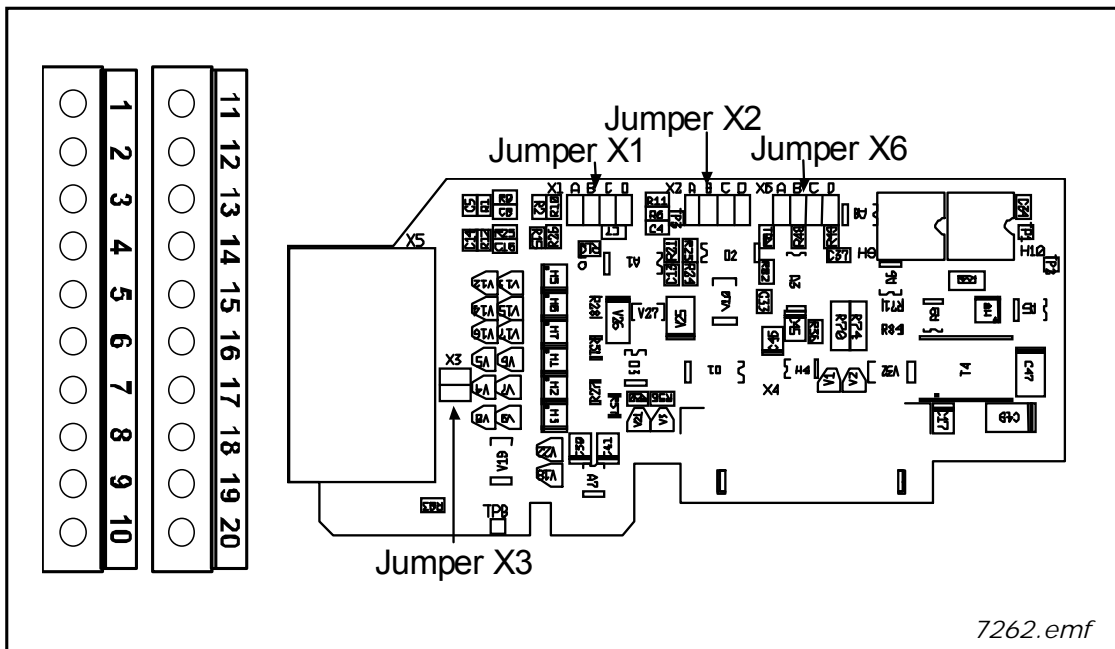


3.1.7 OPTA8



- Description: VACON® NX basic I/O board similar to OPTA1 except that the analogue inputs and output are galvanically isolated.
- Allowed slots: A
- Type ID: 16696
- Terminals: Two terminal blocks; Screw terminals (M2.6); Coding in terminals #1 and #12.
- Jumpers: 4; X1, X2, X3 and X6 (see page 41)
- Board parameters: Yes (see page 42)

I/O terminals on OPTA8 (coded terminals painted black)

