

SGA (SG200)

Universal Load Cell Amplifier



Selectable Sensitivity (from 0.06 to 30 mV/V)

IP65 ABS Casing

Wide filtering range from 1Hz to 5KHz

User selectable analogue output

Switch selectable offset +/-70% FS

230/110VAC or 18-24VDC power supply options

10V @ 110mA excitation to drive up to 4 x 350 ohm load cells

3 year warranty

The SGA Load Cell amplifier is housed in a light grey ABS enclosure, sealed to IP65. The amplifier offers a range of user selectable analogue outputs, from any standard Strain Gauge input. Ease of calibration and setting of the analogue output range, make the unit extremely user friendly.

technical specification sheet

SGA

Min	Typical	Max	Units	
Power supply (SGA/A):- (110/230Vac) 50 - 60Hz	99/198	110/230	126/253	V AC
Power supply DC :	18		24	V DC (Note 1)
Power supply IS12/24 - Isolated	9		36	V DC
Power supply current DC :- (depends on loading)	50	90	200	mA
Bridge excitation 350R Strain Gauge	9.5	10	10.5	V
Bridge resistance	85			Ohms
Bridge sensitivity (Switchable)	0.06		30	mV/V
Gain adjustment (Pot - fine adj.)	0.06		1.0	mV/V (Note 2)
Offset adjustment (Pot - fine adj.)	-1.25		+1.25	%FR (FR=Full Range)
Offset adjustment (Switchable - coarse adj)	±1.25		±79	%FR
Output load (Voltage output)			2	mA
Output load (Current output)	0		500	Ohms
Bandwidth (No filter and > 2mV/V) - 3dB point	DC		6	kHz
Filter cut-off (Switchable ranges) - 3dB point	1		5000	Hz
Zero temperature coefficient at 2.5mV/V)		0.002	0.009	%FR/ °C at 2.5mV/V FR
Span temperature coefficient		0.007	0.01	%FR/ °C
Linearity		0.03		%FR
Gain stability -1st 1000 Hours		0.2		%FR
Gain stability - 2nd 1000 Hours		0.1		%FR
90 day Offset stability		3.3		µV
Output load stability gain (0 - 100%)			0.01	%FR
Output load stability offset (0 - 100%)			0.01	%FR
Power supply rejection gain (0 - 100%)			0.01	%FR
Power supply rejection offset (0 - 100%)			0.01	%FR
Operating temperature range	-10		50	°C
Storage temperature range	-20		70	°C
Humidity (non-stop condensing)			95	%

Note 1: 18V max at full load

Note 2: Depends on sensitivity settings

Output Options Set by On-Board Switch	±10V, ±5V, 0-10V, 0-5V, 0-20mA, 4-20mA
Connections	Field screw terminals - 2.5mm ² rising clamp
Enclosure	ABS case 160 x 80 x 55 sealed to IP65 fitted with 3 off cable glands
Controls	Gain pot, Offset pot, Coarse gain switches, Coarse offset switches, Filter cut-off switches, Output mode switch



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