DSCUSB-FQ Fast USB Load Cell Interface

Key Features:

- High Speed – 4800 readings/second max
- High Stability – with 1 part in 8000 resolution
- High Performance
- USB Interface
- Compact
- Rugged IP50 Enclosure
- Simple Connectivity
- No Additional Power Supplies
- Free Downloadable USB Toolkit Software
- Data Logging up to 30 Minutes
- Works with any Strain-Gauge Based Load Cell, Force Transducer, Pressure Sensor, Torque Sensor or Displacement Transducer.

Request Pricing

The DSCUSB-FQ fast USB load cell interface is a fast USB load cell interface that delivers high speed readings of 4800 samples per second, making it ideal for high speed, dynamic applications. It delivers high stability readings thanks to a 13 bit noise free resolution, for improved accuracy.

The DSCUSB-FQ fast USB load cell interface converts a strain gauge transducer inputs into a digital USB Serial output. It is simple and fast to set up as it plugs directly into your PC. It requires no additional power supplies, as it derives all its power requirements directly from the USB bus. The unit connects to a strain gauge transducer with a 9-way 'D' type socket and connects to a PC via a micro USB socket. A DIN rail mounting option is also available.

PC-based calibration of the DSCUSB-FQ fast USB load cell interface is very easy to perform using the FREE downloadable FSU toolkit software. The logging software allows the capture of up to 30 minutes of data at 4800Hz. In addition, the user can switch between engineering units, view a trend chart and export the data to a spreadsheet compatible CSV file.

The DSCUSB-FQ fast USB load cell interface is very compact and housed in a rugged plastic case rated to IP50 making it suitable for all indoor environments.

For lower speed applications, please see our DSCUSB load cell interface which delivers high speed readings of 100 readings per second with a high resolution of 1 in 200,000.

Options:

- DTEMP External Digital Temperature Sensor Module
- DIN Rail Mounting Option

For pricing or any further information, please contact Omni Instruments Ltd.

Measurement and data acquisition solutions

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Industries:

- Laboratory Testing
- Educational Environments
- Research & Development
- Test and Measurements
- Medical

Applications:

- High Speed Strain Gauge Monitoring
- Dynamic Measurements
- Shock Load Testing
- Capture of Fast Transients
- Research & Development
- Impact Force Measurement

Specification:

Parameter		Units
Strain Gauge Measurement	4	wire
Strain Gauge Excitation Voltage	5	Vdc
Strain Gauge Drive Capability	85 to 5000	ohms
Strain Gauge Sensitivity	3	mV/V
Offset Temperature Stability	4	ppm/°C
Gain Temperature Stability	5	ppm/°C
Offset Stability with Time	90	ppm of FR (1)
Gain Stability with Time	30	ppm of FR (2)
Non Linearity before Linearization	25	ppm of FR
Internal Resolution	16 Million	Counts/divs
Resolution @ 4.8kHz readings (noise stable) over 1s	8192	Counts/divs
Resolution @ 4.8kHz readings (Noise stable) over 1s	13	Bits
Measurement Sample Rate	4800	Per Second
Measurement Sample Rate Accuracy	±1.1%	
Electrical		
Power Supply Voltage (USB)	5	Vdc
Power Supply Current (350 Ohm Bridge)	68	mA
Data Transmission		
Maximum Output Cable Length	5	metres
Environmental		
Operating Temperature Range	-40 to +85	°C
Storage Temperature Range	-40 to +85	°C
Maximum Humidity	95	% RH
Protection	IP50	
Dimensions – Cased Version	70.5 x 51 x 20mm excluding 9-way 'D' type socket connector.	

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Dimensions (mm):

DSCUSB-FQ Cased 71 x 51 x 20 mm (2.79 x 2 x 0.78") excluding connectors, with a D9 connector & female micro USB connector, supplied with a USB to micro USB cable (150 cm 4ft 11")

Ordering Codes:

Product Code	Details
DSCUSB-FQ (in enclosure)	Fast USB Load Cell Interface
DSCUSB-FQ-OEM (PCB only)	Fast USB Load Cell Interface Module OEM
DSCUSB-FQ-DIN	Din Rail Mounting Kit

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