

*Pioneer in Test  
&  
Measurement*



Excellence in  
Electrical & Electronic  
Instruments Technology



**DIGITAL MULTIMETER G -TECH MAS 830L**

Full Range Protection



Specification	Range	Accuracy
Display	3 1/2 Digit	-
DCV Voltage	200 mV-600V	± 0.8%
ACV Voltage	200V-600V	± 2%
DCA Current	200µA-10A	± 1.0% - ±2%
Resistance	200Ω-2M ohms	± 0.8%

Diode Test, Continuity Buzzer, Transistor Test  
Backlight Display, 9V Battery  
Multimeter test leads, Operation Manual

**DIGITAL MULTIMETER G-TECH GT 92A TRMS**

Full Range Protection



Specification	Range	Accuracy
Display	3 1/2 Digit	-
DC Voltage	200 mV-2-20-200-1000V	± 0.5%
AC Voltage	20-200-750V	± 0.8%
DC Current	20mA,200mA, 10A	± 1.2%
AC Current	20mA,200mA, 10A	± 1.8%
Resistance	200Ω-2k-20k-200k-2M-20M-200MΩ	± 3%
Capacitance	20nF-200nF-2uF-200uF	± 1.5%
Frequency	2kHz-200kHz	± 1.5%

IR Detectors, Diode Test, Audiable Continuity, HFE,  
9V Battery, Auto Power off after 15 Min.,

**DIGITAL MULTIMETER WITH TERMINAL BLOCKING G -TECH 19TB**



Specification	Range	Accuracy
Display	3 1/2 Digit (1999 counts)	-
DCV Voltage	200m-2-20-200-1000v	± 0.5%
ACV Voltage	200mV-2-20-200-700v	± 1%
DC Current	2mA-20mA-200mA-10A	±1.8%
AC Current	2mA-20mA-200mA-10A	± 2.0%
Resistance	200-2k-20k-200k-2M-20M-200MΩ	± 1.0%
Capacitance	20n-200n-2uF-20uF-200uF	± 4.0%
Temperature	-20°C-1000°C	± 1.0%
Frequency	2k-20kHz	± 3.0%

Diode/Continuity Buzzer / APO / Backlight &  
Test Leads, Temperature Probe,  
Operation Manual, Battery

**DIGITAL MULTIMETER G-TECH DMM 95 AUTO TRMS**



Specification	Measuring Range	Accuracy
LCD Display	3¾ Digit (6000 counts)	-
DC Voltage	600mV~1000V	± 1%
AC Voltage	600mV~1000V	± 1%
DC Current	600uA~10A	± 1.5%
AC Current	600uA~10A	± 1.5%
Resistance	600-6k-60k-600k-6M-6MΩ	± 1.5%
Capacitance	10nf~6000µF	± 2%
Temperature	-20°C -1000°C	± 1%
Frequency	10Hz-10MHz	

Diode/Continuity Buzzer / APO / Backlight &  
Test Leads, Temperature Probe,  
Operation Manual, Battery



Specification	Measuring Range	Accuracy
LCD Display	3 3/4 Digit (6000 Counts)	
DC Voltage	6V / 60V / 600V	1.0%
AC Voltage	6V / 60V / 600V	1.3%
AC Current	60A / 600A	2.5%
Resistance	600Ω/6kΩ/60kΩ /600kΩ/6mΩ/60mΩ	1.0%
Capacitance	6nF/60nF/600nF/6uF/60uF/600uF/6mF/40mF	3.0%
Temperature	-0°C ~ 750°C (32°F~1832°F)	1.0%
Frequency	600Hz/6kHz/60zkHz/600kHz/6MHz/10MHz	1.5%
(True RMS test, Non contact voltage test, Backlight, Data hold, Continuity buzzer test, Auto power off, Low battery indication, Overload protection, Battery)		



