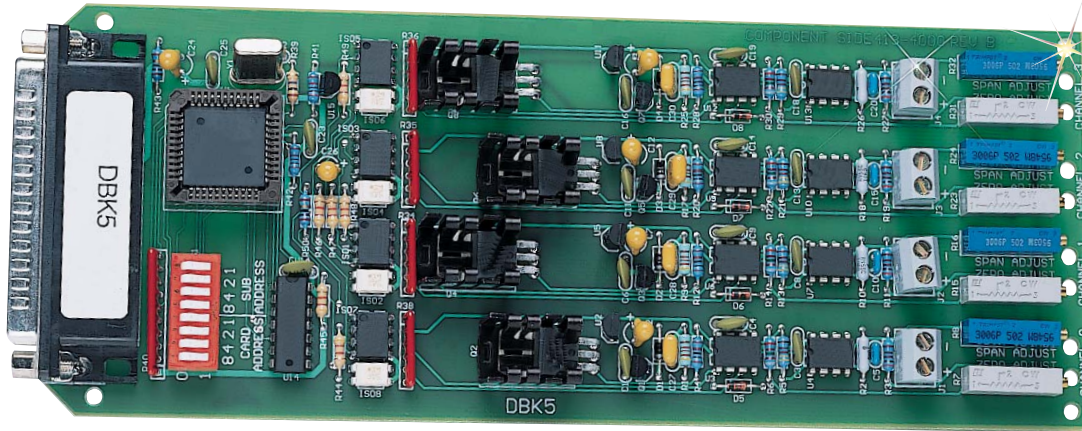


# OMB-DBK5

## 4-Channel Current Output Card for OMB-DAQBOARD-2000 Series



Model OMB-DBK5  
**\$519**



OMB-DBK5, \$519, current-output card controls four isolated 4 to 20 mA current loops, shown smaller than actual size

- Provides Four Isolated 4 to 20 mA Current Outputs
- Compatible with 12 to 45 V Current Loop Supplies
- Features Predictable Power-On & Fault States
- Provides 12-Bit Resolution

The OMB-DBK5 current-output card provides OMB-DAQBOARD-2000 Series data acquisition systems with the ability to control four isolated 4 to 20 mA current loops. The OMB-DBK5 acts as a current loop transmitter by modulating current from an external source. The OMB-DBK5 can be programmed with a static value whenever the data acquisition system is not transferring A/D data. As many as sixty-four OMB-DBK5's can be used in one system, to obtain up to 256 outputs.

### Architecture

Each of the OMB-DBK5's channels contains a 12-bit D/A converter to set the loop current. All channels are optically isolated from the data acquisition system and from one another by 500 V.

### Current Loop

The OMB-DBK5 is compatible with regulated or unregulated loop supplies of 12 to 45 Vdc. It also provides compliance with loop resistances of up to 1950 ohms, depending on the source magnitude.

### Current Loop-Powered Outputs

Since the isolated outputs of the OMB-DBK5 are loop powered, the card maintains control of the loop current even when the data acquisition system is powered down. When loop power is first applied, the OMB-DBK5's outputs assume their 4 mA default state. If at any time the data acquisition system's power is lost or communication with the data acquisition system fails, the OMB-DBK5's outputs retain their last set values.

### Specifications

#### Connectors:

DB37 male, mates with P1 pinout on OMB-DAQBOARDS-2000 Series; screw terminals for signal outputs

#### Accuracy/Linearity:

0.1% full scale

#### Resolution:

4  $\mu$ A/LSB, monotonic

#### Isolation:

500 V

#### Voltage Range:

$V_{loop} = 12$  to 45 V

#### Compliance:

$R_{loop} = (V_{loop} - 6) / 0.020$

#### Example Voltage MDR\*

@  $V_{exc} = 35$  V 1450 Ohms

@  $V_{exc} = 15$  V 450 Ohms

\* MDR (maximum drive resistance)

#### Cables:

Use OMB-CA-37-x with OMB-DAQBOARD-2000 Series

**AVAILABLE FOR FAST DELIVERY!**

### To Order (Specify Model Number)

Model Number	Price	Description
OMB-DBK5	\$519	4-channel current output card

Ordering Example: OMB-DBK5 4-channel current output card, \$519

# omega.co.uk<sup>®</sup>

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](http://www.omega.co.uk)



#### UNITED STATES

[www.omega.com](http://www.omega.com)

1-800-TC-OMEGA  
Stamford, CT.

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)

Manchester, England  
0800-488-488  
+44-(0)161-777-6611

#### CANADA

[www.omega.ca](http://www.omega.ca)

Laval(Quebec)  
1-800-TC-OMEGA

#### FRANCE

[www.omega.fr](http://www.omega.fr)

0800-466-342

#### GERMANY

[www.omega.de](http://www.omega.de)

Deckenfronn, Germany  
0800-8266342

#### BENELUX

[www.omega.nl](http://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

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet 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