

ASi Cable Duct Motor Modules for 24 V Motorized Rollers, 2M/2I

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

- ASi and AUX via profile cable



(Figure similar)

Suitable for:

- 2 x 24 V motorized rollers Interroll (EC310)
- 2 x 24 V motorized rollers Itoh Denki (PM500XC/XK)
- 2 x 24 V motorized rollers Rulmecca (RDR BL-2)

Flat design, optimized for use in cable channels

Speed setting via ASi parameters



| Figure | Drive ⁽¹⁾ | Number of drives | Inputs digital | Input voltage (sensor supply) ⁽²⁾ | Output voltage (actuator supply) ⁽³⁾ | Line protection | Connection | Flat design, montage in cable duct possible | ASi connection ⁽⁴⁾ | Article No. |
|--------|--------------------------------|------------------|----------------|--|---|--|---|---|-------------------------------|----------------|
| | Interroll, Itoh Denki, RULMECA | 2 | 2 | out of ASi | out of AUX | yes, separately for each motor, 3,5 A (slow-blow fuse) | 2 x M8 cable sockets, straight, 5 poles + 2 x M12 cable sockets, straight, 5 poles | yes | ASi profile cable | BWU3813 |

(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) 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.

(3) 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.

(4) 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. | BW3813 |
|----------------------|---|
| General data | |
| Roller drives | 2 x Interroll (EC310) or 2 x Itoh Denki (PM500XC/XK) or 2 x RULMECA (RDR BL-2) |
| 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: 0,6 m I1, I2: 1,0 m |
| | passive distributors: 0,15 m |
| | max. allowed tensile strain 10 N |

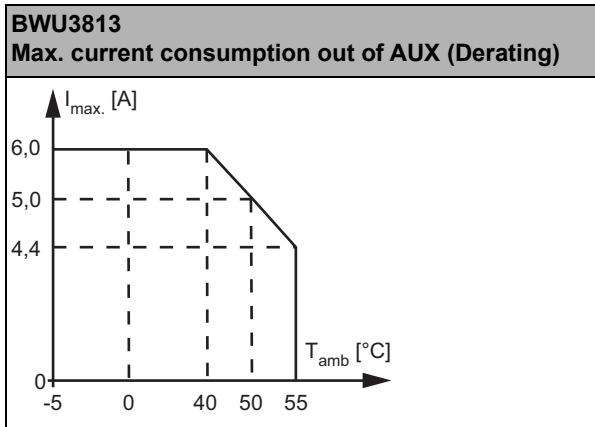
ASi Cable Duct Motor Modules for 24 V Motorized Rollers, 2M/2I

| | | |
|--|--|---|
| Article No. | BW3813 | |
| 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 ⁽¹⁾ |
| | at +55 °C | 4,4 A continuously, 8 A peak ⁽¹⁾ |
| Input | | |
| Number | 2 (I1, I2) | |
| Power supply | 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} > 15 V (high) | |
| Drive | | |
| Number | 2 (I3, I4, O1 ... O4) | |
| 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 A (slow blow fuse), at 7 A (200%) release between 1 s and 120 s, fuse UL certified ⁽⁴⁾ | |
| Display | | |
| LED I1 ...Ix (yellow) | state of inputs I1, I2 | |
| 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 V _{DC} with a 3 A maximum over current protection. Over current protection is not required when a Class 2 source is employed. | |

