

ASi-3 Cable Duct Motor Module for 24 V Motorized Rollers

ASi Cable Duct Motor Modules for two 24 V Motorized Rollers, IP54, 2M/2E

- ASi and AUX via profile cable



(Figure similar)

Suitable for:

- 2 x 24 V motorized rollers Interroll (EC310 or EC5000 AI with 20 W/35 W)
- 2 x 24 V motorized rollers Itoh Denki (PM500XC/XK)
- 2 x 24 V motorized rollers Rulmeca (RDR BL-3)
- 2 x 24 V motorized rollers Pulseroller Senergy IDC
- 2 x 24 V motorized rollers SEW ECDriveS ECR-I

Speed setting via ASi parameters

Protection category IP54



Figure	Drive ⁽¹⁾	Num-ber of drives	Line protection fuse ⁽²⁾	Flat design, montage in cable duct possible	Inputs digital	Input voltage (sen-sor sup-ply) ⁽³⁾	Output voltage (actuator supply) ⁽⁴⁾	Connection	ASi connection ⁽⁵⁾	Article No.
	Interroll, Itoh Denki, Rulmeca, Pulseroller, SEW	2	yes, separately for each motor, 4,5 A (slow-blow fuse)	yes	2	out of ASi	out of AUX	2 x M8 snap-in cable sockets, straight, 5 poles + 2 x M8 cable sockets, straight, 4 poles	ASi profile cable	BWU4768

(1) Drive:

Under certain circumstances also suitable for control of motorized rollers from other manufacturers with the same technical data e.g. MTA MRA50. Please compare the manufacturer's specifications with the current values and the pin assignment of the motor module.

(2) Line protection fuse:

In the motor module UL approved fuses are placed before each of the motor supply connections. A short circuit in the motor causes this fuse to blow, protecting the connection cable between the module and motor.

After blowing the not exchangeable fuse the module is no longer functional and the module needs to be replaced. The characteristics of the fuse must be checked against the motor data before using the module.

The protection circuit in the module allows a very simple protection of the motor cables. The fuse for the cable protection is a slow-blow one; without short circuit the robust behavior of the module remains.

(3) 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.

(4) 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.

(5) 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 M8 socket.

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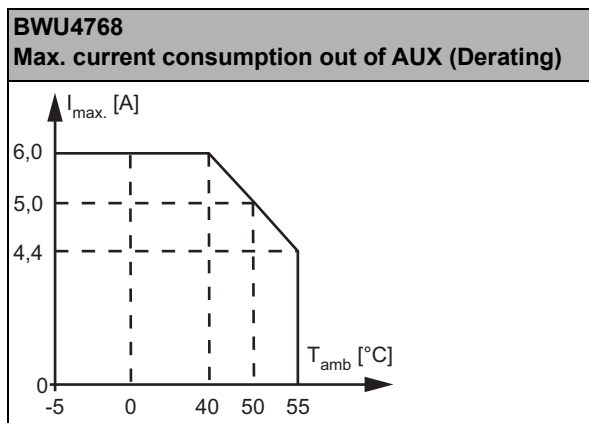
Article No.		BWU4768	
General data			
Roller drives		2 x Interroll (EC310 or EC5000 AI, 24 V, 20 W/35 W) 2 x Itoh Denki (PM500XC/XK) 2 x Rulmeca (RDR BL-3) ⁽¹⁾ 2 x Pulseroller (Senergy IDC) 2 x SEW (ECDriveS ECR-I)	
Connection			
ASi/AUX connection		profile cable and piercing technology	
Periphery connection		M: 2 x M8 snap-in cable sockets, straight, 5 poles I: 2 x M8 cable sockets, straight, 4 poles	
Cable		M1, M2: 1 m I1, I2: 1 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		200 mA	
Max. current consumption without sensor/ actuator supply		80 mA	
AUX			
Operating voltage		24 V (18 ... 30 V)	
Max. current consumption	up to +40 °C	6 A continuously, 11 A peak ⁽²⁾	
	at +55 °C	4,4 A continuously, 8 A peak ⁽¹⁾	
Input			
Number		2 x sensor inputs + 2 x motor fault inputs	
Power supply		sensor inputs: out of ASi motor fault inputs: out of AUX	
Sensor supply		short-circuit and overload protected according to EN 61131-2	
Power supply of attached sensors		120 mA	
Switching threshold		U _{in} < 5 V (low) U _{in} > 15 V (high)	
Output			
Number of drives		2	
Power supply		out of AUX (galvanic separation)	
Overvoltage tolerated by reaction (AUX)		35 V resistant brake chopper compatible	
Max. output current		10 mA per output, ∑ (Out) 40 mA	
Motor supply		3 A per motor, max. 5,5 A	
Line protection fuse		yes, separately for each motor, 4,5 A (slow-blow fuse), at 9 A (200%) release between 1 s and 120 s, fuse UL certified ⁽³⁾	
Display			
LED ASi (green)		on: ASi voltage on off: no ASi voltage	
LED AUX (green)		on: 24 V _{DC} AUX and no motor fuse has tripped off: no 24 V _{DC} AUX and at least one motor fuse has tripped	
LED FLT/FAULT (red)		on: no data exchange flashing: peripheral fault ⁽⁴⁾ off: data exchange ok	
LED I1, I2 (yellow)		state of inputs I1, I2	
LED M1, M2 (yellow)		state of outputs M1 (O1), M2 (O3)	

