Wiring Option Board A9

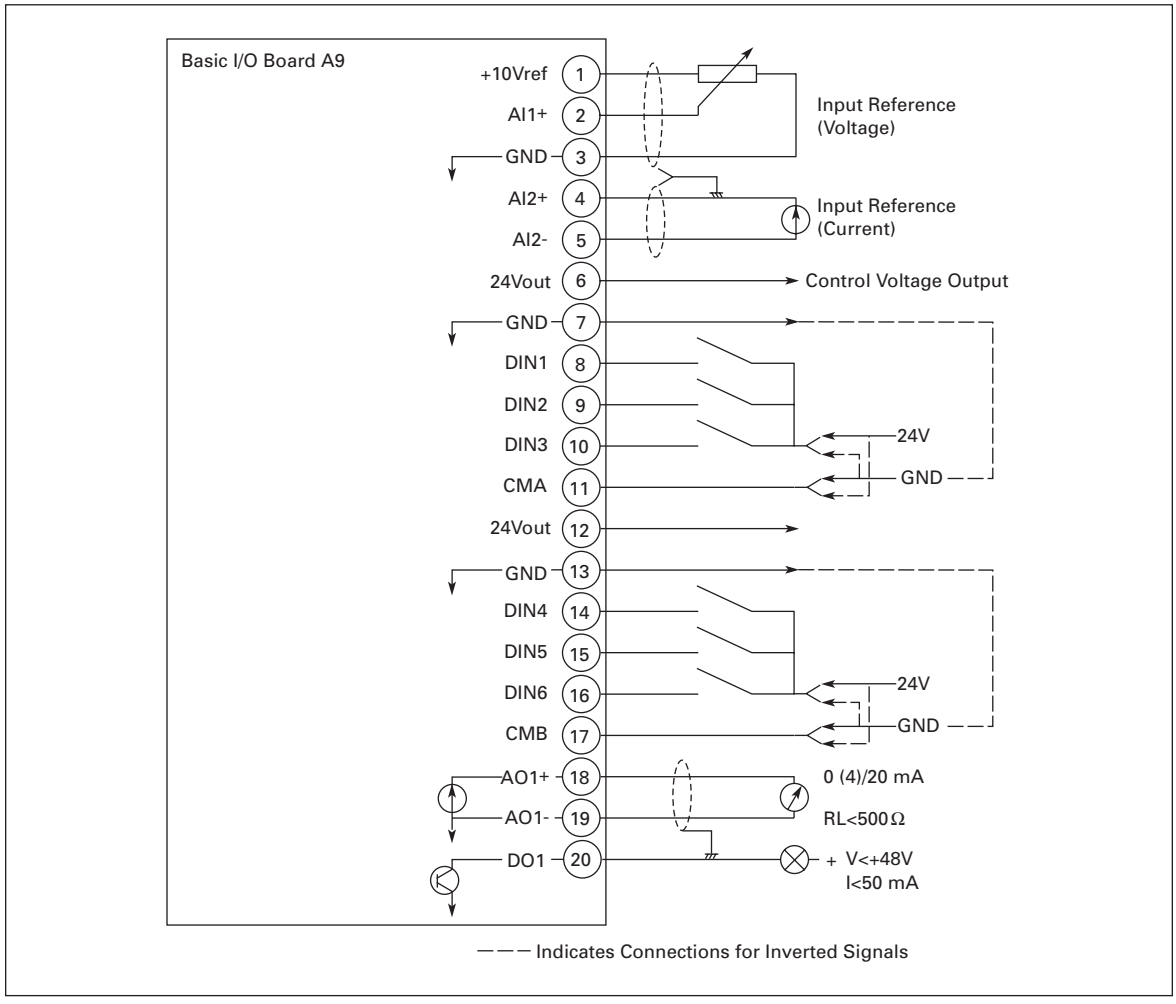

Figure 4-2: Option Board A9 Wiring Diagram

Table 4-3: Option Board A9 Terminal Descriptions

Terminal		Signal	Description and Parameter Reference
1	+10 V_{ref}	Reference voltage	Maximum current 10 mA
2	AI1+	Analog input, voltage	Default: 0 – +10V (R_i = 200 kΩ) -10V to +10V (joystick control) 0 – 20 mA (R_i = 250 Ω) *Select V or mA with jumper block X1* (**Figure 4-3**) Differential input if not connected to ground; allows ±20V differential mode voltage to GND
3	GND	Analog input common	
4	AI2+	Analog input	Default: 0 – 20 mA (R_i = 250 Ω) 0 – +10V (R_i = 200 kΩ) -10V to +10V (joystick control) *Select V or mA with jumper block X2* (**Figure 4-3**) Differential input if not connected to ground; allows ±20V differential mode voltage to GND
5	GND/AI2-	Analog input common	
6	24 V_{out}	24V control voltage (bi-directional)	±15%, 250 mA (all boards total); 150 mA (max. current from single board); Can be used as external power backup for the control (and fieldbus); Galvanically connected to terminal #12
7	GND	I/O ground	Ground for reference and controls; Galvanically connected to terminals #13, 19
8	DIA1	Digital input 1	R_i = min. 5 kΩ
9	DIA2	Digital input 2	
10	DIA3	Digital input 3	
11	CMA	Digital input common A for DIN1, DIN2 and DIN3	Must be connected to GND or 24V of I/O terminal or to external 24V or GND. Selection with jumper block X3. (**Figure 4-3**)
12	24 V_{out}	24V control voltage (bi-directional)	Same as terminal #6; Galvanically connected to terminal #6
13	GND	I/O ground	Same as terminal #7; Galvanically connected to terminals #7 & 19
14	DIB4	Digital input 4	R_i = min. 5 kΩ
15	DIB5	Digital input 5	
16	DIB6	Digital input 6	
17	CMB	Digital input common B for DIN4, DIN5 and DIN6	Must be connected to GND or 24V of I/O terminal or to external 24V or GND. Select with jumper block X3. (**Figure 4-3**)
18	A01+	Analog signal (+output)	Output signal range: 0 – 10V default Current: 0(4) – 20 mA, RL max 500 Ω or Voltage: 0 – 10V, RL >1 kΩ Selection with jumper block X6. (**Figure 4-3**)
19	A01-	Analog output common	Maximum V_{in} = 48V DC; Galvanically connected to terminals #7, 13
20	DO1	Digital output1	Open collector, Maximum current = 50 mA

