

## 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 channels

Inputs and Outputs in one module

Speed setting via ASi parameters



Figure	Drive <sup>(1)</sup>	Number of drives	Line protection fuse <sup>(2)</sup>	Inputs digital	Outputs digital	Outputs analog	Input voltage (sensor supply) <sup>(3)</sup>	Output voltage (actuator supply) <sup>(4)</sup>	Connection	ASi connection <sup>(5)</sup>	Round cable	Article No.
	Itoh Denki	2	yes	4	4	2	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	<b>BWU3278</b>
	Itoh Denki	2	yes	4	4	2	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	<b>BWU3567</b>
	Itoh Denki	2	yes	4	4	2	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	<b>BWU3679</b>

(1) **Itoh Denki (PM500XE/XP, PM605XE/XP):**

Motor module to control 24 V motorized rollers Itoh Denki Serie Power Moller® 500XE/XP and Serie Power Moller® 605XE/XP.

(2) **yes, separately for each motor, 3,5 A (slow-blow 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 fuse the module is no longer functional and 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.

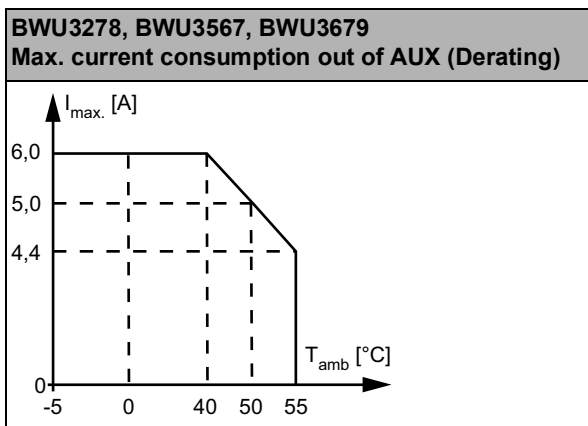
(5) **ASi connection:**

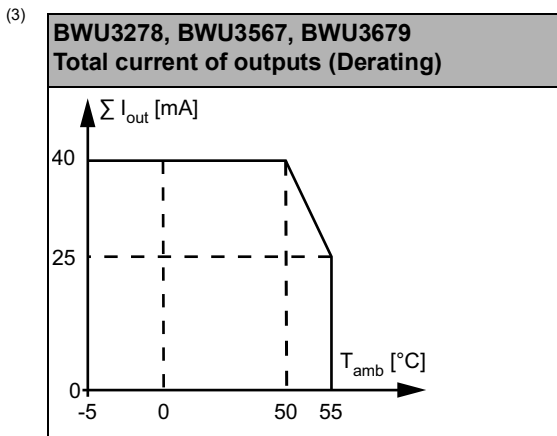
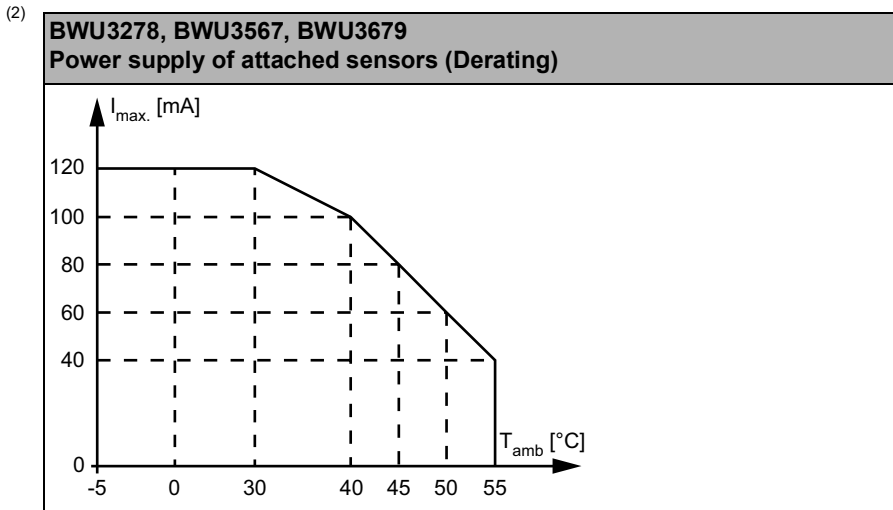
The connection to ASi as well to AUX (auxiliary 24 V power) is made via yellow resp. black ASi profile cable with piercing technology or via M8 socket.

Article No.	BWU3679		BWU3278		BWU3567	
<b>General data</b>						
Motorized roller type	2 x Itoh Denki (PM500XE/XP, PM605XE/XP)					
<b>Connection</b>						
ASi/AUX connection	profile cable and piercing					
Periphery connection	M8/M12		M8			
Cable	M1, M2: 0,4 m I1, I2: 0,06 m		M1, M2: 0,4 m I1, I2: 0,4 m		M1, M2: 0,4 m I1, I2: 0,06 m	
	passive distributors: 0,15 m					
	max. allowed tensile strain 10 N					
<b>ASi</b>						
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					
<b>AUX</b>						
Operating voltage	24 V (18 ... 30 V)					
Max. current consumption	up to +40 °C	6 A continuously, 11 A peak <sup>(1)</sup>				
	at +55 °C	4,4 A continuously, 8 A peak <sup>(1)</sup>				
<b>Input</b>						
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 <sup>(2)</sup>				
	at +40 °C	100 mA <sup>(2)</sup>				
	at +50 °C	60 mA <sup>(2)</sup>				
	at +55 °C	40 mA <sup>(2)</sup>				
Switching threshold	U <sub>in</sub> < 5 V (low) U <sub>in</sub> > 10 V (high)					
<b>Output</b>						
Number (digital)	4					
	short-circuit and overload protected according to EN 61131-2					
Number (analog)	2					
Power supply	out of AUX (galvanic separation)					
Overvoltage tolerated by reaction (AUX)	35 V resistant brake resistor compatible					
Max. output current	up to +50 °C	10 mA per output, ∑ (out) 40 mA <sup>(3)</sup>				
	at +55 °C	10 mA per output, ∑ (out) 25 mA <sup>(3)</sup>				
Motor supply	up to +40 °C	out of AUX, 3 A continuously, 5,5 A max. <sup>(1)</sup>				
	at +55 °C	out of AUX, 2,2 A continuously, 4 A max <sup>(1)</sup>				
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 <sup>(4)</sup>					

