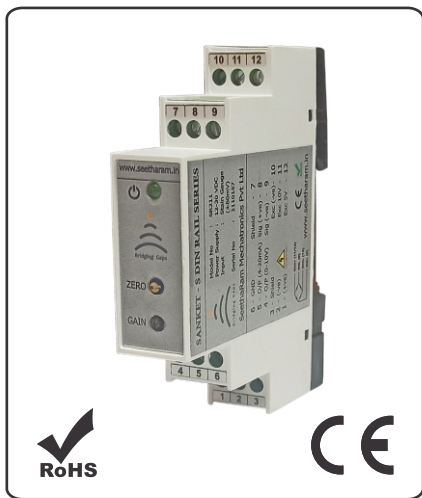


## Sanket -S Din Rail

# USER'S MANUAL



**SeethaRam**  
Mechatronics Pvt Ltd

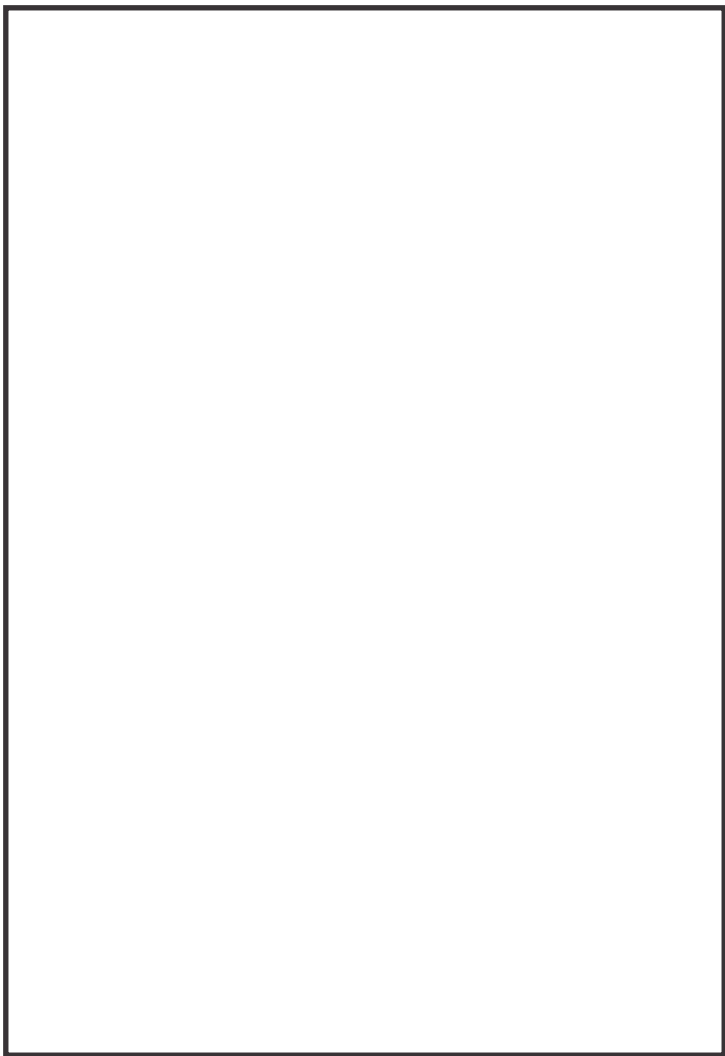
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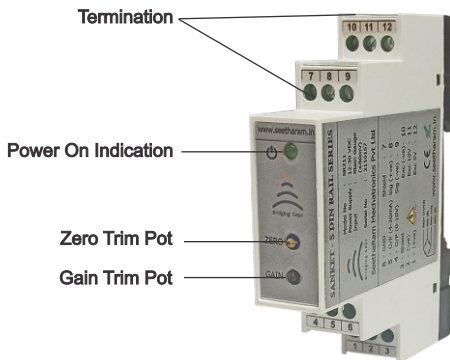
## 01. Technical Specification

Model	SR 211
Input signal	±80 mV
Output load resistance	350 ohm±20 ohm
Supply voltage	12...30VDC
Current drain with sensor connected	60mA
Supply voltage to transducer	5VDC or 10 vdc
Output signal at zero	0 VDC or 4mA
Zero signal accuracy (FSO)	<±1%
Zero adjustment (FSO)	>±15%
F.S. output accuracy	<±0.1%
Span adjustment	>±15%
Inverse polarity protection	YES
Short circuit protection	YES
Temp. range: (%FSO) compensated	0-60°C
Working	-10 ~ 80°C
Storage	-50 ~ 100°C
Termination	PCB terminal block
Wire gauge capacity	0.14mm (25AWG)
Wire strip length	8mm

