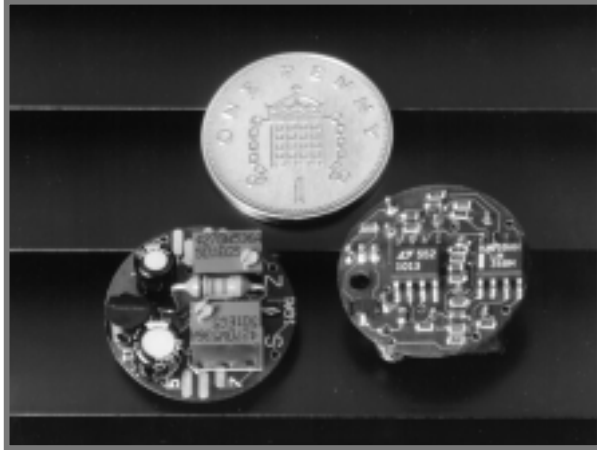


# In-Cell/Miniature Analogue Strain Gauge Voltage & Current SIGNAL AMPLIFIERS

## ICA Series



- **Miniature Design**  
(Ø19mm x 10mm high)
- **0.1-10volt, 0.1-5volt. 0-±10volt and 4-20mA Versions**
- **User Adjustable Sensitivity**
- **Zero and Span Controls using 20 turn potentiometers**
- **CE Approved**
- **3 YEAR WARRANTY**

### DESCRIPTION

The ICA series of In-Cell/Miniature Amplifiers are designed for applications where it is not possible to fit a larger amplifier due to space constraints, or where a direct amplified output is required from a sensor.

The size of the ICA means that it can be fitted integral to most strain gauge based products, giving a pre-scaled output ready for use. Although this form of amplifier does not offer the performance available from our SGA series, but has other advantages, as detailed above.

The ICA can be bought separately or supplied as an integral part of one of our standard or special sensor products. As with all Applied Measurements products! the ICA is supplied with a 3 Year Warranty.

CHARACTERISTICS	ICA1	ICA2	ICA3	ICA4/ICA5	UNITS
<b>Output Range:</b>	0.1 to 10V	0.1 to 5V	0 to ±10V	4 to 20mA	see opposite
<b>Minimum Output:</b>	0.07V	0.07V	0V	3.8mA	see opposite
<b>Number of Connections:</b>	3	3	4	3/2	see opposite
<b>Mode of Operation:</b>	uni-directional	uni-directional	bi-directional	uni-directional	see opposite
<b>Power Supply</b>	<b>Minimum:</b>	13	8.5	±13	Vdc
	<b>Typical:</b>	24	12	-	Vdc
	<b>Maximum:</b>	30	14	±15	Vdc
<b>Bridge Excitation Voltage:</b>	8	5	8	8/1.1	Vdc
<b>Nominal Bridge Resistance:</b>	350	350	350	350min 5K max.	ohms
<b>Input Sensitivity Range:</b>	<b>Minimum:</b>	0.5	0.5	0.5	mV/V
	<b>Typical:</b>	2.5	2.5	2.5	mV/V
	<b>Maximum:</b>	30	30	30	30/6
<b>Minimum Resistance across Output:</b>	5000	2500	5000	N/A	ohms
<b>Maximum Loop Resistance:</b>	N/A	N/A	N/A	1000/800 @ 24V	ohms
<b>Output Bandwidth:</b>	1000	1000	1000	2000	Hz (max)
<b>Zero Temperature Coefficient:</b>	0.002	0.0035	0.002	0.002/0.001	±%FSO/°C typ.
<b>Span Temperature Coefficient:</b>	0.005	0.005	0.005	0.005/0.007	±%FSO/°C typ.
<b>Output Linearity:</b>	<0.02	<0.02	<0.02	<0.02	±%FSO
<b>Operating Temperature Range:</b>	-40 to +85	-40 to +85	-40 to +85	-40 to +85	°C
<b>Relative Humidity:</b>	95	95	95	95	% non-condensing
<b>Connection Method:</b>	7 solder pads	7 solder pads	7 solder pads	8/6 solder pads	see opposite

Transducer Specialists...

## APPLIED MEASUREMENTS LIMITED

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