AMKASYN
Servo inverter AN/AZ/AW
Option card AZ-EA 24
Input / Output card

Version: 1997/51
Part No.: 24376

AMK

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Important advice:
Touching of the electrical connections on the plug-in card must be avoided, otherwise electronic components could be destroyed through static discharge.
Take plug-in card directly out of packing and insert into the option slot in the AZ module without using force. Then secure with screw below the card grisp.

1 Input / output card AZ-EA24

The option card AZ-EA24 is plugged into one of the free slots of the AZ module (slot 1...4). It is secured in the front panel by the captive screw below the card grip.

The AZ-EA24 card code is „03“. This code must be entered into ID 32882 „Slot assignment“ assigned to the selected slot.

The card has 24 binary inputs (nominal voltage +24V) and 16 binary outputs (+24V, 100 mA) which are optically isolated. The signal levels correspond to VDI 2880.

The I/O sampling time in the basic system is 10 ms. In a drive system with option „Programmable controller PS“ (PLC) the I/Os are scanned each ms. The PS is evaluating the process image INPUTS/OUTPUTS. By that the process I/O sampling time is determined by the determined by the PS cycle time (exception: „Fast Functions SF“).

The I/O voltage +24V must be supplied by the customer. The outputs are short-circuit-proof. The switching capacity of the open emitter outputs is 100 mA each with a simultaneity factor of 1.

Through LED A81 a short-circuit is displayed in outputs A1...A8 respectively through A82 in outputs A9...A16 and an error message is generated. After eliminating of the short-circuit the error message must be cancelled through „Error Reset“.

By setting of parameters drive functions can be assigned to binary inputs and bit information from the drives can be assigned to binary outputs in the basic drive system. The signal evaluation is carried out in the higher ranking controller.

Associated with the „Programmable Controller PS“ the I/O can be used freely.

The inputs and outputs are connected at D-SUB sockets X81/X82. A D-SUB connector shell with lateral cable outlet must be used. Connection through shielded cables. The cable shield has to be grounded one-sided at the AZ module through the metallized D-SUB shell.

Contact tubes 23, 24 and 25 in the sockets X81/X82 provide the external +24V supply. To ensure, that the D-SUB connectors can’t be swapped, two of these tubes can be used for connector polarization. For this purpose polarization pins are inserted into the contact tubes at the selected pin locations and then the associated pins have to be omitted in the mating connector.

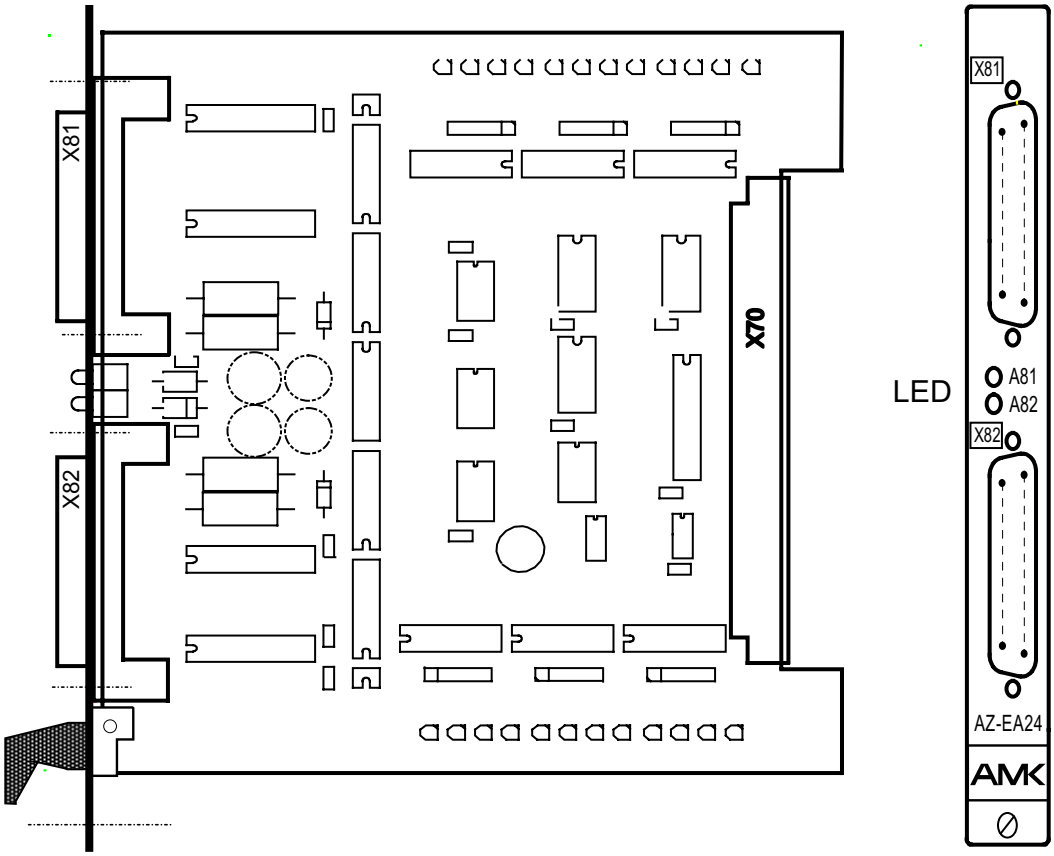
1.1 Pin assignment (25 pole D-SUB connectors), I/O addresses (byte, bit)

