

DSC USB

Loadcell Digitiser

- ◆ **PC display in force units**
- ◆ **Traceable system calibration certificate**
- ◆ **Wide range of speed and filter options**
- ◆ **Very high resolution**
- ◆ **Accurate mV/V calibration**
- ◆ **Quick and easy connectivity via USB**
- ◆ **Toolkit software for simple use**
- ◆ **Standard ASCII protocol**



The DSC USB is a compact, high performance digital signal conditioner with USB connectivity aimed at applications, which require high-accuracy measurement repeatability. The unit has a rugged metal enclosure making it suitable for most environments. Simply by plugging the device into a PC data can be extracted from most strain gauge bridge input sensors and acquired by software. No additional power supply or amplifier modules are required. A standard ASCII protocol is used for simple communication. DSC Toolkit software is supplied to make it easier to use the DSC USB for simple applications.

Loadcell connections are via a 9 pin D connector. Full details are given in the manual.

If the DSC USB is supplied with a loadcell it will normally be calibrated to read the loadcell output in the same force units as the loadcell calibration. A traceable system certificate will be supplied for the DSC and loadcell combination. At last engineers now have a PC based force measurement system that unlike most ADC card based systems has full certified traceability.

Alternative calibrations are possible; please consult our engineering department to discuss your requirements.

This digitiser can be used with any of our loadcells. Details of our loadcell families can be found in the Product List and the Loadcell Specifier Guide. If you require copies please contact our sales department or look on our web site at www.novatechloadcells.co.uk.

DSC USB Specification

Description	Min	Typical	Max	Units
Bridge Excitation	4.5	5	5.25	Vdc
Loadcell Excitation System		4 wire		
Bridge Impedance	320	350	5,000	Ohms
Bridge Sensitivity	-3		+3	mV/V
Offset Temperature Stability		1	4	ppm/°C
Gain Temperature Stability		3	5	ppm/°C
Offset Stability with Time		0.002	0.008	%FR *
Gain Stability with Time		30		ppm of FR /1st Year
Non-linearity		0.0005	0.0025	% FR
Internal Resolution		16 Million		Counts/Divisions
Resolution at 1Hz (Noise Stable) **		200,000		Counts/Divisions
Resolution at 10Hz (Noise Stable) **		120,000		Counts/Divisions
Resolution at 100Hz (Noise Stable) **		50,000		Counts/Divisions
Filter	User programmable dynamic recursive type			
USB cable length ***	1.36			m
Case dimensions	See diagram below			
Operating temperature range	-10		50	°C
Storage temperature	-40		85	°C
Humidity	0		95	%RH Non condensing
Data Rate	2400		230000	Baud

Notes:

* From original offset at any time.

** Stability over 100 second period.

*** A USB extension cable can be used extending the total cable length to 5m.

FR = full range.

RH = relative humidity.

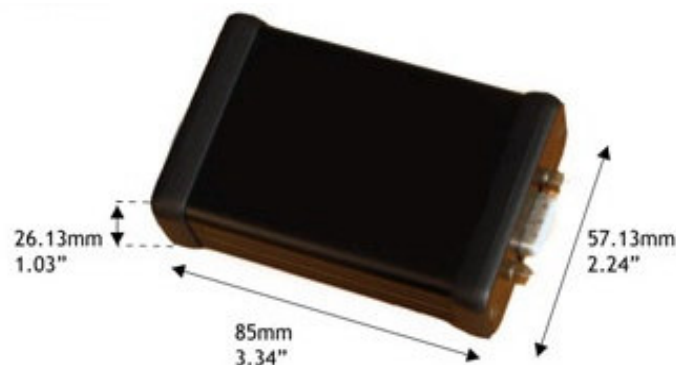
The DSC USB is normally supplied set to 10 readings a second and a data rate of 115200baud. The user can easily change this.


Order codes

DSCHUEASC

Cased USB digitiser with ASCII protocol. High stability.

Supplied with a disc containing the DSC Toolkit program and a user manual. The DSC USB can be calibrated in a number of different ways depending upon the application. Please consult our engineering department for help with your requirements.



 This product complies with the requirements of the European EMC directive.

Novatech reserves the right to vary the foregoing details without prior notice

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