# 48/24-Channel TTL Digital I/O USB Data Acquisition Modules



- Compatible with USB 1.1/2.0
- Portable
- Bus-Powered
- 48/24 TTL Digital I/O Lines
- Emulates Mode 0 of 8255 PPI
- Buffered Circuits for Higher Driving Capacity than 8255
- Interrupt Handling
- Timer/Counter Interrupt Capability
- Supports Both Dry and Wet Contact
- ✓ 50-Pin Opto-22 Compatible Box Header
- Suitable for DIN-Rail Mounting
- Lockable USB Cable for Rigid Connection

The USB-4700 series consists of true Plug & Play data acquisition devices. No more opening up your computer chassis to install boardsjust plug in the module, then get the data.

It's easy and efficient. Models USB-4751 (48-bit) and USB-4751L (24-bit) are digital I/O data acquisition modules for the USB bus. The 48/24 bits are divided into six/three 8-bit I/O ports, and users can configure each port as input or output via software. The USB-4751 and USB-4751L also provide one event counter and three 16-bit timers, which can be cascaded to become a 32-bit timer.

Data collection is simple. Simply plug the data acquisition module into an available USB port and our easy-to-use Windows software does the rest. The software converts your PC into a real-time strip chart recorder. Data can be printed in graphical or tabular format. It can also be exported to a text or Microsoft Excel file.



Windows software displays data in graphical or tabular format.

**Specifications DIGITAL INPUT** Channels: USB-4751: 48 USB-4751L: 24 (shared with output) Compatibility: 5V/TTL Input Voltage: Logic 0: 0.8V max Logic 1: 2V min **DIGITAL OUTPUT** Channels: USB-4751: 48 USB-4751L: 24 (shared with input) Compatibility: 5V/TTL Output Voltage: Logic 0: 0.4 V max Logic 1: 2.4 V min **Output Capability:** Sink: 0.4 V @ 8 mA Source: 2.4 V @ 4 mA **COUNTER/TIMER** 

Channels: 3

USB-4751, £104, shown smaller than actual size.

**Resolution:** 2 x 16-bit counters, or 1 x 32-bit counter; 1 x 16-bit event counter

#### Compatibility: 5 V/TTL Max Input Frequency: 10 MHz GENERAL

Bus Type: USB 1.1/2.0 Software: Windows 2000/XP I/O Connectors: 50-pin IDC male connectors, pin assignments are fully compatible with Opto-22 I/O module racks Dimensions:

132 L x 80 W x 32 mm H (5.2 x 3.1 x 1.3")

Power Consumption: 5 V @ 200 mA typical; 5 V @ 300 mA max Operating Temperature: 0 to 60°C (32 to 140°F)

Storing Temperature: -20 to 70°C (-4 to 158°F)

Storing Humidity: 5 to 95% RH, non-condensing

#### MOST POPULAR MODEL HIGHLIGHTED!

To Order (Specify Model Number)	
Price	Description
£104	48-channel TTL digital I/O USB module
90	24-channel TTL digital I/O USB module
	Price £104

Comes with Windows Software and complete user manual on CD, a 1.8 m (6') USB 2.0 cable, and DIN rail mounting kit.

Ordering Example: USB-4751, 48-channel TTL DI/O USB data acquisition module and OMEGACARE 1 year extended warranty for USB-4751 (adds 1 year to standard 1 year warranty),  $\pounds104 + 16.75 = \pounds120.75$ 

### omega.co.uk®

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622

Fax +44(0) 161 777 6622

Sales@omega.co.uk

### www.omega.co.uk



**UNITED STATES** www.omega.com 1-800-TC-OMEGA Stamford, CT.

CANADA www.omega.ca Laval(Quebec) 1-800-TC-OMEGA

GERMANY www.omega.de Deckenpfronn, Germany 0800-8266342

UNITED KINGDOM www.omega.co.uk Manchester, England 0800-488-488

> FRANCE www.omega.fr 088-466-342

**CZECH REPUBLIC** www.omegaeng.cz Karviná, Czech Republic 596-311-899

> **BENELUX** www.omega.nl 0800-099-33-44



## More than 100,000 Products Available!

#### Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

#### Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

#### pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

#### Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

#### Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

#### Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters