

New standard ASi-5

ASi-5 – Great data bandwidth, short cycle times

Compatible with slaves of all ASi generations

8 Outputs



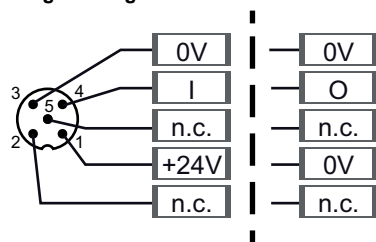
(figure similar)



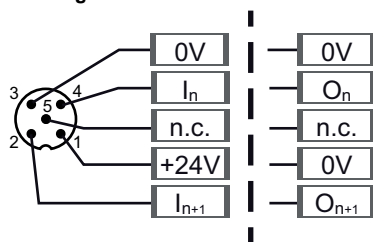
Figure	Type	Inputs digital	Outputs digital	M12 connection ⁽¹⁾	Input voltage (sensor supply) ⁽²⁾	Output voltage (actuator supply) ⁽³⁾	ASi connection ⁽⁴⁾	ASi address ⁽⁵⁾	Max. output current	Art. no.
	IP67, 8 x M12 ASi-5	–	8 x electronic	single	–	out of AUX	ASi profile cable	1 ASi-5 slave	O1 ... O6: 1 A O7 ... O8: 2 A	BWU3894

⁽¹⁾ **M12 wiring:** either as a single-wiring, Y-wiring or mixed-wiring.

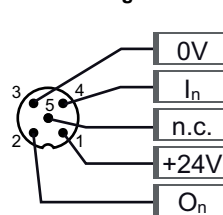
Single-wiring



Y-wiring



Mixed-wiring



⁽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.

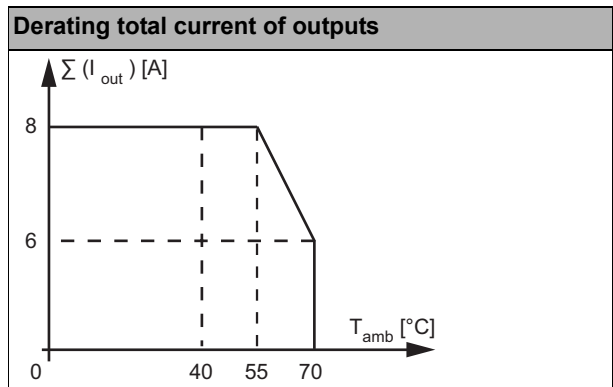
⁽⁴⁾ **ASi connection:** the connection to ASi as well to AUX (auxiliary 24 V power) is made via yellow resp. black ASi profile cable with piercing technology or via M12 socket (in IP20 via clamps).

⁽⁵⁾ **ASi address:** AB slave (max. 62 AB slaves/ASi network), 2 AB slaves (max. 31 modules with 2 AB slaves), single slaves (max. 31 single slaves/ASi network) ASi-5 slave (max. 62 ASi-5 slaves/ASi network), mixed use allowed (upon request, slaves are available with specific ASi slave profiles).

Article No.		BWU3894
General data		
Device type		output
Connection		
ASi/AUX connection		profile cable and piercing
Periphery connection		M12, single wiring
Length of connector cable		unlimited ⁽¹⁾
ASi		
Address		1 ASi-5 slave
As of ASi specification		ASi-5
Operating voltage		30 V (18 ... 31.6 V)
Max. current consumption		70 mA
Max. current consumption without sensor/ actuator supply		70 mA
AUX		
Operating voltage		24 V (18 ... 30 V)
Max. current consumption		8 A
Output		
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 ⁽²⁾
	at +55 °C	
	at +60 °C	O1 ... O6: 1 A per output, O7 ... O8: 2 A per output, $\Sigma(\text{Out})$ 6 A ⁽²⁾
Display		
LED ASI (green)		on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽³⁾ or address 0 off: no ASi voltage
LED FLT/FAULT (red)		on: slave address 0 or slave offline flashing: peripheral fault ⁽³⁾ off: slave online
LED AUX (green)		on: 24 V _{DC} AUX off: no 24 V _{DC} AUX
LEDs O1 ... On (yellow)		yellow: state of outputs O1 ... O8
Environment		
Applied standards		EN 61000-6-2 EN 61000-6-3 EN 61131-2 EN 60529
Passive safety (up to PLe/SIL 3)		yes ⁽⁴⁾
Operating altitude		max. 2000 m
Ambient temperature		-30 °C ... +55 °C (up to max. +70 °C) ⁽⁵⁾
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 _{pp} /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 $\leq 150 \Omega$

