

Cable Duct ASi Motor Modules for two 24 V Motorized Rollers Itoh Denki (PM500XE/XP, PM605XE/XP)

- ASi and AUX via profile cable



(Figure similar)

Flat design,
optimized for use in cable ducts

Inputs and Outputs in one module

Speed setting via ASi parameters



Figure	Drive ⁽¹⁾	Number of drives	Inputs digital	Outputs digital	Line protection fuse ⁽²⁾	Input voltage (sensor supply) ⁽³⁾	Output voltage (actuator supply) ⁽⁴⁾	Connection	ASi connection ⁽⁵⁾	Round cable	Article No.
	Itoh Denki	2	4	—	yes	out of ASi	out of AUX	2 x M8 cable sockets, straight, 5 poles + 2 x M8 cable sockets, straight, 4 poles	ASi profile cable	Motor: 0,40 m, Input: 0,06 m	BWU3278
	Itoh Denki	2	4	—	yes	out of ASi	out of AUX	2 x M8 cable sockets, straight, 5 poles + 2 x M8 cable sockets, straight, 4 poles	ASi profile cable	Motor: 0,40 m, Input: 0,40 m	BWU3567
	Itoh Denki	2	4	—	yes	out of ASi	out of AUX	2 x M8 cable sockets, straight, 5 poles + 2 x M12 cable sockets, straight, 5 poles	ASi profile cable	Motor: 0,40 m, Input: 0,06 m	BWU3679

(1) **Drive:**

Under certain circumstances also suitable for control of motorized rollers from other manufacturers with the same technical data. 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:**

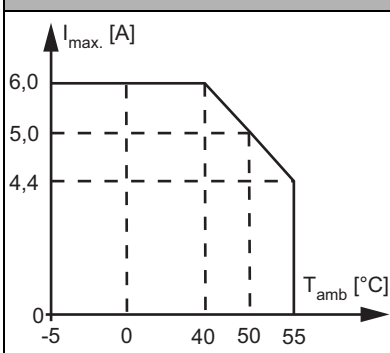
The connection to ASi as well to AUX (auxiliary 24 V power) is made via yellow resp. black ASi profile cable with piercing technology or via M8 socket.

Article No.		BWU3679	BWU3278	BWU3567
General data				
Motorized roller type		2 x Itoh Denki (PM500XE/XP, PM605XE/XP)		
Connection				
ASi/AUX connection		profile cable and piercing technology		
Periphery connection		M8/M12	M8	
Cable		M1, M2: 0,4 m I1, I2: 0,06 m	M1, M2: 0,4 m I1, I2: 0,06 m	M1, M2: 0,4 m I1, I2: 0,4 m
		passive distributors: 0,15 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		
AUX				
Operating voltage		24 V (18 ... 30 V)		
Max. current consumption	up to +40 °C	6 A continuously, 11 A peak ⁽¹⁾		
	at +55 °C	4,4 A continuously, 8 A peak ⁽¹⁾		
Input				
Number		4		
Power supply		sensor inputs: out of ASi		
Sensor supply		short-circuit and overload protected according to EN 61131-2		
Power supply of attached sensors	up to +30 °C	120 mA ⁽²⁾		
	at +40 °C	100 mA ⁽²⁾		
	at +50 °C	60 mA ⁽²⁾		
	at +55 °C	40 mA ⁽²⁾		
Switching threshold		U _{in} < 5 V (low) U _{in} > 10 V (high)		
Drive				
Number		2 (O1 ... O4, 2 AI)		
		short-circuit and overload protected according to EN 61131-2		
Power supply		out of AUX (galvanic separation)		
Overvoltage tolerated by reaction (AUX)		35 V resistant brake chopper compatible		
Max. output current	up to +50 °C	10 mA per pin, ∑ (Motor) 40 mA ⁽³⁾		
	at +55 °C	10 mA per pin, ∑ (Motor) 25 mA ⁽³⁾		
Motor supply	up to +40 °C	out of AUX, 3 A continuously, 5,5 A max. ⁽¹⁾		
	at +55 °C	out of AUX, 2,2 A continuously, 4 A max ⁽¹⁾		
Line protection fuse		yes, separately for each motor, 3.5 AT, at 7 A (200%) release between 1 s and 120 s, fuse UL certified ⁽⁴⁾		

