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)		
OPTB1	B, C, D, E	6 ①	6 ①							

OPTB1

Description: I/O board with six bidirectional terminals, jumper selectable as either digital inputs or digital outputs.
Allowed slots: B, C, D, E
Type ID: 16945
Terminals: One terminal block; Screw terminals (M2.6) (see **Figure 36**)
Keying: None
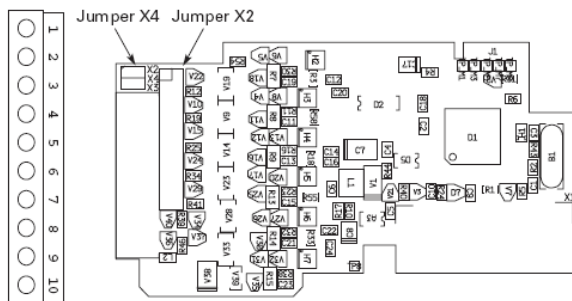**Jumpers**: 2; X2 and X4 (see **Figure 37**)
Board parameters: None

Figure 36: Option Board B1 Terminal Locations

Table 20: OPTB1 I/O Terminals

Terminal	Function	Keypad Parameter Reference	Technical Information
1	DIO1	DigIN: **X.1** DigOUT: **X.1**	Digital input: 24V; $R_i > 5\ k\Omega$ Digital output: Open collector, <50 mA/48V
2	DIO2	DigIN: **X.2** DigOUT: **X.2**	
3	DIO3	DigIN: **X.3** DigOUT: **X.3**	
4	CMA		Common for DIO1 – DIO3. **Note**: CMA is internally connected to GND with a jumper by default.
5	DIO4	DigIN: **X.4** DigOUT: **X.4**	Digital input: 24V; $R_i > 5\ k\Omega$ Digital output: Open collector, <50 mA/48V
6	DIO5	DigIN: **X.5** DigOUT: **X.5**	
7	DIO6	DigIN: **X.6** DigOUT: **X.6**	
8	CMB		Common for DIO4 – DIO6. **Note**: CMA is internally connected to GND with a jumper by default.
9	GND		I/O ground; Ground for reference and controls
10	+24V		Control voltage output; Voltage for switches etc.; max. current 150 mA; Short circuit protected.

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**.

Jumper Selections

There are two jumper blocks on the OPTB1 board. Jumper block **X2** is used to define the bidirectional terminal as either an input or an output. Jumper block **X4** is used to connect the common terminals CMA and CMB to GND. The factory default and the available jumper selections are illustrated in **Figure 37**.
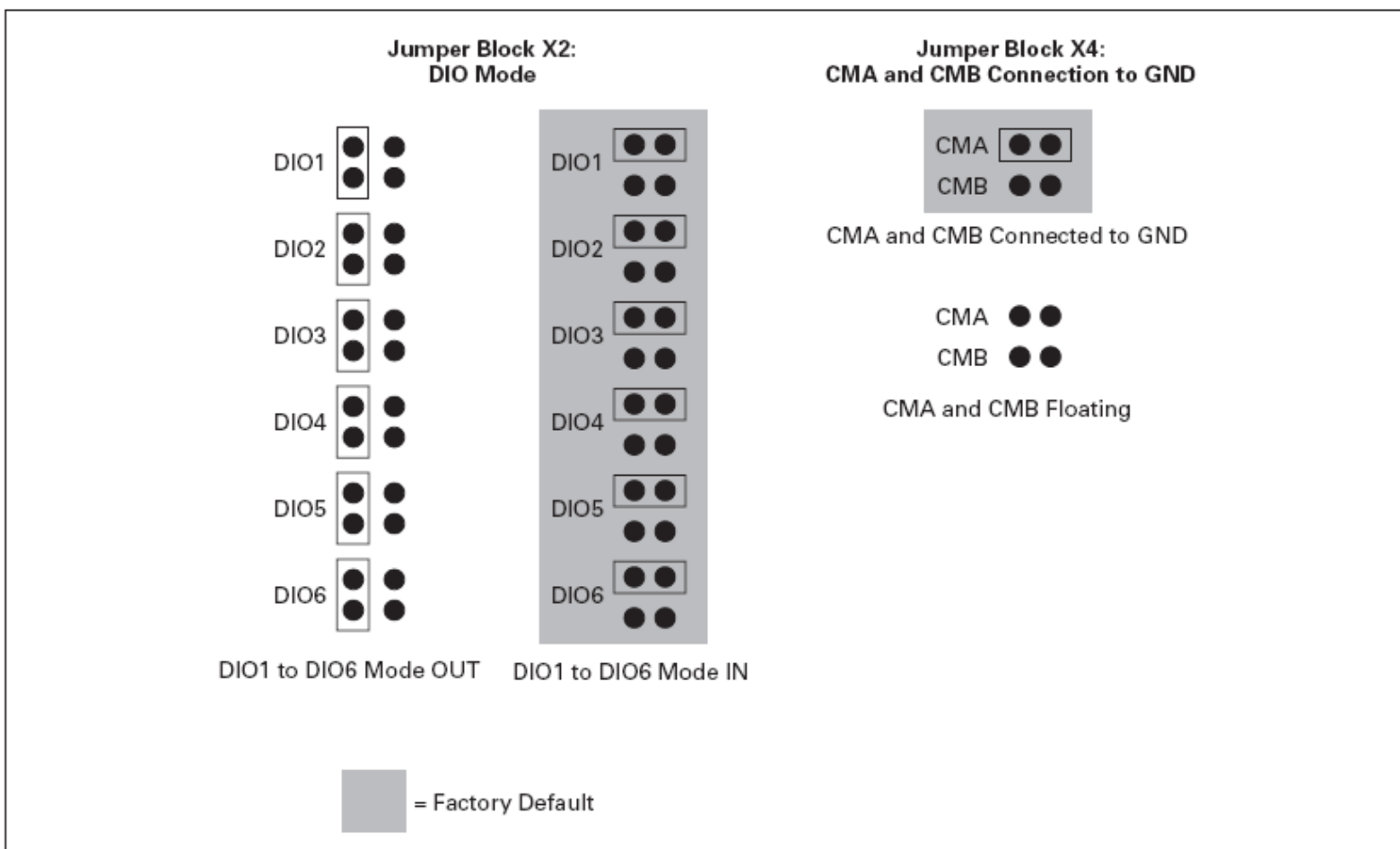

Figure 37: Jumper Positions for OPTB1