

ABSTRACT

WEIGHING APPARATUS

To facilitate the adjustment of the accuracy and servicing maintenance of the electronic weighing apparatus, the weighing apparatus comprises a load cell 1 and a signal processing circuit 3 for processing a load signal from the load cell 1 to provide a weight signal indicative of the load. The load cell 1 includes a strain inducing element 5 capable of producing strains in proportion to the load imposed thereon, and a bridge circuit 4 having a pair of strain gauges 7 and 8 fixed on the strain inducing element 5 and a plurality of resistors 10 to 12. A load signal is taken from a junction D between the strain gauges 7 and 8; reference voltage signals V_{COM} and V_{REF} are taken from respective junctions C and E between the resistors 10 to 12. The load signal and the reference voltage signals are supplied to the signal processing circuit 3. If each of the strain gauges 7 and 8 is employed in the form of a temperature compensating resistor having a characteristic effective to compensate for both of the temperature coefficient of thermal expansion of the strain inducing element 5 and the temperature coefficient of the Young's modulus, the number of necessary component parts can be reduced

This Sheet Has Been Replaced



(Figure 1)