

16 or 32 Channel Multiplexers for Voltage or Thermocouples

CIO-EXP16/CIO-EXP32



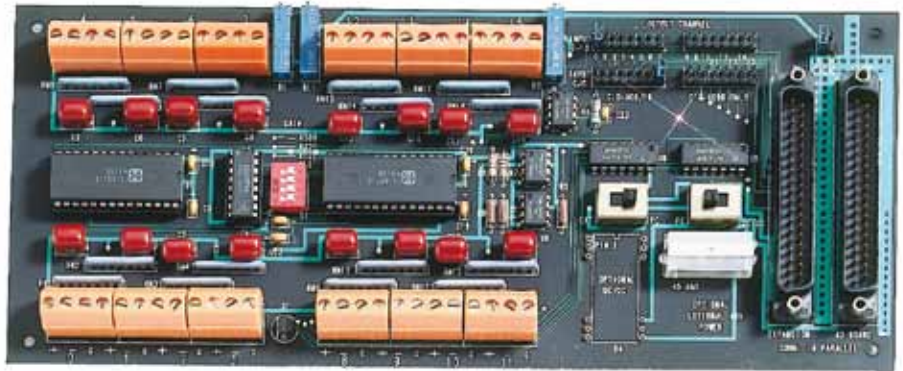
- ✓ 16 or 32 Fully Differential Inputs
- ✓ On-Board Signal Amplifiers
- ✓ Cold Junction Compensation for Thermocouples
- ✓ Designed for CIO-DAS Series Cards

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")



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

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.