

ASi Cable Duct Motor Module for 24 V motorized rollers

Cable Duct ASi Motor Modules for 2 x 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

Speed setting via ASi parameters

Protection category IP54



Figure	Drive ⁽¹⁾	Number of drives	Line protection fuse ⁽²⁾	Inputs digital	Input voltage (sensor supply) ⁽³⁾	Output voltage (actuator supply) ⁽⁴⁾	Connection	ASi connection ⁽⁵⁾	Article No.
	Itoh Denki	2	yes	4	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	BWU4942

(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.

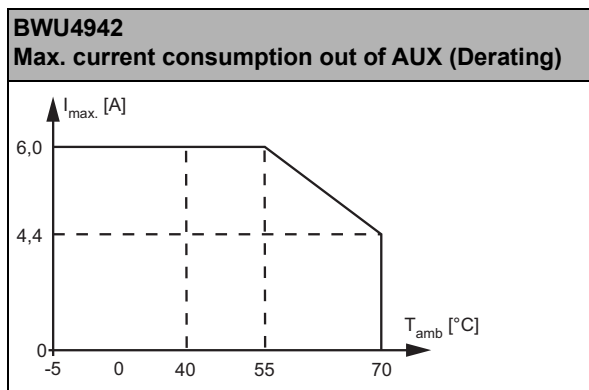
ASi Cable Duct Motor Module for 24 V motorized rollers

Article No.		BWU4942
General data		
Motorized roller type	2 x Itoh Denki (PM500XE/XP, PM605XE/XP)	
Connection		
ASi/AUX connection	profile cable and piercing technology	
Periphery connection	M: 2 x M8 cable sockets, straight, 5 poles + I: 2 x M12 cable sockets, straight, 5 poles	
Cable	M1, M2: 0,4 m I1/I2, I3/I4: 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	6 A continuously, 11 A peak ⁽¹⁾	
Input		
Number	4	
Power supply	out of ASi	
Sensor supply	short-circuit and overload protected according to EN 61131-2	
Power supply of attached sensors	up to +40 °C	120 mA ⁽²⁾
	at +55 °C	100 mA ⁽²⁾
	at +70 °C	80 mA ⁽²⁾
Switching threshold	U _{in} < 5 V (low) U _{in} > 10 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	up to +50 °C	10 mA per output, ∑ (out) 40 mA ⁽³⁾
	at +55 °C	10 mA per output, ∑ (out) 25 mA ⁽³⁾
	at +70 °C	10 mA per output, ∑ (out) 25 mA ⁽³⁾
Motor supply	up to +40 °C	out of AUX, per motor: 3 A continuously, 5,5 A max. ⁽¹⁾
	at +55 °C	out of AUX, per motor: 3 A continuously, 5,5 A max. ⁽¹⁾
	at +70 °C	out of AUX, per motor: 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⁾	

