Monad Electronics

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Introduction

Winner of National Award for year 2009-2010 in R&D

Monad Electronics is An ISO 9001:2015 certified company, which has been involved for over 20 year in the business of designing, manufacturing and export of Electronic Industrial products, Testing equipments , sensors and related indicating and controlling devices and allied products related to Data logging & Acquisition.

Monad is specialized in providing high end and high accuracy customized Force Transducers, Multi-Axial Force Transducers and Torque Sensors. Monad is an expert in providing import substitutes of high end Load Cells, Safe Load Indicators, etc

We are supplying to leading industries and government institutions and are also exporting our products to USA, Germany, Belgium, Turkey, Australia, U.A.E., Singapore, Spain, Brazil, New Zealand, Philippines, UK, Croatia and to the African countries.

Strain Gauge Input Signal Conditioners and Amplifier

Each 550-A strain gauge module provides a single channel of strain gauge input which is filtered, isolated, amplified, and converted to a high-level voltage output. Signal filtering is accomplished with a sate of art filter which is optimized for step response. After the initial field-side filtering, The input signal is integrated by a proprietary circuit. Isolation is provided by transformer coupling, to suppress transmission of common mode spikes or surges.

Strain Gauge Input Signal Conditioners and Amplifier

The 550-A can interface to transducers with a nominal resistance of 100Ω to 10kΩ. Strain gauge excitation is provided from the module by a stable 10V . This source is fully isolated, allowing the amplifier inputs to operate over the full range of the excitation voltage. This feature enables the module to be interfaced to other sensors requiring excitation.

Module output is either voltage or current. For current output models a dedicated loop supply is provided. The system-side load may be either floating or grounded.
Special input circuits provide signal input and excitation protection against accidental wrong connection and against transient events as defined by ANSI/IEEE C37.90.1.

Protection circuits are also present on the signal output and power input terminals to guard against transient events and power reversal.
The modules have excellent stability over time and do not require re-calibration, however, zero and span settings are adjustable up to ±50% to accommodate situations where fine-tuning is desired. The zero adjustment can be used to offset bridge imbalances. The adjustments are made using potentiometers located under the front panel label and are non-interactive for ease of use.

The 550-A can cater for up to 4 parallel-connected weighing cells each with 350 ohms bridge resistance and is therefore exceptionally well suited for operations in weighing technology.

Strain Gauge Input Signal Conditioners and Amplifier

Features:-

Industry Standard Output of either ±10V, 0-20mA or 4-20mA
Very Stable Bridge Excitation
High Frequency Filtering
Wide range filtering 1Hz to 5kHz
Wide Range of Supply Voltage
Fully Isolated Excitation Supply
±0.03% Accuracy
±0.01% Linearity
Easily Mounts on Standard DIN Rail
100dB CMR

Strain Gauge Input Signal Conditioners and Amplifier

Specifications:-

Parameter	Typical	Units
Power supply (SGA/A):- (110/230Vac) 50 - 60Hz	110/220	V AC
Power supply DC	24	V DC
Power supply current DC :- (depends on loading)	100	mA
Bridge excitation	10	V
Bridge resistance	100 To 10K	Ohms
Bridge sensitivity	0.5 To 3.0	mV/V
Gain adjustment (Pot - fine adj.)	50	% FR
Offset adjustment (Pot - fine adj.)	50	% FR
Output load (Voltage output)	10	mA
Output load (Current output)	600	Ohms
Bandwidth (No filter and > 2mV/V) - 3d B point	0.003	kHz
Filter cut-off (Switchable ranges) - 3 d B point	0.008	Hz
Zero temperature coefficient (@2.5mV/V)	0.025	%/°C @ 2.5mV/V
Span temperature coefficient	0.18	FR
Linearity	0.1	%/°C
Gain stability -1st 1000 Hours	3.1	% FR