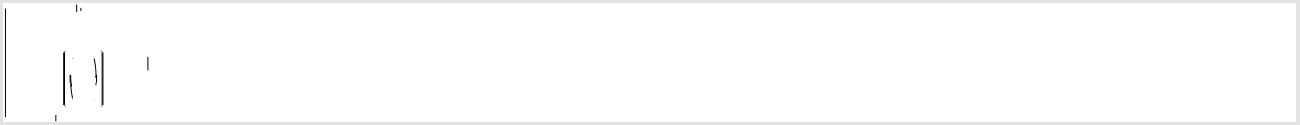

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Ad ┐ ced c lc l i ┐
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Pa /fail e
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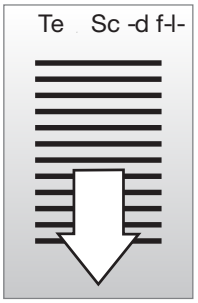


RMS NOISE (ADDITIONAL PEAK NOISE UNCERTAINTY)[7]

Enhanced Accuracy (within 30 days of autocalibration, T_{OPER} ± 5 °C from T_{ACAL}) [9]

Resistance Open Circuit DC Voltage [27]

Range [19]	2-wire	Offset Compensation Off	Offset Compensation On
		4-wire	4-wire
1		9.2 V	9.5 V
10	9.2 V	9.2 V	9.5 V
100 , 1	14.0 V	14.2 V	14.3 V
10	9.5 V	9.5 V	9.5 V
100 , 1	12.7 V	14.3 V	14.3 V (100)
10 t 1	6.9 V	6.9 V	

4-Wire Ohms (≤10 kΩ) Offset Compensation On

RMS Noise (additional peak noise uncertainty) [28]

Examples

1 0.00 , 3( )+2 ( ) 2

1 1 , 3+0 3

NPLC	Digits	1 Ω	10 Ω	100 Ω	1 kΩ	10 kΩ
5	7½	3.49	0.35	0.35	0.08	0.35
1	7½	7.81	0.79	0.79	0.14	0.78 (2)
0.2 [29]	6½	51.87 (160)	5.09 (13)	5.21 (13)	0.61 (2.6)	1.78 (8.2)
0.2	6½	68.32 (250)	6.76 (22)	6.80 (22)	0.85 (3.2)	1.78 (8.3)
0.06	5½	123.35 (546)	12.33 (54)	12.36 (56)	1.30 (6.6)	3.48 (18)
0.006	4½	397 (2144)	40 (252)	38 (216)	6 (34)	15 (78)
0.0005	3½	1767 (9333)	117 (933)	183 (954)	85 (406)	89 (456)

2-Wire Ohms

RMS Noise (additional peak noise uncertainty) [28]

Examples

Resistance Characteristics

Maximum 4-Wire Ohms Lead Resistance

RMS Noise (additional peak noise uncertainty) [33]

