

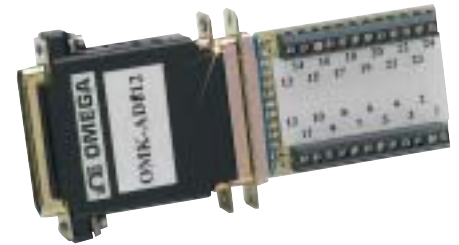
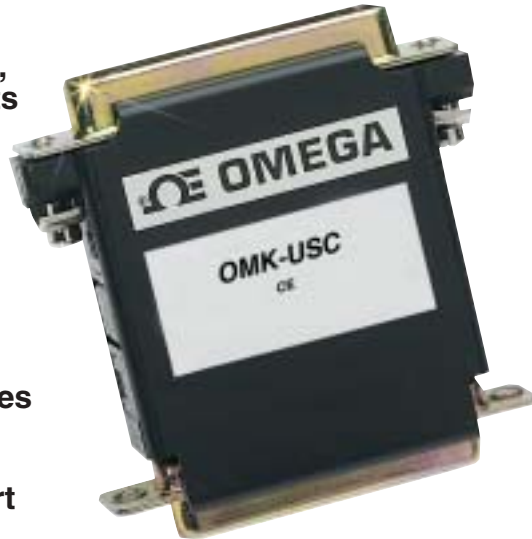
OMEGAdata™ Series Data Acquisition Systems

OMK-AD812 Low Cost Parallel Port System with Signal Conditioning Options



OMK-AD812
\$169

- ✓ Eight Single-ended, 12 Bit Analog Inputs with 0-4.096 V Input Range
- ✓ Flexible Expansion and Signal Conditioning for Thermocouple, Millivolt and Frequency Signals
- ✓ Four Digital I/O Lines (Input or Output)
- ✓ Wide Range of Software Support



The OMK-AD812 is a low cost data acquisition system compatible with most IBM personal computers and compatibles. It plugs directly into the personal computer's parallel port and derives its power from the parallel port's signal lines. It may be used with desktop PCs or because of its compact size it is ideally suited for field use with a portable computer. The OMK-AD812 is an inexpensive, low speed data acquisition product that is very easy to use. Simply plug it in, load its software, connect your devices and you are ready to begin acquiring data. The OMK-AD812 works under Windows 95/98/NT 4.0/2000 and Me. Custom application development with Microsoft Visual Basic, Microsoft Visual C++, Borland C++ Builder, Borland Delphi and others is supported with a simple to use ActiveX control.

The OMK-AD812 includes eight single-ended analog input channels that can also be used in pairs as differential analog inputs.

The maximum sampling rate using the standard software package is 50 samples/sec. The 12 bit resolution combined with the OMK-AD812's fixed 0 to 4.096V full-scale input range provides a resolution of approximately 1 mV. The OMK-AD812 also includes four digital I/O lines. These four lines can be used for input or output.

Signal Conditioning

The OMK-AD812 has a signal conditioning accessory module that gives the OMK-AD812 the ability to accept thermocouple and millivolt signals which are not directly readable by the OMK-AD812. The signal conditioner is supported by the software included with the OMK-AD812. The signal conditioner reduces digital I/O lines on the OMK-AD812 to two. These lines are available for connection to switches or relays. The signal conditioner plugs directly into the OMK-AD812 and will not operate alone.

OMK-USC Universal Signal Conditioner Input for Thermocouples, Voltages and Frequency

The OMK-USC converts the eight single-ended analog inputs to four type "J, K or T" thermocouple inputs or differential millivolt inputs, one ambient temperature reading, one frequency and five voltage inputs. The differential millivolt input has a range of -5 to 45 mV. The frequency input has three different ranges set by an external jumper. The frequency ranges are: 0 to 100 Hz, 0 to 500 Hz or 0 to 1000 Hz. The voltage inputs have a range of 0 to 4.096V.

OMK-STP25A

The OMK-STP25A is a general purpose screw terminal panel that plugs directly into the OMK-AD812 or OMK-USC. This screw terminal panel brings all signals out to external screw terminals.

Specifications

OMK-AD812

Number of Analog Inputs:

8 single-ended

Resolution: 12 bits

Analog Input Range:

0 V to 4.096 V

Input Impedance: 10KΩ

Offset Error: +0.5%/-0.0% F.S.

Linearity Error: ±0.2% F.S.

Gain Error: ±1% F.S.

