

ASi/ASi Coupler in IP20

Connection of 2 ASi networks via a configurable number of ASi 4I/4O modules

- Number of ASi modules configurable from 1 to 62 via a rotary switch
- ASi addresses are mapped in ascending order, each as A or B address, into each network starting from the base address set through the respective address socket. E.g. base address 16A. ASi addresses: 17A, 18A etc.
- outputs of a ASi module in ASi network 1 are connected to the respective inputs of the corresponding ASi modules in ASi network 2 and vice versa

ASi profile AB addresses S-7.A.7 (ID1=7 fixed)

ASi profile single addresses S-7.F.E (ID1=F default)



(figure similar)



Article no. BWU3486: ASi/ASi Coupler, IP20

The ASi/ASi Coupler provides the easiest solution to exchange data between two PLCs via ASi.

In big applications with more than one ASi network there is often a need to exchange data between two ASi networks, e. g. to report the process status. This problem was solved in the past with the help of 2 normal ASi 4I/4O modules, with the inputs of one ASi module connected to the outputs of the other ASi module. With the use of the ASi/ASi Coupler to solve this problem the installation costs as well as the components costs can be reduced.

The ASi/ASi Coupler consists of a configurable number of ASi 4I/4O module in one housing. The outputs of one ASi module

are connected to respective inputs of the other ASi module and vice versa (ASi output data bit 0 of the first ASi module with ASi input data bit 0 of the second ASi module and vice versa, etc.).

There is a galvanic isolation between both ASi networks.

The ASi/ASi coupler has 2 LEDs for signaling power and ASi faults for each ASi network. Furthermore each ASi module has got an address socket. Number of ASi modules configurable from 1 to 62 via a rotary switch.

As long as one of the ASi modules does not exchange data the other ASi module reads on each input a 0 as default.

Article no.	BWU3486	
General data		
Device type	ASi/ASi coupler	
Connection		
ASi connection	COMBICON clamps screw-type terminals	
ASi		
Interfaces	ASi network 1 and 2	
Profile	S-7.A.7 (ID1=7 fixed) (switch settings 7 ... E) ⁽¹⁾	S-7.F.E (ID1=F default) (switch settings 0 ... 6) ⁽¹⁾
Address	AB address	single address
Required Master profile	≥M4	≥M0
Since ASi specification	3.0	2.0
Operating voltage	30 V (18 ... 31.6 V)	
Display		
LED ASI1 (green)	ASi power network 1	
LED FAULT1 (red)	ASi communication error network 1	
LED ASI2 (green)	ASi power network 2	
LED FAULT2 (red)	ASi communication error network 2	

Article no.	BWU3486
Environment	
Applied standards	EN 61000-6-1 EN 61000-6-3 EN 60529
Can be used in passively safe paths up to SIL3/PLe	yes ⁽²⁾
Operating altitude	max. 2000 m
Ambient temperature	0 ... +55 °C
Storage temperature	-25 ... +85 °C
Housing	plastic, for DIN rail mounting
Protection category	IP20
Voltage of insulation	≥500 V
Dimensions (W / H / D in mm)	22,5 / 99 / 92

(1) see table "Switch settings"

(2) The module is suitable for use in passively safe paths as it has no connection to an AUX potential. The galvanic isolation of the ASi potentials must be evaluated separately in the safety assessment of the respective application.

Wiring rules

Push-in terminals, 2 / 3 / 4 poles (pitch 5 mm)	
General	
Nominal cross section	2.5 mm ²
Conductor cross section	
Conductor cross section solid	0.2 ... 2.5 mm ²
Conductor cross section flexible	0.2 ... 2.5 mm ²
Conductor cross section flexible, with ferrule	without plastic sleeve: 0.25 ... 2.5 mm ²
	with plastic sleeve: 0.25 ... 2.5 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules	without plastic sleeve: 0.5 ... 1.5 mm ²
AWG	24 ... 14
Stripped insulation length	10 mm

Switch settings

Connections BWU3486	Rotary switch	Number of data	ASi connections via COMBICON terminals
	0	1 ASi 4I/4O module	
	1	2 ASi 4I/4O modules	
	2	4 ASi 4I/4O modules	
	3	8 ASi 4I/4O modules	
	4	12 ASi 4I/4O modules	
	5	24 ASi 4I/4O modules	
	6	31 ASi 4I/4O modules	
	7	1 ASi 4I/4O module	
	8	2 ASi 4I/4O modules	
	9	4 ASi 4I/4O modules	
	A	8 ASi 4I/4O modules	
	B	16 ASi 4I/4O modules	
	C	31 ASi 4I/4O modules	
	D	46 ASi 4I/4O modules	
	E	62 ASi 4I/4O modules	
	F	reserved	

	<p>Note</p> <p>If no voltage has been applied to ASi2 at any time since the power-up of ASi1, the ASi/ASi coupler at ASi1 operates in the operating mode „1 A/B node“.</p>
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 IP54	<p>Note</p> <p>To achieve passive safety, the device must be installed in a switching cabinet with protection class IP54.</p>
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Accessories:

- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)