

IOThrifty

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# RDP19 Data Logger - Paperless

Trend Recorder, Panel Meter and Industrial Controller for Thermocouples, RTDs and Process Signals



- Large 9 Inch Display
- Four Instruments in One: Data Logger, Paperless Trend Recorder, Panel Meter and Industrial Controller
- Configurable for 6 Inputs, Thermocouples/Millivolt, 0-5vdc, 0-10vdc,0-20mA
- Trend and Tabular Display
- Data Logging to Excel Compatible Format
- 2 Alarm Relays
- View and Log Real Time and Historical Alarm Data
- Easy to Use Touch Screen Display
- Ultra-Thin 38mm
- Panel Mount or Use with Optional Bench-Top Stand
- Password Lockout for Configuration Menus

The RDP19 is a data logger, paperless trend

recorder, multi-channel panel meter and industrial controller all in one instrument. The RDP19s large 9-inch touch screen display provides access to features typically found in instruments many times its price. The recorders ultra slim 38mm profile allows it to be mounted in panel and cabinets where space is limited. It can also be used with the optional bench stand for bench top or desktop use.

## Modular Design Allows Flexible Input and Output Configuration

Employing a modular design, the I/O configuration of the RDP19 can be configured for a variety of input types. The RDP19 includes three input modules. When ordering you can select the input modules that best fit your application requirements. The following input modules are available:

- Two channel thermocouple/millivolt
- Two channel 0-5vdc
- Two channel 0-10vdc
- Two channel 0/20mA
- Two channel 0/20ma with 24vdc power (only two of these modules can be used)
- One channel of RTD(PT100, CU50)

The RDP19 will be shipped configured for the inputs specified at the time of ordering but the modules are field installable. Individual modules may be replaced or changed in the field. Contact IOThrifty for the purchase of individual modules.

## Large 9 Inch Touch Screen Display with Easy to Use Menu Navigation

The large 9-inch touch screen display provides a clear view of the data from any of the different data views. In the Panel Meter Mode, each of the six channels is displayed on the screen in a separate meter large enough to read even from a distance. It is also easy to read when viewing the data as trend curves or tabular data.

The menu navigation is simple and intuitive. Although a detailed user manual is provided most of the recorder functionality is so intuitive it can be used without the manual or any training.

# A Hardware Architecture Designed for an Industrial Environment

Independent processing for the graphic interface and data logging allows data to be collected in true real time without interference from the man-machine interface operations. This is important for logging and control functions for industrial or critical applications. Independent processing is accomplished while maintaining low power consumption.

## **Virtual and External Alarms**

The RDP19 has a host of IAM features. In the Panel Meter View, a visual indication of the alarm is shown on the screen when an alarm is generated. You can also enter the Alarm View Mode to see either the real time alarm data or historical alarm data. The Historical Alarm Data may also be exported to a USB flash drive in an Excel compatible format. The RDP19 also includes two 2A SPDT relays that may be connected to external alarm annunciators or control elements.

# **Rich Data Logging**

The recorder can log both historical data and alarm events. The RDP19 has 150M of storage space. The stored data can be played back on the recorder as a trend curve and/or table format. The data may also be exported to a PC in an Excel compatible format through the USB port to a USB flash drive

## Modular Design Allows Flexible Input and Output Configuration

Employing a modular design, the I/O configuration of the RDP19 can be set to meet the user's exact requirements. Input modules are available for Thermocouples, RTDs, Voltage and 4-20mA signals. There are also a variety of different output modules. Although we are currently only showing one basic configuration, with six thermocouple/mV inputs and two relay outputs on the IOThrifty website, contact IOThrifty to discuss the other I/O options.

To Order	
Model Number	Description
RDP19-(*)-(*)-(*)-L0-L0	RDP19 data logger. Insert input module code for each (*). Each module adds one or two analog inputs

Ordering Example: RDP19-J0-J0-J4-L0-L0: RDP19 with four thermocouple/mV inputs and two 4-20mA inputs

Input Module Code	Description
J0	1 Channel RTD Input
J1	2 Channel Thermocouple/Millivolt Input
J3	2 Channel 0/5Vdc Input
J31	2 Channel 0/10Vdc Input
J4	2 Channel 0-20mA/4-20mA Input
J5	2 Channel 0-20mA/4-20mA Input w/24Vdc power(only two modules
	per RDP19)

#### **SPECIFICATIONS**

#### Size

Display size: 9 inches

Dimensions: 231 W × 170 H × 38 D Cutout size: 221 W × 160 H mm

# **Display**

Color: TFT true color Resolution: 800 × 480 Backlight: long-life LED Input Method: Touch

Touch Screen: four-wire resistive

# Recording/Memory

Recording Interval: 1 to 300 seconds in 1 second intervals

Memory Capacity: 150MB.

# Inputs

**Number:** 6 (includes 3 input modules with 2 channels each)

Accuracy: ± 0.2% FS ± 1 digit

Note 1: When using the thermocouple inputs add 1 plus 1°C for cold junction compensation

Note 2: For B thermocouple accuracy only applies over range of 60-600°C

### **Input Modules**

J0 Single Channel RTD: 3 Wire PT100 or CU50

J1 Two Channel Thermocouple/mV: K, S, R, E, J, T, B, N, C (WRe5-WRe26), 0-20mV, 0-

100mV, 0-1V

J3 Two Channel Voltage: 0-5vdc J31 Two Channel Voltage: 0-10vdc J4 Two Channel Current: 0-20mA

J5 Two Channel Current: 0-20mA with 24vdc power (only two modules can be used in

RDP19)

#### **Temperature Measurement Ranges:**

K (-50 to 1300 °C), S (-50 to 1700 °C), R (-50 to 1700 °C), T (-200 to 350 °C), E (0 to 800 °C), J (0 to 1000 °C), B (+200 to 1800 °C), N (0 to 1300 °C), WRe3~WRe25 (0 to 2300 °C),

WRe5~WRe26 (0 to 2300 °C),. CU50 (-50 to 150 °C), PT100 (-200 to 800 °C)

**Temperature Units: °C** 

**Response Time:** ≤1.5 seconds (with digital filter set to 0 or 1) **Temperature Drift**: ≤0.01% FS / °C (typical value 50ppm / °C)

Outputs: Two SPDT relay contact output 250VAC / 2A

#### General

Power: 100~240VAC, -15%, + 10% / 50-60hZ

Power: ≤5W

Environment: Temperature: -10 °C~+ 60 °C; Humidity: ≤ 90% RH

Storage Temperature: -20 °C~+ 80 °C

Weight: 0.7KG (1.5lbs) Cooling: Natural air flow