Overvoltage Protection:

±15 Vdc

DIGITAL I/O

Number of Digital I/O Lines: 4

Max. Current (Sinking): 4 mA

Max. Current (Sourcing): 0.5 mA

Overvoltage Protection:

+5/-0.5 Vdc

OMK-USC

Number of Thermocouple Inputs:

4 (J, K, T or millivolt)

Ranges: Type J (-50 to 800°C)

Type K (-50 to 1000°C)

Type T (-25 to 500°C)

Millivolt -5 to 45 millivolt

Thermocouple Accuracy:

1.0°C @ 25 °C

Thermocouple Resolution: 1°C

Millivolt Accuracy: ±0.5% F.S.

Millivolt Resolution: 0.01 mV

FREQUENCY INPUTS

Number of Inputs: 1

Signal Level:

Min. ±100mV, max. ±4V

Range:

0 to 100 Hz, 0 to 500 Hz

or 0 to 1000 Hz

Accuracy: ±1% F.S.

Resolution: 1 Hz

VOLTAGE INPUTS

Number of Inputs: 5

Range: 0 to 4.096 V

Accuracy/Resolution:

Same as OMK-AD812

PHYSICAL (ALL MODELS)

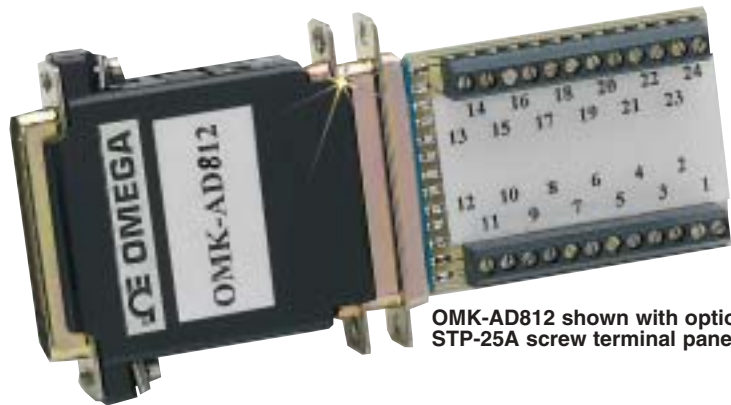
Operating Temperature Range:

0 to 70°C (32 to 156°F)

Dimensions:

58.4mmH x 55.8mmW x 15.2 mmD
(2.3 x 2.2 x 0.6")

Power Consumption: 50 mW



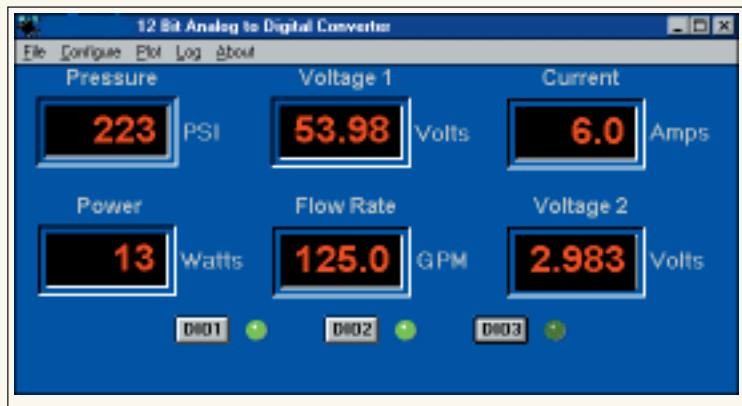
OMK-AD812 shown with optional STP-25A screw terminal panel

To Order (Specify Model No.)

Model Number	Price	Description
OMK-AD812	\$169	Low cost parallel port data acquisition system
OMK-USC	110	Thermocouple, millivolt, frequency signal conditioner for OMK-AD812
OMK-STP25A	35	Screw terminal panel, plugs into OMK-AD812 and OMK-USC signal conditioners

The OMK-AD812 includes data collection software, ActiveX control and complete user's manual.

Ordering Example: OMK-AD812, OMEGACARESM 1 year extended warranty for the OMK-AD812 (adds 1 year to standard 1 year warranty), and OMK-STP25A screw terminal panel, \$169 + 25 + 35 = \$229.



SOFTWARE

The OMK-AD812 comes with a standard software package. This package includes:

- Microsoft Windows data display and data logging software

The OMK-AD812 Microsoft Windows compatible software, which is supplied with the product includes everything needed to display, scale or offset each input. Each displayed value has

a title and unit label that you may customize. The software also displays the status of the 4 digital I/O lines. The standard software panel comes with a Data Plotter. The analog input values may be plotted vs. time. The input values may also be logged to disk at user-specified intervals for later viewing and manipulation with a spread sheet or other program.



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