640
<b>Environment</b>		
Applied standards	EN 61000-2 EN 61000-3 EN 61131-2 EN 60529	
Operating altitude	max. 2000 m	
Ambient temperature	-30 °C ... +60 °C <sup>(2)</sup> <sup>(1)</sup>	
Storage temperature	-25 °C ... +85 °C	
Housing	plastic, screw mounting, suitable for cable ducts (installation depth ≥35mm)	
Pollution Degree	2	
Protection category	IP67	
Tolerable loading referring to humidity	according to EN 61131-2	
Maximum tolerable shock and 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) See table "Peripheral fault indication"

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

(3)



Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3436	-	-	•
BWU3640	•	-	-

Programming	Parameter bit			
	D0	D1	D2	D3
	<b>Input</b>			
BWU3436, BWU3640	I1	I2	I3	I4
	<b>Output</b>			
BWU3436, BWU3640	O1	O2	O3	-
	Parameter bit			
	P0	P1	P2	P3
BWU3436, BWU3640	0= off / 1= on (Watchdog)	0= on / 1= off (data input filter 128µs)	0= on / 1= off (synchronous I/O mode)	not used

## Pin assignment

Signal name	Explanation
I <sub>x</sub>	digital input x
O <sub>x</sub>	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 AS-i</sub>	power supply, out of AS-i, positive pole (sensor supply)
0V <sub>out of AS-i</sub>	power supply, out of AS-i, negative pole (sensor supply)
AS-i+, AS-i-	connection to AS-i bus
n.c. (not connected)	not connected

Connections						
Article no.	Mark	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3436	X1 (1)	n.c.	O2	0 V <sub>ext.out</sub>	O1	n.c.
	X2 (2)	24 V <sub>ext.out</sub>	O3	0 V <sub>ext.out</sub>	I1	n.c.
	I2/I3	24 V <sub>ext.out</sub>	I3	0 V <sub>ext.out</sub>	I2	n.c.
	I4	24 V <sub>ext.out</sub>	n.c.	0 V <sub>ext.out</sub>	I4	n.c.

(1) 4 pole connection to X1 of Lenze Smart Motor

(2) 4 pole connection to X2 of Lenze Smart Motor

Connections									
Article no.	Mark	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6	Pin7	Pin8
BWU3640	X2 (1)	24 V out of AS-i	I1	0 V out of AS-i	O1	O2	O3	n.c.	0 V out of AS-i
	I2	24 V out of AS-i	n.c.	0 V out of AS-i	I2	n.c.	-	-	-
	I3/I4	24 V out of AS-i	I4	0 V out of AS-i	I3	n.c.	-	-	-

(1) 8 pole connection to X2 of Lenze Smart Motor

## Accessories:

- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- Diagnostic Software (art. no. BW2902)