



# Datasheet ENGLI Stock No. 1993846, 1995003, 1995004, 1995005, 1995006, 1995007, 1995008, 1995009

# **RS PRO S1 Digital Multimeter**



# Feature:

- Industrial PV 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
- 10A ACA / DCA
- Capacitance Measurement
- Frequency measurements on ACV/ACA
- Diode Test
- 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	
60.00V	0.01V	
600.0V	0.1V	±(0.5%+2D)
1000V	1V	

Input Impedance: 10MΩ

Overload Protection: AC/DC 1000V

#### DC mV

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

Input Impedance:  $10M\Omega$ 

Overload Protection: AC/DC 1000V

#### **AC Voltage**

Range	Resolution	Accuracy
600.0mV	0.1mV	±(1.0%+5D)
6.000V	0.001V	
60.00V	0.01V	. (4.00(+2D)
600.0V	0.1V	±(1.0%+3D)
1000V	1V	

Frequency Response: 45Hz to 500HzInput Impedance:  $10M\Omega$  // less than 100pFOverload Protection: AC/DC 1000V

# Lo-Z Voltage

Range	Resolution	Accuracy
600.0V DC & AC	0.1V	.(2.0%(+2D)
1000V DC & AC	1V	±(2.0%+3D)

Frequency Response: 45Hz to 500Hz

Input Impedance: less than  $3k\Omega$ 

Overload Protection: AC/DC 1000V

#### **DC Current**

Range	Resolution	Accuracy
6.000A	0.001A	
10.00A	0.01A	±(1.0%+3D)

Maximum measurement time:>5A for max.3 minutes with at least 20 minutes rest time.

>10A for max.30 seconds with at least 10 minutes rest time.

Overload Protection: Fuse AC/DC 11A

#### **AC Current**

Range	Resolution	Accuracy
6.000A	0.001A	. (1 59( + 2D)
10.00A	0.01A	±(1.5%+3D)

Maximum measurement time:>5A for max.3 minutes with at least 20 minutes rest time.

>10A for max.30 seconds with at least 10 minutes rest time.

Frequency Response: 45Hz to 500Hz

Overload Protection: Fuse AC/DC 11A

#### HFR (High Frequency Rejection)

- · Available for ACV only.
- Add ± 4% to specified accuracy of each function and each range for 45Hz to 200Hz.
- Accuracy is unspecified for > 200Hz.

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

#### Frequency

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

ACV Minimum Sensitivity: > 5V for 1Hz ~ 10kHz

> 20V for  $10kHz \sim 50kHz$ 

unspecified for > 50kHz

ACA Minimum Sensitivity: > 0.6A

Overload Protection: AC/DC 1000V. 11A

#### Resistance

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

• There is a little rolling less than ±50 digits when measuring > 10.00 M $\Omega$ .

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  $20\Omega$  and sounds off when measured resistance is more than  $200\Omega$ , between  $20\Omega$  to  $200\Omega$  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	
100.0µF	0.1µF	. (1.0% + 2D)
1.000mF	0.001mF	±(1.9%+2D)
10.00mF	0.01mF	

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

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