

2 x connectors for profile cable

Periphery connection via
 1 x round cable/connecting wires +
 2 x M12 cable sockets, straight, 5 poles

For frequency inverters with binary control, i. e.

- 1 x SEW MOVIMOT
- 1 x Lenze i550 Protec (Basic Setting "Control Source: digital Inputs")



(figure similar)

connection of 2 sensors via M12



Figure	Type	Drive	Number of drives	Inputs digital	Outputs digital	Input voltage (sensor supply) (1)	Output voltage (actuator supply) (2)	ASi connection (3)	Connection (4)	ASi address (5)	Art. no.
	IP67, depth 35 mm	SEW MOVIMOT, Lenze i550 Protec	1	2	–	out of AUX	out of AUX	ASi profile cable	1 x round cable/connecting wires + 2 x M12 cable sockets, straight, 5 poles	1 AB address	BWU3605

- (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.

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

Article No.		BWU3605
General data		
Device type		input/output
Connection		
ASi/AUX connection		profile cable and piercing technology
Periphery connection		1 x round cable/connecting wires (frequency inverter) + 2 x M12 cable sockets, straight, 5 poles (sensors)
M12 wiring ⁽¹⁾		Single wiring (I2, I3)
Length of connector cable		2 m max. allowed tensile strain 10 N
ASi		
Profile		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)
Max. current consumption		45 mA
Max. current consumption without sensor/ actuator supply		45 mA
AUX		
Operating voltage		24 V (18 ... 30 V)
Max. current consumption		3 A
Input		
Number		2 (I2, I3)
Power supply		out of AUX
Line protection fuse		yes 5 A ⁽²⁾ slow blow fuse UL certified
Power supply of attached sensors	up to +40 °C	1 A, $\sum (I_n/Motor) \leq 3 A$ ⁽³⁾
	at +55 °C	1 A, $\sum (I_n/Motor) \leq 2 A$ ⁽³⁾
	at +60 °C	1 A, $\sum (I_n/Motor) \leq 1,5 A$ ⁽³⁾
Switching threshold		U < 5 V (low) U > 15 V (high)
Drive		
Number		1 (I1, O1 ... O4)
Power supply		out of AUX
Output		short-circuit and overload protected according to EN 61131-2
Line protection fuse		yes 5 A ⁽²⁾ slow blow fuse UL certified
Max. output current	up to +40 °C	$\sum (I_n/Motor) \leq 3 A$ ⁽³⁾
	at +55 °C	$\sum (I_n/Motor) \leq 2 A$ ⁽³⁾
	at +60 °C	$\sum (I_n/Motor) \leq 1,5 A$ ⁽³⁾
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 green/red flashing: peripheral fault ⁽⁴⁾ off: no ASi voltage
LED AUX (green)		on: 24 V _{DC} AUX off: no 24 V _{DC} AUX
LED I1 ... In (yellow)		state of inputs I1 ... I3
LED O1 ... On (yellow)		state of outputs O1 ... O4

Article No.	BWU3605
Environment	
Applied standards	EN ISO 13849-1 PLe EN ISO13849-2 EN 62026-2 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 ⁽⁵⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +60 °C ^{(3) (6)}
Storage temperature	-25 °C ... +85 °C
Housing	plastic, screw mounting, suitable for cable ducts (installation depth ≥35mm)
Pollution Degree	2
Protection category	IP67 ⁽⁷⁾
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

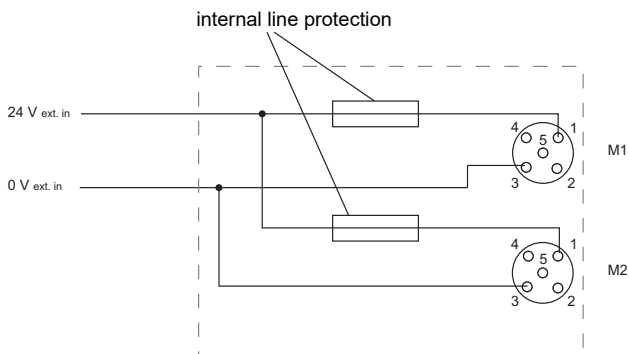
(1) **M12 wiring:**

Single wiring: 1 input or output per connection.