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Article No.	BWU4768
Environment	
Applied standards	EN 61000-6-2 EN 61000-6-4 EN 60529 EN 61131-2
Can be used in passively safe paths up to SIL3/PLe	yes ⁽⁵⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +55 °C ⁽¹⁾
Storage temperature	-25 °C ... +85 °C
Housing	plastic, screw mounting suitable for cable ducts (≥19 mm installation depth)
Pollution Degree	2
Protection category	IP54
Tolerable loading referring to humidity	according to EN 61131-2
Max. tolerable shock load and vibration stress	according to EN 61131-2
Isolation voltage	≥ 500 V
Weight	ca. 205 g
Dimensions (W / H / D) in mm	130 / 60 / 18

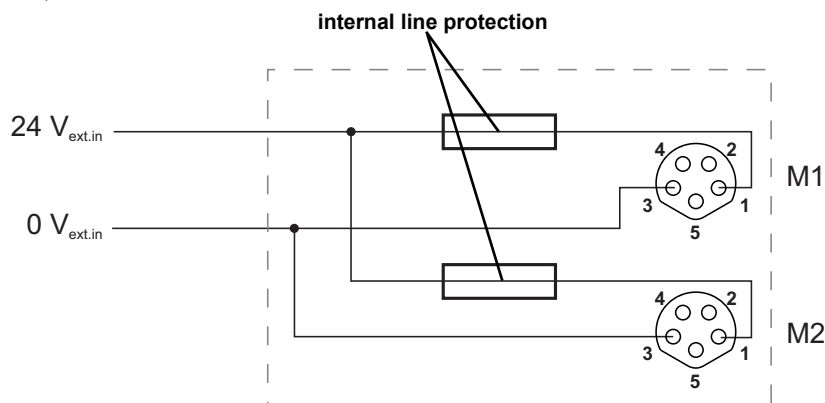
(1) Suitable for transmission ratios 24:1, 36:1, 49:1, 64:1, 96:1 (not suitable for transmission ratios 12:1, 16:1).

(2)



(3) In the motor module UL approved fuses are placed before each of the motor supply connections. A short circuit in the motor causes this fuse to blow, protecting the connection cable between the module and motor. After blowing the not exchangeable fuse the module is no longer functional and the module needs to be replaced. The characteristics of the fuse must be checked against the motor data before using the module.

