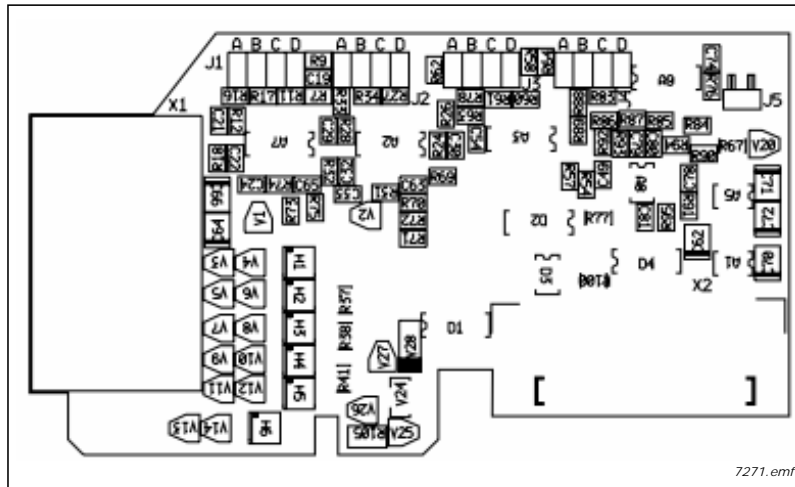


3.1.11 OPTAN



57 Galaxy Blvd., Units 1 & 2, Toronto, ON M9W 5P1
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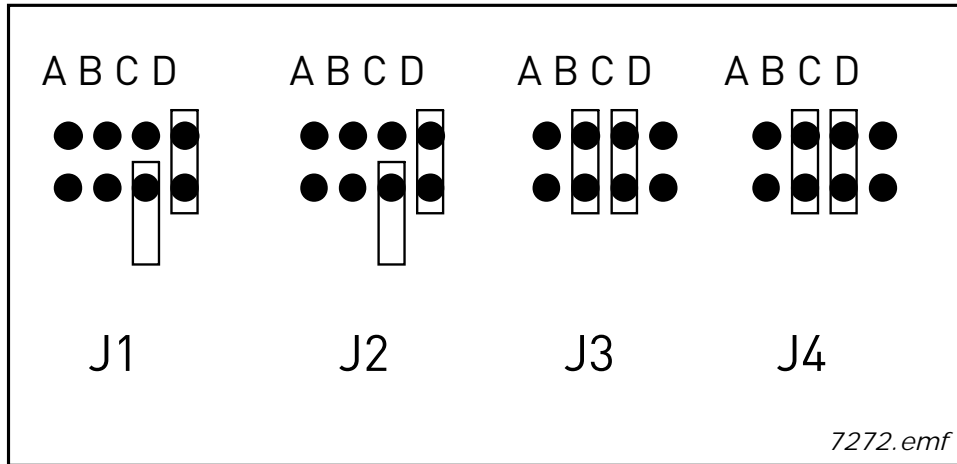
- Description: Standard I/O board for VACON® NXP with 6 galvanically isolated digital inputs and two analogue inputs/outputs. The Analogue channels are programmable:
- 1 = 0...20mA
 - 2 = 4...20mA
 - 3 = 0...10V
 - 4 = 2...10V
 - 5 = -10...+10V
- Allowed slots: A
- Type ID: 16718
- Terminals: Two terminal blocks (coded = mounting of blocks in wrong order prevented, terminals #1 and #12);
- Jumpers: J1, J2, J3, J4
- Board parameters: Yes (see page 51)

