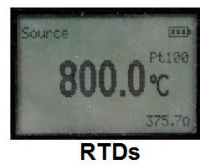
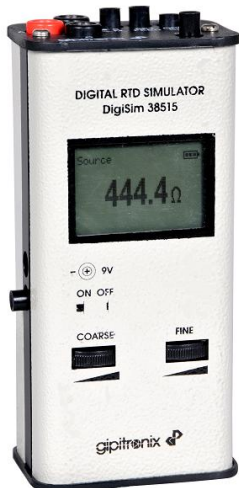


RTD Simulator (DigiSim 38515)



The RTD Simulator (DigiSim 38515) is a micro-controller based portable, battery-operated, precision instrument designed for sourcing as well as measuring Ω & RTD signals. A graphical (128x64) LCD with backlight gives excellent user interface. It is designed to calibrate instruments taking either RTDs or Ω as an input and retain its precision & repeatability over long periods in worst environmental conditions. An exceptionally stable resistance source provides continuously variable precision output signals with two ten-turn potentiometers.



Features

- 🔗 Simulates & measures Ohms & RTDs
- 🔗 High precision, accuracy, reliability & longevity
- 🔗 Graphical(128x64) LCD with backlight for excellent UI
- 🔗 Simultaneous display of temperature & Ohms
- 🔗 Automatic lead compensation for 3-wire RTDs
- 🔗 Eliminates the need of decade resistance boxes
- 🔗 Compact in size and built for toughest environments
- 🔗 Unique self-check facility ensures reliable operations
- 🔗 Powered by AC/DC adapter or 9V Ni-Mh battery

Applications

- 🔗 Simulates & measures multiple RTDs (2-wire/3-wire)
- 🔗 Calibrates temperature indicators with RTD input
- 🔗 Works as ohms source
- 🔗 Calibrates temperature controllers and transmitters

| Code | Function, Range & Resolution | |
|------|--|---------------------|
| | Resistance | RTDs ^[1] |
| D | 0-500 Ω | Pt46 -200 to 850°C |
| | | Pt100 -200 to 850°C |
| D | 0-500 Ω | Pt200 -200 to 400°C |
| | | Cu53 -50 to 180°C |
| | | Ni100 -60 to 180°C |
| | 0.1 Ω | 0.1 °C |
| G | User specified requirements ^[2] | |

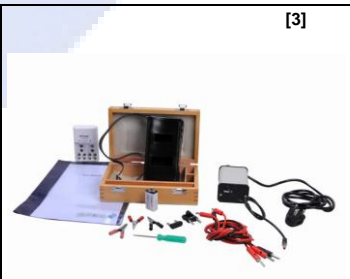
[1] RTDs conform to IEC751/DIN43760 standard .

[2] Contact us with your specific requirements.

Technical Specifications $22 \leq T_A \leq 32^\circ\text{C}$; $V_S = V_{\text{LOBAT}}$; 1yr of calibration validity unless otherwise noted

| | | | |
|------------------------|---------------------|---|--|
| Display Specifications | Display | Graphical (128x64) LCD with backlight | |
| | Function | Ω | RTDs |
| | Resolution | 0.1 Ω | 0.1 $^\circ\text{C}$ |
| | Accuracy | $\pm 0.02\%$ rdg $\pm 0.01\%$ FS ± 2 dgt | $\pm 0.05\%$ rdg $\pm 0.05\%$ FS ± 1 dgt |
| | Self-check | 444.4 ± 2 digits | Not Applicable |
| Bridge Current | | 0.1 to 1 mA depending on range | |
| Effect of leads | | 1 $^\circ\text{C}$ for 10% of nominal resistance per lead for 3-wire RTDs. | |
| Battery | Type | 9V Ni-Mh battery with longer life for field use | |
| | Life ^[1] | 10 - 12 hours in continuous use | |
| | Status | Displays battery level using status bars and "LoBAT" | |
| Mains Operation | | Power jack for AC/DC adapter/charger (230V _{AC} , 50Hz to 10.5V _{DC} , 100mA) | |
| Input Protection | | I/O terminals are protected upto 24 V _{DC} | |
| Storage Temperature | | 0 to 70 $^\circ\text{C}$ w/o batteries and accessories | |
| Humidity | | Less than 90% Rh (Non-condensing) | |
| Operating Temperature | | 5 to 55 $^\circ\text{C}$ | |
| Zero Drift | | < 1dgt per 10 $^\circ\text{C}$ outside the range of $22 \leq T_A \leq 32^\circ\text{C}$ | |
| Span Drift | | < 0.0015% of rdg per $^\circ\text{C}$ | |
| Enclosure Dimension | | 75(W) x 150(H) x 55(D) mm | |
| Enclosure Finish | | Powder coated | |
| Weight | | 600g w/o batteries | |

Standard Accessories

| | | | |
|---------------|----------|--|--|
| Accessories | Included | BS-5(4mm) probes, crocodile clips, screw driver, leather case, AC/DC adapter |  <p>[3]</p> |
| | Optional | 9V Ni-Mh battery, 1 external battery charger, wooden case | |
| Documentation | Included | Warranty certificate ^[1] , Calibration certificate ^[2] , User manual, RTD temperature tables | |
| | Optional | NABL Calibration certificate | |

Ordering Information

| | |
|-----------|---|
| Model No. | Code |
| 38515 | X (As specified in the table) |
| Example | Specify 38515D to order the RTD Simulator using graphical (128x64) LCD with backlight for ranges of 500 Ω and multiple RTDs. |

[1] Valid for 2 years against mfg defects.

[2] Traceable to NABL, India.

[3] Some accessories in the picture are optional.