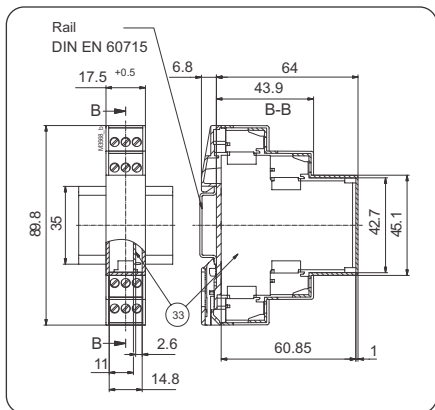
## 02. Electrical Connections

1 - Supply +ve	4 - Voltage O/P	7 - Sig +ve	10 - 10V Exc
2 - Supply -ve	5 - Current O/P	8 - NC	11 - GND
3 - NC	6 - GND	9 - Sig -ve	12 - 5V Exc

### 03. Product Description



### Dimension Details



## 04. Precautions

- Please keep it out of wet places
- Do not set it up near vibration & impulse, high temperature and humidity.
- Keep it out of the direct rays of the sun. Set it up where there is less dust, and Keep it out of direct air including salt and ion.
- Do not use when there is inflammable gas or heavy machinery, and smog.
- Use insulated tuner.v

## 05. Sensor

- Check the following from sensor datasheet
  - Excitation
  - Connection details
  - Bridge resistance
- Check bridge resistance

## 06. ⚠ Warning

“ It is strictly forbidden to use this product for any other purpose of use or to attempt to make any alteration on this product.”

## **07. Procedure**

- Connect according to terminal configuration (Refer electrical connection Pg-4)
- Power the equipment with 24VDC supply. (Ensure working with power led on)
- Calibration procedure for sensor explained below with example of load cell calibration.

### **Quick Start**

- At no load condition tune zero pot to make analog output as zero for voltage and 4 for current.
- At rated load condition tune gain pot to desired analog output ( $\pm 5$  V DC,  $\pm 10$  V DC & 20mA)

### **Actual Load Calibration**

1. Select the master load cell according to the dimension, fixture and capacity of the slave load cell (i.e. the load cell to be calibrated)

2. Connect both the load cells to their respective signal conditioner



3. Place the master in the calibration fixture without any inclination exactly place the slave above the master

5. Check and verify both the output for no load and adjust the zero pot in the slave if it shows any value

For example:

Max capacity of load cell = 100 kg

Max output = 10 volt

80% of full load = 80 kg

Corresponding output = 8 volt

6. So apply 80 kg in both the load cells and compare the output values

7. Adjust the gain pot in the slave and equalize it with the master value

8. Repeat the steps 5 to 7 for two or three times

9. Compare the output for different loads and the difference in outputs are the error quantity.

## ✔ 08. DO'S

- Visual inspection of product.
- Use stable power supply to prevent high voltage surges.
- Ensure LED indication upon power on.
- Check zero and gain trim pot working.
- Ensure electrical connection as specified in manual

## ⊘ DON'T'S

- Interchange polarity connection at input (or) output terminal.
- Interchange connection between input and output terminal side.
- Interchange EXC. +, EXC. - and signal positive terminals connections.
- Tuning of zero and gain pot at respective scale movement.
- Over tune of pot beyond its end point. (End point – stuck while tuning).
- Pull or yank on the Load Cell cable.
- Pinching and flexing the cable may cause damage, especially if it's left in such a position for extended periods.

## 09. EMC Protection

- Electrical and magnetic fields can often induce interference voltages in the measuring circuit.
- Please comply with the measuring circuit. Please comply with the following points:
- Use shielded low-capacitance measurement cables only.
- Do not route the measurement cable parallel to power lines and control circuits. If this is not possible, protect the measurement cable with metal tubing.
- Avoid stray fields from transformers, motors and contact switches
- Please note that compensating currents flowing across the cable shield can cause significant interferences. If the sensor and its evaluation unit have different electrical potentials, an electrical connection with very low resistance must be provided.
- Connect all devices in the measurement chain to the same grounded conductor.
- Always connect the cable shield extensively on the amplifier side, to create the best possible faraday cage.