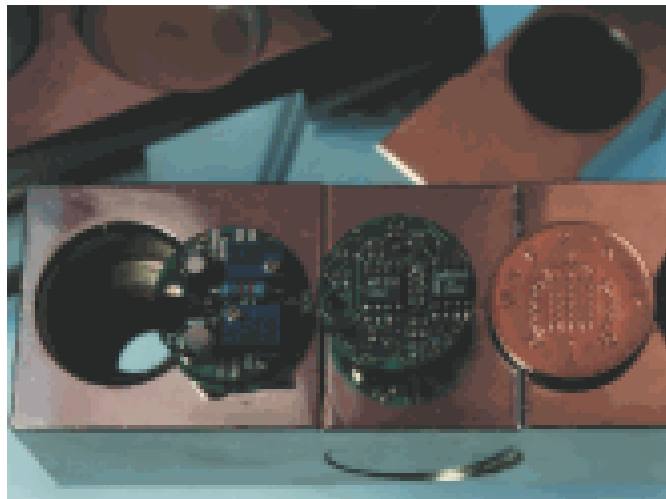


Miniature Amplifier ICA

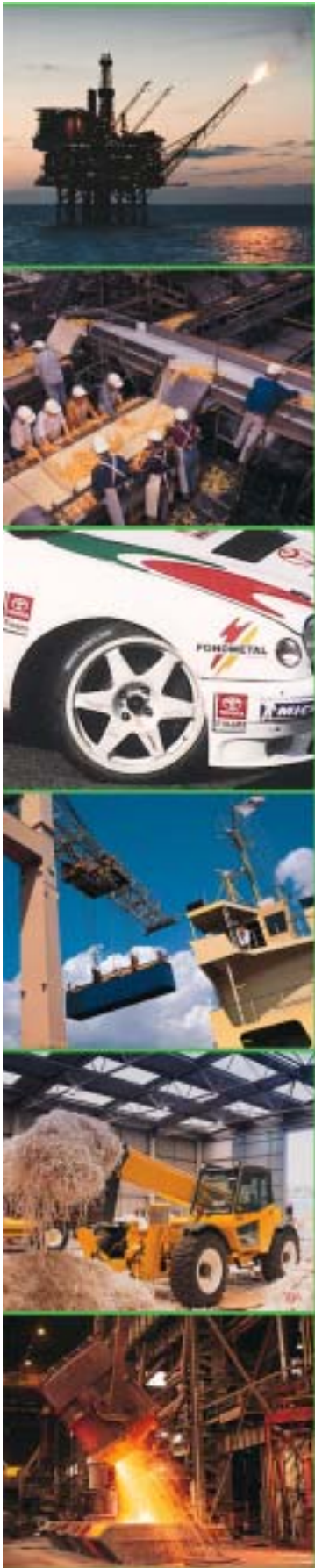


INTRODUCTION

- Sub-miniature design to fit the majority of strain gauge transducers
- Once calibrated and fitted into the transducer the ICA will operate maintenance free.
- Pre-calibration of electronics to transducer saves time at final inspection
- High level signalling
- High noise immunity
- Low supply voltage
- Can used in installations requiring long cabling lengths without reducing performance
- Direct connectivity to a range of analogue input devices as required: PLC, display, chart recorder, industrial instrumentation, PC(with an A/D card).

FEATURES

- Excitation
- Adjustable Offset & Gain
- Analogue Output



Preliminary Specifications:

2 wire 4-20mA- CODE: ICA5

PARAMETER	MIN	TYP	MAX	UNITS
Power Supply	7.5*	24	28	V DC
Bridge excitation	-	1.1	-	V (1k bridge)
Bridge Resistance	350	1000	5000	Ohms
Bridge Sensitivity	0.5	2.5	6	mV/V #(1K bridge)
Output Load	-	-	800**	Ohms
Band width	0	-	2000	Hz
Zero temp stability (at 2.5mV/V)	-	0.001	0.005	%FS/°C (1k bridge)
Span temp stability (at 2.5mV/V)	-	0.007	0.014	%FS/°C (1k bridge)
Linearity	-	0.02	-	%FS
Operating temperature range	-40	-	+85	°C
Humidity	0	-	95	%RH

Connections = Solder pads, 4 for strain gauge. 2 for power/signal.

