

AS-i Motor Module, IP67, M12 for Lenze Smart motor, 4I/3O

1 AB slave

AS-i/AUX via profile cable or M12

2 x M12 connections compatible with Lenze Smart Motor

2 x M12 connections for up to 3 additional sensors



(Figure similar)



Figure	Type	Drive ⁽¹⁾	Number of drives	Inputs digital	Outputs digital	Input voltage (sensor supply) ⁽²⁾	Output voltage (actuator supply) ⁽³⁾	AS-i connection ⁽⁴⁾	AS-i address ⁽⁵⁾	Art. no.
	IP67, 4 x M12	Lenze Smart Motor	1	4	3 x electronic	out of AUX	out of AUX	AS-i profile cable	1 AB slave	BWU3115
	IP67, 4 x M12	Lenze Smart Motor	1	4	3 x electronic	out of AUX	out of AUX	AS-i via M12	1 AB slave	BWU3181

- (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) **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.	BWU3115	BWU3181
General data		
Device type	input / output	
Connection		
AS-i/AUX connection	profile cable and piercing	M12
Periphery connection	M12	
AS-i		
Profile	S-7.A.E	
Address	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	
Max. current consumption without sensor/ actuator supply	35 mA	
AUX		
Operating voltage	24 V (18 ... 30 V)	
Max. current consumption	max. 2,5 A	
Input		
Number	4	
Power supply	out of AUX	
Power supply of attached sensors	max. 1 A	
Switching threshold	U < 5 V (low) U > 15 V (high)	
Output		
Number	3	
Power supply	out of AUX	
Max. output current	max. 500 mA per output	
Display		
LED ASI (green)	on: AS-i voltage on flashing: AS-i voltage on, but peripheral fault ⁽¹⁾ or address 0 off: no AS-i voltage	
LED FLT/FAULT (red)	on: slave address 0 or slave offline flashing: peripheral fault ⁽¹⁾ off: slave online	
LED AUX (green)	on: 24 V _{DC} AUX off: no 24 V _{DC} AUX	
LED X1 (yellow)	state of outputs O1 / O2: at least 1 output of output pair is on	
LED X2 (yellow)	state of inputs/outputs I1 / O3: input or output is on	
LED I2/I3 (yellow)	state of inputs I2 / I3: at least 1 input of input pair is on	
LED I4 (yellow)	state of input I4	

Article No.	BWU3115	BWU3181
Environment		
Applied standards	EN 61000-2 EN 61000-3 EN 61131-2 EN 60529	
Operating altitude	max. 2000 m	
Ambient temperature	-30 °C ... +55 °C (up to max. +70 °C) ⁽²⁾ ⁽³⁾	
Storage temperature	-25 °C ... +85 °C	
Housing	plastic, for DIN rail mounting	plastic, for screw mounting
Protection category	IP67	
Max. tolerable shock load	30g, 11 ms, acc. EN 61131-2	
Max. tolerable vibration stress	5 ... 8 Hz 50 mm _{pp} /8 ... 500 Hz 6g, acc. EN 61131-2	
Insulation voltage	≥500 V	
Weight	100 g	
Dimensions (W / H / D) in mm	45 / 80 / 42	45 / 116,5 / 47,5

(1) See table "Peripheral fault indication"

(2) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada

(3) Temperature range up to -30 °C from Ident.No. ≥16336 (BWU3115).

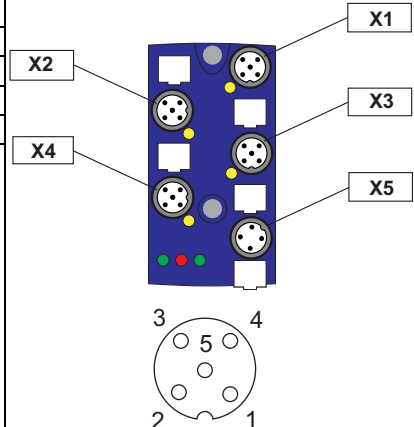
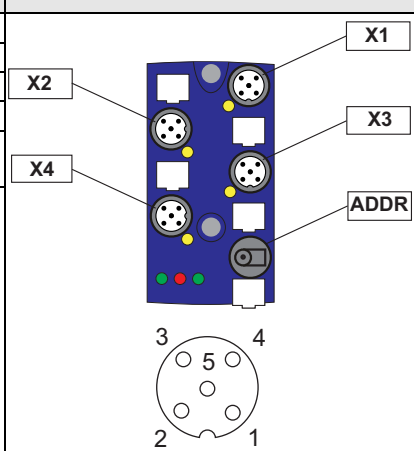
Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3115	•	•	•
BWU3181	•	•	•

Programming	Parameter bit			
	P0	P1	P2	P3
BWU3115 / BWU3181	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
Ix	digital input x
Ox	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)
24 V _{ext in}	connection to external 24 V power supply, positive pole (AUX, actuator supply)
0 V _{ext in}	connection to external 24 V power supply, negative pole (AUX, actuator supply)
AS-i+, AS-i-	connection to AS-i bus
n.c.	not connected

Connections							
Article no.	M12 connection	Marking	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3115	X1	X1 ⁽¹⁾	n.c.	O2	0 V _{ext.out}	O1	n.c.
	X2	X2 ⁽²⁾	24 V _{ext.out}	O3	0 V _{ext.out}	I1	n.c.
	X3	I2/I3	24 V _{ext.out}	I3	0 V _{ext.out}	I2	n.c.
	X4	I4	24 V _{ext.out}	n.c.	0 V _{ext.out}	I4	n.c.
	ADDR (dummy plug)	connection for AS-i addressing device					
BWU3181	X1	X1 ⁽¹⁾	n.c.	O2	0 V _{ext.out}	O1	n.c.
	X2	X2 ⁽²⁾	24 V _{ext.out}	O3	0 V _{ext.out}	I1	n.c.
	X3	I2/I3	24 V _{ext.out}	I3	0 V _{ext.out}	I2	n.c.
	X4	I4	24 V _{ext.out}	n.c.	0 V _{ext.out}	I4	n.c.
	X5	ASI / AUX	AS-i+	0 V _{ext in}	AS-i-	24 V _{ext in}	-



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

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

Accessories:

- AS-i substructure module for 4 channel module in 45 mm housing (art. no. BW2349)
- AS-i substructure module (CNOMO) for 4 channel module in 45 mm housing (art. no. BW2350)
- Protection caps for unused M12 sockets (art. no. BW2368)