



# DBK9™

## 8-Channel RTD Measurement Card



Compatibility: ✓ LogBook ✓ DaqBook ✓ DaqLab ✓ DaqScan ✓ DaqBoard/2000 Series

### Features

- Provides eight RTD channels
- Supports 3- and 4-wire RTDs
- Supports three ranges of RTD resistance
- Features resolution over the full-range of -200° to 850°C span

The **DBK9™** is an 8-channel RTD (resistance temperature device) measurement card for IOtech's data acquisition systems. IOtech's DBK9 supports up to eight channels of 3- or 4-wire RTDs with resistances of 100, 500, or 1000 Ohm. RTD-type selection is made via a jumper on the card that configures all 8 channels.

**Self-Heating Error.** The **DBK9** limits power input to the RTD to 100 micro-watts, minimizing self-heating error in the device. Self-heating error is typically less than 0.1°C of error at the maximum resistance range, which occurs at the top of the temperature range.

**Excitation Sources.** The **DBK9** provides bias for the RTD with three constant voltage sources derived from the A/D's internal power supply.

### Specifications

- Connector:** DB37 male, mates with P1\*; screw terminals provided for signal connections
- Configurations:** 3- or 4-wire
- Alpha:** 0.00385
- Inputs:** 8 channels
- Temperature Ranges:**  
100, 500, or 1000 Ohm: -200° to +850°C
- RTD Excitation Voltage:**
- |          |        |
|----------|--------|
| 100 Ohm  | 635 mV |
| 500 Ohm  | 455 mV |
| 1000 Ohm | 235 mV |
- Accuracy:**  
100, 500, or 1000 Ohm: ±1.5°C
- Resolution:**  
100, 500, or 1000 Ohm: 0.3°C
- Range and RTD Type Adjustments:**  
Jumpers on circuit board
- Power Consumption:** 560 mW

Note: 2-wire RTD connections are not recommended.

### Ordering Information

Description	Part No.
8-channel RTD card	DBK9

#### Cables

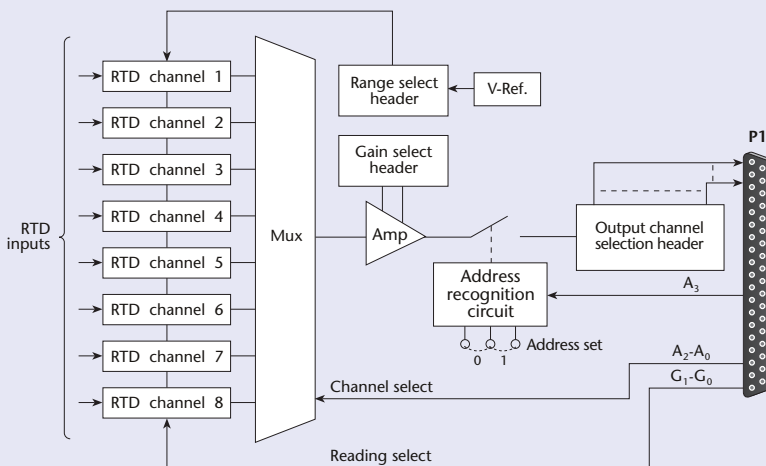
For use with DBK10, use CA-37-x ribbon cable, or contact factory for additional cabling options

For use with DBK60 or LogBook360, no cable is required (except from DBK60 or LogBook/360 to the A/D mainframe)



The 8-channel **DBK9** RTD card accommodates 3- and 4-wire RTDs

### DBK9 RTD Measurement Card Block Diagram



For use with no enclosure, use CA-37-x where x is the number of DBK devices attached

For use with DaqLab series (internal slots), use CA-255-2T with one board, or CA-37-2 for use with two DBK cards (or contact factory for additional cabling options)

For complete information on accessories and cables, visit [www.iotech.com/acc](http://www.iotech.com/acc)

### Related Products

- LogBook
- DaqBook
- DaqLab
- DaqScan
- DBK10
- DBK41
- DBK60
- DaqBoard/2000 Series

\* Attachment to the DaqBoard/2000 series requires a DBK200, DBK202, DBK203A, DBK209, DBK213, or DBK214