Article No.	BWU3679	BWU3278	BWU3567
Display			
LED I1 ...I4 (yellow)	state of inputs I1 ... I4		
LED M1, M2 (yellow)	state of outputs M1 (O1), M2 (O3)		
LED ASI (green)	on: ASI voltage on off: no ASI voltage		
LED AUX (green)	on: 24 V _{DC} AUX off: no 24 V _{DC} AUX		
LED FLT/FAULT (red)	on: address 0 or offline flashing: AUX voltage is missing, overload output, an output is short circuited, at least one motor fuse has blown or overload sensor off: online		
UL-specifications (UL 61010-1 and UL 61010-2-201)			
External protection	An isolated source with a secondary open circuit voltage of ≤30 VDC with a 3 A maximum over current protection. Over current protection is not required when a Class 2 source is employed.		
Environment			
Applied standards	EN 61000-6-2 EN 61000-6-4 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	-5 °C ... +40 °C (up to max. 55 °C) ^{(1) (2) (3)}		
	If the cables are fixed installed: -30 °C ... +40 °C (up to max. 55 °C) ^{(1) (2) (3) (6)}		
	no condensation permissible		
Storage temperature	-25 °C ... +85 °C		
Housing	plastic, screw mounting		
Pollution degree	2		
Protection category	IP54		
Tolerable loading referring to humidity	according to EN 61131-2		
Weight	module: 200 g passive distributor: 75 g		
Dimensions (W / H / D) in mm	module: 90 / 60 / 18 passive distributor: 60 /45 /19		

(1)

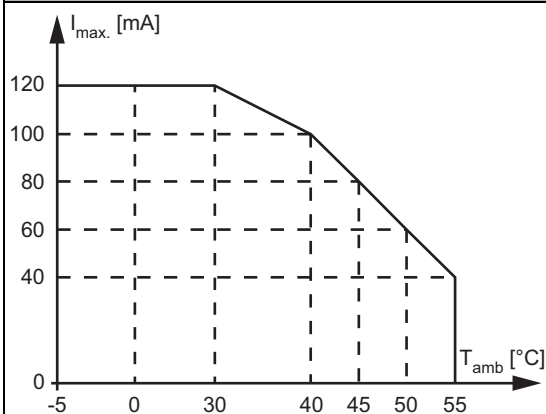
BWU3278, BWU3567, BWU3679 Max. current consumption out of AUX (Derating)



(2)

BWU3278, BWU3567, BWU3679

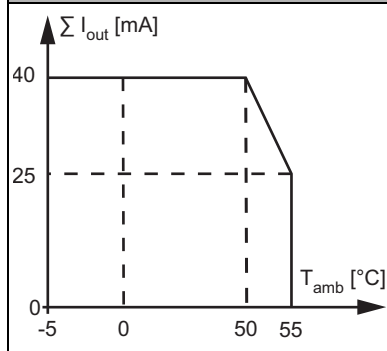
Power supply of attached sensors (Derating)



(3)

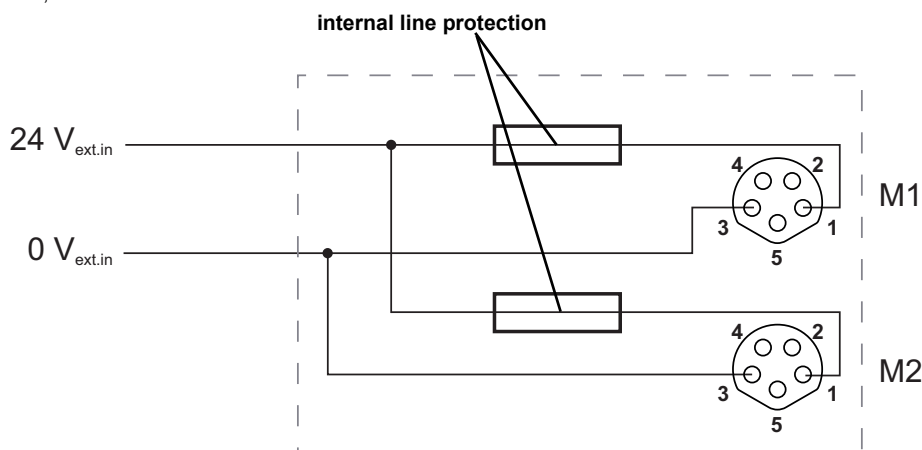
BWU3278, BWU3567, BWU3679

Total current of outputs (Derating)



- (4) 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.