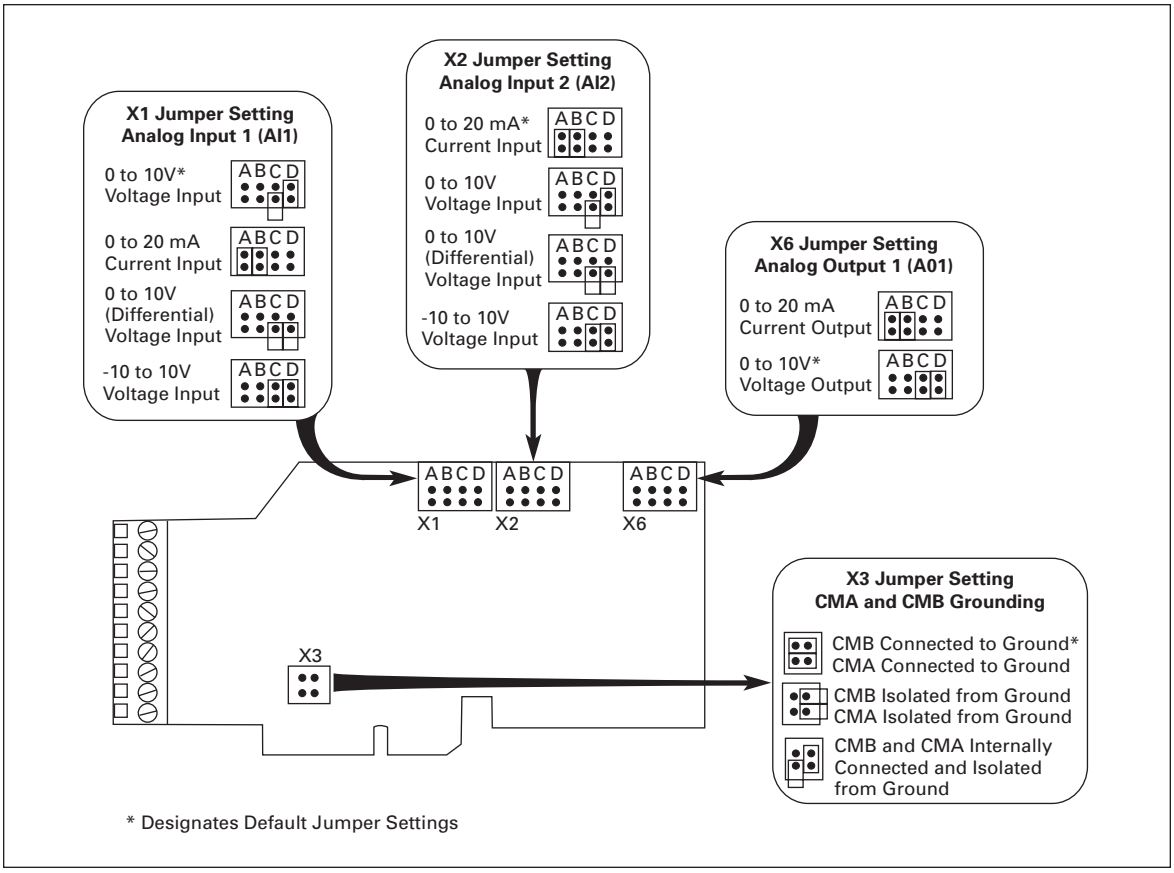

Figure 4-3: Option Board A9 Jumper Location and Settings

Wiring Option Board A2

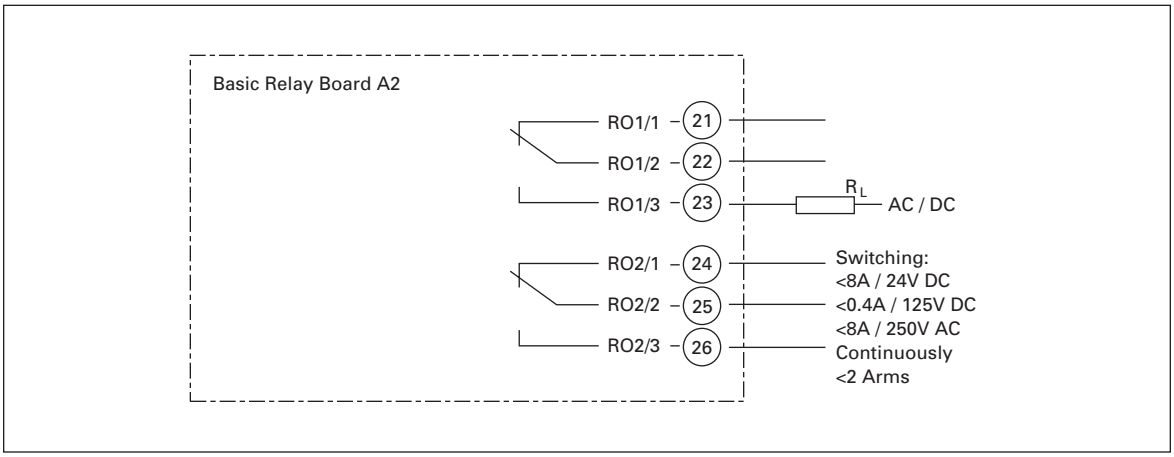

Figure 4-4: Option Board A2 Wiring Diagram

Table 4-4: Option Board A2 Terminal Descriptions

Terminal		Signal	Technical Information
21	RO1/1	Normally Closed (NC)	Switching Capacity: 24V DC / 8A 250V AC / 8A 125V DC / 0.4A