

# DAQ1000 Data Acquisition

(10 inch touch screen, Up to 200 channels, 4-20mA/0-20mA, 0-5V/0-10V)

## Key Features

- Support multiple signal input: Voltage, Current, Power, Frequency, Pressure, Temperature, Humidity, Flow, Liquid level, Vibration, Rotating speed etc.
- 8-64 channels, support extended to 200 channels
- 1S/0.1S high-speed sampling
- Standard **3GB internal storage**
- 8-slot mainframes, optional 13 functional plug-in modules
- PC and mobile phone remote monitoring, free IOT platform
- **10 inch** color touch screen, multiple data display interface
- RS232, RS485, Ethernet communication interface and USB ports



## Overview

Saluki DAQ1000 Portable Data Acquisition integrates the data acquisition, display, built-in data storage, and network connectivity. The single device has 8 to 64 channels, even up to 200 channels of simultaneous acquisition. DAQ1000 can measure multiple electrical or physical parameters. It also can be easily remotely transmitted wirelessly to PC & mobile phone monitoring.

The DAQ1000 is an eight-slot mainframe with thirteen optional plug-in modules to facilitate future channel expansion and function enhancement. The portable design is suitable for industrial and laboratory applications.

## Technical Specifications

| Model         | DAQ1000  |
|---------------|--|
| Input Signals | Thermocouple: K, R, B, N, E, T, J, S, WRE5-26, WRE3-25<br>Thermal resistance: pt1000, pt100, cu50<br>Current (DC): 4-20mA, 0-20mA<br>Voltage (DC): 0-5V, 0-10V, $\pm 20\text{mV}$ , $\pm 100\text{mV}$ |

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|                            |   |
|----------------------------|---|
| <b>Number of Channels</b>  | 1 - 200   |
| <b>Power Consumption</b>   | ≤ 25 VA   |
| <b>Storage Interval</b>    | Self-setting from 1s to 19999s  |
| <b>Internal Memory</b>     | 3GB   |
| <b>Acquisition Mode</b>    | Cyclic  |
| <b>Alarm</b>               | High & low limit, 4 alarms per channel  |
| <b>Relay</b>               | 8-channel NO&NC relay 250V 5A   |
| <b>Power Supply</b>        | AC 85V-265V, DC 12V-25V   |
| <b>Battery Module</b>      | 12V, 4000mAh lithium battery, Output voltage DC 12.6V   |
| <b>Distribution Output</b> | 1-channel 24VDC (optional multi-channel 24V or 5VDC output)   |
| <b>Communication</b>       | Standard Ethernet, RS485, RS232 (optional USB/4G/WIFI wirelss),<br>Standard Modbus TCP/RTU protocol |
| <b>Temperature</b>         | Operating: -20°C to +50°C, Storage: 0°C to +50°C  |
| <b>Humidity</b>            | Operating: 0 - 95% RH, Storage: 0 - 85% RH (non-condensing)   |
| <b>Dimension</b>           | 288 × 288 × 200 mm  |

## Optional Modules

### ➤ *Function Description*

| Module                               | P/N   | Description   | Marks                  |
|--------------------------------------|-------|---|------------------------|
| <b>Universal Signal Input Module</b> | 1708P | Temperature K, T, J, E, S, B, R, N,<br>WRe3, WRe5 thermocouple,<br>PT1000, PT100 platinum resistance,<br>DC voltage 0-5V, 0-10V, ±100mV,<br>DC current 4-20mA | 8 channel signal input |

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| Module   | P/N    | Description  | Marks   |
|--|--------|--|---|
| <b>0.1S Fast Acquisition Module</b>            | 1708Q  | Temperature K, T, J, E, S, B, R, N, WRe3, WRe5 thermocouple, DC voltage 0-5V, 0-10V, $\pm 100\text{mV}$ , DC current 4-20mA<br>(8 channel can only be used at the same time of the same type)      | 8 channel signal input                              |
| <b>Relay Alarm Output Module</b>               | 1708J  | Adopt 8 NONC relay contact output. Each contact can be matched with any channel, the maximum current is 5A.  | 8 channel signal input                              |
| <b>Lithium Battery Module</b>                  | 1701   | Adopt 12V/4000mAh high-capacity polymer lithium battery pack. One battery module can be used for 8 channel DAQ to work continuously for 10 hours. Multiple battery modules can be used in one DAQ. | DC 12.6V output                                     |
| <b>Switch Input Module</b>                     | 1708K  | 8-channel switch signal input module, Wet node, 5-24V  | 8 channel signal input                              |
| <b>DC Current Acquisition Module</b>           | 1748   | Maximum 0-10A acquisition (current range can be customized), Accuracy 0.5%, Resolution 1mA   | 8 channel signal input                              |
| <b>DC Voltage Acquisition Module</b>           | 1758   | Maximum 0-120V acquisition (current range can be customized), Accuracy 0.5%, Resolution 1mV  | 8 channel signal input                              |
| <b>AC Power Electric Parameter Test Module</b> | 1706AC | Single-phase AC power electric energy parameter test record can be shared with other modules such as temperature in a DAQ host.  | Current, Voltage, Power, Frequency, Electric energy |

