

### Features

- 16 differential input channels via BNC connectors
- Unity gain combines with A/D gains to provide full-scale inputs from  $\pm 156$  mV to  $\pm 10$ V

The DBK85 provides 16 channels of differential voltage input. The DBK85 has a single, unity-gain input stage on all channels. When coupled with the A/D's on-board x1 through x64 programmable input gains, the combination provides full-scale input ranges from  $\pm 10$ V down to  $\pm 156$  mV.

The DBK85's ultra-low noise, high-speed design allows users to expand their input channels up to 256 channels without sacrificing measurement integrity.

### Specifications

**Dimensions:** 285 mm W x 220 mm D x 45 mm H (11" x 8.5" x 1.75")  
**Weight:** 1.13 kg (2.5 lbs)  
**Operating Temperature:** -30 to +70 °C  
**Connector:** DBK37 male, mates with P1\*; front-panel BNC connectors for signal connection  
**Gain Ranges:** x1  
**Inputs:** 16 differential voltage inputs  
**Maximum Voltage Range:**  $\pm 10$ V  
**Input Impedance:** 20M Ohm  
**Accuracy:**  $\pm[0.025\% + 150 \mu\text{V}]$  (typ),  $\pm[0.1\% + 250 \mu\text{V}]$  (max)



*The DBK85 adds the convenience of BNC inputs plus 16 additional differential channels to any Daq system*

**Temperature Coefficient:** 10 ppm for every degree outside the range of 0 to 50 °C  
**Noise:** 60  $\mu\text{Vrms}$  (typ)  
**Maximum Input Voltage (without damage):**  $\pm 35$ V  
**3 dB Bandwidth:** 2.6 MHz  
**CMRR:** 80 dB typ  
**Power Consumption:** 755 mW

**Description**  
 Molded T expansion cable; 2 in. CA-255-2T  
 Molded T expansion cable; 4 in. CA-255-4T  
 Ribbon cable, where x is the number of DBK devices attached CA-37-x

**Note:** The CA-37-x ribbon cable can also be used in lieu of the CA-255-x molded T cables.

### Ordering Information

**Description**  
 16-channel differential voltage input module

**Part No.**  
 DBK85

### Accessories & Cables

Rack mount kit RackDBK3  
 Molded T expansion cable for use with DaqBook/2020 and WBK40/41 CA-255-4T

### Product Compatibility

- ✓ DaqBook
  - ✓ DaqLab
  - ✓ DaqScan
  - ✓ DaqBoard/2000 Series
- \* Attachment to the DaqBoard/2000 Series requires a DBK200, DBK202, DBK203A, DBK209, DBK213, or DBK214

### DBK85 Differential Voltage Input Module Block Diagram