Min Switching Load: 5V/10 mA Continuous Capacity: <2 Arms
22	RO1/2	Common	
23	RO1/3	Normally Open (NO)	
24	RO2/1	Normally Closed (NC)	Switching Capacity: 24V DC / 8A 250V AC / 8A 125V DC / 0.4A Min Switching Load: 5V/10 mA Continuous Capacity: <2 Arms
25	RO2/2	Common	
26	RO2/3	Normally Open (NO)	

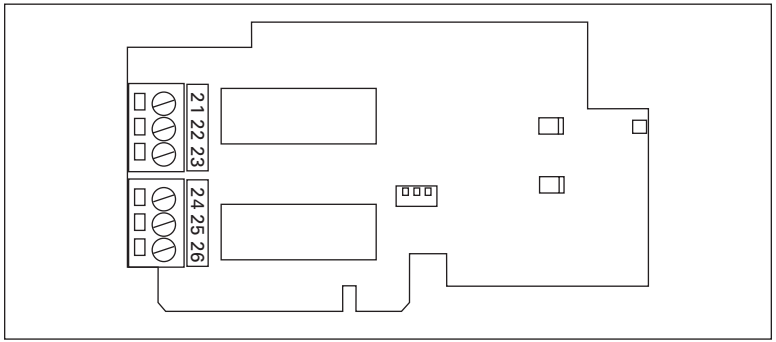

Figure 4-5: Option Board A2 Terminal Locations