



# 8 Channel Temperature Data Logger

J / K / PT - 100

IEC/EN 61000-4-2  
IEC/EN 61000-4-4  
IEC/EN 61000-4-5  
IEC/EN 61000-4-8



8-channel temperature data logger designed for high-accuracy industrial monitoring using PT100 RTD sensors (2-wire & 3-wire configurations). The system enables simultaneous multi-point temperature acquisition, logging, and communication for process control and validation. It is a perfect fit to build custom Industrial, Laboratory, PHARMA & CALIBRATION process monitoring and control systems.

**Operational Benefits:**

8-channel temperature data logger can be used to build the custom industrial solution for monitoring and controlling PLC and SCADA, HMI, VFD Motors, servo, Valves, energy meter, actuators, relays, encoder, rfid and finger print readers, industrial sensors and many more with below mentioned operational benefits.

- Improved productivity & asset utilization.
- Preventive maintenance.
- Reduced downtime.
- Paperless production environment.
- Performance Forecasting.
- Production count, rejections.

**Application:**

- To know heat Profile in furnace, foundries for Heat treatment application.
- Online profile recording for Oven & BOD, Incubator, Humidity Chamber.
- Pharmaceutical process validation with graph & excel report in Auto-claves.
- Primary & auxiliary temperature scanning of boiler.
- Room Mapping in Pharmaceutical.

**Technical Specification**

**INPUT:**

	Input	Range
<b>Input Types</b>	J	0 to 600 °C DP Selectable
	K	0 to 1200 °C DP Selectable
	PT-100	-99 to 400 °C DP Selectable
<b>Resolution</b>	J, K, PT - 100 / 2 / 3 Wire = 0.2°C	

Temperature Sensor	External: 2 or 3 wire 100Ω platinum RTD
Temperature Range	-200 °C to +850 °C (-328 °F to +1562 °F)
Temperature Resolution	0.02 °C to 0.04 °C

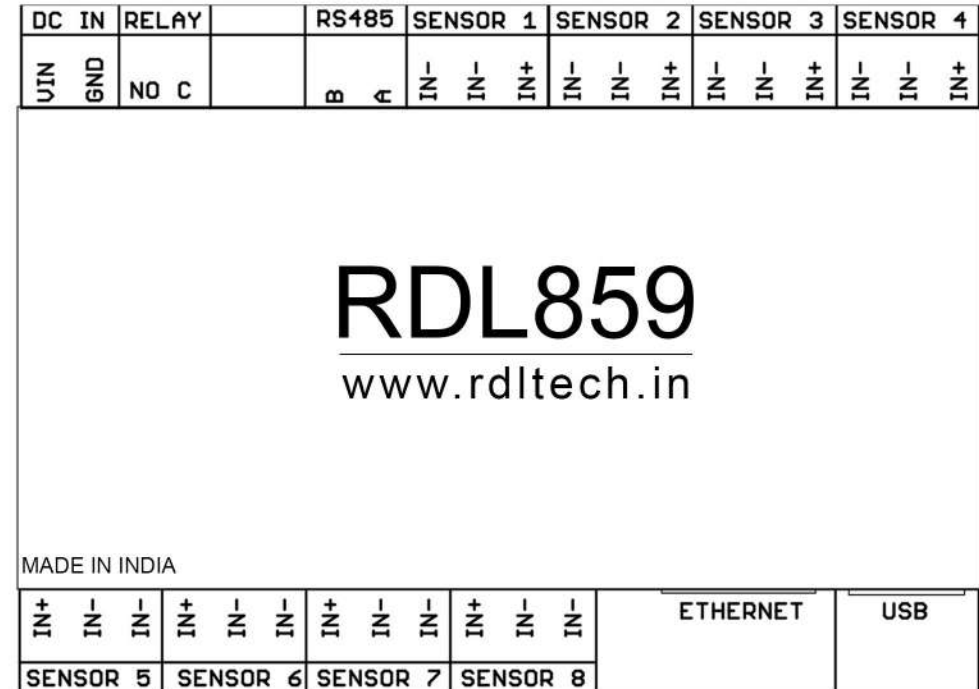
**Environment Condition**

- Operating Temperature : 0 - 75°C
- Relative Humidity : Upto 95% RH

**Features:**

- 1x Relay ( NO & C)
- 1x USB-device interface for configuring, monitoring & download
- 1x WiFi / 2G / 4G / LTE wireless communication
- Configurable Alarm
- Configurable Scaling factor enabling option for Temperature Channel.
- Configurable WiFi / GPRS / 4G / LTE Interface
- Configurable data transferring protocol JSON / MQTT and FTP
- Support secure communication SSL
- Custom Configurable polling interval
- Custom Configurable 32 bit counter input
- 8 GB inbuilt storage
- Data Logs and stores its CSV file during network failure
- Logger Sends offline data once Network and Server Connected
- Configurable Live / Schedule upload offline data
- 8 Channel 2 wire / 3 wire PT100.
- LED indicators to indicate Power, Network availability, status & Fault.
- Auto Maintain socket / server connection
- Easy configurable connectivity for cloud platform AWS / Azure / Google / Oracle / Things board
- Easy Configuration Manager
- Dimensions (L\*H\*W) - 110 MM \*72.5MM\*110MM

**Terminal Diagram**



**Supported Temperature Sensor Type**

- J : 0 to 600° C
- K : 0 to 1200° C
- PT100: -99 to 400° C

### Order Table

Model	RDL859A	RDL859B	RDL859C	RDL859D	RDL859E	RDL859F
PT 100 - 8 Channel	✓	X	✓	X	✓	X
J / K Type - 8 Channel	X	✓	X	✓	X	✓
Isolated Modbus RTU	✓	✓	X	X	X	X
Isolated Modbus TCP	✓	✓	X	X	X	X
Wi-Fi	X	X	✓	✓	X	X
4G / LTE	X	X	X	X	✓	✓
Alarm	✓	✓	✓	✓	✓	✓
JSON / MQTT	X	X	✓	✓	✓	✓
Relay	✓	✓	✓	✓	✓	✓
SD Card (16GB)	X	X	✓	✓	✓	✓



**Our Shipping Partner**



**We Accept**



Note:

1. Unless otherwise specified, all parameters in this datasheet were measured at 25°C and 75% humidity.
2. All index testing procedures in this datasheet are based on our company's corporate standards.
3. We offer product customization, OEM and ODM Services; please contact the sales team @ [sales@rdltech.in](mailto:sales@rdltech.in).
4. We Ship Worldwide.
5. Specifications are subject to change without prior notice.
6. For additional information on Product and to buy online @ [www.researchdesignlab.com](http://www.researchdesignlab.com)

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