FS= Full Scale #= set by calibration resistor. **24V supply

- * To check operating minimum voltage the shunt resistor must be less than: $((V_{supply} - 7.5)/20mA - R_{wiring})$
- Note : recommended bridge impedance is 1,000 ohms.

Preliminary Specifications:

3 wire 4-20mA ICA4

4 wire ±10 Volts ICA3

PARAMETER	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Power Supply	13	24	28	±13	-	±15	V DC
Bridge excitation	-	8	-	-	8	-	V
Bridge Resistance	350	-	-	350	-	-	Ohms
Bridge Sensitivity	0.5	2.5	30	0.5	2.5	30	mV/V #
Output Load	-	-	1000*	5000	-	-	Ohms
Band width	0	-	2000	0	-	-	Hz
Zero temp stability (at 2.5mV/V)	-	0.002	-	-	0.002	-	%FS/°C
Span temp stability (at 2.5mV/V)	-	0.005	-	-	0.005	-	%FS/°C
Linearity	-	0.02	-	-	0.02	-	%FS
Operating temperature range	-40	-	+85	-40	-	+85	°C
Humidity	-	-	95	-	-	95	%RH

3 Wire 4-20mA ICA4 : Configuration = sink or source mode.
Connections = Solder pads, 4 for strain gauge, 4 for power and signal.

4 Wire ±10 Volts ICA3 : Connections = Solder pads, 4 for strain gauge, 4 for power and signal.
FS= Full Scale #= set by calibration resistor.

Preliminary Specifications:

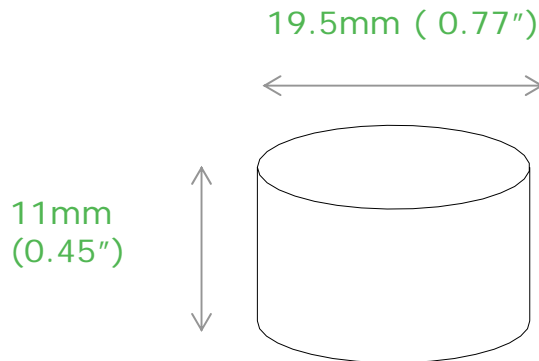
PARAMETER	3 wire 0.1-5Volts ICA2			3 wire 0.1-10 Volts ICA1			UNITS
	MIN	TYP	MAX	MIN	TYP	MAX	
Power Supply	8.5	12	14	13	24	30	V DC
Bridge excitation	-	5	-	-	8	-	V
Bridge Resistance	350	-	-	350	-	-	Ohms
Bridge Sensitivity	0.5	2.5	30	0.5	2.5	30	mV/V #
Output Load	2500	-	-	5000	-	-	Ohms
Band width	0	-	1000	0	-	1000	Hz
Zero temp stability (at 2.5mV/V)	-	0.0035	-	-	0.002	-	%FS/°C
Span temp stability (at 2.5mV/V)	-	0.005	-	-	0.005	-	%FS/°C
Linearity	-	0.02	-	-	0.02	-	%FS
Operating temperature range	-40	-	+85	-40	-	+85	°C
Humidity	-	-	95	-	-	95	%RH

3 Wire 0.1-5 Volts ICA2 : Min. Output Voltage = 0.07V
 Connections = Solder pads, 4 for strain gauge, 3 for power and signal.
 FS= Full Scale #= set by calibration resistor.

3 Wire 0.1-10 Volts ICA1 : Min. Output Voltage = 0.07V
 Connections = Solder pads, 4 for strain gauge, 4 for power and signal.
 FS= Full Scale #= set by calibration resistor.

Controls :
 Offset and gain pot + SOT R's for mV/V sensitivity.

Dimensions :



CE Approved
 Document Revision Date : 0505