

# CIO-EXP16 and CIO-EXP32

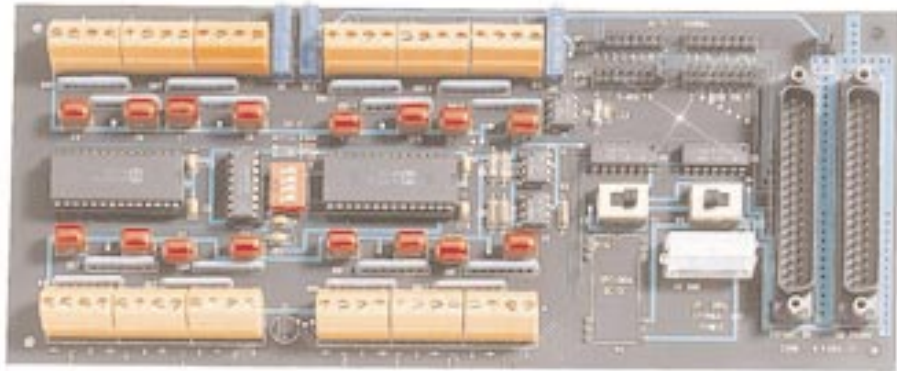
## 16 or 32 Channel Multiplexers for Voltage or Thermocouples



From  
**\$299**



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



CIO-EXP16 Shown

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-DAS 1400, CIO-DAS 1600 or CIO-DAS16, the C-MUXAD16-10 cable must be used to connect the CIO-DAS16 to the first CIO-EXP.

### Specifications

**Channels:** 16 or 32  
**Gains:** 1, 10, 100, 200, 500  
**Input Protection:** +/-35V continuous  
**Common Mode Voltage:** +/-10V max  
**Common Mode Rejection:** >90dB, all ranges  
**Analog Output Voltage:** +/-10V max

### Thermocouple Types:

J,K,T,E,S,R,B  
**Cold Junction Compensation:** +24.4 mV/C (0V @ 0C)  
**Accuracy:** 0.01% of reading +/-1 bit  
**Power Consumption:** CIO-EXP32, 5V @ 26ma, +/-V @ 36ma; CIO-EXP16, 5V @ 26ma, +/-V @ 25ma  
**Dimensions:** CIO-EXP32, 16" x 4" (406 x 102 mm); CIO-EXP16, 9" x 4" (229 x 102 mm)

### To Order (Specify Model Number)

Model Number	Price	Description
<b>CIO-EXP32</b>	<b>\$399</b>	32 channel analog multiplexer (requires cable)
<b>CIO-EXP16</b>	<b>299</b>	16 channel analog multiplexer (requires cable)
<b>C-EXP2DAS16-10</b>	<b>40</b>	10' shielded cable. Must be used between CIODAS1600/1400/16 and the first CIO-EXP. After that, use any C37FF cable.
<b>CIO-EXP32/DST</b>	<b>499</b>	32 channel analog multiplexer with detachable screw terminals (requires cable)
<b>CIO-EXP16/DST</b>	<b>349</b>	16 channel analog multiplexer with detachable screw terminals (requires cable)
<b>C37FF-2</b>	<b>25</b>	2 foot cable with female connectors
<b>C37FFS-5</b>	<b>35</b>	5-foot shielded cable, 37-pin with female connector
<b>C37FFS-10</b>	<b>45</b>	10-foot shielded cable, 37-pin with female connectors

The CIO-EXP16 and CIO-EXP32 include a complete operator's manual.

**Ordering Example:** CIO-EXP16 16 channel multiplexer and OMEGACARE<sup>SM</sup> 1 year extended warranty for CIO-EXP16 (adds 1 year to standard 3 year warranty), \$299 + 30 = **\$329**.



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