



SYNECTIC ELECTRONICS

SY014 IN CELL LOADCELL AMPLIFIER



- ◆ 2 wire loop powered or 3 wire versions
- ◆ Current or Voltage outputs
- ◆ Non-interactive zero span pots (trimmers).
- ◆ High noise immunity.
- ◆ Compact (25mm diameter).

The SY014 in-cell amplifier strain gauge bridge can fit inside transducers or strain gauge components providing signal conditioning. With external zero and span trimmers fine adjustment is made and the full scale output can be set anywhere in the range 0.5 to 4.5mV/V. Both trimmers have 22 turns and are non-interactive. The two wire amplifier will only operate with bridge resistance of at least 2000R while the 3-wire amplifier will operate with in any range. Amplifiers are supplied with preconfigured range these can be Unipolar or Bipolar. You specify the range when you order.

Specifications

<i>Parameter</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>			
Supply voltage (DC)						
			3 Wire	10	12	20
			2 Wire	15	20	30
			36			
Input sensitivity (mV/V)	0.5		4.5			
Excitation voltage _i	3 Wire 350/750R bridge 2 wire 1400R bridge 2 Wire 2000R bridge	8V 350R/ 750R bridge load cell 3.3V >=1400R bridge load cell 5V >= 2000R bridge load cell				
Bandwidth (-3dB)		dc - 240Hz flat dc - 900Hz (-3dB)				
Current consumption(mA) 3 wire		68 (1.6W)				
Current consumption (mA) 2 wire		Loop powered				
Full scale step response (usec)		75				
Zero temperature drift at output (uA/C)		2 (0-70 C)				
Span temperature drift (ppm/C)		50				
Non Linearity		0.002%				
Zero adjustment current ver. (mA)	0		11			
Zero adjustment voltage ver. (V)	-4		4			
Span fine adjustment	-20%		20%			
Operating temp. 1x350R cell 24V (C)	-40		125			
Storage temperature (C)	-65		150			
Case	Uncased. Diameter = 25mm, H = 10mm.					
Connections	Solder Pads					