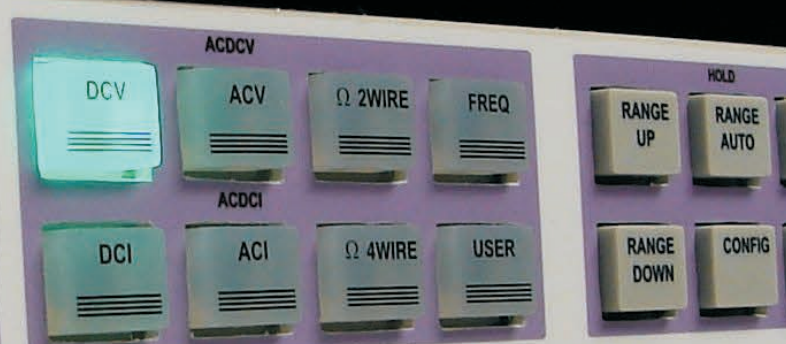
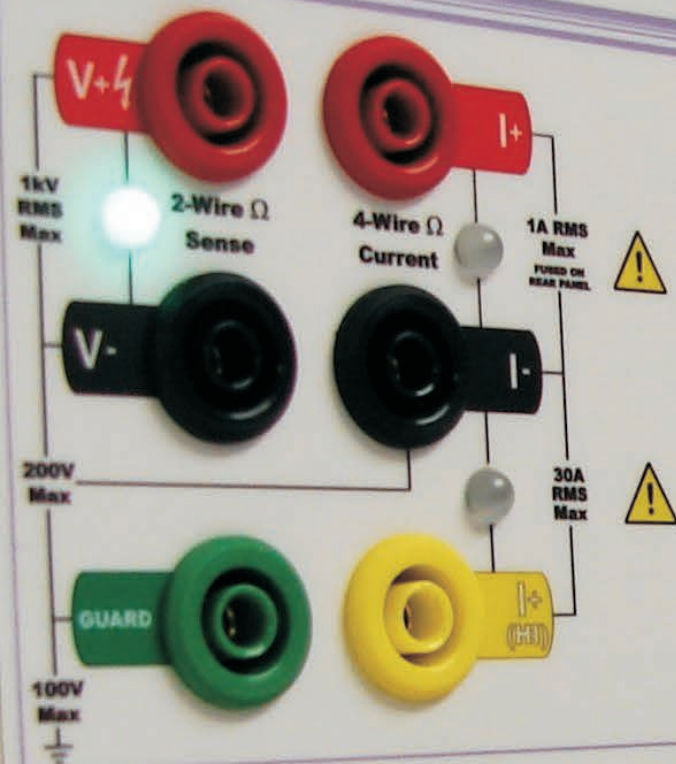


EXTENDED SPECIFICATIONS

8081 MULTIMETER

INPUTS



MODEL 8071

9 PPM PRECISION DIGITAL MULTIMETER



DC Voltage

Instrument Uncertainty Relative to Calibration Standards

Range	Full Scale	Resolution	Input Impedance	90 Day		180 Day		1 Year		2 Year					
				± ppm Reading + ppm Range											
100mV	120,000,000	1nV	> 10 GOhms	9.6	+	4	10.8	+	4	12	+	4	17.0	+	4
1V	1.200,000,00	10nV	> 10 GOhms	7.2	+	1	8.1	+	1	9	+	1.4	13.0	+	1.4
10V	12.000,000,0	100nV	> 10 GOhms	7.2	+	1	8.1	+	1	9	+	1.4	13.0	+	1.4
100V	120.000,000	1uV	10 MOhms, 1%	11.2	+	2	12.6	+	2	14	+	1.8	20.0	+	1.8
1000V	1.050,000,00	10uV	10 MOhms, 1%	11.2	+	3	12.6	+	3	14	+	2.8	20.0	+	2.8

Absolute Uncertainty (95% Confidence)

Range	1 Year					
	Tcal ± 1°C			Tcal ± 3°C		
	± ppm Reading + ppm Range					
100mV	14.7	+	4	19.3	+	4
1V	10.6	+	1.4	14.1	+	1.4
10V	10.8	+	1.4	14.3	+	1.4
100V	16.5	+	1.8	22.0	+	1.8
1000V	16.5	+	2.8	22.0	+	2.8

Input Protection : 1100Volts

Due to continuous development specifications may be subject to change.