Specification	Measuring Range	Accuracy
LCD Display	3 3/4 Digit (6000 Counts)	
DC Voltage	600mV / 6V / 60V / 600V	1.0%
AC Voltage	600mV / 6V / 60V / 600V	1.2%
DC Current	600mA / 8A / 10A	1.5%
AC Current	600mA / 8A / 10A	1.8%
Resistance	600Ω/6kΩ/60kΩ /600kΩ/6mΩ/60mΩ	1.0%
Capacitance	6nF/60nF/600nF/6uF/600uF/6mF/60mF	3.0%
Temperature	-20°C ~ 1000°C (-4°F~1832°F)	1.0%
Frequency	600Hz/600kHz/6MHz/10MHz	1.5%
(True RMS test, Non contact voltage test, Backlight, Data hold, Continuity buzzer test, Auto power off, Low battery indication, Overload protection, Battery)		

**DIGITAL CLAMP METER  
G-TECH M 266**

**DIGITAL CLAMP METER G -TECH - 6046 TRMS**

Full Range Protection



**G-TECH®**

Full Range Protection



Specification	Range	Accuracy
Display	3 1/2 Digit (2000 counts)	-
DCV Voltage	1000V	± 1%
ACV Voltage	750V	± 1.2%
AC Current	1000A	±2.5%
Resistance	200Ω ~ 20KΩ	± 1.0%

Specification	Range	Accuracy
DC Voltage	1000V	±1%
AC Voltage	750V	±1.2%
AC Ampere	200-1000A	±2.5%
Resistance	200Ω ~ 2MΩ	±1%
Frequency	20KHz	±3%

Audible Continuity Test  
Test Leads, Soft Carrying Case, Manual, Battery

Diode Test, Continuity Test, Data hold function, back light  
Manual, Test Leads, Soft Carrying Case, 9V Battery.

**DIGITAL CLAMP METER  
G-TECH GT30TRMS**

**DIGITAL CLAMP METER TRUE RMS  
MODEL G-TECH 6055**

Full Range Protection



**G-TECH®**



Specification	Range
Display	3½ digit
Polarity indication	"-" Displayed automatically
Over-range indication	"OL" Displayed
Low battery indication	± Displayed
AC Voltage	600V
DC Voltage	600V
Resistance	20MΩ
AC Current	2A Range 0.001A resolution (± 2.5% Accuracy) 200A Range 0.1A resolution (± 2.5% Accuracy)
Capacitance	500A Range 1A resolution (± 3.5% Accuracy) 200µF range 1µF resolution (± 5% Accuracy)

Specification	Range
Display	3 3/4 Digital LCD Screen 4000 Count
DC Voltage	400mV-4V-40V/400V/600V
AC Voltage	4V/40V/400V/600V
AC Current	40A-400A
Resistance	400-4k-40k-400k-4M-40MΩ
Frequency	10Hz-400KHz-4MHz
Capacitance	1nF-4uF-400uF-4mF
Temperature	0°C~750°C (32°F~11832°F)

Non contact AC voltage detection (NCV)  
Diode test, Continuity test,  
Soft carrying case, Test Leads

True RMS. Non contact voltage test, Back light  
Diode Test, 9V Battery, Continuity test  
Soft Carrying Case, Test Leads



**DIGITAL CLAMP METER  
G-TECH GT2001 THZ TRMS**

Full Range Protection



Specification	Range	Accuracy
Display	6000 counts	-
AC Voltage	750V	± 1%
DC Voltage	1000V	± 1%
Resistance	60Ω	± 1%
AC Current	1000A	± 1%
Temperature	-40°C ~ +750°C	± 1%
Frequency	6MHz	± 1%
Capacitance	60mF	± 5%

Non contact AC voltage detection (NCV)  
Diode test, Continuity test,  
**Hard carrying case**, Test Leads

**DIGITAL CLAMP METER (600A AC/DC)  
G-TECH 36 TRMS**



Specification	Range	Accuracy
Display	6000 counts	-
DC Voltage	400mV-4V-400V-600V	± 1%
AC Voltage	400mV-4V	± 0.8%
DC Ampere	40-600A	± 2%
AC Ampere	40-600A	± 2%
Resistance	400Ω-40MΩ	± 1.2%
Frequency	0-10MHz	± 1%
Capacitance	40nF-400nF-4uF-40uF	± 5%

