

PRODUCT DESCRIPTION

The CSP152A digital isolation board performs the dual functions of a 6-relay output board and a 6-channel input isolator with optocoupler. Each relay is driven by its relative digital input, when the free contact of a digital input is closed then the relative relay contact will be closed. The 6 free contact input of the board are galvanically isolated by means 6 separate transformer windings. The relay contacts are brought out to screw terminal block. The relays are rated up to 2A at up to 250VAC (resistive load). An auxiliary external 230Vac input supply is used for the internal power supply of the optocoupler. The functional diagram of the board is shown below

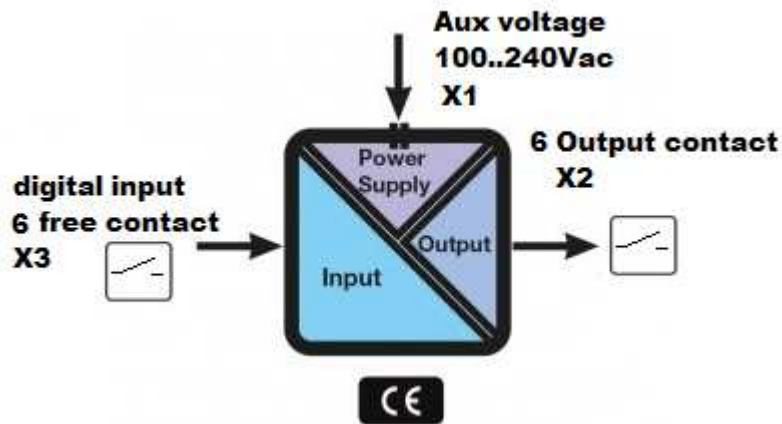


Fig. 1 - CSP152A logical diagram

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TECHNICAL FEATURES

The following technical features are valid for the quad digital isolation board CSP152A:

Electrical data	
Power Supply	Min 100 Vac, max 240Vac 50/60 Hz
Consumption	Max 250mA
N° of digital inputs	6
Type of digital inputs	Free contacts
N° of digital outputs	6
Type of digital outputs	SPST (Single pole single throw)
Contact rating	2A at 250Vac, 0.2 A at 220Vdc, 2A at 30Vdc
Internal insulation from the 6 digital input	Minimum 3750Vac rms
Internal insulation from the 6 digital output	1500 Vac rms
Internal insulation from input to output	5000 Vac rms
Connections	Spring terminal 1..2,5 mm ²
Standards	Safety EN60950-1:2006 +A12:2011 Electronic equipment for use in power installations: EN50178 CE



**Six channel digital
isolation board**

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Mechanical data	
Dimension (length x width x height)	232 x 112 x 46 mm
Mass	500 g.
Board fastening	mounting on DIN rails EN 60715.
Housing material	Plastic, recognized according to UL 94-V0
Vibration and shock load	In accordance with EN 60721-3-2 In accordance with EN 60068-2-6
Protection degree EN60529	IP00 without the cover, IP20 with the cover
Cooling system	Natural convection
Ambient conditions	
Operating	-10°C to +60°C Humidity 30..90% at 40°C (non condensing)
Storage	Class 1K3 to EN 60721-3-1 and temperature range -40°C to + 70°C
Transportation	Class 2K4 to EN 60721-3-2 and temperature range -40°C to + 70°C
Operation	Class 3K3 to EN 60721-3-3
Installation altitude	< 2000 m above sea level
Conformity	CE (Low voltage and EMC Directives)

ELECTRICAL DIAGRAM

A typical connection of the six channel digital isolation board is showed below:

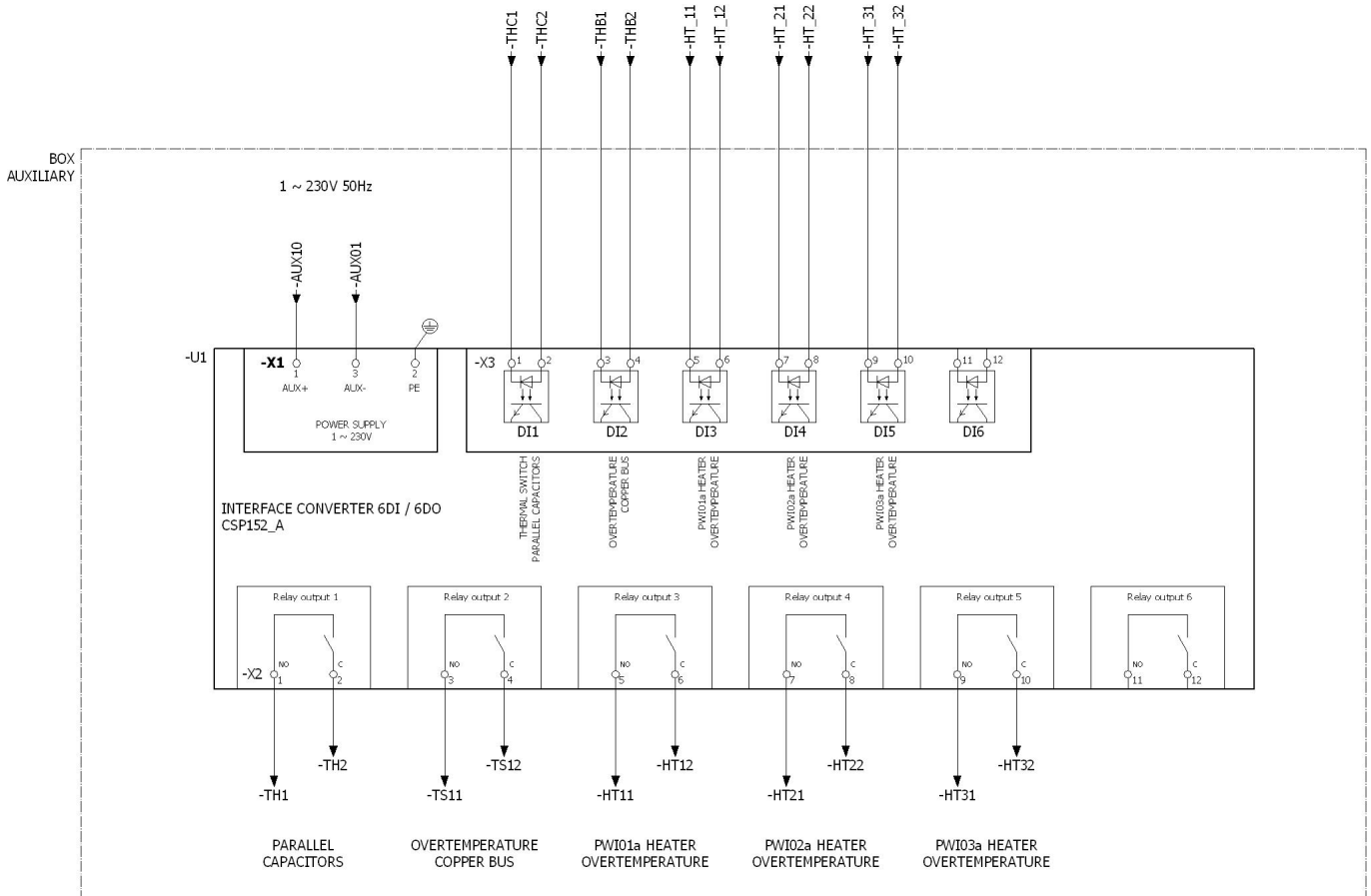


Fig. 2 – Example of CSP152A connection

The auxiliary voltage input is connected to the connector X1:1, 3, the protective earth is connected to X1:2, the 1st digital input (free contact) is connected to the pole 1, 2 of the connector X3, the 2nd digital input (free contact) is connected to the pole 3, 4 of the connector X3, the 3rd digital input (free contact) is connected to the pole 5, 6 of the connector X3, the 4th digital input (free contact) is connected to the pole 7, 8 of the connector X3, the 5th digital input (free contact) is connected to the pole 9, 10 of the connector X3, the 6th digital input (free contact) is connected to the pole 11, 12 of the connector X3,

The 1st digital output (free contact, normally open) is connected to the pole 1, 2 of the connector X2, the 2nd digital output (free contact, normally open) is connected to the pole 3, 4 of the connector X2, the 3rd digital output (free contact, normally open) is connected to the pole 5, 6 of the connector X2, the 4th digital output (free contact, normally open) is connected to the pole 7, 8 of the connector X2, the 5th digital output (free contact, normally open) is connected to the pole 9, 10 of the connector X2, the 6th digital output (free contact, normally open) is connected to the pole 11, 12 of the connector X2.