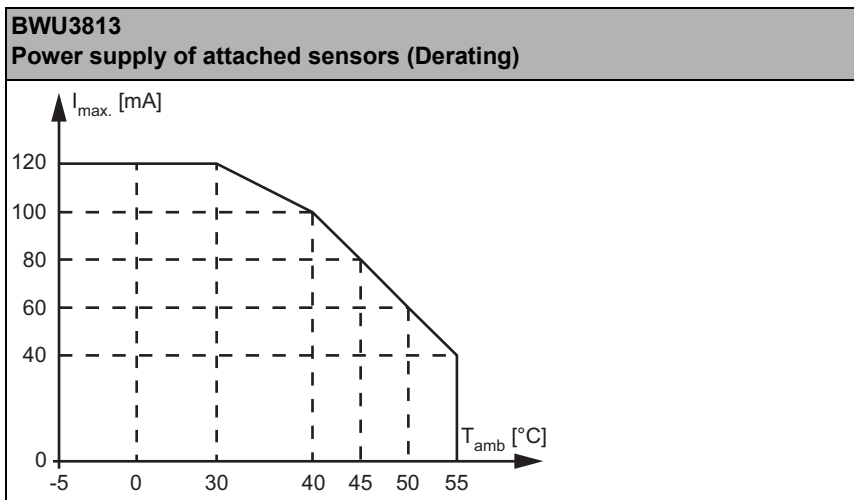
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| | |
|--|---|
| Article No. | BW3813 |
| Environment | |
| Applied standards | EN 61000-6-2 EN 61000-6-4 EN 61131-2 EN 60529 |
| It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe | no ⁽⁵⁾ |
| Operating altitude | max. 2000 m |
| Ambient temperature | -5 °C ... +40 °C (up to +55 °C) ^{(1) (2) (3)} |
| | If the cables are fixed installed, an operating temperature up to -20 °C ... +40 °C is permissible ^{(1) (2) (3)} |
| | no condensing allowed |
| Storage temperature | -25 °C ... +85 °C |
| Housing | plastic, screw mounting suitable for cable ducts (installation depth ≥ 19 mm) |
| 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 |

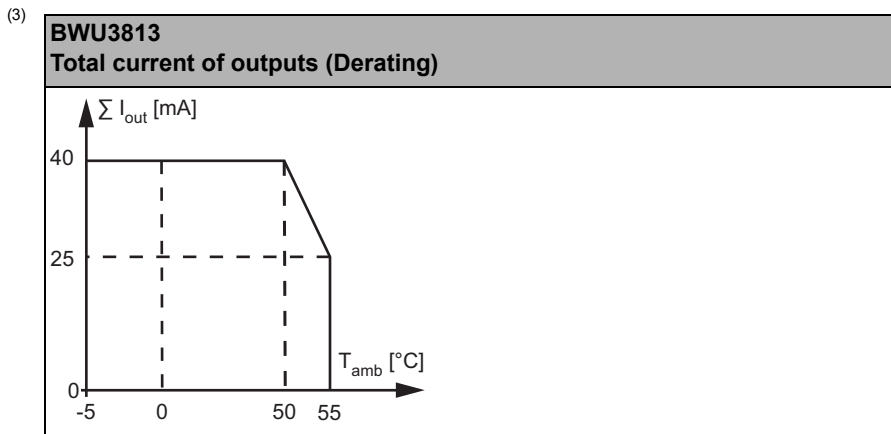
(1)



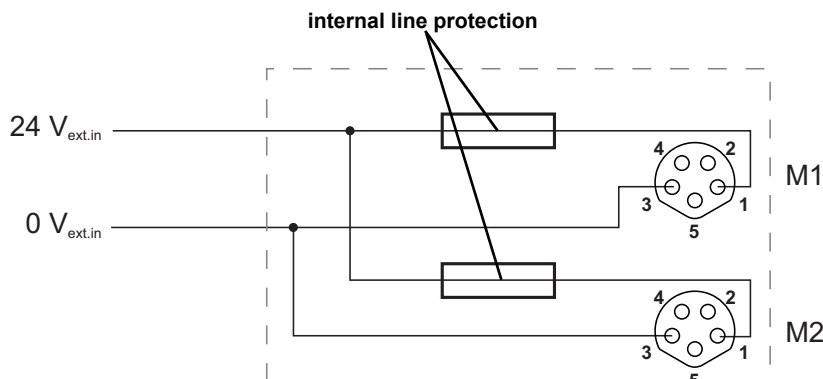
(2)



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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.



