ASi-5 Digital Output Module in IP20, 22,5 mm

Cost efficient solution in IP20

New standard ASi-5

(Figure similar)

Figure	Type	Housing	Primary application (1)	Inputs digital	Outputs digital	Input voltage (sensor supply) (2)	Output voltage (actuator supply) (3)	ASi connection (4)	ASi address (5)	Article No.
	IP20, 22,5 mm x 114 mm, 6 x COMBICON, ASi-5	6 x COMBICON	control cabinet	–	16	–	out of AUX	clamps	1 ASi-5 address	**BWU3879**

(1) **Primary Application**
Control cabinet: Cost-optimized modules whereby the supply voltage for the sensors and actuators is connected via additional patch terminals. Optimal application in the main control cabinet.
Decentralized control cabinet: Ideal for use in decentralized control cabinets. 3-wire sensors or actuators can be connected directly to terminals in the module without additional patch terminals or the module has an extremely flat design.

(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.
For modules with two ASi nodes the second ASi node is turned off as long as the first ASi node is addressed to address "0".
Upon request, ASi nodes are available with specific ASi address profiles.

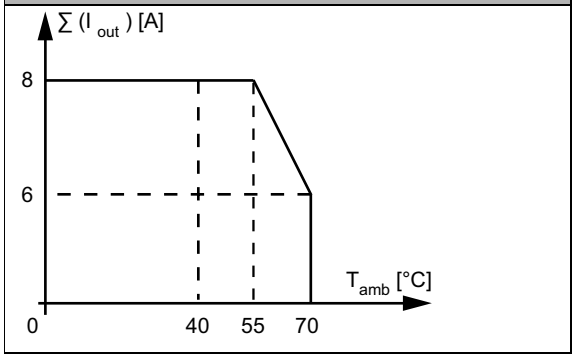
Article no.	BWU3879
General data	
Device type	output
Connection	
ASi / AUX connection	COMBICON plug
Periphery connection	COMBICON plug
Primary application	control cabinet
Length of connector cable	I/O: unlimited (1)
ASi	
Address	1 ASi-5 slave
Since ASi specification	ASi-5
Operating voltage	30 V (18 … 31.6 V)
Max. current consumption	70 mA
Max. current consumption without sensor/ actuator supply	70 mA
AUX	
Voltage	24 V (18 … 30 V)
Max. current consumption	8 A
Output	
Number	16
Power supply	out of AUX
Actuator supply	short-circuit and overload protected according to EN 61131-2
Max. current for actuator supply (GND via AUX-) up to 40 °C / at 55 °C	1 A per output (2), ∑(Out) 8 A (3)
Max. current for actuator supply (GND via AUX-) at 70 °C	0,5 A per output, ∑(Out) 6 A (3)
Switching threshold	U<5 V (low) U>15 V (high)
Display	
LED ASI (green)	on: ASi voltage on, flashing: ASi voltage on, but peripheral fault (4) or address 0 off: no ASi Voltage
LED FLT/FAULT (red)	an: ASi address 0 or ASi node offline flashing: peripheral fault (4) off: ASi node online
LEDs O1 ... On (yellow)	state of outputs O1 ... O16
LED AUX (green)	on: 24 V_{DC} AUX off: no 24 V_{DC} AUX
Environment	
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131 EN 60529
Can be used in passively safe paths up to SIL3/PLe	yes (5)
Operating altitude	max. 2000 m
Ambient temperature	-30 °C … +55 °C (up to max. +70 °C) (3) (6)
	no condensation permitted
Storage temperature	-25 °C … +85 °C
Housing	plastic, for DIN rail mounting
Pollution Degree	2
Protection category	IP20
Tolerable loading referring to humidity	according to EN 61131-2
Voltage of insulation	≥500 V
Weight	120 g
Dimensions (W / H / D in mm)	22,5 / 99 / 114

(1) Loop resistance ≤150 Ω

(2) If a higher output current is required to supply the actuators, two or more outputs can be connected in parallel. This requires the terminals of the respective outputs to be bridged, and the corresponding outputs in the control system to be switched on or off simultaneously.

(3)

BWU3879
Derating total current of outputs



(4) see table „Peripheral fault indication“

(5) 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.

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

Wiring rules

	Push-in Klemmen
Allgemein	
Nennquerschnitt	2,5 mm^2
Leiterquerschnitt	
Leiterquerschnitt starr	0,2 ... 2,5 mm^2
Leiterquerschnitt flexibel	0,2 ... 2,5 mm^2
Leiterquerschnitt flexibel, mit Aderenhülse	ohne Kunststoffhülse: 0,2 ... 2,5 mm^2
	mit Kunststoffhülse: 0,25 ... 2,5 mm^2
2 Leiter flexibles gleichen Querschnitts, flexibel, mit TWIN-Aderenhülsen	mit Kunststoffhülse: 0,5 ... 1,5 mm^2
AWG	24 ... 14
Abisolierlänge der Leitungen	10 mm

UL-specifications (UL508) **BWU3879**	
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.
In general	UL mark does not provide UL certification for any functional safety rating or aspects of the above devices.

Article no.	Peripheral fault indication		
	Overload sensor supply	Output short circuited	AUX voltage missing
BWU3879	–	•	•

Programming

Article no.	Byte	Bit							
		D7	D6	D5	D4	D3	D2	D1	D0
		output							
BWU3879	0	O8	O7	O6	O5	O4	O3	O2	O1
	1	O16	O15	O14	O13	O12	O11	O10	O9

Connections

Name	Explanation
Ox	digital output x
$AUX+_{ext.in}$	power supply, out of external voltage, positive pole
$AUX-_{ext.in}$	power supply, out of external voltage, negative pole
ASi+, ASi-	connection to ASi bus
ADDR	connection for ASi addressing device
n.c. (not connected)	not connected

Connections

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Power supply PNP

Outputs
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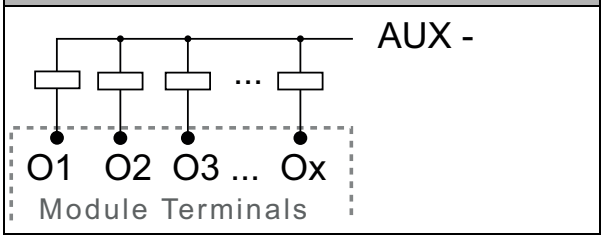

Accessories:

- **ASi-5/ASi-3 Address Programming Device (art. no. BW4708)**