I/O terminals on OPTAN

Table 20. OPTAN I/O terminals

| Terminal | | Technical information |
|----------|---------------------------|---|
| 1 | AI1- | Selection V or mA with jumper block J1 Default: 0- +10V (Ri = 200 kΩ) |
| 2 | AI1+ | (-10V..+10V Joy-stick control, selected with jumper) 0- 20mA (Ri = 250 Ω) Resolution 0.1%; Accuracy ±1% Differential input if not connected to ground; Allows ±20V differential mode voltage to GND |
| 3 | AI2- | Selection V or mA with jumper block J2 Default: 0- +10V (Ri = 200 kΩ) |
| 4 | AI2+ | (-10V..+10V Joy-stick control, selected with jumper) 0- 20mA (Ri = 250 Ω) Resolution 0.1%; Accuracy ±1% Differential input if not connected to ground; Allows ±20V differential mode voltage to GND |
| 5 | -10V_POT_REF | 10V reference voltage 10mA |
| 6 | GND POT COM | ● Common for POT |
| 7 | +10V_POT_REF | +10V reference voltage 10mA |
| 8 | A01+ | Analogue output |
| 9 | GND AO COM | ● ● Output signal range: |
| 10 | A02+ | Current 0(4)-20mA, RL max 500Ω, Voltage 0-10V, RL >1kΩ or Voltage -10-+10, RL>1kΩ Selection V or mA with jumper blocks J3 for A01, J4 for A02 Resolution: 0.1% (10 bits); Accuracy ±2% |
| 11 | DIN1 | Digital input 1 (Common DI COM); Ri = min. 5kΩ |
| 12 | DIN2 | Digital input 2 (Common DI COM); Ri = min. 5kΩ |
| 13 | DIN3 | Digital input 3 (Common DI COM); Ri = min. 5kΩ |
| 14 | DIN4 | Digital input 4 (Common DI COM); Ri = min. 5kΩ |
| 15 | DIN5 | Digital input 5 (Common DI COM); Ri = min. 5kΩ |
| 16 | DIN6 | Digital input 6 (Common DI COM); Ri = min. 5kΩ |
| 17 | DI COM | DI COM isolated from GND |
| 18 | DI COM | DI COM isolated from GND |
| 19 | 24 V out (bi-directional) | 24V auxiliary voltage output. Short-circuit protected. ±15%, maximum current 150 mA, +24Vdc external supply may be connected. |
| 20 | GND 24V COM | ● Ground for reference and controls |

Jumper selections



| | | | |
|--------------------|-------------------|--------------|--------------|
| J1 (AI1), J2 (AI2) | Analog Input Mode | 0 ... 10 | D (default) |
| J1 (AI1), J2 (AI2) | Analog Input Mode | -10 ... +10V | CD |
| J1 (AI1), J2 (AI2) | Analog Input Mode | 0 ... 20mA | AB |
| J3 (AO1), J4 (AO2) | Analog Output | 0 ... 10V | BC (default) |
| J3 (AO1), J4 (AO2) | Analog Output | -10 ... +10V | CD |
| J3 (AO1), J4 (AO2) | Analog Output | 0 ... 20mA | AB |

OPTAN board parameters

Table 21. OPTAN board-related parameters

| Number | Parameter | Min | Max | Default | Note |
|---------|-----------|-----|-----|---------|--|
| 7.1.1.1 | AI1 mode | 1 | 5 | 3 | 1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V 5 = -10...+10V |
| 7.1.1.2 | AI2 mode | 1 | 5 | 3 | 1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V 5 = -10...+10V |
| 7.1.1.3 | AO1 mode | 1 | 5 | 3 | 1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V 5 = -10...+10V |

Table 21. OPTAN board-related parameters

| Number | Parameter | Min | Max | Default | Note |
|---------|-----------|-----|-----|---------|--|
| 7.1.1.4 | A02 mode | 1 | 5 | 3 | 1 = 0...20mA 2 = 4...20mA 3 = 0...10V 4 = 2...10V 5 = -10...+10V |

OPTAN board I/O monitor values

Table 22. OPTAN board monitor values

| Number | Parameter | Description |
|----------|------------|-------------|
| 7.1.2.1 | DigIN:A.1 | DIN1 Status |
| 7.1.2.2 | DigIN:A.2 | DIN2 Status |
| 7.1.2.3 | DigIN:A.3 | DIN3 Status |
| 7.1.2.4 | DigIN:A.4 | DIN4 Status |
| 7.1.2.5 | DigIN:A.5 | DIN5 Status |
| 7.1.2.6 | DigIN:A.6 | DIN6 Status |
| 7.1.2.7 | DigIN:A.8 | Not in use |
| 7.1.2.8 | DigOUT:A.1 | Not in use |
| 7.1.2.9 | AnIN:A.1 | AI1 Status |
| 7.1.2.10 | AnIN:A.2 | AI2 Status |
| 7.1.2.11 | AnOUT:A.1 | A01 Status |
| 7.1.2.12 | AnOUT:A.2 | A02 Status |