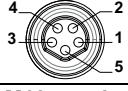
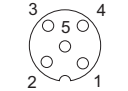
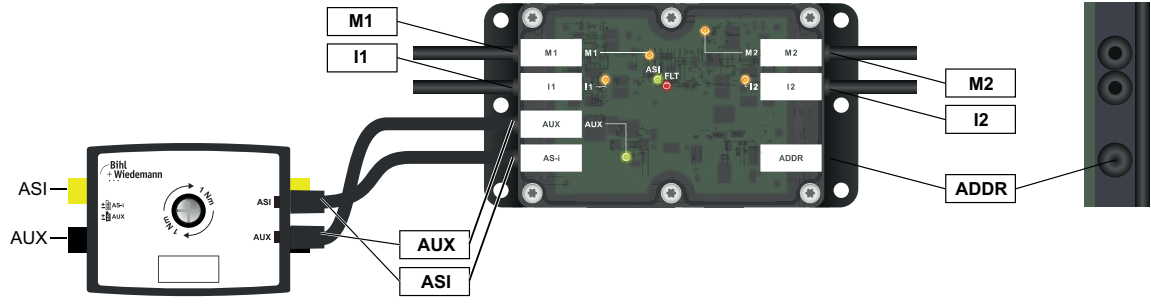
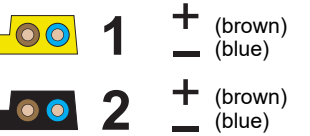
- (5) The module is not suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors cannot be assumed for the connection of the two ASi and AUX potentials.
If the module is supplied from an unswitched AUX cable, this has no influence on the safety consideration for the paths with passively safe-switched AUX cable. In an ASi circuit, paths supplied from a passively safe-switched AUX cable and paths supplied from unswitched AUX potential can be used together.

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| Configuration analog value BWU3813 | | | | |
|------------------------------------|----|----|-------|--------------------|
| 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 |

| Programmierung | ASi Bit assignment | | | |
|----------------|--------------------------|----------------|--------------------------|---------------|
| | D3 | D2 | D1 | D0 |
| | input | | | |
| BWU3813 | Motor Error M2 | Motor Error M1 | I2 | I1 |
| | output | | | |
| BWU3813 | direction of rotation M2 | Start/Stop M2 | direction of rotation M1 | Start/Stop M1 |

ASi Cable Duct Motor Modules for 24 V Motorized Rollers, 2M/2I

| Connections BWU3813 | | | | | | |
|---|---------------------|--------------------------------------|-------------------------|---------------------------|-------------------------|--------------------|
| Connection | Name / Number | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 |
| M8, 5 poles  | M1 (Motor 1) | 24 V _{ext out} | O2 (0: 0 V; 1: 24 V) | 0 V _{ext out} | I3 (0: 0 V; 1: 24 V) | analog value O1 |
| | M2 (Motor 2) | 24 V _{ext out} | O4 (0: 0 V; 1: 24 V) | 0 V _{ext out} | I4 (0: 0 V; 1: 24 V) | analog value O3 |
| M12, 5 poles  | I1 | 24 V _{out of ASi} | n.c. | 0 V _{out of ASi} | I1 | n.c. |
| | I2 | 24 V _{out of ASi} | n.c. | 0 V _{out of ASi} | I2 | n.c. |
| ADDR (protection cap) | | connection for ASi-3 addressing plug | | | | |
|  | | | | | | |
|  <p>ASI and AUX via profile cable</p> | | | | | | |

Accessories:

- Connection cable for ItohDenki Motor Rollers, M12 cable plug, straight, 5 poles to M8 snap-in cable socket, straight, 5 poles, cable length 2 m (art. no. BW2755)
- Connection cable for ItohDenki Motor Rollers, M12 cable plug, straight, 5 poles to M8 snap-in cable socket, straight, 5 poles, cable length 1,2 m (art. no. BW3030)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)