

Load Cell Amplifier SGA

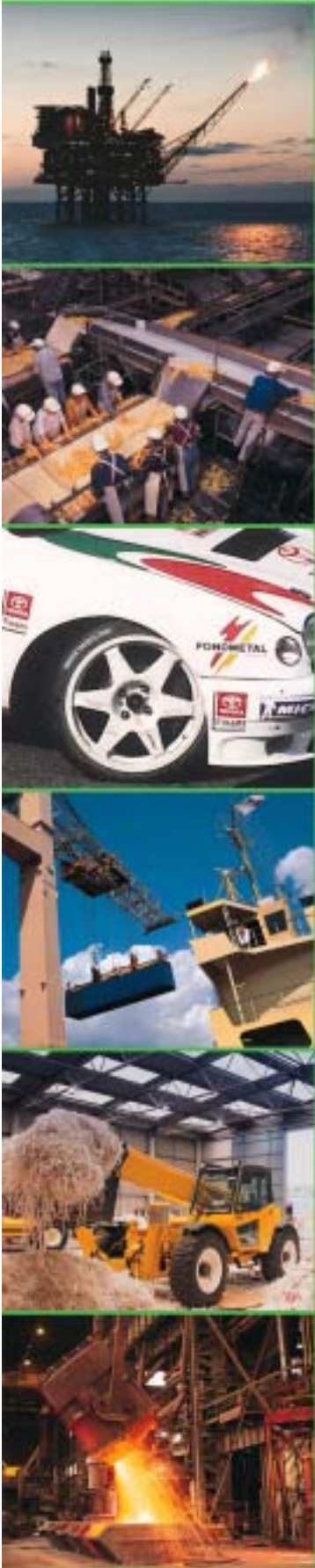


INTRODUCTION

- 10V Excitation for up to 4 x 350R strain gauge bridges.
- Adjustable transducer sensitivity 0.1 to 30mV/V
- User selectable analogue output $\pm 10V$, $\pm 5V$, 0-10V, 0-5V, 0-20mA, 4-20mA
- Simultaneous voltage and current output
- 110/230V AC or 18-24V DC power supply
- Optional 12V DC – car battery power supply
- Direct connection to a PLC, a display unit, industrial instrumentation, chart recorder or a PC (with A/D card).

FEATURES

- Very stable bridge excitation
- Selectable sensitivity
- High frequency filtering
- User selectable analogue outputs.





Procter & Chester Measurements

Specifications:

PARAMETER	MIN	TYP	MAX	UNITS
Power Supply – SGA/ A: 110/230V AC 50-60Hz	-	110/230	-	V AC
Power Supply – SGA / D:	18	-	24*	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 (Selectable)	0.06	-	29	mV/V
Gain Adjustment (Pot – fine adj)	0.06	-	1.0	mV/V
Offset Adjustment (Pot – fine adj)	-1.25	-	+1.25	%FR
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) – 3d B point	DC	-	6	kHz
Filter cut-off (Switchable ranges) – 3d B point	1	-	5000	Hz
Zero temperature coefficient (@2.5mV/V)	-	0.002	0.009	%/°C@2.5mV/V FR
Span temperature coefficient	-	0.007	0.01	%/°C
Linearity	-	0.03	-	%FR
Gain stability – 1 st 1000 hours	-	0.2	-	%FR
Gain stability – 2 nd 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	-20	-	50	°C
Storage temperature range	-40	-	70	°C
Humidity	-	-	95	%

*NB 18V max at full load FR = Full Range

Additional Information

Output options set by on board switch.	±10V, ±5V, 0-10V, 0-5V, 0-20mA, 4-20mA
Connections	Field screw terminals – 2.5mm rising clamp
Enclosure size	ABS case 160 x 80 x 55 sealed to IP65 fitted with three cable glands.
Controls	Gain Pot Offset Pot Coarse gain switches Coarse offset switches Filter cut-off switches Output mode switch.
Order Codes : SGA/A	110/230V AC
SGA/D	18-24V DC
SGA/D Vehicle	12V DC

CE Approved
Document Revision Date: 0505