



ENGLISH

Datasheet

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## RS PRO S2 Digital Multimeter



### Feature:

- HVAC Application
- 6,000 counts digital and 60 segments analog display
- Large white LED backlight display
- True RMS measurements on ACV/ACA
- 0.5% DCV accuracy
- AC/DC mA &  $\mu$ A Function
- Capacitance Measurement
- Frequency measurement on ACV
- Diode Test
- $^{\circ}$ C/ $^{\circ}$ F Temperature Function
- High Frequency Rejection
- LoZ with Automatic AC/DC voltage selection
- Data Logging / Manual Save up to 4000 records
- Bluetooth connection with RS PRO connect APP
- Auto Ranging
- Smart Hold
- Min/Max Hold
- Relative Function
- Auto Power Off (can be disabled)
- High Energy Fuse
- Battery Capacity indication in segments
- Included Holster with Probe Holder, Tilt Stand and Magnetic sticker
- CAT IV 600V/ CATIII 1000V Safety Standards

**Specifications:** (All at 23°C±5°C, ≤80% R.H.)

### DC Voltage

Range	Resolution	Accuracy
6.000V	0.001V	±(0.5%+2D)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

**Input Impedance:** 10MΩ

**Overload Protection:** AC/DC 1000V

### DC mV

Range	Resolution	Accuracy
600.0mV	0.1mV	±(0.5%+5D)

**Input Impedance:** 10MΩ

**Overload Protection:** AC/DC 1000V

### AC Voltage

Range	Resolution	Accuracy
600.0mV	0.1mV	±(1.0%+5D)
6.000V	0.001V	±(1.0%+3D)
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

**Frequency Response:** 45Hz to 500Hz

**Input Impedance:** 10MΩ // less than 100pF

**Overload Protection:** AC/DC 1000V

### Lo-Z Voltage

Range	Resolution	Accuracy
600.0V DC & AC	0.1V	±(2.0%+3D)
1000V DC & AC	1V	

**Frequency Response:** 45Hz to 500Hz

**Input Impedance:** less than 3kΩ

**Overload Protection:** AC/DC 1000V

## DC Current

Range	Resolution	Accuracy
600.0 $\mu$ A	0.1 $\mu$ A	$\pm(1.0\%+5D)$
6.000mA	0.001mA	$\pm(1.0\%+3D)$
60.00mA	0.01mA	
400.0mA	0.1mA	

**Overload Protection:** Fuse AC/DC 440mA

## AC Current

Range	Resolution	Accuracy
600.0 $\mu$ A	0.1 $\mu$ A	$\pm(1.5\%+5D)$
6.000mA	0.001mA	$\pm(1.5\%+3D)$
60.00mA	0.01mA	
400.0mA	0.1mA	

**Frequency Response:** 45Hz to 500Hz

**Overload Protection:** Fuse AC/DC 440mA

## HFR (High Frequency Rejection)

- Available for ACV only.
- Add  $\pm 4\%$  to specified accuracy of each function and each range for 45Hz to 200Hz.
- Accuracy is unspecified for  $> 200\text{Hz}$ .

**Cut-off Frequency (-3dB):** 800Hz

## Frequency

Range	Resolution	Accuracy
100.00Hz	0.01Hz	$\pm(0.1\%+2D)$
1000.0Hz	0.1Hz	
10.000kHz	0.001kHz	
100.00kHz	0.01kHz	

**ACV Minimum Sensitivity:**  $> 5\text{V}$  for 1Hz ~ 10kHz

$> 20\text{V}$  for 10kHz ~ 50kHz

unspecified for  $> 50\text{kHz}$

**Overload Protection:** AC/DC 1000V

## Resistance

Range	Resolution	Accuracy
600.0Ω	0.1Ω	±(0.9%+5D)
6.000kΩ	0.001kΩ	±(0.9%+2D)
60.00kΩ	0.01kΩ	
600.0kΩ	0.1kΩ	
6.000MΩ	0.001MΩ	
40.00MΩ	0.01MΩ	±(1.5%+5D)

- There is a little rolling less than ±50 digits when measuring > 10.00 MΩ.

**Overload Protection:** AC/DC 1000V

## Continuity

Range	Resolution	Accuracy
600.0Ω	0.1Ω	±(0.9%+5D)

**Continuity:** Built-in buzzer sounds when measured resistance is less than 20Ω and sounds off when measured resistance is more than 200Ω, between 20Ω to 200Ω the buzzer maybe sound or off either.

**Continuity Indicator:** 2.7kHz Tone Buzzer

**Response Time of Buzzer:** < 100msec.

**Overload Protection:** AC/DC 1000V

## Diode

Range	Resolution	Accuracy
1.500V	0.001V	±(0.9%+5D)

**Open Circuit Voltage:** Approx. 1.8V

**Overload Protection:** AC/DC 1000V

## Capacitance

Range	Resolution	Accuracy
1.000μF	0.001μF	±(1.9%+5D)
10.00μF	0.01μF	±(1.9%+2D)
100.0μF	0.1μF	
1.000mF	0.001mF	
10.00mF	0.01mF	

**Overload Protection:** AC/DC 1000V

## Temperature

Range	Resolution	Accuracy
-40.0°C ~ 400.0°C	0.1°C	±(1.0%+20D)
-40.0°F ~ 752.0°F	0.1°F	±(1.0%+36D)

- Accuracy is available with backlight off. The heat of backlight may deviate the measurement.
- The accuracy does not include the accuracy of the thermocouple probe.
- Accuracy specification assumes surrounding temperature stable to ±1°C. For surrounding temperature changes of ± 2°C, rated accuracy applies after 2 hours.


**Overload Protection:** AC/DC 1000V

## VoltSeek

**Voltage Range of High Sensitivity:** 80V ~ 1000V (At the top edge of the meter)

**Voltage Range of High Sensitivity:** 160V ~ 1000V (At the top edge of the meter)

## General

<b>Sampling Rate:</b>	3 times/sec
<b>Overload Indication:</b>	"OL" or "-OL"
<b>Low Battery Indication:</b>	
<b>Auto Power Off:</b>	Approx. 20 minutes after last operation
<b>Operating Temperature:</b>	0°C~30°C(≤80% R.H.), 30°C~40°C(≤75% R.H.), 40°C~50°C(≤45% R.H.)
<b>Storage Temperature:</b>	-20°C~60°C
<b>Temperature Coefficient:</b>	0.1×(spec. Acc'y)/°C <18°C, >28°C
<b>Safety:</b>	IEC / EN 61010-1, IEC / EN 61010-2-033:CAT IV 600V/CAT III 1000V, EN61326-1
<b>Power Requirement:</b>	Two 1.5V Alkaline type AA batteries
<b>Battery Life:</b>	300 hours(Alkaline)
<b>Size:</b>	82mm(W)×165mm(L)×46mm(H)
<b>Weight:</b>	430g with battery
<b>Accessories:</b>	Battery (installed), Test Leads, Protective Holster, Temperature Probe and User Manual