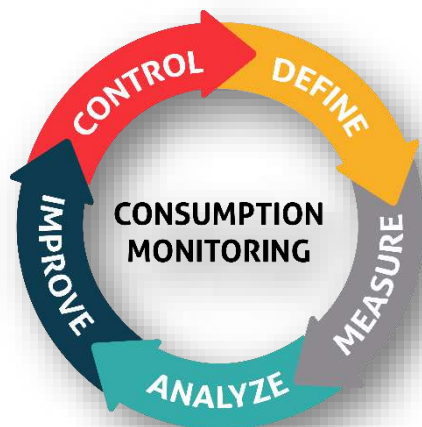


brief features

IRT900 offers precise temperature and monitoring with advanced sensor technology as compare with other well-known brands.

The RDT900 Resistor Depending Temperature stands out for its exceptional ability to deliver precise measurements across a spectrum of environmental conditions. Designed to operate reliably in diverse settings, from fluctuating temperature levels, this advanced terminal ensures consistent accuracy in monitoring temperature.

Whether in controlled environments or challenging outdoor conditions, the RDT900 guarantees robust performance, making it the preferred choice for professionals seeking unparalleled reliability in temperature and humidity monitoring.

The intelligent RDT900 use advanced dual core MCU. Web enabled intuitive and easy-to-use menu for monitoring, configuration and diagnostics. Modbus RS485 option can be used to connect with any PLC or SCADA.

applications customers

APPLICATIONS

For application in industrial and commercial temperature monitoring

- Cold Storage Facility
- Server Rooms and Data Centers
- Pharmaceutical Storage
- Warehouses and Logistics
- Industrial Processes

CUSTOMERS

Industrial and commercial sectors, such as:

- Agriculture
- Textiles
- Pharmaceuticals
- Dairy Cooperatives
- Quality Control Labs
- Research Institutions
- Chemical processing
- Power plants
- Bulk customers (housing societies)
- Hotels

technical specifications

FEATURES

The RDT900 telemetry system with latest CPU with forward-thinking algorithms and web server function modules makes it more user friendly.

Informative

- Smart phone/Laptop any using web browser.
- Remote server

Temperature

- Measuring range: 0~30 °C
- Accuracy: $\pm 1^{\circ}\text{C}$

Environmentally Tough

- UPVC housing
- Wiring harness IP65 with water proof glands

Easy To Use

Operation can be done within minutes. Connect the field instrument with pre made wiring harness. Keep it online and configure it by using local App and get the data on online remote server.

Housing:

- Housing: UPVC IP 65 water proof
- Mounting: Wall mounting
- Size: 140mm X 38mm X 35mm

Communications:

3 types of communications available

- Modbus RS485 (Master)
- Wi-Fi for Web Server
- GSM/GPRS 2G/3G (Optional)

Setup

- Calibration, Configuration & OTA: From any web browser through smart phone or laptop Wi-Fi

SPECIFICATIONS

Power Supply: 9~24 V DC, 5 W

Password: 4 Level of passwords restriction

- Admin Account
- Configuration
- SSID
- OTA

EEPROM:

Data retention 20,000 records (100 B/Record)

CPU:

- Dual core up to 240 MHZ
- Flash RAM: 4 MB
- SRAM: 520 KB SRAM

Analog inputs: 2 Nos. (0~3.3V DC | 12 Bits)

- PT100/PT1000 temperature sensor | 12 Bits
- PT100/PT1000 temperature sensor | 12 Bits

Backup power:

5~7 Hours with Li-ion battery (Optional)

Transmission: User programable

- Interval: 1~60 Minutes
- Method: Using Mosquito broker via MQTT
- Protocol: MQTT

Configuration:

- Local: SPIFFS web browser
- Remote: Could server using MQTT protocol

Database: Mongo DB API development

Environmental:

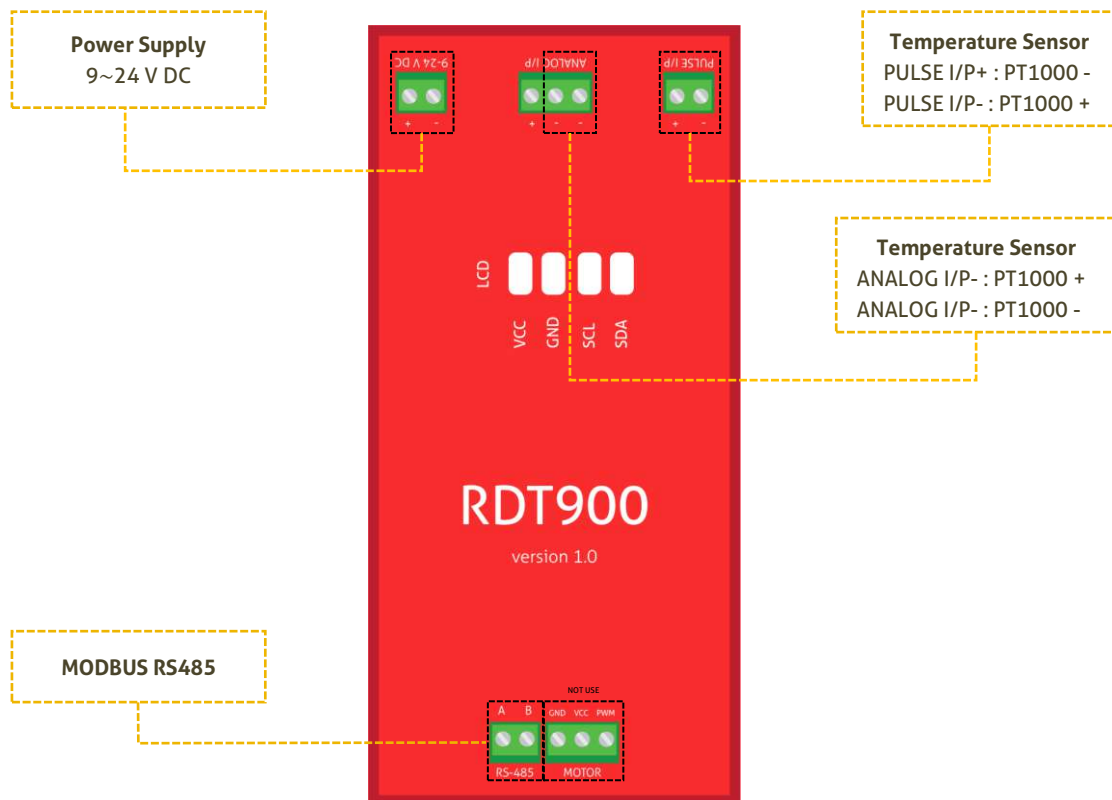
- Operating Temperature: -10~65 °C
- Storage: -40~85 °C
- Relative humidity: 10~90%

Connections:

- PCB: Removable screw terminal blocks
- Terminal block: Wire size: 0.5~0.7 mm
- Field connections: Wiring harness 3 meters

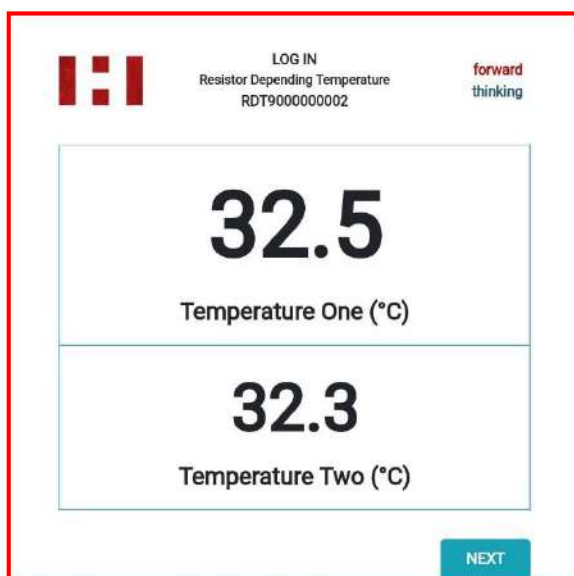
Warranty: 1 year after delivery

wiring connections



setup configuration

A user-friendly interactive web enabled browser interface for flow meter parameters configuration. Every screen is self-explanatory.