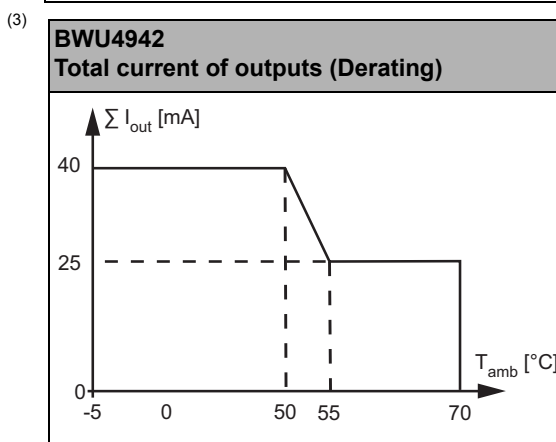
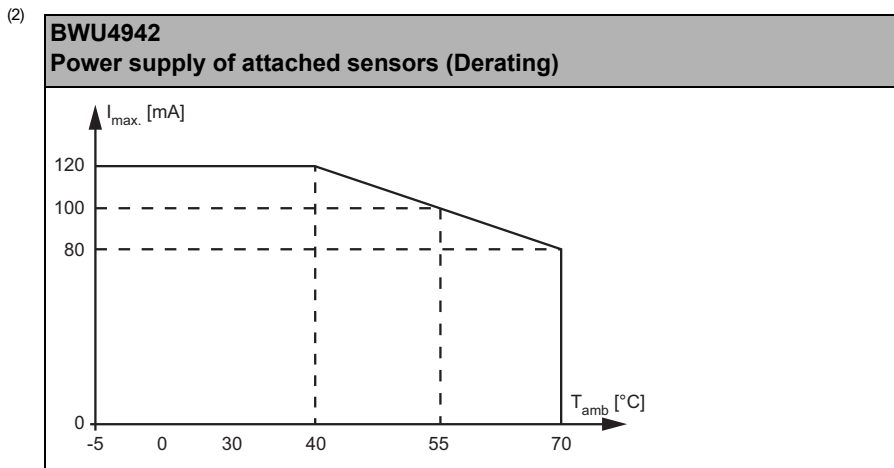
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Article No.	BWU4942
Display	
LED ASI (green)	on: ASi voltage on off: no ASi voltage
LED AUX (green)	on: 24 V _{DC} AUX and no motor fuse has tripped off: no 24 V _{DC} AUX and at least one motor fuse has tripped
LED FLT/FAULT (red)	on: no data exchange flashing: peripheral fault ⁽⁵⁾ off: data exchange ok
LED I1 ... I4 (yellow)	state of inputs I1 ... I4
LED M1, M2 (yellow)	state of outputs M1 (O1), M2 (O3)
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 ⁽⁶⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +70 °C ⁽¹⁾ ⁽²⁾ ⁽³⁾
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

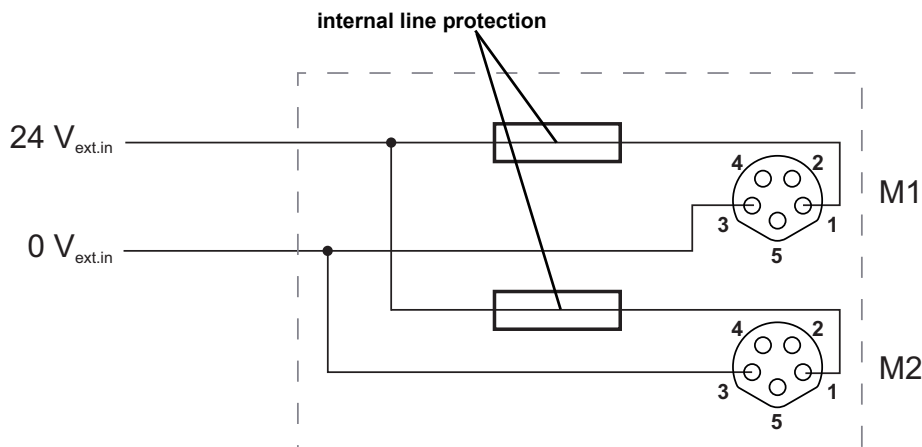
⁽¹⁾



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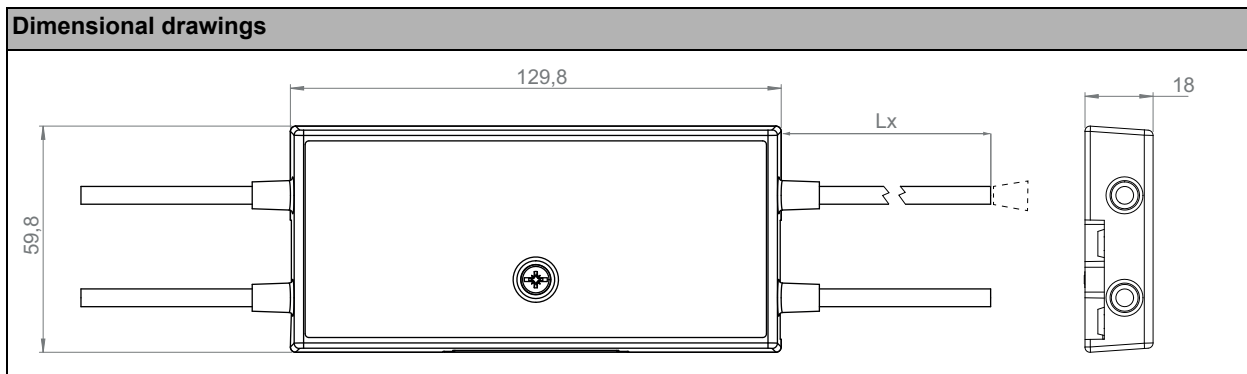