Diode Test, Audible Continuity,  
9V Battery, Soft Carrying Case, Test Leads

**DIGITAL CLAMP METER WITH NCV MEASUREMENT  
G -TECH 6056 TRMS**



Specification	Range	Accuracy
Display	3 3/4 Digit (4000 counts)	-
DC Voltage	400mV-4-40-400-1000V	± 0.5%
AC Voltage	4-40-400-750V	± 1%
AC Ampere	Auto Range, 40A-400A-1000A	±1%
DC Ampere	Auto Range, 40A-400A-1000A	
Resistance	400-4k-400k-4m-40m Ohms	± 0.3%
Capacitance	4nF-40nF-400nF-4uF-40uF-400uF-1mF	± 5%
Frequency	0-10 mHz	± 0.3%

TRMS, NCV, Voltage, Backlight  
Diode Test, Continuity Test, Data Hold, 1.5Vx2 AAA

**DIGITAL CLAMP METER G-TECH 6056+TRMS**

**1000A AC/DC  
With Temp/Hz/Capacitance**



Fire detection



Backlit Display



Low impedance



Data hold



Auto Range



Flashlight lighting



5999 Digital Display



True effective Value



**DIGITAL MULTIMETER G-TECH DMM 2000**

2000V AC/DC



**G-TECH®**

**FOR SOLAR  
PUPOSE**

Specification	Range	Accuracy
Display	3 1/2 digit	-
DC Voltage	200 mV-2-20-200-1000V-2000V	± 1.2%
AC Voltage	2-20-200-700-2000V	± 1.5%
DC Current	200uA-2mA-20mA-200mA	± 1.5%
AC Current	20mA-200mA	± 1.5%
Resistance	200-2k-20k-200k-2M-20M-200M ohms	± 1.5%
Capacitance	20nF-200nF-2uF-200uF-2000uF	± 3%

Data hold, Backlight, Leads, Carrying case

**DIGITAL CLAMP METER G-TECH CMM 2000**

2000V AC/DC  
2000A AC/DC



Specification	Range	Accuracy
Display	3 1/2 digit (1999 counts)	-
DC Voltage	2V-20V-200V-2000V	± 0.5%
AC Voltage	2V-20V-200V-2000V	± 1%
DC Ampere	20A-200A-2000A	± 1.9%
AC Ampere	20A-200A-2000A	± 1.9%
Capacitance	20mF-2000uF	± 3%
Resistance	20ohms-20mohms	± 1%

Backlight, Jaw Size - 55MM, Auto range inrush current  
Carrying case, Leads, Torch

**DIGITAL K - TYPE THERMO METER  
G -TECH GT 305**



**G-TECH®**

Specification	Range
Display	0.5", 3 1/2 Digit LCD with max reading of 999.9
Transducer Type	K type thermocouple (NiCr-NiAL)
Range	-200°C - 1370°C (Extend to 1300°C)
Resolution	1°C (1d)

9V Battery, Temp. Probe & Manual

**DIGITAL DUAL INPUT K-TYPE THERMOMETER  
G-TECH 305-II**



**Main unit - Measuring range**

J-type : -210° C to 1200° C (-346° F to 2192° F)

K-type : -200° C to 1372° C (-328° F to 2501° F)

T-type : 250° C to 400° C (-418° F to 752° F)

E-type : 150° C to 1000° C (-238° F to 1832° F)

N-type : 200° C to 1300° C (-328° F to 2372° F)

Accuracy : ± 0.1% +0.6° C

R-type &

S-type : 0° C to 1767° C (-32° F to 3212° F)

Input : Double channel input with K type thermometer

**Features:**

\* Unit Celsius and Fahrenheit unit.

\* Data hold and Max, Min, AVG.

\* Double display with back light shows T1/T2 and combination of T1/T2.



