Novatech
Loadcell Design & Manufacture

DSC USB Loadcell Digitiser

- PC display in force units
- 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

Specification

Parameter	Value	Unit
Bridge Excitation	4.5 (Min) / 5 (Typical) / 5.25 (Max)	Vdc
Loadcell Excitation System	4 wire	
Bridge Impedance	80 (Min) / 350 (Typical) / 5000 (Max)	Ohms
Bridge Sensitivity	-3 (Min) / +3 (Max)	mV/V
Offset Temperature Stability	1 (Typical) / 4 (Max)	ppm/°C
Gain Temperature Stability	3 (Typical) / 5 (Max)	ppm/°C
Offset Stability with Time	20 (Typical) / 90 (Max)	ppm of FR *
Gain Stability with Time	30	ppm of FR /1st Year
Non-linearity	5 (Typical) / 25 (Max)	ppm of 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 ***	1.5	m
Case dimensions	See diagram	
Operating temperature range	-40 (Min) / 85 (Max)	°C
Storage temperature	-40 (Min) / 85 (Max)	°C
Humidity	0 (Min) / 95 (Max)	%RH Non condensing
Data Rate	2400 (Min) / 460800 (Max)	Baud

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 ABS 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 available for download 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.

Order Codes

Code	Description
DSCUSB	Cased USB digitiser with ASCII protocol. High stability.
	Manuals and supporting software can be downloaded from the internet. 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.

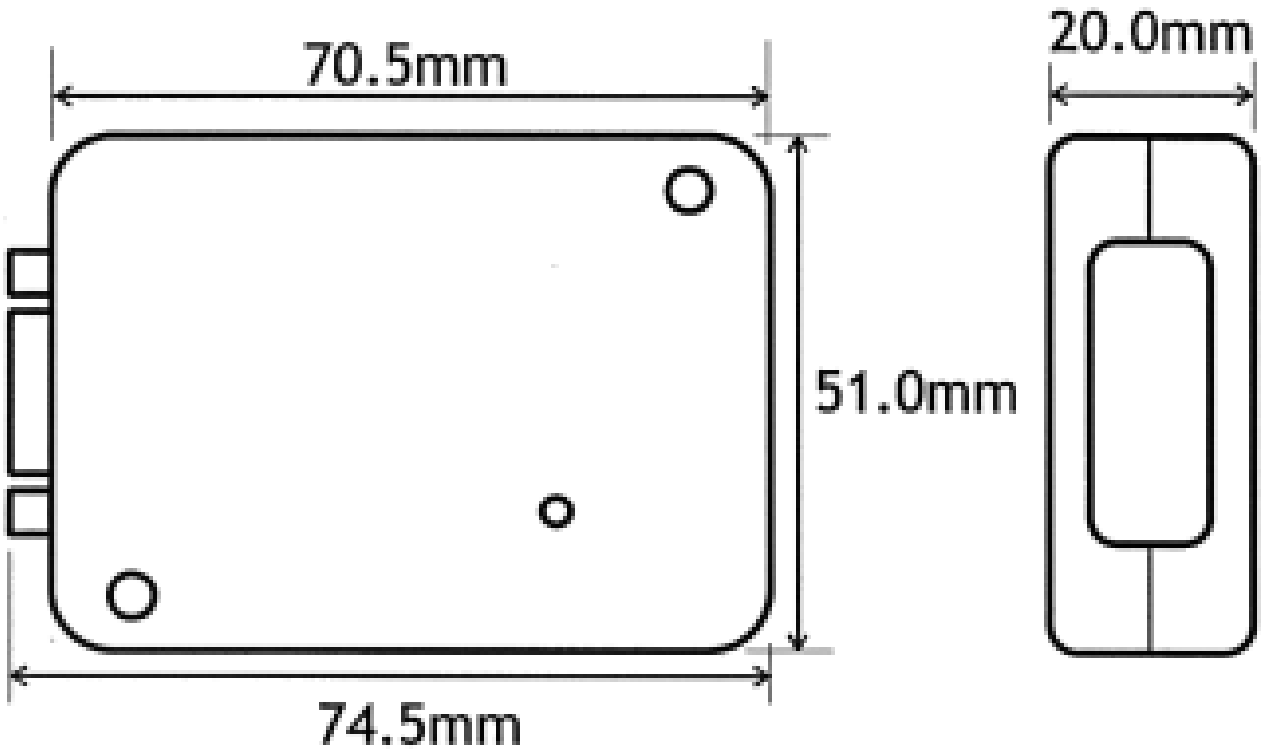
Notes

- * From original offset at any time.
- ** Stability over 100 second period.
- *** A standard USB to micro USB cable is supplied with the DSC USB. 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.

Files

Type	Title	Download
PDF Manual	Printable standard manual for the DSC USB.	Download
PDF Manual	Printable advanced manual for the DSC USB.	Download

Drawing



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