Table 15. OPTA8 I/O terminals

Terminal		Parameter reference Keypad/NCDrive	Technical information
1	+10 Vref		Refer.output +10V; Max.current 10mA; Decoupled from FC GND
2	AI1+	An.IN:A.1	Selection V or mA with jumper block X1 (see page 41): Default: 0- +10V (Ri = 200 kΩ) (-10V.....+10V Joy-stick control, selected with a jumper) 0- 20mA (Ri = 250 Ω) Resolution 0.1%; Accuracy ±1%
3	AI1- (GND ISOL)		GND ISOL/Voltage input; Connected to GND ISOL (selected with jumper)
4	AI2+	An.IN:A.2	Selection V or mA with jumper block X2 (see page 41): Default: 0- 20mA (Ri = 250 Ω) 0- +10V (Ri = 200 kΩ) (-10V.....+10V Joy-stick control, selected with a jumper)
5	AI2- (GND ISOL)		Resolution: 0.1%; Accuracy ±1% GND ISOL/Voltage input; Connected to GND ISOL (selected with jumper)
6	24 Vout (bidirectional)		24V auxiliary voltage output. Short-circuit protected. ±15%, maximum current 150 mA, see 1.4.4. +24Vdc external supply may be connected. Galvanically connected to terminal #12.
7	GND		Ground for reference and controls Galvanically connected to terminal #13.
8	DIN1	DigIN:A.1	Digital input 1 (Common CMA); Ri = min. 5kΩ
9	DIN2	DigIN:A.2	Digital input 2 (Common CMA); Ri = min. 5kΩ
10	DIN3	DigIN:A.3	Digital input 3 (Common CMA); Ri = min. 5kΩ
11	CMA		Digital input common A for DIN1, DIN2 and DIN3. Connection by default to GND. Selection with jumper block X3 (see page 41):
12	24 Vout (bidi- rectional)		Same as terminal #6 Galvanically connected to terminal #6.
13	GND		Same as terminal #7 Galvanically connected to terminals #7
14	DIN4	DigIN:A.4	Digital input 4 (Common CMB); Ri = min. 5kΩ
15	DIN5	DigIN:A.5	Digital input 5 (Common CMB); Ri = min. 5kΩ
16	DIN6	DigIN:A.6	Digital input 6 (Common CMB); Ri = min. 5kΩ
17	CMB		Digital input common A for DIN4, DIN5 and DIN6. Connection by default to GND. Selection with jumper block X3 (see page 41):
18	A01+	AnOUT:A.1	Analogue output Output signal range: Current 0[4]-20mA, RL max 500Ω or Voltage 0-10V, RL >1kΩ
19	A01-		Selection with jumper block X6 (see page 41): Resolution: 0.1% (10 bits); Accuracy ±2%;
20	D01	DigOUT:A.1	Open collector output; Max. U _{in} = 48VDC; Max. current = 50 mA

Jumper selections

There are four jumper blocks on the OPTA8 board. The factory defaults and other available jumper selections are presented below.