Air Velocity				
Unit	Range	Minimum Resolution	Threshold	Accuracy
M/s	0~45	0.01	0.3	± 3%±0.1 dgts
Ft/min	0~8800	1.9	60	± 3%+10 dgts
Knots	0~88	0.02	0.6	± 3%±0.1 dgts
Km/hr	0~140	0.03	1	± 3%±0.1 dgts
Mph	0~100	0.02	0.7	± 3%±0.1 dgts
Temperature				
Unit	Range	Resolution	Accuracy	
°C	0°C~+45°C	0.2	±2°C	
°F	32°F~113°F	0.36	±3.6°F	
Power Supply	9V Battery			
Operating Temperature	-10°C~+50°C (14°F~122°F)			
Operating humidity	40%RH~85%RH			
Store Temperature	-20°C~+60°C (-4°F~140°F)			
Store humidity	10%RH~90%RH			

Air Velocity & Temperature measurement, Max/Min/Average/Current reading, °C°F temperature unit selection, Data hold, LCD backlight display, Manual, Auto power shut off, Low battery indication

**DIGITAL ANEMOMETER G-TECH AVM-01**



Features :

- \* Wind chill indicator : During measurement, if wind temperature is below 0°C, wind chill icon will light up on the screen.
- \* High or low wind velocity alarm : When wind velocity is over high value or lower than low value setting, Hi or low icon will flash.
- \* The alarm value of high and low wind velocity can be set through APP.

**TECHNOLOGICAL PARAMETERS**

Wind velocity measurement			
Unit	Measurement range	Resolution	Threshold
m/s	0-30	0.1	0.3
ft/min	0-5860	19	60
Knots	0-55	0.1	0.6
km/h	0-99	0.3	1
mph	0-65	0.2	0.7

**WIND TEMPERATURE MEASUREMENT**

Unit	Measurement Range	Resolution
°C	-10°C +- 45°C	0.1
°F	14°F - 113°F	0.18
Battery	Three 1.5V AAA	
Temp. Sensor	Negative Temp. co efficient Resistance	
Operation Temp.	-10° C +- 50° C (14° F - 122° F)	
Operation Humidity	Less than 90% RH	
Storage Temp.	-40° C +- 60° C (-40° F - 140° F)	

**HOT WIRE ANEMOMETER G-TECH AVM-08 WITH USB**



- \* Measurement of maximum and minimum air velocity
- \* Data Holding, storing and deleting function
- \* Low battery indicating function
- \* Auto Power off
- \* Memory of 350 records
- \* Backlight
- \* Connection to PC with USB cable
- \* Large LCD display

**Wind Velocity Range**

Unit	Air Velocity	Resolution	Accuracy
m/s	0.0-30.0	0.001	± 3% ± 0.1
Ft/min	0.0-5860	0.01/0.1/1	± 3% ± 20
Knots	0.0-55.0	0.01/.1	± 3% ± 0.2
Km/h	0.0-90.0	0.001	± 3% ± 0.4
Mph	0.0-65	0.001/0.01	± 3% ± 0.2



**Specification**

Display  
Range  
Over-Input  
Sampling Time

**Range**

18MM (0.7") LCD  
0 to 50,000 Lux (03 Ranges)  
Indication of "1"  
0.4 second

- 20,000 Lux range reading x 10
- 50,000 Lux range reading x 100

Range  
Resolution  
Accuracy  
Range  
Resolution  
Accuracy  
Range  
Resolution  
Accuracy

0 to 1.999 Lux  
1Lux  
 $\pm 5\% + 2d$   
2,000 to 19.999 Lux  
10 Lux  
 $\pm 5\% + 2d$   
20,000 to 50,000 Lux  
100 Lux  
 $\pm 5\% + 2d$

9V Battery, User Manual, Carrying case



Measurable Objects	illumination and temperature, difference value, Max value, min value of illuminance & temp. Integrating illuminance and integral time & average integrating illuminance Silicon diode
Photoelectric element	Silicon diode NTC thermistor
Thermal probe	Total measuring range 0-200,000 Lux into
Illuminance Measuring range	four ranges x1: 0~199.9 Lux x10: 200~1999.9 Lux x100: 2000~19999.9 Lux x1000: 20000~200,000 Lux -40° C ~ 409° C
Temperature measuring range	0-40° C
Illuminance accuracy	$\pm 3\%$ rdg (below 10000 Lux)
Temperature accuracy	$\pm 1.0^\circ$ C
Units of illuminance and temp.	Four combination of units are available
Illumination data storage	Lux / °C , Lux / °F, FC / °C, FC / °F Automatic: upto 1900 groups of data can be stored, LuxLAB is used to set the storage cycle and whether to start or stop storage.
LCD display update frequency	Manual : upto 60 group of data can be stored.
Operating temperature / humidity	weather to store is determined manually.
Storage temperature / humidity	Twice per second
	0° C ~0° C, 10~90% RH
	-20° C ~ 50° C, 10~90% RH