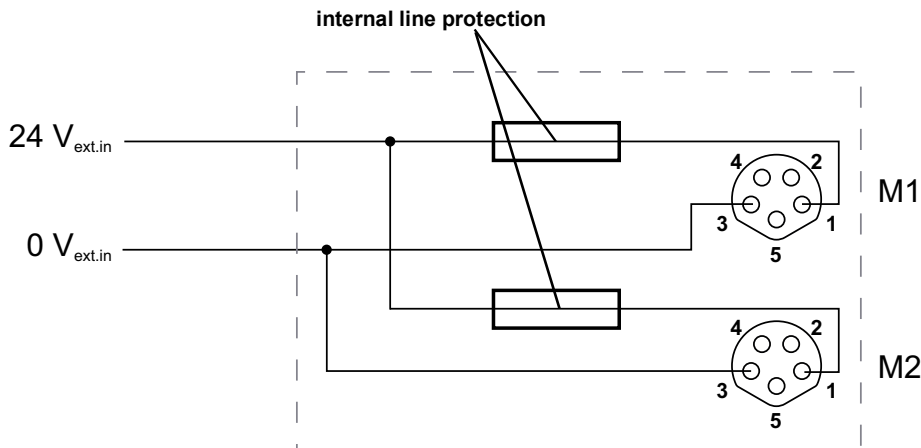
Article No.	BWU3679	BWU3278	BWU3567
<b>Display</b>			
LED I1 ...I4 (yellow)	state of inputs I1 ... I4		
LED M1, M2 (yellow)	state of outputs M1 (O1), M2 (O3)		
LED ASI (green)	on: ASi voltage on off: no ASi voltage		
LED AUX (green)	on: 24 V <sub>DC</sub> AUX off: no 24 V <sub>DC</sub> AUX		
LED FLT/FAULT (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		
<b>UL-specifications (UL 61010-1 and UL 61010-2-201)</b>			
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.		
<b>Environment</b>			
Applied standards	EN 61000-6-2 EN 61000-6-4 EN 61131-2 EN 60529		
Can be used in passively safe paths up to SIL3/PLe	yes <sup>(5)</sup>		
Operating altitude	max. 2000 m		
Ambient temperature	-5 °C ... +40 °C (up to max. 55 °C) <sup>(1) (2) (3)</sup> If the cables are fixed installed: -30 °C ... +40 °C (up to max. 55 °C) <sup>(1) (2) (3) (6)</sup> 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)





(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 fuse the module is no longer functional and 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 passively safe paths because an exclusion of errors can be assumed for the connection of the two potentials, ASi and AUX.

(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

## Bit assignment BWU3278, BWU3567, BWU3679

Data bit		Function
DI0	I1	input I1
DI1	I2	input I2
DI2	I3	input I3
DI3	I4	input I4
DO0	O1	motor 1: start / stop
DO1	internal	motors 1+2: fast (DO1=1) / slow (DO1=0)
DO2	O3	motor 2: start / stop
DO3	O2, O4	motors 1+2: direction

Article No.	Connection	Name / Number	Cable length	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3278		M1 (Motor 1)	40 cm	24 V <sub>ext out</sub>	O2 (0: 0 V; 1: 24 V)	0 V <sub>ext out</sub>	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
BWU3278, BWU3567, BWU3679		I1/I3	6 cm	24 V <sub>out of ASi</sub>	I3	0 V <sub>out of ASi</sub>	I1	-
		I2/I4			I4		I2	
<p>ASi (YE)  1 + (BN) - (BU) <b>ASi and AUX via profile cable</b></p> <p>AUX (BK)  2 + (BN) - (BU)</p>								

Article No.	Connection	Name / Number	Cable length	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3567	<b>M8, 5 poles</b> 	M1 (Motor 1)	40 cm	24 V <sub>ext out</sub>	O2 (0: 0 V; 1: 24 V)	0 V <sub>ext out</sub>	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
	<b>M8, 4 poles</b> 	I1/I3	40 cm	24 V <sub>out of ASi</sub>	I3	0 V <sub>out of ASi</sub>	I1	-
		I2/I4			I4		I2	
BWU3679	<b>M8, 5 poles</b> 	M1 (Motor 1)	40 cm	24 V <sub>ext out</sub>	O2 (0: 0 V; 1: 24 V)	0 V <sub>ext out</sub>	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
	<b>M12, 5 poles</b> 	I1/I3	6 cm	24 V <sub>out of ASi</sub>	I3	0 V <sub>out of ASi</sub>	I1	-
		I2/I4			I4		I2	
BWU3278, BWU3567, BWU3679	<b>ASi and AUX via profile cable</b> ASi (YE)  1 + (BN) / - (BU) AUX (BK)  2 + (BN) / - (BU)							

**Accessories:**

- ASi-5/ASi-3 Address Programming Device (art. no. BW4708)