8071 Extended Specifications

DCV : V5

DC Current

Instrument Uncertainty Relative to Calibration Standards

Range	Full Scale	Resolution	Input Impedance	90 Day			180 Day			1 Year			2 Year		
				± (ppm Reading + Range)											
100uA	120,000,0	10pA	10 kOhms	20	+	14	23	+	14	25	+	14	35	+	14
1mA	1.200,000	100pA	1 kOhms	20	+	14	23	+	14	25	+	14	35	+	14
10mA	12.000,00	1nA	100 Ohms	28	+	14	32	+	14	35	+	14	49	+	14
100mA	120,000,0	10nA	10 Ohms	88	+	22	99	+	22	110	+	22	154	+	22
1A	1.200,000	100nA	0.5 Ohms	440	+	45	495	+	45	550	+	45	770	+	45
10A	12.000,00	1uA	10 mOhms	1200	+	120	1350	+	120	1500	+	120	2100	+	120
30A	30.500,0	10uA	10 mOhms	1600	+	500	1800	+	500	2000	+	500	2800	+	500

Absolute Uncertainty (95% Confidence)

Range	1 Year					
	Tcal ± 1°C			Tcal ± 3°C		
	± ppm Reading + Range					
100uA	30	+	14	40	+	14
1mA	30	+	14	40	+	14
10mA	41	+	14	55	+	14
100mA	127	+	22	171	+	22
1A	636	+	45	856	+	45
10A	1735	+	120	2333	+	120
30A	2313	+	500	3111	+	500

Input Protection

Front/Rear Current Terminals 1A QB Fuse
 Front Hi Current Terminal 30A

AC Voltage

Instrument Uncertainty Relative to Calibration Standards

Range	Full Scale	Resolution	Input Impedence	Frequency	90 Day		180 Day		1 Year		2 Year		
					± % Reading + Range								
100mV	105,000	0.1uV	>1 GOhm / 90pF	10Hz to 40Hz	0.06	+	0.08	0.12	+	0.08	0.20	+	0.08
				40Hz to 200Hz	0.02	+	0.05	0.05	+	0.05	0.08	+	0.05
				200Hz to 1KHz	0.02	+	0.04	0.04	+	0.04	0.07	+	0.04
				1kHz to 2kHz	0.02	+	0.04	0.04	+	0.04	0.07	+	0.04
				2kHz to 20kHz	0.03	+	0.05	0.06	+	0.05	0.10	+	0.05
20kHz to 100kHz	0.09	+	0.20	0.18	+	0.20	0.30	+	0.20	0.42	+	0.05	
1V	1.050,00	1uV	>1 GOhm / 90pF	10Hz to 40Hz	0.05	+	0.08	0.11	+	0.08	0.18	+	0.08
10V	10.500,0	10uV	>1 GOhm / 90pF	40Hz to 200Hz	0.02	+	0.05	0.04	+	0.05	0.07	+	0.05
				200Hz to 1KHz	0.02	+	0.03	0.03	+	0.03	0.05	+	0.03
				1KHz to 2KHz	0.02	+	0.03	0.03	+	0.03	0.05	+	0.03
				2kHz to 20kHz	0.03	+	0.05	0.06	+	0.05	0.10	+	0.05
				20kHz to 100kHz	0.09	+	0.20	0.18	+	0.20	0.30	+	0.20
100V	105.000	100uV	1 MOhm / 130pF	10Hz to 40Hz	0.05	+	0.09	0.11	+	0.09	0.18	+	0.09
1000V *	1050.00	1mV	1 MOhm / 130pF	40Hz to 200Hz	0.02	+	0.06	0.05	+	0.06	0.08	+	0.06
				200Hz to 1kHz	0.02	+	0.03	0.04	+	0.03	0.06	+	0.03
				1kHz to 2kHz	0.02	+	0.03	0.04	+	0.03	0.06	+	0.03
				2kHz to 20kHz	0.03	+	0.05	0.06	+	0.05	0.10	+	0.05
				20kHz to 100kHz	0.09	+	0.20	0.18	+	0.20	0.30	+	0.20

Absolute Uncertainty (95% Confidence)

Range	Frequency	1 Year	
		Tcal ± 1°C	Tcal ± 3°C
100mV	10Hz to 40Hz	0.10	± 0.08
	40Hz to 200Hz	0.09	± 0.05
	200Hz to 1kHz	0.09	± 0.04
	1kHz to 2kHz	0.09	± 0.04
	2kHz to 20kHz	0.12	± 0.05
20kHz to 100kHz	0.35	± 0.20	
1V	10Hz to 40Hz	0.21	± 0.08
10V	40Hz to 200Hz	0.08	± 0.05
	200Hz to 1kHz	0.06	± 0.03
	1kHz to 2kHz	0.06	± 0.03
	2kHz to 20kHz	0.12	± 0.05
	20kHz to 100kHz	0.35	± 0.20
100V	10Hz to 40Hz	0.21	± 0.09
1000V *	40Hz to 200Hz	0.09	± 0.06
	200Hz to 1kHz	0.07	± 0.03
	1kHz to 2kHz	0.08	± 0.03
	2kHz to 20kHz	0.12	± 0.05
	20kHz to 100kHz	0.35	± 0.20

