

Active Distributor ASi-5, IP67, 1RGB/RGBW LED Stripe

2 x connectors for profile cable

Periphery connection via 1 x round cable/
connecting wires

To control 1 x LED stripe



(Figure similar)



Figure	Type	Inputs digital	Outputs digital	Input voltage (sensor supply) ⁽¹⁾	Output voltage (actuator supply) ⁽²⁾	ASi connection ⁽³⁾	Connection ⁽⁴⁾	ASi address ⁽⁵⁾	Special function	Art. no.
	IP67, depth 35 mm	–	1 x RGB/RGBW LED stripe	–	out of AUX (5 V)	ASi profile cable	1 x round cable/ connecting wires	1 ASi-5 address	To connect RGB/RGBW LED stripe to ASi	BWU4101

- (1) **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.
- (2) **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
- (3) **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.
- (4) **Connection:** further connection options are available on request.

M12 cable socket, angled	M12 cable socket, straight	M8 cable socket, straight	round cable / connecting wires	Push in terminals
PUR line: oil resistant				

- (5) **ASi address:** AB addresses (max. 62 AB addresses/ASi network), 2 AB addresses (max. 31 modules with 2 AB addresses), Single addresses (max. 31 Single addresses/ASi network), ASi-5 address (max. 62 ASi-5 addresses/ASi network), mixed use allowed. Upon request, ASi-3 nodes are available with specific ASi node profiles. For modules with two ASi-3 nodes the 2nd ASi-3 node is turned off as long as the 1st ASi-3 node is addressed to address "0".

Active Distributor ASi-5, IP67, 1RGB/RGBW LED Stripe

Article No.		BWU4101
Connection		
ASi/AUX connection	profile cable and piercing technology	
Periphery connection	1 x round cable/connecting wires	
Round cable	0,2 m	
	max. allowed tensile strain 10 N	
ASi		
Address	1 ASi-5 address	
Operating voltage	30 V (18 ... 31.6 V)	
As of ASi specification	ASi-5	
Max. current consumption	35 mA	
Max. current consumption without sensor/ actuator supply	35 mA	
AUX		
Operating voltage	12 ... 30 V	
Max. current consumption	1 A (24 V) / 1,8 A (12 V)	
Output		
Number	1 x RGB/RGBW LED stripe	
Max. number of LEDs	256	
Bytes / LEDs	3 (RGB) or 4 (RGBW)	
Actuator supply	5 V out of AUX, short-circuit and overload protected, acc. EN 61131-2	
Max. output current	up to +40 °C	2 A out of 5 V
	at +60 °C	1,6 A
	at +70 °C	1,2 A
Display		
LED ASi/FLT (red/green)	green: AS-i voltage on, online green/red: ASi voltage on, but offline green flashing/red: address 0 alternating green flashing/red flashing: peripheral fault ⁽¹⁾ off: no ASi voltage	
LED AUX (green)	AUX supply ok	
LED 5 V (green)	on: 5 V actuator supply on flashing: overload/short circuit off: 5 V actuator supply off	
Environment		
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131-2 EN 60529	
Can be used in passively safe paths up to SIL3/PLe	yes ⁽²⁾	
Operating altitude	max. 2000 m	
Ambient temperature	-30 °C ... +60 °C ⁽¹⁾⁽³⁾	
Storage temperature	-25 °C ... +85 °C	
Housing	plastic, for screw mounting, suitable for cable ducts (≥35 mm installation depth)	
Pollution degree	2	
Protection category	IP67 ⁽⁴⁾	
Maximum tolerable shock and vibration stress	≤15g, T≤11 ms 10 ... 55 Hz, 0,5 mm amplitude	
Insulation voltage	≥500 V	
Weight	100 g	
Dimensions (W / H / D) in mm	60 / 45 / 35	

⁽¹⁾ see table "Peripheral fault indication"

⁽²⁾ 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.

⁽³⁾ Down to -25 °C with flexibly mounted cable, -30 °C only with fixed mounted cable.

Active Distributor ASi-5, IP67, 1RGB/RGBW LED Stripe

⁽⁴⁾ Protection category IP67 can only be achieved, if also the cable connector fulfills IP67

Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU4101	-	•	•

Programming: ASi bit assignment

Profile Nb:	Byte	Bit							
		D7	D6	D5	D4	D3	D2	D1	D0
		Output							
0x820110 (RGB)	0	RL-DIR	RL-CONT	RL	Flash	Mode	Freeze		
	1	First (UInt8)							
	2	Last (UInt8)							
	3	Red (UInt8)							
	4	Green (UInt8)							
	5	Blue (UInt8)							
0x820111 (RGBW)	0	RL-DIR	RL-CONT	RL	Flash	Mode	Freeze		
	1	First (UInt8)							
	2	Last (UInt8)							
	3	Red (UInt8)							
	4	Green (UInt8)							
	5	Blue (UInt8)							
	6	White (UInt8)							

Legend


Bit-Name	Values	Meaning
FIRST	0-255	First LED in the range to be activated
LAST	0-255	Last LED in the range to be activated
Red	0-255	Intensity of the red color
Green	0-255	Intensity of the green color
Blue	0-255	Intensity of the blue color
White	0-255	Intensity of the white color
Freeze	0	Apply current color values from the cyclic channel
	1	Freeze current color values
MODE	0	The LEDs in the addressed range change their color value, the rest is off
	1	The LEDs in the addressed range change their color value, the rest stays on the last value
FLASH	00	Continuously lit
	01	Flash 1
	10	Flash 2
	11	Flash 3
RL	0	Running light deactivated
	1	Running light activated; running light of the set RGB values from cyclic channel; other parameters are set acyclically
RL-CONT	0	Running light once only
	1	Continuous running light
RL-DIR	00	Running light direction from first LED forwards
	01	Running light direction from last LED backwards
	10	Running light moves back and forth

Active Distributor ASi-5, IP67, 1RGB/RGBW LED Stripe

Pin assignment

Signal	Description
D _{out}	Communication to control the individual LEDs on the strip
5 V _{ext out}	Power supply, out of external voltage, positive pole (AUX)
0 V _{ext out}	Power supply, out of external voltage, negative pole (AUX, acuator supply)
24 V _{ext in}	External power supply, input, positive pole
0 V _{ext in}	External power supply, input, negative pole
ASi +, ASi -	Connection to ASi bus
n.c. (not connected)	Not connected

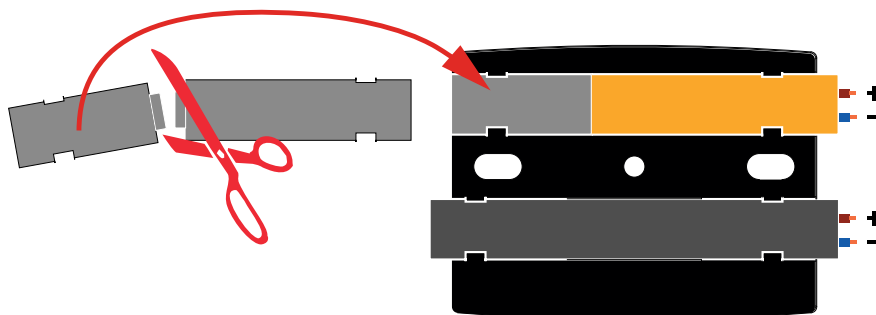
Connections: round cable/connecting wires

Artikel Nr.	Anschluss	BN	BU	BK	
BWU4101	X1	5 V _{ext out}	D _{out}	0 V _{ext out}	

Line termination with sealing profile



max. IP54



Accessories:

- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4708)