

Active Distributor ASi-5 motor module for Lenze i550 motec

1 x connector for profile cable

Periphery connection via
1 x M12 cable plug, D-coded, straight, 4 poles

for Lenze i550 motec frequency inverter

Control via Modbus TCP

Can be used in passively safe paths up to SIL3/PLe



(figure similar)



Figure	Type	Drive	Number of Drives	Input voltage (sensor supply) ⁽¹⁾	Output voltage (actuator supply) ⁽²⁾	ASi connection ⁽³⁾	Connection	ASi address ⁽⁴⁾	Art. no.
	IP67, depth 35 mm	Lenze i550 motec	1	out of ASi	-	ASi profile cable	1 x M12 cable plug, D-coded, straight, 4 poles	1 ASi-5 address	BWU4974

- (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) **ASi address:** AB addresses (max. 62 AB addresses/ASi network), 2 AB addresses (max. 31 modules with 2 AB addresses), Single addresses (max. 31 Single addresses/ASi network), ASi-5 address (max. 62 ASi-5 addresses/ASi network), mixed use allowed. For modules with two ASi-3 nodes the 2nd ASi-3 node is turned off as long as the 1st ASi-3 node is addressed to address "0". Upon request, ASi-3 nodes are available with specific ASi node profiles.

Article No.	BWU4974
Interface	
Interface	Modbus TCP
Baud rates	10/100 MBaud (half-duplex/full-duplex)
Connection	
ASi connection	profile cable and piercing technology
Periphery connection	1 x M12 cable plug, D-coded, straight, 4 poles
Length of connector cable	1 m
	max. allowed tensile strain 10 N
ASi	
Address	1 ASi-5 address
As of ASi specification	ASi-5
Operating voltage	30 V (18 ... 31,6 V)
Max. current consumption	165 mA
Max. current consumption without sensor/ actuator supply	45 mA

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Article No.	BWU4974
Display	
LED ASI (green)	on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽¹⁾ or address 0 off: no ASi voltage
LED FLT/FAULT (red)	on: node address 0 or ASi node offline flashing: peripheral fault ⁽¹⁾ off: ASi node online
LED LINK (green)	on: connection M1 is connected to a network off: connection M1 is not connected to a network
LED ACT (yellow)	flashing: data exchange with motor active off: no data exchange with motor
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 ⁽²⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +60 °C
Storage temperature	-25 °C ... +85 °C
Housing	plastic, screw mounting, suitable for cable ducts (installation depth ≥35mm)
Pollution Degree	2
Protection category	IP67 ⁽³⁾
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⁾ The module is suitable for use in passively safe paths as it has no connection to an AUX potential.

⁽³⁾ Protection category IP67 can only be achieved if all open connections are sealed with suitable end caps fulfilling the same protection category (see accessories).

Article no.	Peripheral fault indication		
	Overload sensor supply	Error in frequency inverter	Communication error to frequency inverter
BWU4974	-	•	•

Programming (Bit-setting of ASi process data image)

Article no.	Byte	Bit								
		D7	D6	D5	D4	D3	D2	D1	D0	
BWU4974	Digital input data									
	0	reserved				I4 (i550 Motec) ⁽¹⁾	I3 (i550 Motec) ⁽¹⁾	I2 (i550 Motec) ⁽¹⁾	I1 (i550 Motec) ⁽¹⁾	
	1	motor ready	motor running	at reference	direction of rotation	motor error	motor specific error	reserved		
	2	actual speed, high byte (0 ... 100%, resolution 0,01%), UINT16								
	3	actual speed, low byte (0 ... 100%, resolution 0,01%), UINT16								
	4	actual current (mA), high byte, UINT16								
5	actual current (mA), low byte, UINT16									

⁽¹⁾ Local inputs of the i550 Motec. No processing in the module. Information is passed on to the higher-level control. For further information, please refer to the manufacturer's documentation.

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Article no.	Byte	Bit									
		D7	D6	D5	D4	D3	D2	D1	D0		
BWU4974	Digital output data										
	0	reserved									
	1	enable	start/stop	direction of rotation	brake	reset	free wheel	reserved			
	2	speed setpoint, high byte (0 ... 100%, resolution 0,01%), UINT16									
	3	speed setpoint, low byte (0 ... 100%, resolution 0,01%), UINT16									
	4	ramp (ms), high byte, UINT16									
5	ramp (ms), low byte, UINT16										

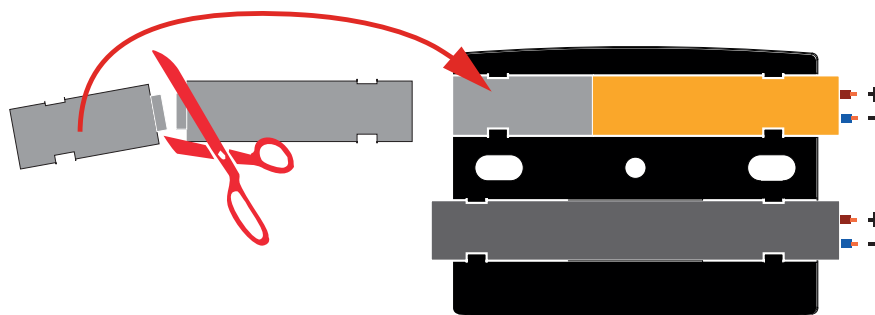
Pin assignment

Signal name	Explanation
TX +	Communication with motor (labeling on motor RX +)
TX -	Communication with motor (labeling on motor RX -)
RX +	Communication with motor (labeling on motor RX +)
RX -	Communication with motor (labeling on motor RX -)
ASi+	ASi network, positive potential
ASi-	ASi network, negative potential
n.c. (not connected)	not connected

Connections: M12 cable plug, D-coded, straight, 4 poles

Article no.	M12 connection	Pin1	Pin2	Pin3	Pin4	
BWU4974	X1	TX+	RX+	TX-	RX-	

Line termination with sealing profile



Accessories:

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