Examples

NPLC	Digits	10 µA						

Thermocouple

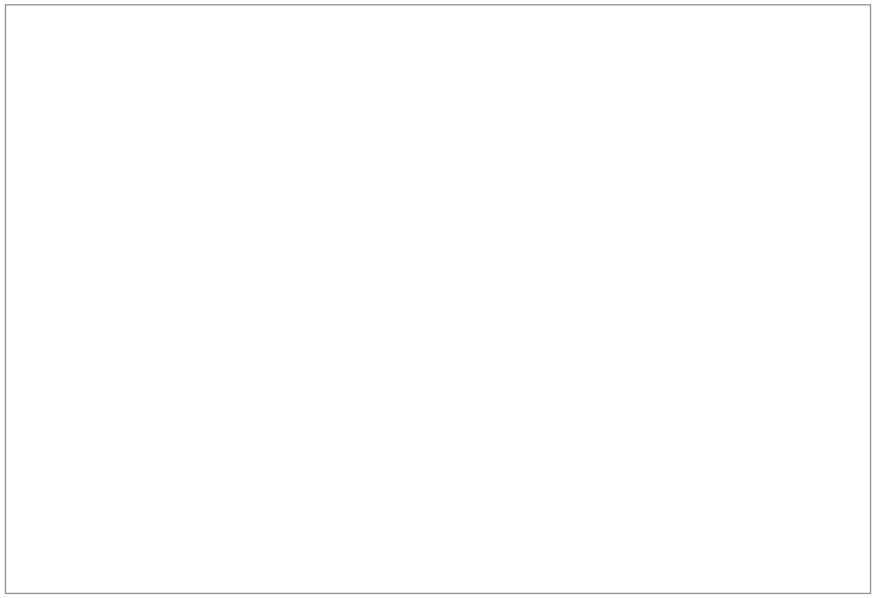
Types: B, E, J, K, N, R, S, T

Selectable Bias Current {± 5%)	Voltage Measure Range[10]	Maximum Voltage	Resolution	Accuracy ±(ppm of reading + ppm of range)			
				90 Day T_{CAL} ±5 °C	1 Year T_{CAL} ±5 °C	2 Year T_{CAL} ±5 °C	Temperature Coefficient[50]
10 µA, 100 µA	10 V	12 V	1 µV	20 + 5	30 + 5	45 + 5	2.5 + 1
1 A	10 V	12 V	1 µV	25 + 10	38 + 10	56 + 10	3+2
10 A	10 V	5 V	1 µV	500 + 50	750 + 50	1125 + 50	50 + 10

Accuracy (Input Impedance AUTO)

Range[42, 43]	Resolution[44]	Input Impedance[45]	Accuracy ±(ppm of reading + ppm of range)			
			90 Day T_{CAL} ±5 °C	1 Year T_{CAL} ±5 °C	2 Year T_{CAL} ±5 °C	Temperature Coefficient[46]
100.000 V	1 µV	>10 M 10 1%	210 + 100	220 + 100	230 + 100	15 + 20
1.00000 V	10 µV	>10 M 10 1%	110 + 75	120 + 75	130 + 75	15 + 20
10.0000 V	0.1 V	>10 M 10 1%	110 + 75	120 + 75	130 + 75	10 + 20
100.000 V[47]	1 V	10 1%	110 + 75	120 + 75	130 + 75	15 + 20
1000.00 V[48]	10 V	10 1%	110 + 75	120 + 75	130 + 75	10 + 20

DC-Coupled Additional Noise Uncertainty, Typical[49]



NOTES

41. 20%
42. , 20% 100 100 . , 00% 100 100 . 1% , 1000
43. 1. 100
44. 4
4 .
4 . %.
4 . 100 100 , 1 / ( )- 1. ( ) .1 ()-13. 3 31 (( )2. ( )-10. (0.00 -0.00 3. 2 0 0 3. 2 11 . 1 3. ( )-1 . ( ) -0.004 0.004 0 0 12 . .3 ( )-13 ( )-4 ( )-1 . (. 0

DC Accuracy [50]

Range [51]	Resolution [52]	Burden Voltage	Accuracy ± (ppm of reading + ppm of range)			
			90 Day T_{CAL} ±5 °C	1 Year T_{CAL} ±5 °C	2 Year T_{CAL} ±5 °C	Temperature Coefficient [53]
10.0000 µA	0.1 µA	15 V	150 + 75	160 + 75	170 + 75	30 + 15
100.000 µA	1 µA	15 V	150 + 75	160 + 75	170 + 75	30 + 15
1.00000 A	10 µA	15 V	150 + 75	160 + 75	170 + 75	30 + 15
10.0000 A	100 µA	20 V	150 + 75	160 + 75	170 + 75	30 + 15
100.000 A	1 µA	200 V	340 + 100	450 + 100	560 + 100	50 + 20
1.00000 A	10 µA	400 V	400 + 110	500 + 110	600 + 110	50 + 25
3.00000 A	100 µA	1300 V	650 + 150	900 + 150	900 + 150	50 + 25

