ASi 8I/8O / ASi 16I/16O Module

ASi-3 Circuit Board Module 8I/8O
2 x 4I/4O AB Slaves (up to 62 slaves)

ASi-3 Circuit Board Module 16I/16O
4 x 4I/4O AB Slaves (up to 62 slaves)

Special variants on request



(Figure similar)

Figure	Circuit board dimensions (1)	Inputs digital	Outputs digital	Connection (2)	Coating (3)	LED status display (4)	Input voltage (sensor supply) (5)	Output voltage (actuator supply) (6)	ASi address (7)	Art.no.
	104 mm x 41 mm	8	8 x electronic	wiring pin, angled	coated	yes	out of ASi	out of ASi	2 AB slaves	**BW1899**
	93 mm x 51 mm	16	16 x electronic	wiring pin, angled	coated	yes	out of ASi	out of ASi	4 AB slave	**BW1901**

(1) **Circuit board dimensions**: 2 holes for assembly angles.

(2) **Connection**: further connection options are available on request.

wiring pin


(3) **Coating**: coating protects components and circuit boards when touched.

thin coated	thick coated
	

(4) **LED status display**: status of in- and outputs is indicated by LEDs. In addition to that, both ASi LEDs (PWR green and FAULT red) show - as usual regarding the ASi slaves - the status of the ASi slaves. Uaux is indicated by a green LED.

(5) **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.

(6) **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.

(7) **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), mixed use allowed.
For modules with several slave addresses, all slaves addressed to address "0" are turned off.
Upon request, slaves are available with specific ASi Slave profiles.

Article no.	BW1899	BW1901
Connection		
ASi / peripheral connection	wiring pins, angled	
Length of connector cable	I/O: max. 1,5 m (1)	
ASi		
Profile	S-7.A.7, ID1=7 (fixed)	
Address	2 AB slaves	4 AB slaves
Required Master Profile	≥M4	
Since ASi specification	3.0	
Operating voltage	30 V (18 ... 31,6 V)	
Max. current consumption	≤400 mA	≤500 mA
Max. current consumption without sensor/actuator supply	≤65 mA	≤130 mA
Inputs digital		
Number	8	16
Power supply	out of ASi	
Input level	I_{in} <0,3 mA low, I_{in} >2 mA high	
Outputs digital		
Number	8	16
Power supply	out of ASi	
Max. current consumption	70 mA per output, ∑ (In/Out) ≤200 mA	
Display		
LED indicators	yes	
Environment		
Applied standards	EN 61 000-6-2 EN 61 000-6-3 EN 60529	
Passive safety (up to PLe/SIL 3)	yes (2)	
Operating altitude	max. 2000 m	
Ambient temperature	-25 °C … +70 °C	
Storage temperature	-40 °C … +85 °C	
Protection class	IP00	
Coating	coated	
Allowed shock and vibration stress	≤15*g*, T≤11 ms, 10 ... 55 Hz, 0,5 mm amplitude	
Weight	15 g	
Dimensions (W / H / D in mm)	41 / 104 / 16	51 / 93 / 16

(1) loop resistance: ≤150 Ω

(2) 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.

Programming	Bit Setting Digital IO			
	D0	D1	D2	D3
	input			
BW1899, BW1901	Slave 1: I1	Slave 1: I2	Slave 1: I3	Slave 1: I4
	Slave 2: I5	Slave 2: I6	Slave 2: I7	Slave 2: I8
BW1901	Slave 3: I9	Slave 3: I10	Slave 3: I11	Slave 3: I12
	Slave 4: I13	Slave 4: I14	Slave 4: I15	Slave 4: I16
	output			
BW1899, BW1901	Slave 1: O1	Slave 1: O2	Slave 1: O3	Slave 1: O4
	Slave 2: O5	Slave 2: O6	Slave 2: O7	Slave 2: O8

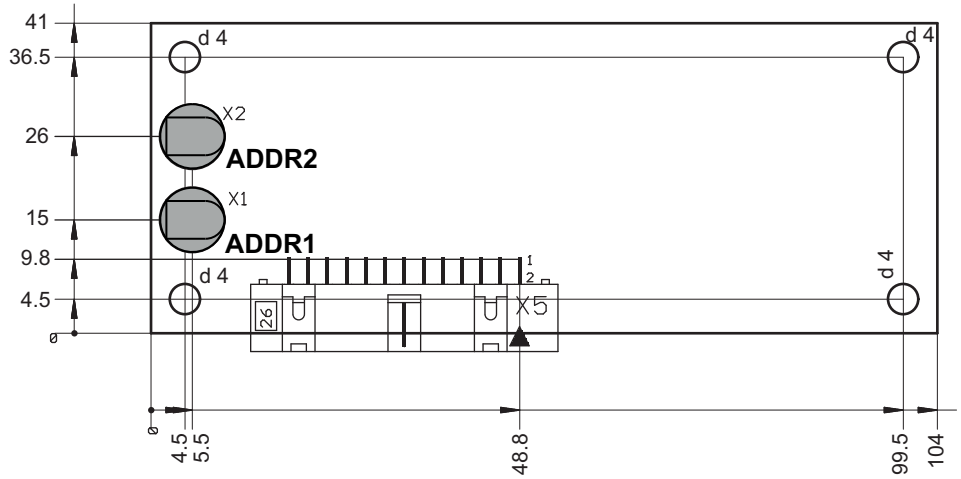
Programming	Bit Setting Digital IO			
	D0	D1	D2	D3
BW1901	Slave 3: O9	Slave 3: O10	Slave 3: O11	Slave 3: O12
	Slave 4: O13	Slave 4: O14	Slave 4: O15	Slave 4: O16

