AIA-DI-4

16 channels - Wiring Adapter for Alspa CE2000™ migration toward a new system

Description :

The **AIA-DI-4** wiring adapter allows to migrate up to 16 Digital Inputs (110Vcc) previously connected to an Alspa CE2000™ Digital Input module to a Distributed Control System (DCS), or a Programmable Logic Controller (PLC) with a 110Vdc Digital Input card.

It is easy to install the **AIA-DI-4** in the existing I/O card file, at the place occupied by the Alspa CE2000 Digital Input module. It's directly connected to the RA150 module allowing to protect the existing wiring investment.

The connection to the new Digital Input card is done using a shielded cable, with a BLT18 female connector at one end, and labeled flying wires or a suitable connector matching with the new system or controller used at the other end.

The supply voltage can be connected in two different ways :
- By an external voltage VPE
- By a voltage VPD distributed by the bottom of the file.

The selection of the supply mode is done by the jumpers ST1 and ST2 placed between the connectors J3 and J1 of the AIA-DI-4 (see page 2).

The power supply status is displayed by a green LED on the front of the adapter.
An additional monitoring contact is also available between terminals 3 (2d) and 48 (32d) of the RA150 module. This contact is used to trigger an alarm if the power supply voltage is no longer present (or less than 100Vdc)

It is particularly suitable for migrating an ASLPA CE2000™ I/O card with reference :

- LE108A-2 : 16ch Discrete Input Module
  - Rated voltage : 110Vdc

Product options :

Option **VSH** : Conformal coating (Tropicalization)

Technical specifications :

Dimensions :	**Input specifications :**	
Length : 252 mm	Input voltage range	0 to 121Vdc
Width : 26 mm	**Power supply specifications :**	
Height : 261 mm	A monitoring contact is available between terminals 3 (2d) and 48 (32d) of the RA150 module.	
Weight :	Power supply range (between 1 (2z) and 2 (2b) of the RA150) :	99 to 121 Vdc
270 g	Power loss indication threshold :	< 83 Vdc
Temperature range :	Protection by a 5X20 0.5A 250V time delay fuse.	
Operating : 0°C to 50°C	Reverse polarity protection.	
Storage : -10°C to 50°C	**Withstand voltage :**	
Humidity :	250V between non connected signal	
Up to 90% (no condensation)		
Mounting :		
In the existing I/O card file, in place of the I/O card to be removed		
Connection to the process signals :		
1 x DIN 41612 type F 48pin male connector.		
Connection to the DCS or to the PLC :		
1 x BLT18 pin male connector.		

Process connector and terminal block :

Pinout of the DIN 41612 type F 48-pin male connector :

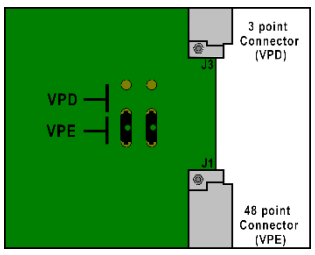
	d	b	z
2	o 110Vdc Monitoring	o ZVPE	o PVPE
4	o	o	o
6	o E01	o CE	o E00
8	o E02	o	o CE
10	o CE	o E03	o CE
12	o CE	o E04	o
14	o	o CE	o E05
16	o E07	o CE	o E06
18	o	o	o CE
20	o E09	o CE	o E08
22	o E10	o	o CE
24	o CE	o E11	o CE
26	o CE	o E12	o
28	o	o CE	o E13
30	o E15	o CE	o E14
32	o 110Vdc Monitoring	o	o CE

RA150 Terminal Block :

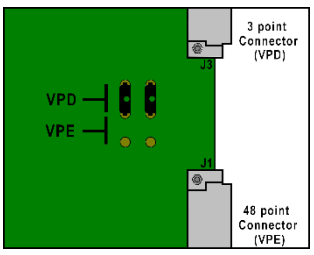
1	**PVPE**
2	**ZVPE**
3	110V Monitoring
4	
5	
6	
7	E00
8	CE(0VP)
9	E01
10	CE(0VP)
11	
12	E02
13	CE(0VP)
14	E03
15	CE(0VP)
16	
17	E04
18	CE(0VP)
19	E05
20	CE(0VP)
21	
22	E06
23	CE(0VP)
24	E07
25	CE(0VP)
26	
27	
28	E08
29	CE(0VP)
30	E09
31	CE(0VP)
32	
33	E10
34	CE(0VP)
35	E11
36	CE(0VP)
37	
38	E12
39	CE(0VP)
40	E13
41	CE(0VP)
42	
43	E14
44	CE(0VP)
45	E15
46	CE(0VP)
47	
48	110V Monitoring

Connecting the supply voltage :

It is imperative to check the position of the ST1 and ST2 jumpers before powering up the card.
Make sure that the applied voltage is the one that corresponds to the AIA card installed. (110Vdc for the AIA-DI-4)
The change of position of the ST1 and ST2 jumpers must be done with the power off.



Lower Position:
The power supply comes from an external voltage VPE connected between terminals 1 (2z)+ and 2 (2b) of the RA150 and available via the 48-pin connector J1 of the AIA-DI-4.



Upper Position:
The power supply comes from a VPD voltage distributed by the bottom of the file and available via the 3-point connector J3 of the AIA-DI-4.