		AZ slot					AZ slot			
Pin	**X81**	1	2	3	4	**X82**	1	2	3	4
1	E1	E0.0	E8.0	E16.0	E24.0	E13	E1.4	E9.4	E17.4	E25.4
2	E2	E0.1	E8.1	E16.1	E24.1	E14	E1.5	E9.5	E17.5	E25.5
3	E3	E0.2	E8.2	E16.2	E24.2	E15	E1.6	E9.6	E17.6	E25.6
4	E4	E0.3	E8.3	E16.3	E24.3	E16	E1.7	E9.7	E17.7	E25.7
5	E5	E0.4	E8.4	E16.4	E24.4	E17	E2.0	E10.0	E18.0	E26.0
6	E6	E0.5	E8.5	E16.5	E24.5	E18	E2.1	E10.1	E18.1	E26.1
7	E7	E0.6	E8.6	E16.6	E24.6	E19	E2.2	E10.2	E18.2	E26.2
8	E8	E0.7	E8.7	E16.7	E24.7	E20	E2.3	E10.3	E18.3	E26.3
9	E9	E1.0	E9.0	E17.0	E25.0	E21	E2.4	E10.4	E18.4	E26.4
10	E10	E1.1	E9.1	E17.1	E25.1	E22	E2.5	E10.5	E18.5	E26.5
11	E11	E1.2	E9.2	E17.2	E25.2	E23	E2.6	E10.6	E18.6	E26.6
12	E12	E1.3	E9.3	E17.3	E25.3	E24	E2.7	E10.7	E18.7	E26.7
13	E-	Reference potential I ($0V_{ext}$)				Reference potential I ($0V_{ext}$)				
14	A-	Reference potential O ($0V_{ext}$)				Reference potential O ($0V_{ext}$)				
15	A1	A0.0	A8.0	A16.0	A24.0	A9	A1.0	A9.0	A17.0	A25.0
16	A2	A0.1	A8.1	A16.1	A24.1	A10	A1.1	A9.1	A17.1	A25.1
17	A3	A0.2	A8.2	A16.2	A24.2	A11	A1.2	A9.2	A17.2	A25.2
18	A4	A0.3	A8.3	A16.3	A24.3	A12	A1.3	A9.3	A17.3	A25.3
19	A5	A0.4	A8.4	A16.4	A24.4	A13	A1.4	A9.4	A17.4	A25.4
20	A6	A0.5	A8.5	A16.5	A24.5	A14	A1.5	A9.5	A17.5	A25.5
21	A7	A0.6	A8.6	A16.6	A24.6	A15	A1.6	A9.6	A17.6	A25.6
22	A8	A0.7	A8.7	A16.7	A24.7	A16	A1.7	A9.7	A17.7	A25.7
23	A+ *	Supply voltage				A+ *	Supply voltage			
24	A+ *	Outputs A1...A8				A+ *	Outputs A9...A16			
25	A+ *	+ $24V_{ext}$				A+ *	+ $24V_{ext}$			

***** 2 of these contact tubes can be used for connector polarization.
Through this or any other measure must be ensured, that the cable connectors can't be swapped.

Reference potential for inputs E1...E12 is isolated from reference potential for inputs E13...E24.
Reference potential for outputs A1...A8 is isolated from reference potential for outputs A9...A16. +24V and reference 0V (E- and A-) must be supplied separately for each connector.

1.2 Component mounting drawing and front panel AZ-EA24



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