Measuring Function	illumination and temperture, difference value, Max value, min value of illumination
Main parts of photometer head	Photodiode+cosines correction filter
Temperature probe	NTC thermister
Illuminance measuring range	Total masuring range 0-200,000 Lux into four ranges x1: 0~199.9 Lux x10: 200~1999.9 Lux x100: 2000~19999.9 Lux x1000: 20000~200,000 Lux
Temperature measuring range	-9.9° C ~ 49.9° C
Illuminance accuracy	$\pm 3\%$ rdg (below 10000 Lux)
Temperature accuracy	$\pm 4\%$ rdg (below 10000 Lux)
Units of Illuminance and temperature	$\pm 1^\circ$ C Four combination of units are available Lux / °C , Lux / °F, FC / °C, FC / °F
Storage of	Automatic Max number of data group is 1000 and storage cycle is set by





Features :

- \* Ambient Temperature, Dew Point Temp. & Wet bulb Temperature Fast Response Time.
- \* Minimum & Maximum value reading
- \* Large Screen LCD and backlight
- \* Auto Power off (APO)

Technical Data :

Items	Range	Precision	Max. Response
Surrounding Temperature	-20° C ~ 70° C (4° F~ 158° F)	± 1° C [1]	30s
RH range	0% ~ 100% RH	± 4% RH[2]	30s
Dew Point range	-20° C~ 50° C	± 2° C [3]	30s
Wet bulb range	-20° C~ 50° C	± 2° C [4]	
Operating current		Without backlight : about 13mA	
		With backlight : about 17mA	



This product is mainly used to measure temperature and humidity. It adopts high-precision digital sensors and has LED indicators in three colours of red, green and blue, which usually indicate the current working status

Features :

- Memory of 16000 Data
- Max/Min. Value
- Hold data retention
- Buzzer alarm & Time display
- Temperature & Humidity function
- Backlight
- USB connection for data logging
- REC (Record) function
- Built in rechargeable battery
- Wet Bulb & Dew point function

Technical Data :

Items	Range	Accuracy
Temperature range	-30°C~+80°C (-22°F~+176°F)	±1°C
Temperature Resolution	0.01°C	-
RH Range	0%RH~100%RH	±3% RH
RH Resolution	0.01%	-
Wet bulb	0°C~+80°C (32°F~176°F)	±1°C
Dewpoint	-30°C~+80°C (-22°F~176°F)	±1°C



**Compact  
Rugged  
Reliable**

**Features :**

Measuring Range	30 - 130dBA
Accuracy	± 1.5 dB
Frequency Response	31.5Hz - 8KHz
Resolution	0.1dB
Frequency Weighting	A Weighting
Working Temp.& Humidity	0-40°C , 10-80%RH
Storage Temp. & Humidity	10-60°C , 0-90%RH
Power Source	3x1.5V AAA Batteries

Sound Level Measurement, Min/Max/Lock Current Value  
Hold the measurement data - LCD Backlight function  
Manual / Auto Shutoff



**Specification**

Measuring Range	30~130dBA, 35~130 dBC
Accuracy	± 1.5dB (Under reference conditions)
Frequency Range	31.5Hz~8.5KHz
Level Range	30~80, 50~100, 60~110, 80~130. 30~130dB
Linearity Range	50dB / 100dB
Frequency Weighing	A/C
Digital Display	4 digits
Resolution	0.1dB
Sample Rate	2 times / second

**Range**

Measuring Range	30~130dBA, 35~130 dBC
Accuracy	± 1.5dB (Under reference conditions)
Frequency Range	31.5Hz~8.5KHz
Level Range	30~80, 50~100, 60~110, 80~130. 30~130dB
Linearity Range	50dB / 100dB
Frequency Weighing	A/C
Digital Display	4 digits
Resolution	0.1dB
Sample Rate	2 times / second

