

## New standard ASi-5

ASi-5 – Great data bandwidth, short cycle times

Compatible with ASi modules of all ASi generations

8 Outputs



(figure similar)



Figure	Inputs digital	Outputs digital	M12 connection <sup>(1)</sup>	Input voltage (sensor supply) <sup>(2)</sup>	Output voltage (actuator supply) <sup>(3)</sup>	ASi connection <sup>(4)</sup>	ASi address <sup>(5)</sup>	Max. output current	Art. no.
	–	8 x electronic	single	–	out of AUX	ASi profile cable	1 ASi-5 address	O1 ... O6: 1 A O7 ... O8: 2 A	<b>BWU3894</b>

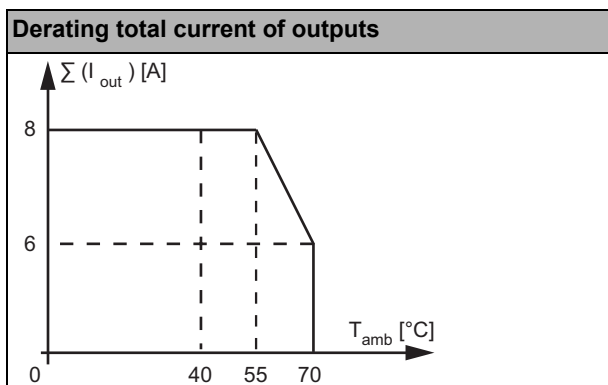
- (1) **M12 wiring:**  
**Single wiring:** 1 input or output per connection.  
**Y wiring:** 2 inputs or outputs per connection.  
**Mixed wiring:** 1 input and 1 output per connection.
- (2) **Input voltage (sensor supply):** inputs are supplied by ASi or by AUX (auxiliary 24 V power). If supplied by 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 M12 socket (in IP20 via clamps).
- (5) **ASi address:** AB address (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 nodes are available with specific ASi address profiles).

<b>Article No.</b>		<b>BWU3894</b>
<b>General data</b>		
Device type		output
<b>Connection</b>		
ASi/AUX connection		profile cable and piercing
Periphery connection		M12, single wiring
Length of connector cable		unlimited <sup>(1)</sup>
<b>ASi</b>		
Address		1 ASi-5 address
As of ASi specification		ASi-5
ASi process data width		1 byte
Operating voltage		30 V (18 ... 31.6 V)
Max. current consumption		70 mA
Max. current consumption without sensor/ actuator supply		70 mA
<b>AUX</b>		
Operating voltage		24 V (18 ... 30 V)
Max. current consumption		8 A
<b>Output</b>		
Number		8
Power supply		out of AUX
Output		short-circuit and overload protected according to EN 61131-2
Max. output current	up to +40 °C	O1 ... O6: 1 A per output, O7 ... O8: 2 A per output, $\Sigma(\text{Out})$ 8 A <sup>(2)</sup>
	at +55 °C	
	at +60 °C	O1 ... O6: 1 A per output, O7 ... O8: 2 A per output, $\Sigma(\text{Out})$ 6 A <sup>(2)</sup>
<b>Display</b>		
LED ASi (green)		on: ASi voltage on flashing: ASi voltage on, but peripheral fault <sup>(3)</sup> or address 0 off: no ASi voltage
LED FLT/FAULT (red)		on: ASi address 0 or ASi node offline flashing: peripheral fault <sup>(3)</sup> off: node online
LED AUX (green)		on: 24 V <sub>DC</sub> AUX off: no 24 V <sub>DC</sub> AUX
LEDs O1 ... On (yellow)		yellow: state of outputs O1 ... O8

<b>Article No.</b>	<b>BWU3894</b>
<b>Environment</b>	
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131-2 EN 60529
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes <sup>(4)</sup>
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +55 °C (up to max. +70 °C) <sup>(5)</sup>
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for screw mounting
Pollution degree	2
Protection category	IP67
Tolerable loading referring to humidity	according to EN 61131-2
Max. tolerable shock load	30g, 11 ms, acc. EN 61131-2
Max. tolerable vibration stress	5 ... 8 Hz 50 mm <sub>pp</sub> /8 ... 500 Hz 6g, acc. EN 61131-2
Insulation voltage	≥ 500 V
Weight	200 g
Dimensions (W / H / D) in mm	60 / 151 / 31