1ST Page
For display Temperature One and Two
IP: 192.168.9.54
SSID: RDT9000000xxxx
Password: hunchxxxxxxxxxxxx

RDT900: Resistor Depending Temperature



LOG IN

Resistor Depending Temperature

RDT9000000002

forward

thinking

User Name

Password

LOG IN

For Login Page
User Name: hunch
Password: 77xx



PROCESSING

Resistor Depending Temperature

RDT9000000002

forward
thinking

PARAMETER	PROCESS VALUE
Device: ID	RDT9000000002
mV ADC 1	1201
Temperature One: °C	32.5
mV ADC 2	1201
Temperature Two: °C	32.5

SETTINGS

CLOSE

Parameter display page



SETTINGS
Resistor Depending Temperature
RDT9000000002

forward
thinking

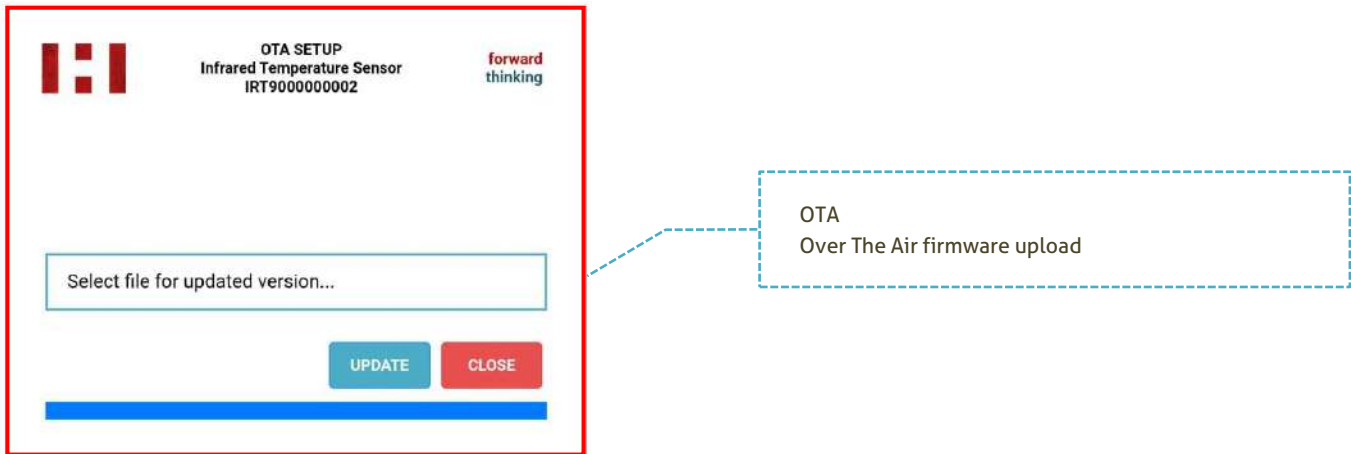
PARAMETER	SET VALUE	NEW VALUE
Device: ID	RDT9000000002	
Reference Voltage: mV	3334	
ADC 1 Offset: mV	40	
ADC 2 Offset: mV	40	
Sample Interval: s	5	
Temperature Zero (0°C): mV	1106	
Temperature Span (300°C): mV	1708	
Modbus ID	2	
Baud Rate	9600	Select Option ▼
Parity	none	Select Option ▼
Stop Bits	1	Select Option ▼
Modbus Delay ms	500	
MQTT IP	amazonusa.link	
MQTT Port	1883	
SSID	Strom Fiber_1	
Password	78900789	
Log Interval Minutes	62	

RESTART

OTA

CLOSE

Settings Page
Configuration
Calibration



communication Modbus tags

CONFIGURATION

RDT900 has built-in Wi-Fi module with complete SPIF web enabled stack. Therefore, there is no need of any special data communication hardware or software, an end user can easily configure it by using any browser through HTTP. In configuration mode RDT900 will act as a Master.

DATA LOGGING

Furthermore, RDT900 has comprehensive feature of data transferring of its tags to local or cloud server by using its built-in Wi-Fi module in Salve mode through HTTP/MQTT. By using feature end user can log the data to its local or remote server for online monitoring and reporting purpose.

MODBUS RS485

RDT900 has built-in Modbus RS485 module, therefore, end user can get the data to PLC, DCS, SCADA, OPC server or any data communication module/software.

Standard Modbus tags detail is as under for communication.

DEFINE NAME	TYPE	ADDRESS	
Temperature One	Swapped long	0X04	Function code: 03 or 04
Temperature Two	Swapped long	0X06	Register type: Holding register

mounting instructions

For proper Temperature measurement, RD900 should be installed properly.



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