OPTB_ Option Boards

OPTB_ option boards are installed in slots B, C, D or E. These boards are used to increase the number of control inputs and outputs. These boards may not be installed in slot A.

There are no board-related parameters for OPTB_ I/O expander boards, except for board OPTBB.

Table 19: OPTB_ Board Features

I/O Board	Allowed Slots	Digital Input (DI)	Digital Output (DO)	Analog Input (AI)	Analog Output (AO)	Relay Output (RO)	Thermistor Input		42 – 240V AC Input	Other
							(TI)	(PT-100)		
OPTB4	B, C, D, E			1 (Isolated mA)	2 (Isolated mA)					+24V/ EXT+24V

Option Board B4

OPTB4

Description: I/O expander board with one *galvanically* isolated analog input and two *galvanically* isolated analog outputs (standard signals are 0(4)…20 mA).
Allowed slots: B, C, D, E
Type ID: 16948
Terminals: One terminal block; Screw terminals (M2.6) (see **Figure 41**)
Keying: None
Jumpers: None
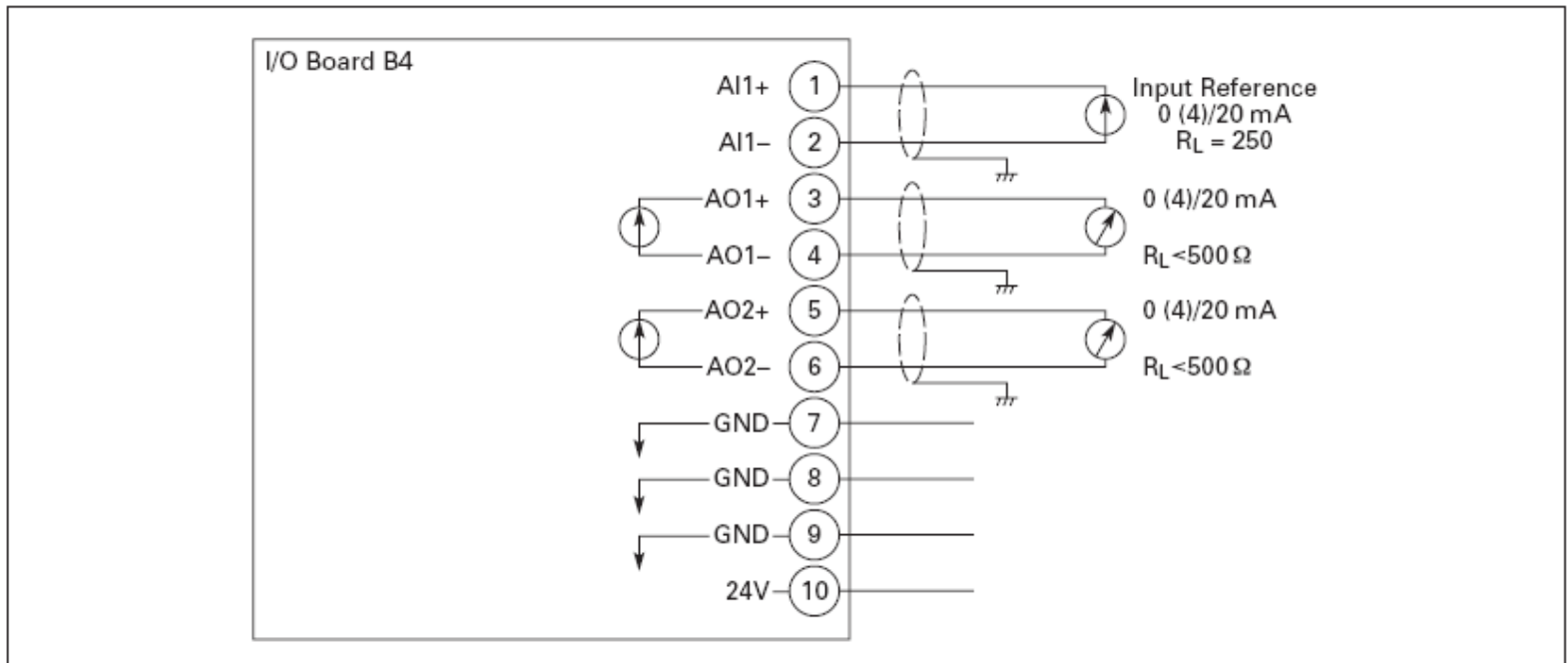**Board parameters:** None

