

SGA/A & /D

Loadcell Amplifier

- ◆ Sensitivity from 0.1 to 30mV/V
- ◆ Voltage or current outputs
- ◆ Zero offset up to 79% of full scale
- ◆ Low pass filter 1Hz to 5kHz
- ◆ 6kHz bandwidth (-3dB)



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 Ω 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.

This amplifier can be used with any of our loadcells. Details of our loadcell families can be found on our web site at www.novatechloadcells.co.uk.

SGA/A & /D Specification

Outputs	Current: 0 to 20mA or 4 to 20mA, loop resistance <math><500\Omega</math> Voltage: 0 to 5V, 0 to 10V, $\pm 5V$ or $\pm 10V$, maximum current 2mA
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	$\pm 79\%$ of full range. Set with switches and a potentiometer.
Non-linearity - typical	$\pm 0.03\%$ of full range
Drift - typical	Zero: $0.5\mu V/^{\circ}C$ at the input (2.5mV/V sensitivity) Span: 70ppm/ $^{\circ}C$
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 350Ω loadcells). Switch selected.
Operating temperature	-10 to $+50^{\circ}C$
Case material	Black ABS
Case dimensions	H 55mm W 84mm D 164mm
Sealing	IP67 (NEMA 4)
Connections	Rising clamp terminals, maximum wire size $2.5mm^2$.
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.

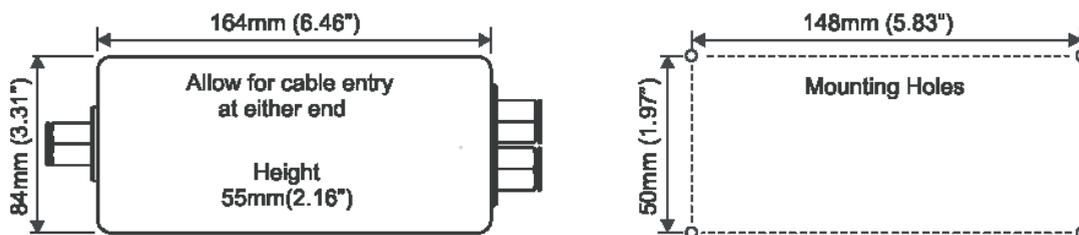
Order codes

SGA/A	Amplifier with 110/230Vac 50-60Hz and 18 to 24Vdc power supply inputs.
SGA/D	Amplifier with 18 to 24Vdc power supply input.

Supplied with an operators manual giving full details for configuring the amplifier. When the SGA is purchased with a loadcell the amplifier will be calibrated with appropriate scaling for use with the loadcell.

If the SGA does not have all the functions you require the LCA20 Intelligent Loadcell Amplifier may be more suitable. Please ask our Sales department for an LCA20 data sheet.

 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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