

SY046 Tare-able Signal Amplifier with Digital Display



- 4-20mA standard output with options of 0-5v or 0-10v output
- Drives up to four 350ohm load cells
- User configureable digital gain
- Option of wall mount 110/240v mains or 24V DIN rail mounted PSU

Overview

The SY046 strain gauge amplifier is **an analogue amplifier with the digital gain advantages**, it can excite up to 4 x 350Ω bridge transducers and provides either a 4 – 20mA, 0 – 5V or 0 – 10V output with a **remotely triggered zero offset**. This feature is of great value when load cells are difficult to access or other strain-gauged components have been installed in difficult environments. The display is very useful during set up and calibration.

The SY046 is supplied with a **user configurable digital gain** (gains of 1, 2, 4 or 8). This can be very useful if a small load is to be monitored with a high dead load offset e.g. connected to a 1 tonne cell with a digital gain of 8 the input could accept the full 0 – 1 tonne range while the output covers a range of 125kg anywhere within the input span.

The zero is reset by means of a positive pulse or by a remote switch to the V+ or GND. A wide range of mV/V sensitivities is accepted (please specify) and there is a +/-20% adjustment at the calibration stage of the set up. A 5way switch selects if you want the display to show the output or a % of the full scale, if it is uni-polar or bipolar, the input sampling rate and what gain setting you require. The unit is supplied in an ABS DIN rail mounted case with a 3digit display.

Specifications

<i>Parameter</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>
Power (dc at 22mA + 350R bridge)	9	24	30
Input sensitivity (mV/V)	0.1		2
Excitation voltage (V)	-	5	-
Bandwidth (-3dB)		200Hz	
Power consumption(mW)		350	
Full scale step response (usec) Fast/Normal		35/130	
Zero temperature drift at output (uV/C)	-	0.5	-
Span temperature drift (ppm/C)	-	50	-
Operating temperature. (C)	-40		85
Storage temperature (C)	-65		125
Case	ABS case OR a painted die-cast aluminium case. Dimensions 100 x 50 x 25mm.		
Connections	Terminal blocks for dc power supply and load cell input		