Programming	Parameter bit			
	P0	P1	P2	P3
BW1899, BW1901	0= off / 1= on (Watchdog)	0= on / 1= off (data input filter 128 µs)	0= on / 1= off (synchronous I/O mode)	not used

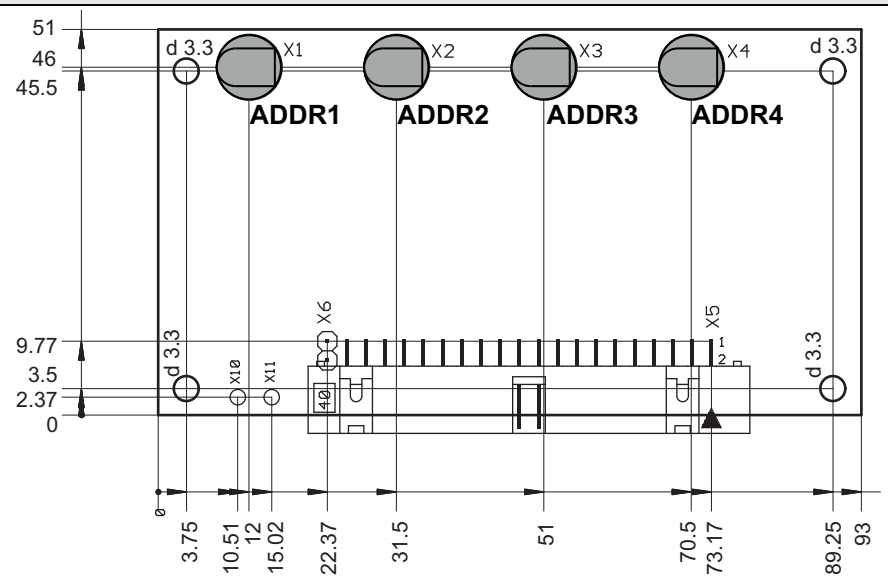
Programming notes	
BW1899, BW1901	Slave addresses are preset "0", changeable via ASi address programming device

Dimensional drawings

BW1899



BW1901

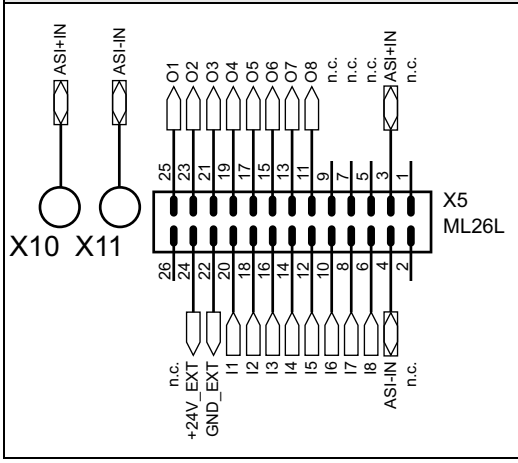


Connections:	
ASi +IN, ASi -IN	connection to the ASi bus
I1 - I16	inputs
O1 - O16	outputs
24 V_EXT, GND_EXT	output for 24 V power supply for the inputs
ADDR1 - ADDR4	connection for ASi addressing device, slave 1-4
n.c.	not connected

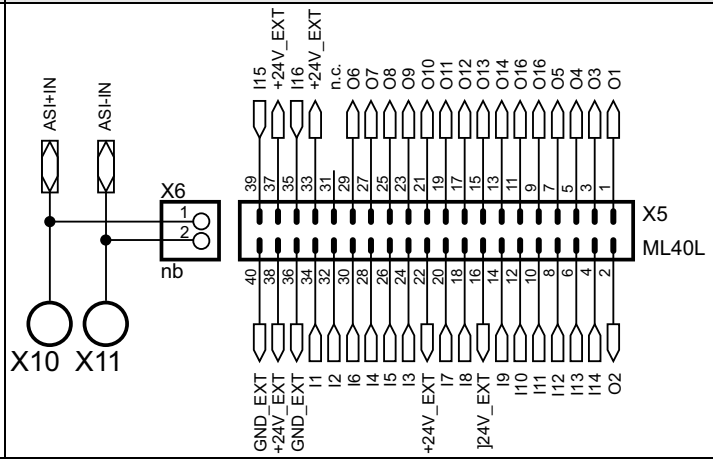
Notice
You shall not connect wiring with connections marked **n.c. (not connected)**.

Terminal diagram

BW1899



BW1901



	BW1899	BW1901
X10	ASI+IN	ASI+IN
X11	ASI-IN	ASI-IN
1	n.c.	O1
2	n.c.	O2
3	ASI+IN	O3
4	ASI-IN	I14
5	n.c.	O4
6	I8	I13
7	n.c.	O5
8	I7	I12
9	n.c.	O16
10	I6	I11
11	O8	O15
12	I5	I10
13	O7	O14
14	I4	I9
15	O6	O13
16	I3	+24V_EXT
17	O5	O12
18	I2	I8
19	O4	O11

	BW1899	BW1901
20	I1	I7
21	O3	O10
22	GND_EXT	+24V_EXT
23	O2	O9
24	+24V_EXT	I3
25	O1	O8
26	n.c.	I5
27		O7
28		I4
29		O6
30		I6
31		n.c.
32		I2
33		+24V_EXT
34		I1
35		I16
36		GND_EXT
37		+24V_EXT
38		+24V_EXT
39		I15
40		GND_EXT