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| Module  | P/N     | Description   | Marks   |
|---|---------|---|---|
| <b>AC &amp; DC Power Electric Parameter Test Module</b> | 1706ADC | Voltage range: 5-600V,<br>Current range: 10mA-20A,<br>Frequency range: 45-400Hz   | AC and DC current, Voltage, Power, Frequency, Electric energy |
| <b>4G Wireless Terminal DTU Module</b>                  | 1702V4  | Support 4G wireless data upload cloud platform  | (Customized)  |
| <b>WiFi Wireless Terminal DTU Module</b>                | 1702V3  | Support WiFi wireless data upload cloud platform  | (Customized)  |
| <b>Temperature &amp; Humidity Acquisition Module</b>    | 1728    | Can be connected to 4pcs 2305 temperature and humidity probes or 8pcs 2305 single humidity probes with an accuracy of $\pm 3\%$ .<br>Can be connected to 8pcs DS18B20 temperature sensors with an accuracy of $\pm 3\%$ . (-20 to 120°C). | 8 channel signal input  |
| <b>NTC Temperature Sensor Acquisition Module</b>        | 1708NTC | Can be connected to 8 or 16 NTC temperature sensors.  | 8 or 16 channel (customized)                                  |

## ➤ Measurement Range

| Type        | Range                | Accuracy                   | Resolution |
|-------------|----------------------|----------------------------|------------|
| 0 - 10V     | -0.5V to +11.000V    | 0.001% F.S. $\pm 0.0001V$  | 0.01V      |
| 0 - 5V      | -0.5V to +5.500V     | 0.002% F.S. $\pm 0.0001V$  | 0.01V      |
| $\pm 20mV$  | -21mV to +21mV       | 0.0025% F.S. $\pm 0.001mV$ | 0.01mV     |
| $\pm 100mV$ | -110.0mV to +110.0mV | 0.0005% F.S. $\pm 0.001mV$ | 0.01mV     |

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| Type   | Range              | Accuracy  | Resolution |
|--------|--------------------|---|------------|
| 4-20mA | +3mA to +21.00mA   | 0.005% F.S. $\pm 0.001\text{mA}$  | 0.01mA     |
| K      | -60°C to +1372°C   | $\pm(0.05\% \text{ rdg. } +0.5^\circ\text{C})$  | 0.01°C     |
| J      | -100°C to +1200°C  | $\pm(0.05\% \text{ rdg. } +0.5^\circ\text{C}) \leq 0^\circ\text{C}$<br>$\pm(0.15\% \text{ rdg. } +0.5^\circ\text{C})$ | 0.01°C     |
| E      | -100°C to +1000°C  | $\pm(0.05\% \text{ rdg. } +0.5^\circ\text{C}) \leq 0^\circ\text{C}$<br>$\pm(0.15\% \text{ rdg. } +0.5^\circ\text{C})$ | 0.01°C     |
| T      | -100°C to +400°C   | $\pm(0.05\% \text{ rdg. } +0.5^\circ\text{C}) \leq 0^\circ\text{C}$<br>$\pm(0.15\% \text{ rdg. } +0.5^\circ\text{C})$ | 0.01°C     |
| N      | -100°C to +1300°C  | $\pm(0.05\% \text{ rdg. } +0.7^\circ\text{C}) \leq 0^\circ\text{C}$<br>$\pm(0.3\% \text{ rdg. } +0.7^\circ\text{C})$  | 0.01°C     |
| W      | 0°C to +1500°C     | $\pm 0.05\% \text{ of rdg } \pm 0.8^\circ\text{C}$  | 0.01°C     |
|        | +1500°C to +2315°C | $\pm 0.05\% \text{ of rdg } \pm 1.1^\circ\text{C}$  | 0.01°C     |
| R      | +400°C to +800°C   | $\pm 0.2\% \text{ rdg. } +2.0^\circ\text{C}$  | 0.01°C     |
|        | +800°C to +1768°C  | $\pm 0.05\% \text{ of rdg } \pm 1.0^\circ\text{C}$  | 0.01°C     |
| S      | +800°C to +1768°C  | $\pm(0.05\% \text{ rdg. } +1.0^\circ\text{C})$  | 0.01°C     |
|        | +400°C to +800°C   | $\pm(0.2\% \text{ rdg. } +2.0^\circ\text{C})$   | 0.01°C     |
| B      | +800°C to +1820°C  | $\pm(0.05\% \text{ rdg. } +1.0^\circ\text{C})$  | 0.01°C     |
|        | +400°C to +800°C   | $\pm(0.2\% \text{ rdg. } +2.5^\circ\text{C})$   | 0.01°C     |
| pt100  | -200°C to +660°C   | $\pm(0.05\% \text{ rdg. } +0.3^\circ\text{C})$  | 0.01°C     |
| pt1000 | -200°C to +300°C   | $\pm(0.05\% \text{ rdg. } +0.2^\circ\text{C})$  | 0.01°C     |
| cu50   | -50°C to +150°C    | $\pm(0.05\% \text{ rdg. } +0.3^\circ\text{C})$  | 0.01°C     |