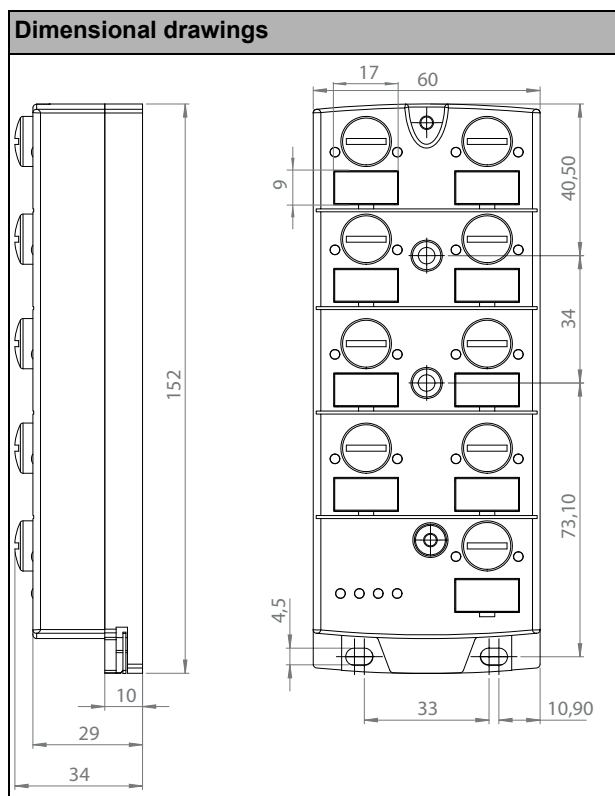
(2)



(3) See table "Peripheral fault indication"

(4) Exclusion of errors for the connection of the two ASi and AUX potentials can be assumed in the module. Passive safety for the application can only be achieved if this is ensured for all components used.

(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)	
BWU3894	
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

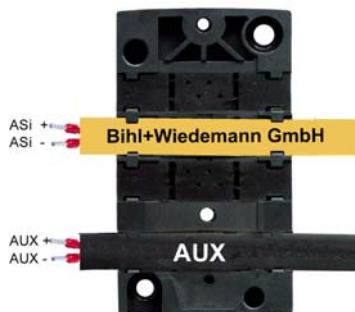
Pin assignment

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

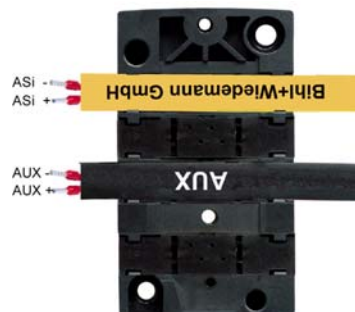
Connections

Article no.	M12 connection	Marking	Pin1	Pin2	Pin3	Pin4	Pin5
BWU3894	X1	O1	0 V _{ext out}	n.c.	0 V _{ext out}	O1	n.c.
	X2	O2	0 V _{ext out}	n.c.	0 V _{ext out}	O2	n.c.
	X3	O3	0 V _{ext out}	n.c.	0 V _{ext out}	O3	n.c.
	X4	O4	0 V _{ext out}	n.c.	0 V _{ext out}	O4	n.c.
	X5	O5	0 V _{ext out}	n.c.	0 V _{ext out}	O5	n.c.
	X6	O6	0 V _{ext out}	n.c.	0 V _{ext out}	O6	n.c.
	X7	O7	0 V _{ext out}	n.c.	0 V _{ext out}	O7	n.c.
	X8	O8	0 V _{ext out}	n.c.	0 V _{ext out}	O8	n.c.
	ADDR (dummy plug)	connection for ASi addressing device					

Mounting according to cable direction

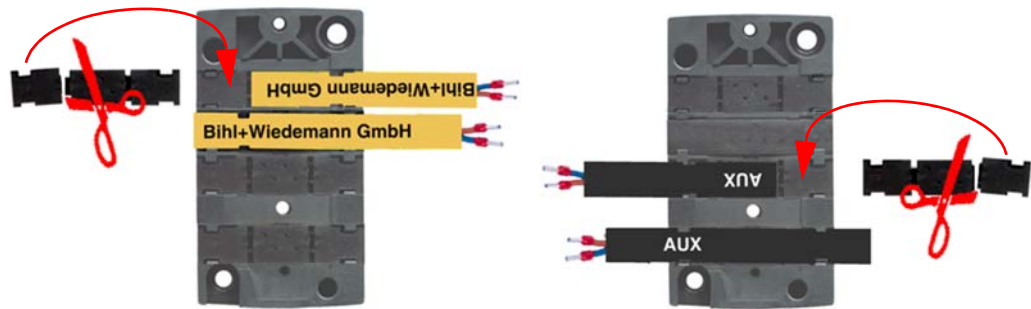


ordinary



turned

Line termination with sealing profiles / as junction



Accessories:

- ASi substructure module (CNOMO) for 8 channel module in 60 mm housing, screw mounting (art. no. BW2351)
- ASi substructure module (CNOMO) for 8 channel module in 60 mm housing, DIN rail mounting (art. no. BW3516)
- Protection caps for unused M12 sockets (art. no. BW2368)
- Protection caps for ASi-5 addressing socket (art. no. BW4056)
- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)