- (4) In the motor module UL approved fuses are placed before each of the motor supply connections. A short circuit in the motor causes this fuse to blow, protecting the connection cable between the module and motor. After blowing the not exchangeable fuse the module is no longer functional and the module 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) **see table "Peripheral fault indication".**
- (6) 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.

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Article no.	Peripheral fault indication			
	Overload output	AUX voltage missing	Overload sensor supply	at least 1 motor fuse is blown
BWU4942	•	•	•	•

Configuration analog value BWU4942

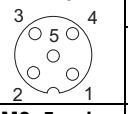
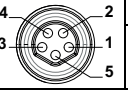


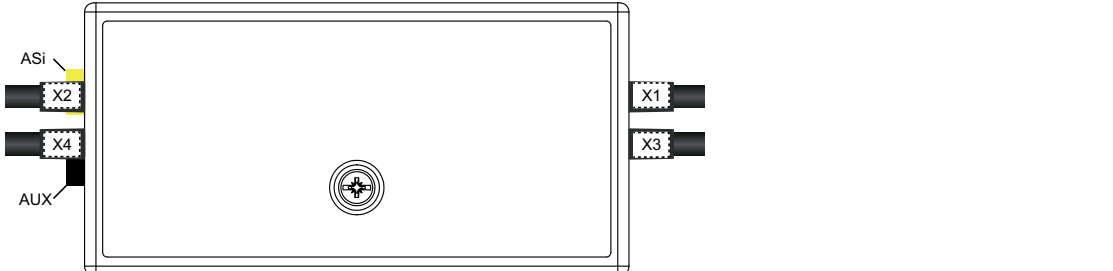
ASi parameters			analog value Pin 5	
P0	P1	P2	DO1=1 (fast)	DO1=0 (slow)
0	0	0	1,5 V	0 V
1	0	0	3,5 V	1,5 V
0	1	0	4,5 V	2,5 V
1	1	0	5,5 V	2,5 V
0	0	1	6,5 V	3,5 V
1	0	1	7,5 V	3,5 V
0	1	1	8,5 V	4,5 V
1	1	1	10 V	5,5 V

Programming (ASi bit assignment)

Article no.	Byte	bit			
		D3	D2	D1	D0
		input			
BWU4942	0	I4	I3	I2	I1

Article no.	Byte	bit			
		D3	D2	D1	D0
		output			
BWU4942	0	CW M1 + M2	start/stopp M2	M1+M2: fast (DO1=1) / slow (DO1=0)	start/stopp M1

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Article No.	Connection	Name / Number	Cable length	Pin1	Pin2	Pin3	Pin4	Pin5	
BWU4942	M12, 5 poles 	X1	I3/I4	1 m	24 V _{out} of ASi	0 V _{out} of ASi	I4	I3	
		X2	I1/I2				I2	I1	
	M8, 5 poles 	X3	M2 (Motor 2)	0,4 m	24 V _{ext} out	0 V _{ext} out	CW M2	start/stopp M2	analog value
		X4	M1 (Motor 1)				CW M1	start/stopp M1	analog value
BWU4942	ASi and AUX via profile cable ASi (YE)  1 $\begin{matrix} + \text{ (BN)} \\ - \text{ (BU)} \end{matrix}$ AUX (BK)  2 $\begin{matrix} + \text{ (BN)} \\ - \text{ (BU)} \end{matrix}$								
									

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)