Additional Noise Uncertainty, Typical [54]

Maximum Resolution	1
Measurement Input Coupling	( ).
Sampling Rate[55]	1. 1
Volatile Sample Memory with Timestamp	2.
Minimum Record Time	1
Timestamp Resolution	1 . 1
Timestamp Accuracy	, 20 t uff t , 2 µ , t t uff uff t <2 .
Maximum Record Length	

Typical Reading Rates, 60 Hz (50 Hz) Operation[56, 57, 58, 59]

		Functions: DC Voltage (10 V), 2-wire Ohms (≤10 kΩ), DC Current (1 mA)		Functions: 4-wire ohms (≤1 kΩ), 4-wire/3-wire RTD		Functions: Thermistor		Functions: Dry Circuit (≤1 kΩ)	
NPLC	Digits	Measurements Into Buffer	Measurements Into Computer	Measurements Into Buffer	Measurements Into Computer	Measurements Into Buffer	Measurements Into Computer	Measurements Into Buffer	Measurements Into Computer
1	7½								

Mode

Function	Function Change (ms)	Range Change (ms)

Analog Triggering [63]

Analog Level, Edge, or Window Trigger Types [64]

Input Protection	1010 3 0 2 0 3 1 .
3 A Input Fuse Protection	3. , 1 10- -3 .
Common Mode Isolation	00 10 , 3 0
Power Line	, 100 240 .
Line Frequency	0 0
Power Consumption	1
Operating Environment	

Language

A0	(120 , 0)
A1	(220 , 0)
A2	240 , 0)
A3	(240 , 0)
A4	(220 , 0)
A5	(220 , 0)
A6	(100 , 0/ 0)
A7	(230 , 0)
A8	(230 , 0)
A9	(220 , 0)
A10	(230 , 0)

l 8 14 T]TJ/T10 1 Tf-16.875 -2 Td[(A)-4.5 (6)] (T66pan/ActualTextEFF0009BDC 1.697/T)909BDG.6 (wf16.875 0 Td[16.875 8 (w)-16.7 Tf16.875 (u)-1 P2 6 u)-u 1 Tf168 (e)-20.p14 .54-

Triggering and Control

2450-TLINK	
8501-1	(3.2 .)
8501-2	(. .)
8503	

Rack Mount Kit

4299-13	1

Extended Warranties

DMM7512-EW	1 2
DMM7512-3Y-EW	1 3
DMM7512-5Y-EW	1

Calibration Contracts

C/DMM7512-7 (M-9 (6(1 Y).[(E5 4.9 (4sSM)-67.3 TM)-3.6 (D5)-5 (oan/ActualText<EFF0009>BDC ( )TEMC /T12 1 Tf0.014 Tc 10.176 0 Td[(DI)3.5 (K)4 (Se)-t)11.3(t)]TJ0 0.0.7)-

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Central Europe / Greece +41 2 3
Denmark +4 0 1401
Finland +41 2 3
France* 00 00 22 4 3
Germany* 00 00 22 4 3
Hong Kong 400 20 3
India 000 00 0 1 3
Indonesia 00 03 01 24
Italy 00 00 22 4 3
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Malaysia 1 00 22 3
Mexico, Central/South America and Caribbean 2 ( ) 3 2
Middle East, Asia, and North Africa +41 2 3
The Netherlands* 00 00 22 4 3
New Zealand 0 00 00 23
Norway 00 1 0
People's Republic of China 400 20 3
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Portugal 0 0 123 0
Republic of Korea + 2 2 14
Russia / CIS + (4) 4 4
Singapore 00 011 4 3
South Africa +41 2 3
Spain* 00 00 22 4 3
Sweden* 00 00 22 4 3
Switzerland* 00 00 22 4 3
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United Kingdom / Ireland* 00 00 22 4 3
USA 1 00 33 200
Vietnam 120 012

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