

16 or 32 Channel Multiplexers for Voltage or Thermocouples

CIO-EXP16/CIO-EXP32



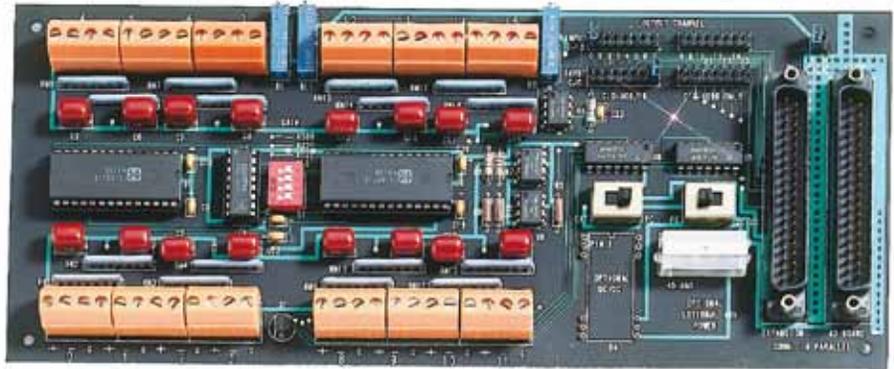
- ✓ 16 or 32 Fully Differential Inputs
- ✓ On-Board Signal Amplifiers
- ✓ Cold Junction Compensation for Thermocouples
- ✓ Designed for CIO-DAS Series Cards

The CIO-EXP16 and CIO-EXP32, respectively, are 16 and 32 channel analog signal multiplexers. These accessory boards, designed for the CIO-DAS08 and CIO-DAS16 cards, can also be used with virtually any A/D board in a variety of multiplexing applications. The CIO-EXP16 multiplexers 16 inputs into a single A/D board channel. The CIO-EXP32 is virtually two CIO-EXP16's, capable of multiplexing 32 inputs into two A/D channels. The A/D card selects the MUX input channel by sending a 4-bit binary value representing that channel. Digital output lines on the A/D card perform this function.

The CIO-EXP boards provide on-board amplifiers for use with low level signals as well as cold junction compensation circuitry, enabling them to read thermocouples directly.

Either four CIO-EXP32 or eight CIO-EXP16 boards may be connected to a CIO-DAS08, thereby expanding the total number of analog inputs to 128.

Either eight CIO-EXP32 or sixteen CIO-EXP16 boards may be connected to a CIO-DAS16, expanding the total number of analog inputs to 256. When used with thermocouples, one A/D board channel is required for the cold junction signal, thus reducing the maximum system analog input channel capacity by 16. If connecting to a CIO-DAS1400, CIO-DAS1600 or CIO-DAS16, the C-EXP2DAS16-10 cable must be used to connect the CIO-DAS16 to the first CIO-EXP.



CIO-EXP16 shown smaller than actual size.

Specifications

Channels: 16 or 32
Gains: 1, 10, 100, 200, 500
Input Protection: $\pm 35V$ continuous
Common Mode Voltage: $\pm 10V$ max
Common Mode Rejection: $>90dB$, all ranges
Analog Output Voltage: $\pm 10V$ max
Thermocouple Types: J, K, T, E, S, R, B
Cold Junction Compensation: $+24.4$ mV/C ($0V @ 0^{\circ}C$)
Accuracy: 0.01% of reading ± 1 bit

Power Consumption

CIO-EXP32: 5V @ 26ma, $\pm V @ 36ma$
CIO-EXP16: 5V @ 26ma, $\pm V @ 25ma$

Dimensions

CIO-EXP32: 406 L x 102 W mm (16 x 4")
CIO-EXP16: 229 L x 102 W mm (9 x 4")

To Order

Model No.	Description
CIO-EXP32	32 channel analog multiplexer (requires cable)
CIO-EXP16	16 channel analog multiplexer (requires cable)
C-EXP2DAS16-10	3.1 m (10') shielded cable. Must be used between CIODAS1600/1400/16 and the first CIO-EXP. After that, use any C37FF cable.
CIO-EXP16/DST	16 channel analog multiplexer with detachable screw terminals (requires cable)
C37FF-2	0.61 m (2') cable with female connectors
C37FFS-5	1.5 m (5') shielded cable, 37-pin with female connector
C37FFS-10	3.1 m (10') shielded cable, 37-pin with female connectors

Comes complete with operator's manual.

Ordering Example: CIO-EXP16 16 channel multiplexer and OCW-1, OMEGACARESM extends standard 3-year warranty to a total of 4 years.