* 100V Range to 20kHz :1000V Range to 10kHz

AC Current

Instrument Uncertainty Relative to Calibration Standards

Range	Full Scale	Resolution	Input Impedance	Frequency	90 Day		180 Day		1 Year		2 Year		
					± % Reading + Range								
100uA	100.500	0.1nA	10 kOhms	10Hz to 40Hz	0.040	+	0.04	0.08	+	0.04	0.13	+	0.04
1mA	1.050,00	1nA	1 kOhm	40Hz to 1kHz	0.024	+	0.03	0.05	+	0.03	0.08	+	0.03
10mA	10.500,0	10nA	100 Ohms	1kHz to 10kHz	0.09	+	0.090	0.18	+	0.090	0.3	+	0.090
100mA	105.000	100nA	10 Ohms										
1A	1.050,00	1uA	0.5 Ohms	10Hz to 40Hz	0.06	+	0.060	0.12	+	0.060	0.2	+	0.060
				40Hz to 1kHz	0.03	+	0.05	0.06	+	0.05	0.1	+	0.05
				1kHz to 10kHz	0.09	+	0.150	0.18	+	0.150	0.3	+	0.150
10A	10.500,0	10uA	10 mOhms	10Hz to 40Hz	0.09	+	0.100	0.18	+	0.100	0.3	+	0.100
30A	30.500	100uA	10 mOhms	40Hz to 1kHz	0.12	+	0.100	0.24	+	0.100	0.4	+	0.100

Absolute Uncertainty (95% Confidence)

Range	Frequency	1 Year					
		Tcal ± 1°C		Tcal ± 3°C			
		± % Reading + Range					
100uA	10Hz to 40Hz	0.16	+	0.04	0.20	+	0.04
1mA	40Hz to 1kHz	0.09	+	0.03	0.12	+	0.03
10mA	1kHz to 10kHz	0.35	+	0.09	0.47	+	0.09
100mA							
1A	10Hz to 40Hz	0.24	+	0.06	0.31	+	0.06
	40Hz to 1kHz	0.12	+	0.05	0.16	+	0.05
	1kHz to 10kHz	0.35	+	0.15	0.47	+	0.15
10A	10Hz to 40Hz	0.36	+	0.1	0.47	+	0.1
30A	40Hz to 1kHz	0.47	+	0.1	0.62	+	0.1

Due to continuous development specifications may be subject to change.

8071 Extended Specifications

ACI : V5

Resistance

Instrument Uncertainty Relative to Calibration Standards

Range	Full Scale	Resolution	Measurement Current	90 Day		180 Day		1 Year		2 Year		
				± ppm Reading + Range								
10 Ohm	12.000,000	1 uOhm	10mA	24.0	+	8.0	27.0	+	8.0	30.0	+	8.0
100 Ohm	120.000,00	10 uOhms	10mA	20.0	+	3.0	23.0	+	3.0	25.0	+	3.0
100 Ohm Low Current	120.000,00	10 uOhms	1mA	22.0	+	10.0	25.0	+	10.0	27.0	+	10.0
1 kOhm	1.200,000,0	100 uOhms	10mA	16.0	+	2.0	18.0	+	2.0	20.0	+	2.0
1 kOhm Low Current	1.200,000,0	100 uOhms	1mA	18.0	+	6.0	20.0	+	6.0	22.0	+	6.0
10 kOhm	12.000,000	1 mOhms	1mA	20.0	+	2.0	23.0	+	2.0	25.0	+	2.0
10 kOhm Low Current	12.000,000	1 mOhms	100uA	22.0	+	10.0	25.0	+	10.0	27.0	+	10.0
100 kOhm	120.000,00	10 mOhms	100uA	24.0	+	2.0	27.0	+	2.0	30.0	+	2.0
1 MOhm*	1.200,000,0	100 mOhms	10uA	28.0	+	5.0	32.0	+	5.0	35.0	+	5.0
10 MOhm*	12.000,000	1 Ohm	1uA	38.0	+	20.0	43.0	+	20.0	48.0	+	20.0

Absolute Uncertainty (95% Confidence)

Range	1 Year					
	Tcal ± 1°C			Tcal ± 3°C		
	± ppm Reading + Range					
10 Ohm	34.8	+	8.0	46.7	+	8.0
100 Ohm	29.0	+	3.0	38.9	+	3.0
100 Ohm Low Current	31.3	+	10.0	42.0	+	10.0
1 kOhm	23.2	+	2.0	31.1	+	2.0
1 kOhm Low Current	25.5	+	6.0	34.3	+	6.0
10 kOhm	28.9	+	2.0	38.9	+	2.0
10 kOhm Low Current	31.3	+	10.0	42.0	+	10.0
100 kOhm	34.8	+	2.0	46.7	+	2.0
1 MOhm *	40.9	+	5.0	54.8	+	5.0
10 MOhm*	55.7	+	20.0	74.8	+	20.0

* 2 Wire measurement only

Frequency

Signal Amplitude Range	5% of range to full scale
Resolution	0.1Hz (after 5 samples)
Frequency Range	1Hz to 1MHz
Accuracy (1 Year)*	5ppm \pm 2 Digits
Sample Interval	1s