## Note:

- Warm-up time: more than 30 minutes. Thermocouple measurement includes cold junction compensation accuracy.
- Standard operating state: temperature  $25 \pm 3^\circ\text{C}$ , humidity  $55 \pm 10\% \text{RH}$ .
- Environmental adaptability, the operation temperature is  $-20^\circ\text{C}$  to  $+50^\circ\text{C}$ .
- The operation humidity is 0 to 95%RH (no condensation).

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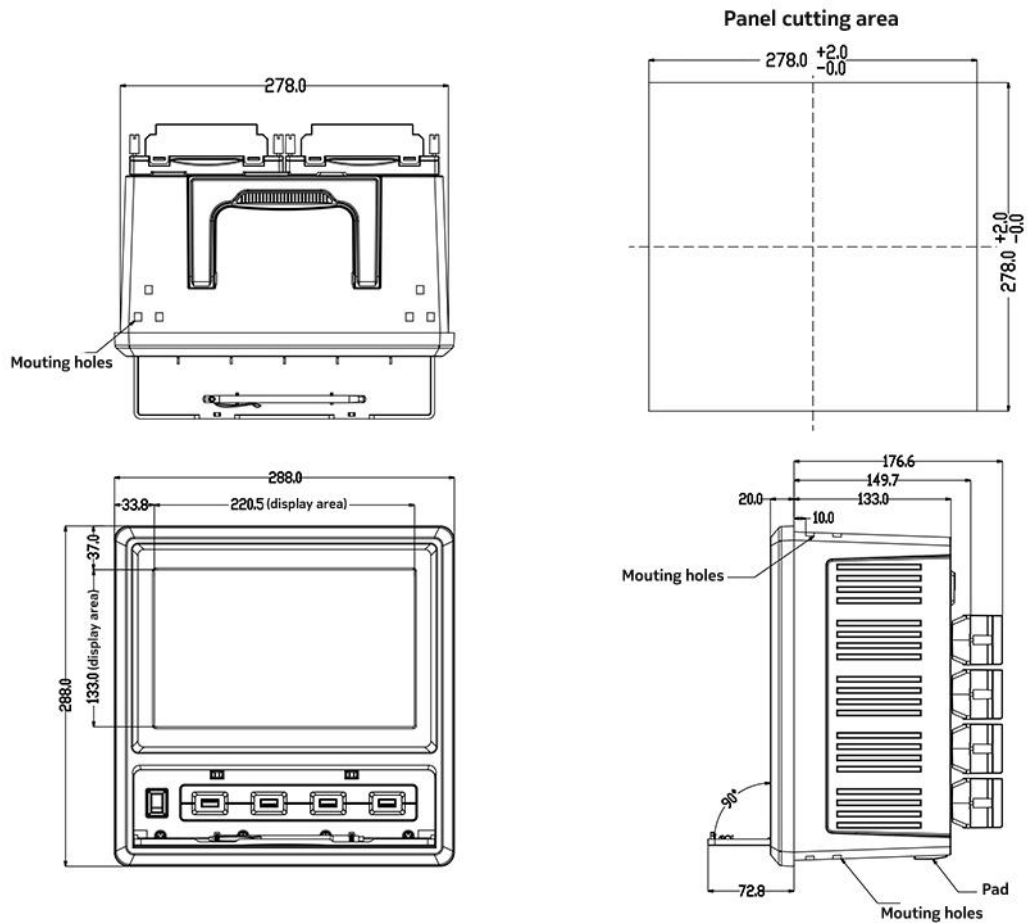
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## Physical Dimensions



*Note: Information will conduct the necessary updates, the contents of this document are subject to change without notice.*