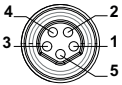
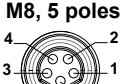
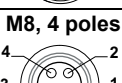


- (5) BWU3278 from Ident. No. 16988; BWU3567 from Ident. No. 16990; the module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.
- (6) -30 °C from Ident.No. ≥16382 (BWU3278)

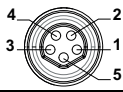
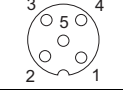
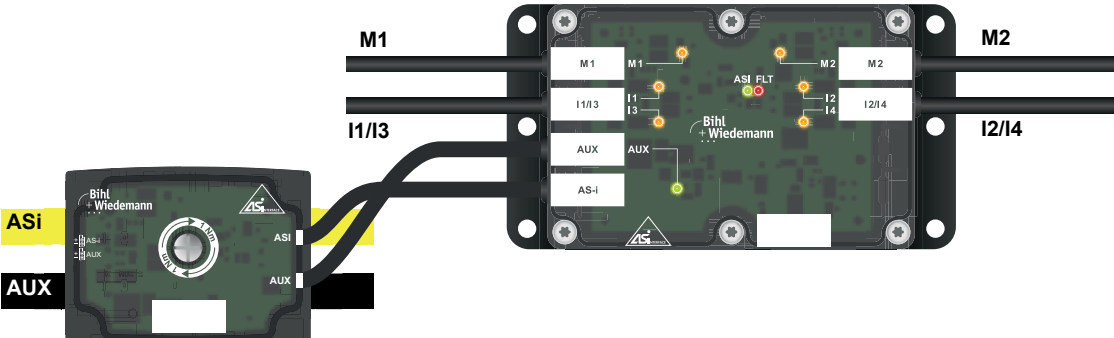
Configuration analog value BWU3278, BWU3567, BWU3679

ASi parameters			analog value Pin 5	
P0	P1	P2	DO1=1 (fast)	DO1=0 (slow)
0	0	0	1,5 V	0 V
1	0	0	3,5 V	1,5 V
0	1	0	4,5 V	2,5 V
1	1	0	5,5 V	2,5 V
0	0	1	6,5 V	3,5 V
1	0	1	7,5 V	3,5 V
0	1	1	8,5 V	4,5 V
1	1	1	10 V	5,5 V

Programming	ASi bit assignment			
	D3	D2	D1	D0
	Input			
BWU3278. BWU3567, BWU3679	I4	I3	I2	I1
	Output			
BWU3278. BWU3567, BWU3679	Direction M1/M2	Start/Stop M2	M1/M2: fast (DO1=1) / slow (DO1=0)	Start/Stop M1

Article No.	Connection	Name / Number	Cable length	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3278	M8, 5 poles 	M1 (Motor 1)	40 cm	24 V _{ext out}	O2 (0: 0 V; 1: 24 V)	0 V _{ext out}	O1 (0: 0 V; 1: 24 V)	analog value
		M2 (Motor 2)			O4 (0: 0 V; 1: 24 V)		O3 (0: 0 V; 1: 24 V)	analog value
	M8, 4 poles 	I1/I3	6 cm	24 V _{out of ASi}	I3	0 V _{out of ASi}	I1	-
		I2/I4			I4		I2	
BWU3567	M8, 5 poles 	M1 (Motor 1)	40 cm	24 V _{ext out}	O2 (0: 0 V; 1: 24 V)	0 V _{ext out}	O1 (0: 0 V; 1: 24 V)	analog value
		M2 (Motor 2)			O4 (0: 0 V; 1: 24 V)		O3 (0: 0 V; 1: 24 V)	analog value
	M8, 4 poles 	I1/I3	40 cm	24 V _{out of ASi}	I3	0 V _{out of ASi}	I1	-
		I2/I4			I4		I2	
BWU3278, BWU3567, BWU3679	ASi (YE)  1 + (BN) - (BU) AUX (BK)  2 + (BN) - (BU) ASi and AUX via profile cable							
	ASi AUX ASi AUX M1 I1/I3 AUX AS-1 M1 I1 I3 AUX ASI FLT Bihl + Wiedemann M2 I2 I4 I2/I4 M1 I1/I3 AUX AS-1 M2 I2 I4 I2/I4							

Cable Duct ASi Motor Modules, 2M/4I

Article No.	Connection	Name / Number	Cable length	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3679	M8, 5 poles 	M1 (Motor 1)	40 cm	24 V _{ext out}	O2 (0: 0 V; 1: 24 V)	0 V _{ext out}	O1 (0: 0 V; 1: 24 V)	analog value
		M2 (Motor 2)			O4 (0: 0 V; 1: 24 V)		O3 (0: 0 V; 1: 24 V)	analog value
	M12, 5 poles 	I1/I3	6 cm	24 V _{out of ASi}	I3	0 V _{out of ASi}	I1	-
		I2/I4			I4		I2	
BWU3278, BWU3567, BWU3679	ASi (YE)  1 + (BN) - (BU) AUX (BK)  2 + (BN) - (BU) ASi and AUX via profile cable							
								

Accessories:

- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)