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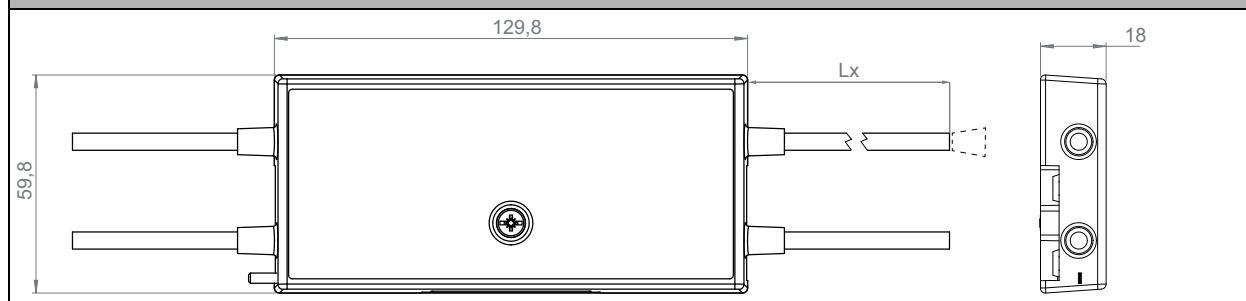


(4) see table "Peripheral fault indication".

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(5) The module is suitable for use in passively safe paths because an exclusion of errors can be assumed for the connection of the two potentials, ASi and AUX.

Dimensional drawings



Article no.	Peripheral fault indication			
	Overload output	AUX voltage missing	Overload sensor supply	at least 1 motor fuse is blown
BWU4768	•	•	•	•

Configuration analog value BWU4768

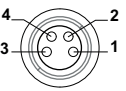
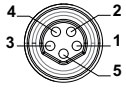
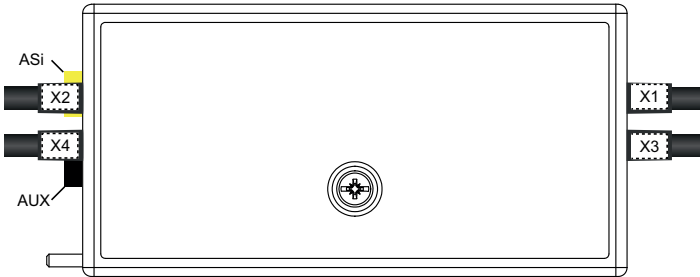
ASi parameters				analog value Pin 5
P2	P1	P0	O1/O3	
0	0	0	0	0 V
			1	2,3 V
0	0	1	0	0 V
			1	3,4 V
0	1	0	0	0 V
			1	4,5 V
0	1	1	0	0 V
			1	5,6 V
1	0	0	0	0 V
			1	6,7 V
1	0	1	0	0 V
			1	7,8 V
1	1	0	0	0 V
			1	8,9 V
1	1	1	0	0 V
			1	10 V

Programming (ASi bit assignment)

Article no.	Byte	bit			
		D3	D2	D1	D0
		input			
BWU4768	0	Error M2	Error M1	I2	I1

Article no.	Byte	bit			
		D3	D2	D1	D0
		output			
BWU4768	0	CW M2	start/stopp M2	CW M1	start/stopp M1

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BWU4768								
Art. no.	M8-Connection		Name / Number	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
BWU4768		X1	I2	24 V _{out} of ASi	n.c.	0 V _{out} of ASi	I2	–
		X2	I1	24 V _{out} of ASi	n.c.	0 V _{out} of ASi	I1	–
		X3	M2 (motor 2)	24 V _{ext} out	CW M2	0 V _{ext} out	Error M2	analog value O3
		X4	M1 (motor 1)	24 V _{ext} out	CW M1	0 V _{ext} out	Error M1	analog value O1
								
		1	$\begin{matrix} + \\ - \end{matrix}$	(brown) (blue)	ASi and AUX via profile cable			
		2	$\begin{matrix} + \\ - \end{matrix}$	(brown) (blue)				

Scope of delivery:

- ASi Cable Duct Motor Module. IP54, M8 for 24 V motorized rollers, 2M/2I (art. no. BWU4768)
- ASi Substructure Module in IP67 for cable duct ASi motor modules (art. no. BW4749)

Accessories:

- ASi Substructure Module in IP67 for cable duct ASi motor modules (art. no. BW4749)
- Magnetic holders for substructure Modules (art. no. BW4779)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)