Figure 40: Option Board B4 Wiring Diagram

Table 22: Option Board B4 I/O Terminals

Terminal	Function	Keypad Parameter Reference	Technical Information
1	AI1+	AnIN: **X.1**	0(4) —20 mA; R_i = 250Ω; galvanically isolated Resolution 10 bits/0.1%; Accuracy ±1% of the full display
2	AI1–		
3	AO1+	AnOUT: **X.1**	0(4) —20 mA; R_L <500Ω; Resolution 10 bits/0.1%; Accuracy ≤ ±2% (galvanically isolated)
4	AO1–		
5	AO2+	AnOUT: **X.2**	0(4) —20 mA; R_L<500Ω; Resolution 10 bits/0.1%; Accuracy ≤ ±2% (galvanically isolated)
6	AO2–		
7	GND		24V (±15%); Max. load 250 mA (total load from EXT+24V outputs), max. 150 mA from one board. See **Figure 2** on **Page 4**.
8	GND		
9	GND		In special applications where PLC type functions are included in the control module, this output can be used as an external auxiliary power supply for control boards and I/O boards.
10	+24V		

Note: This board can be installed in four different slots. The "**X**" in the Keypad Parameter Reference shall be replaced by the slot letter (B, C, D, or E) of the slot in which it is installed. See "Defining Functions to Inputs and Outputs" on **Page 7**.
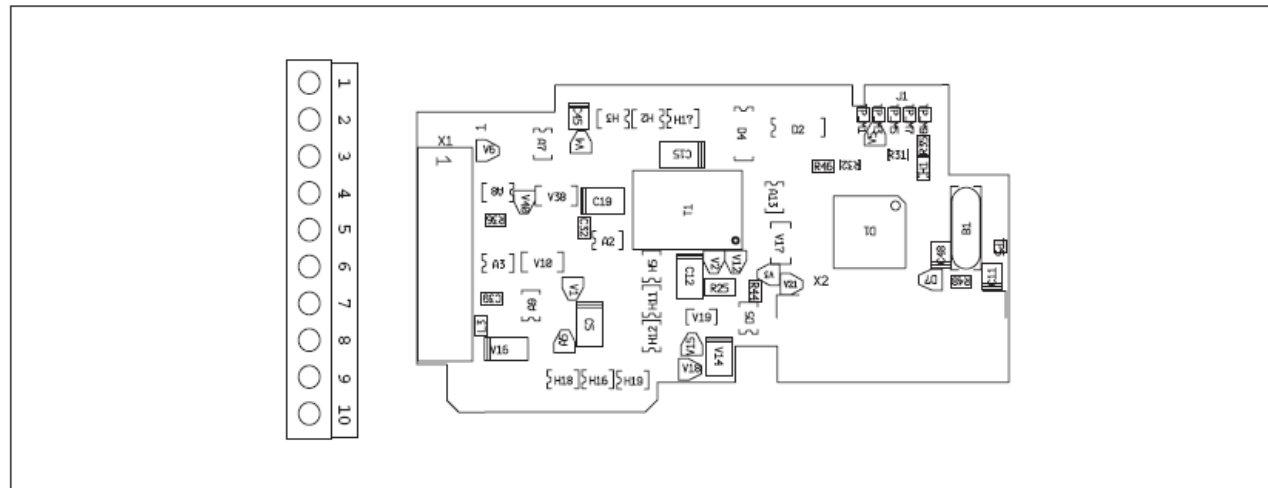

Figure 41: Option Board B4 Terminal Locations