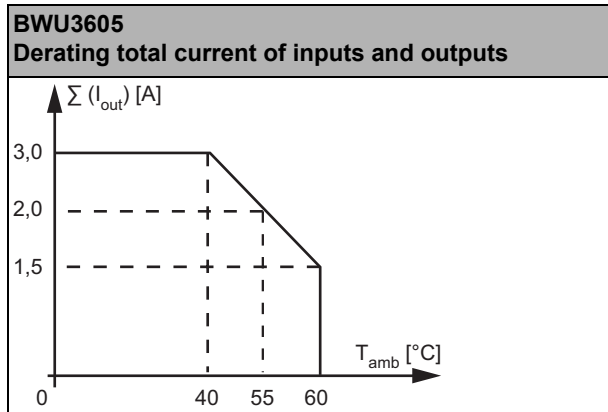
Y wiring: 2 inputs or outputs per connection.

Mixed wiring: 1 input and 1 output per connection.

- (2) In the motor module UL approved fuses are placed before the sensor supply connections. A short circuit in the sensor causes this fuse to blow, protecting the connection cable between the module and sensors. After blowing the not exchangeable fuse the module is no longer functional and the module needs to be replaced.



(3)



- (4) see table "Peripheral fault indication"
- (5) 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.
- (6) Down to -25 °C with flexibly mounted cable, -30 °C only with fixed mounted cable.
- (7) Protection category IP67 can only be achieved, if also the cable connector fulfills IP67

Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3605	•	•	•

Programming	Parameter bit			
	D3	D2	D1	D0
	input			
BWU3605	–	I3	I2	I1 (Motor)
	output			
BWU3605	O4 (Motor)	O3 (Motor)	O2 (Motor)	O1 (Motor)
	parameter bit			
	P3	P2	P1	P0
BWU3605	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 _{ext out}	power supply, out of external voltage, positive pole (AUX, actuator supply)
0V _{ext out}	power supply, out of external voltage, negative pole (AUX, actuator supply)
24V _{out of ASi}	power supply, out of ASi, positive pole (sensor supply)
0V _{out of ASi}	power supply, out of ASi, negative pole (sensor supply)
ASi+, ASi-	connection to ASi bus
n.c. (not connected)	not connected

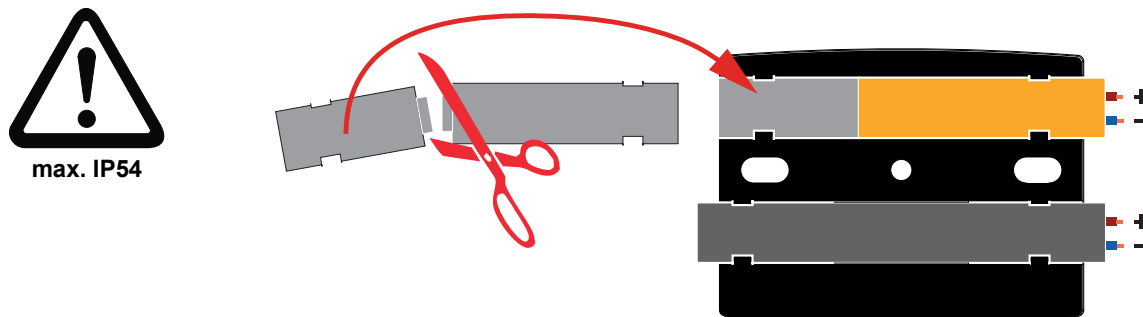
Connections:

Article no.	Connecting wires	WH	BN	GN	YE	GY	PK	BU	RD
BWU3605	X1 (SEW)	I1 (K1b)	O1 (24 V)	O2 (R)	O3 (L)	O4 (f1/f2)	24 V _{ext out} (K1a)	0 V _{ext out}	n.c.
	X1 (Lenze) ⁽¹⁾	I1 (Diag.)	O1 (Start/ Stopp)	O2 (Reset)	O3 (Speed)	O4 (CW/CCW)	24 V _{ext out}	0 V _{ext out}	n.c.
	M12 connection	Pin1 (BN)	Pin2 (WH)	Pin3 (BU)	Pin4 (BK)	Pin5 (-)			
	X2	24 V _{ext out}	n.c.	0 V _{ext out}	I3	n.c.	-		
	X3	24 V _{ext out}	n.c.	0 V _{ext out}	I2	n.c.	-		

The diagram shows the BWU3605 Active Distributor with various terminals: ASI, X2, X3, AUX, M12, and M1. A pinout diagram shows a 5-pin M12 connector with pins 1-5 corresponding to the table above. The device also features a rotary switch for M12 connection and a 1mm ASI connector.

(1) Suitable for Lenze i550 Protec with the basic setting "Control source: Digital inputs", for other operating modes please refer to the documentation of the manufacturer.

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)