Novatech
Loadcell Design & Manufacture

SGA/A and SGA/D Loadcell Amplifier

- Sensitivity from 0.1 to 30mV/V
- Voltage or current outputs
- Zero offset up to 70% of full scale
- Low pass filter 1Hz to 5kHz
- 6kHz bandwidth (-3dB)

Specification

Parameter	Value	Unit
Outputs	Current: 0 to 20mA or 4 to 20mA, loop resistance	
Switches and terminal wiring set the output configuration.		
Sensitivity	Between 0.1 and 30mV/V with a 10V loadcell supply. Set with switches and a potentiometer.	
Zero adjustment	±70% of full range. Set with switches and a potentiometer.	
Non-linearity - typical	±0.03% of full range	
Drift - typical	Zero: 0.5Î¼V/°C at the input (2.5mV/V sensitivity) Span: 70ppm/°C	
Bandwidth	6kHz -3dB, (No filter and >2mV/V sensitivity).	
Filter	1Hz to 5kHz -3dB, set with switches.	
Loadcell supply	10Vdc at 114mA or 5Vdc at 57mA (4 x 350Î© loadcells). Switch selected.	
Operating temperature	-10 to +50°C	
Case material	ABS	
Case dimensions	H 55mm W 80mm D 160mm	
Sealing	IP67	

Connections	Rising clamp terminals, maximum wire size 2.5mm2.	
Power Supply	SGA/A: 110/230Vac 50-60Hz or 18 to 24Vdc, approximately 5W. SGA/D: 18 to 24Vdc, approximately 5W.	
The dc supply must be limited to 18V if the loadcell supply is fully loaded.		

The SGA loadcell amplifier is designed for use with strain gauge loadcells. It provides industry standard current or voltage outputs for accurate interfacing of loadcells with control and monitoring systems.

It has a wide gain range with good zero offset capability. Switch set low pass filtering is provided allowing the best compromise between noise and speed to be found for an application. The unit has a stable loadcell supply that can power up to four 350 ohm loadcells connected in parallel. The amplifier is very flexible allowing a wide range of configurations to be set by switches and terminal wiring. Providing accurate calibration equipment is available it is easy to change the configuration after installation making the SGA an ideal choice for applications that are not fully specified at the start of a project. Calibration is straight forward using non-interactive zero and span trimmers. When it is purchased with a loadcell the amplifier will be calibrated for use with the loadcell. 110/230Vac mains or 18Vdc powered versions of the SGA are available. The mains powered version can be connected to 110/230Vac and 18Vdc simultaneously to provide protection against mains supply failure. If the SGA 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 amplifier and loadcell combination. CE - This instrumentation product complies with the requirements of the European EMC directive.

Files

Type	Title	Download
PDF Manual	Printable manual.	Download

Novatech Measurements Limited

83 Castleham Road, St Leonards on Sea, East Sussex, TN38 9NT, England.
Telephone: +44 (0)1424 852744
Fax: +44 (0)1424 853002
E-mail: info@novatechloadcells.co.uk