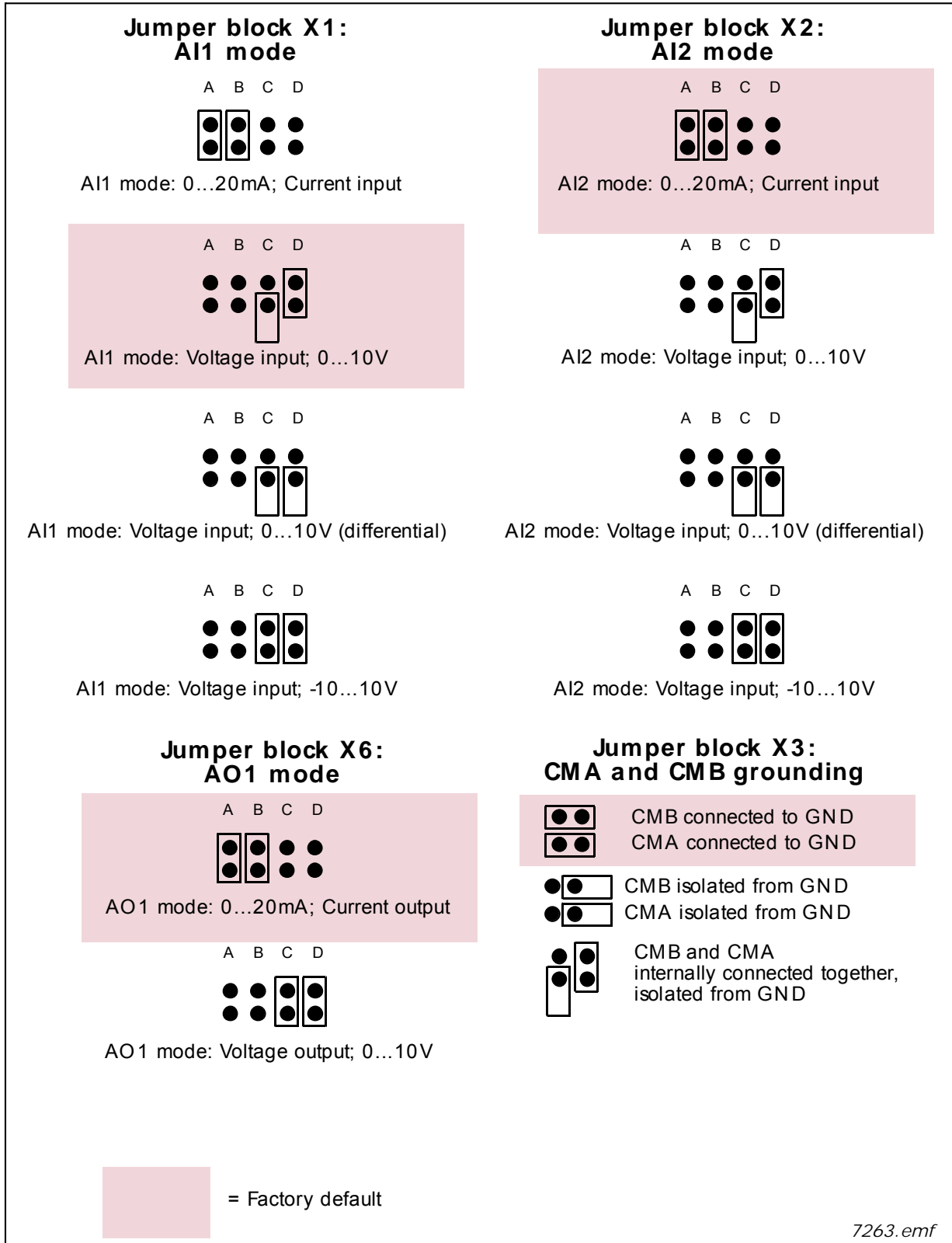


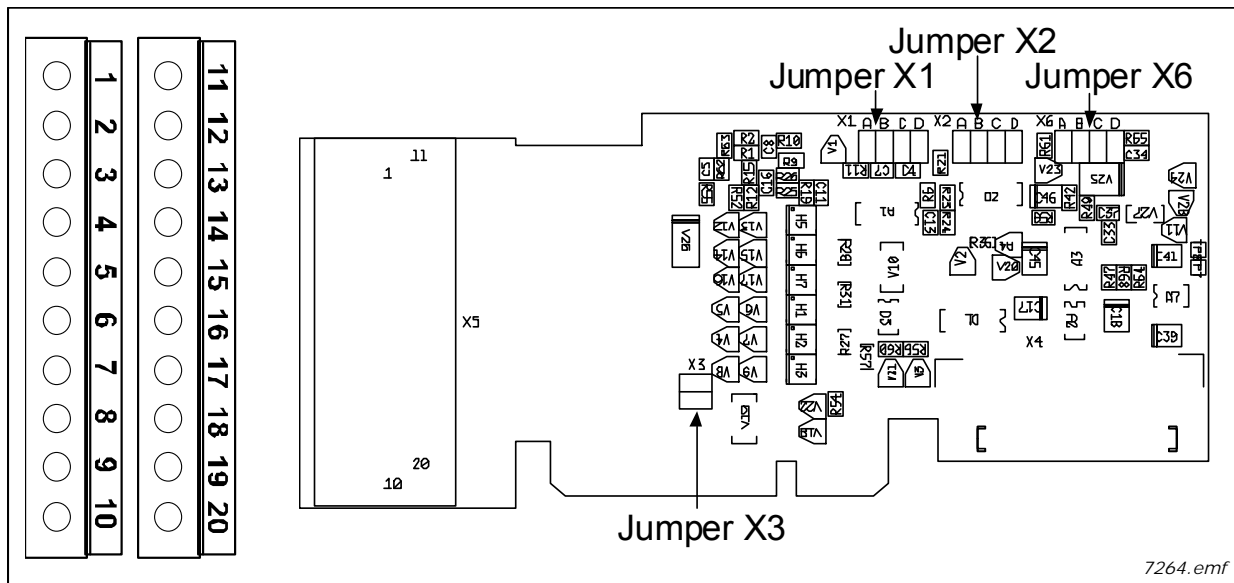
Figure 19. Jumper positions for OPTA8

OPTA8 parameters

Table 16. OPTA8 board-related parameters

Number	Parameter	Min	Max	Default	Note
1	AI1 mode	1	5	3	1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V 5 = -10...+10V
2	AI2 mode	1	5	1	1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V 5 = -10...+10V
3	AO1 mode	1	4	1	1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V

3.1.8 OPTA9



7264.emf

- Description: VACON® NX basic I/O board similar to the OPTA1 except that the I/O terminals are bigger (for 2.5mm² wires; M3 screws).
- Allowed slots: A
- Type ID: 16697
- Terminals: Two terminal blocks; Screw terminals (M3); Coding in terminals #1 and #12.
- Jumpers: 4; X1, X2, X3 and X6 (see page 20)
- Board parameters: Yes (see page 21)