

H&B Load cell Digitizing Unit, LDU 78.1 Ver. 2

High speed; Medium precision; R76-certified

FINAL DATA, 3rd issue.

Property	Specification	Access if/by/during	As
Load cell Excitation Load cell drive capability	5 VDC 200Ω - 2000Ω, e.g. 4 pc 1000Ω load cells		Ohm bridge impedance.
Load cell wiring system	6 wire, can be changed to 4 wire	Solder pads bridged.	
Load cell input range	±2.2 mV/V.		Max load cell output.
Load cell input resolution	< 0.1μV/increment i.e. >100000 c at 2mV/V		
Zero Offset, digital, permanently stored	±2.0mV/V subtractive	TAC registered	ASCII command
Span or slope, digital, permanently stored	Factor to reach n increments/mV/V input	TAC registered	ASCII command.
A/D-conversion rate and resolution	2400 conv./sec. ±260 000 increments.	Set-up switch ON	Fixed.
Signal filter, input, -3dB frequency	17Hz (60dB/decade)		Fixed
Signal filter, adjustable -3dB frequency IIR	None; 0.25; 0.5; 1; 2; 3; 4; 8 or 18Hz 40dB/decade Gaussian. 600 upd /sec.		ASCII command.
Signal filter, adjustable -3dB frequency FIR	None; 2.5; 2.8; 3.2; 3.9; 4.9; 6.5; 9.8 or 19.7Hz Fast response. 600 to 75 upd/sec.		ASCII command.
Averaging filter, adjustable number of samples	1; 2; 4; 8; 16; 32; 64 or 128 (i.e. update rates from 600 to 0.59 upd/sec.)		ASCII command.
Hardware interfaces, four wire	RS485, 32 nodes or RS422 -full duplex.	On command	Initial ASCII command.
Data transmission, standard rates Data transmission type	9.6; 19.2; 38.4; 57.6; 115.2 kB Get results or auto transmit.	Set-up switch ON On command	Initial ASCII command. Request command.
Suppressed transmission of results	<1second upon power up		
Logic inputs	2; Reversed voltage and ESDprotected	Function as programmed	10-30V; 1-3mA; Ref. to ground.
Logic outputs	2 OC's Over current and ESD protected	Function as programmed	<30Vdc; 0,2Amp; Ref. to ground.
Linearity performance	Typical 1:100000 ; Worst case 1:50000 (as max deviation from a straight line through zero and max.)		
Temp. effect on zero, apply also to warm up Temp. effect on span, apply also to warm up Temperature range	Typical 5ppm/°K; Maximum <10ppm/°K; Typical 4ppm/°K; Maximum <8ppm/°K; Compensated -10°C/+50°C; Storage -20°C/+60°C		
EMC -performance	All I/O pins protected by T-filters. Range 0,1 -1000 MHz at>3V/m field strength.		
Power supply	12-24VDC max. 60mA Protected against reversed voltage, burst and ESD.		Non isolated.
External connections	Load cell: Single row 10 pos. Power, logic and digital: Dual row 10 pos. All 2,54 mm pitch.		
Dimensions and housing	L81.3* W30.5* H5.6mm. Two Ø 3,2mm holes, clearances for M3 screw heads.		
Environmental protection and shielding	IP40 -enclosure of tinned steel, attached to the PCB		
Conform to Council Directive	CE in accordance with both 73/23/EEC, 93/98/EEC and 89/336/EEC.		
Certificate of approval	In accordance with EN45.501; Cert.no. DK 0199-R76-02.02. Rev.1 Accuracy Class III: 5000e; 0,7μV/VSI		