(1) Loop resistance ≤ 150 Ω

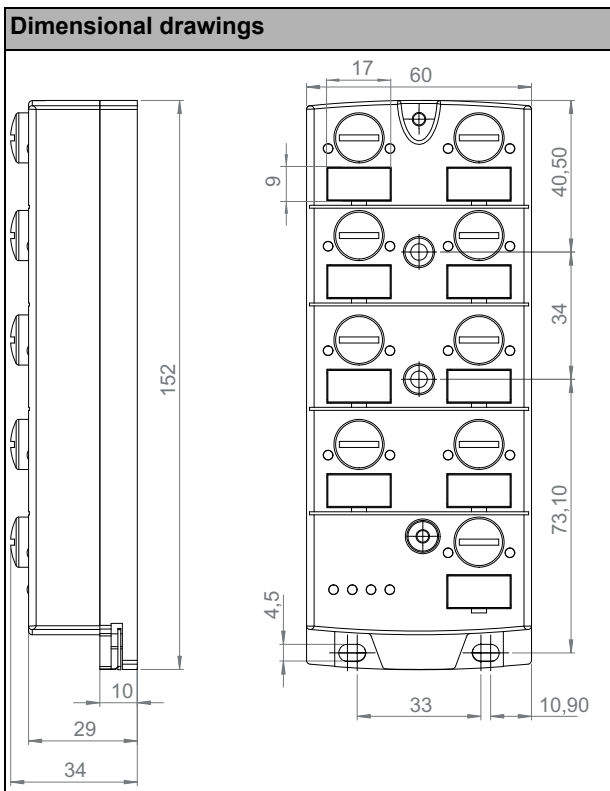
(2)



(3) See table "Peripheral fault indication"

(4) BWU3894 from ID no. 18283; 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.

(5) Maximum ambient operating temperature +55 °C according UL certificate for the use in the USA and Canada



Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3894	-	•	•

UL-specifications (UL508)	
<b>BWU3894</b>	
External protection	An isolated source with a secondary open circuit voltage of $\leq 30 V_{DC}$ with a 3 A maximum over current protection. Over current protection is not required when a Class 2 source is employed.
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices.

### Programming: ASi bit assignment

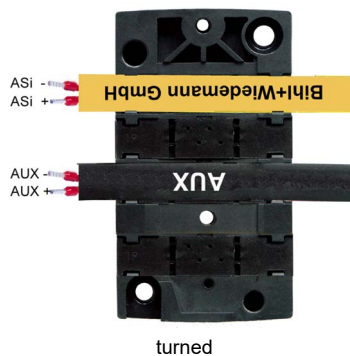
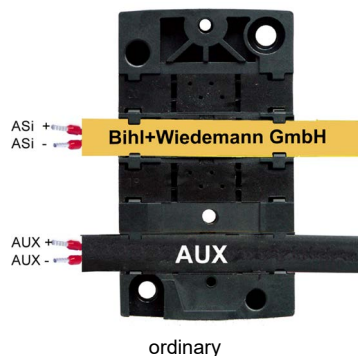
Article no.	Byte	Bit							
		D7	D6	D5	D4	D3	D2	D1	D0
		output							
BWU3894	0	O8	O7	O6	O5	O4	O3	O2	O1

### Pin assignment

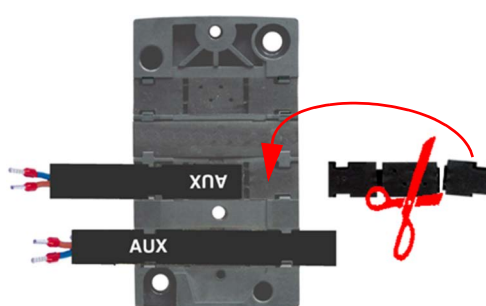
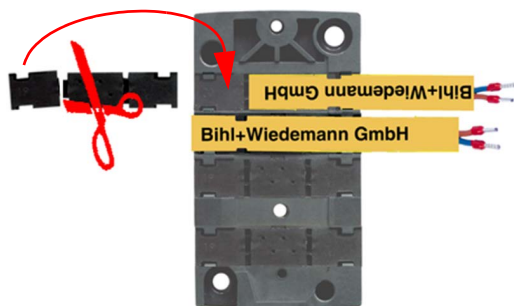
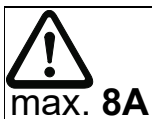
Signal name	Explanation
Ox	digital output x
24V <sub>ext out</sub>	power supply, out of external voltage, positive pole (AUX, actuator supply)
0V <sub>ext out</sub>	power supply, out of external voltage, negative pole (AUX, actuator supply)
ASi +, ASi -	connection to ASi bus
n.c. (not connected)	not connected

Connections							
Article no.	M12 connection	Marking	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3894	X1	O1	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O1	n.c.
	X2	O2	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O2	n.c.
	X3	O3	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O3	n.c.
	X4	O4	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O4	n.c.
	X5	O5	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O5	n.c.
	X6	O6	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O6	n.c.
	X7	O7	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O7	n.c.
	X8	O8	0 V <sub>ext out</sub>	n.c.	0 V <sub>ext out</sub>	O8	n.c.
	ADDR (protection cap)	connection for ASi-5 addressing plug					

### Mounting according to cable direction



### Line termination with sealing profiles / as junction



### Accessories:

- ASi Substructure Module in IP67 (art. no. BWU2351)
- ASi Substructure Module in IP67 (art. no. BWU3516)
- Universal protection cap ASi-5/ASi-3 for M12 sockets, IP67 (art. no. BW4056)
- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)