Bar Graph : 50 dB scale at 1dB step for monitoring current sound pressure level display ▶ Sample rate : 20 times / second  
Over indication : Over/Under ▶ Time weight : Fast / Slow  
▶ Microphone : 1/2 Inch electret condenser microphone  
▶ Max Hold : MAX



**Specification :**

Calibrating sound source	94dB @ 1kHz
Measuring range	30~130dBA (Auto ranging)
Accuracy	± 1.5dB (reference sound pressure standard 94dB @ 1KHz)
Frequency response	31.5 ~ 8.5KHz
Resolution	0.1dB
Frequency waiting	A/C
Analogy bar graph	2dB / 1 Bar graph
Display update time	2 times/sound (Fast) 1 time/sound (Slow)
AC signal Output	20 mVrms/full Barograph : output impedance is approx 600 Ω
DC signal Output	33mV/dB
Sampling rate	Fast (125ms) / Slow (1Sec.)
Power supply	6V (4x1.5V AA Battery)

**Range :**

Calibrating sound source	94dB @ 1kHz
Measuring range	30~130dBA (Auto ranging)
Accuracy	± 1.5dB (reference sound pressure standard 94dB @ 1KHz)
Frequency response	31.5 ~ 8.5KHz
Resolution	0.1dB
Frequency waiting	A/C
Analogy bar graph	2dB / 1 Bar graph
Display update time	2 times/sound (Fast) 1 time/sound (Slow)
AC signal Output	20 mVrms/full Barograph : output impedance is approx 600 Ω
DC signal Output	33mV/dB
Sampling rate	Fast (125ms) / Slow (1Sec.)
Power supply	6V (4x1.5V AA Battery)

dBA/dBc measuring unit, AC/DC function, White backlight  
Time & Date display, Auto Off function setup, (Max/Fast/Slow)  
Function

Hard Case, USB cable & software, Manual, Adopter, Batteries, Tripod stand, Sponge ball



**Specification**

**Range**

Display	5 digits (0.7") LCD White Backlight Display
Sampling Time	1 sec (Over 60 RPM)
Test Range	Auto ranging
Range I	2.5-999.9 RPM
Range II	1000-99.999 RPM
Accuracy	± (0.05% + 1digit) 0.1 RPM (0.5-999.9 RPM)
Resolution	1 RPM (above 1000 RPM)
Memory	Last Value, Max Value, Min. Value
Detecting Distance	50 to 500 mm
Operating Temp.	0-50°C
Operating Humidity	Less Than 80% RH
Power Supply	4x1.5V AA Size Battery

User Manual, Carrying Case  
& 2pcs of Reflecting tape (350mm)



**Specification**

**Range**

Display	5 digits (0.7") LCD White Backlight Display
Sampling Time	0.5 sec (Over 120 RPM)
Test Range	Auto ranging
Range I	non contact 2.5 - 99999 RPM
Range II	contact 0.5 - 19999 RPM
	Surface speed 0.05 - 1999.99m/min.
Accuracy	± (0.05% + 1digit)
	non contact 0.1 RPM (2.5-9.999RPM)
Resolution	1 RPM (over 1000RPM)
	contact 0.1RPM (0.5-999.9RPM)
	1 RPM over 1000 RPM
	Surface speed 0.01m/min. (0.05 - 99.9m/min.
	0.1m/min (over 100m/min
Memory	Last Value, Max Value, Min. Value
Detecting Distance	50 to 500 mm (Photo)
Operating Temp.	0-50°C
Operating Humidity	Less Than 80% RH
Power Supply	4x1.5V AA Size Battery

User Manual, Carrying Case, & 2pcs of Reflecting Tape (350mm), RPM adapter (cone & funnel)

**DIGITAL CAPACITANCE METER  
G-TECH CM 1500**



**Specification**

Measuring method	Dual - Slope integration A/D converter systems
Display method	LCD Display
Maximum display	1999 Counts (3 1/2 digit) with automatic
Over Range	"1" Figure only in the display
Low-Battery	Automatic Low- Battery detect
Range	200pF - 20mF
Measurement rate	Updates in 2-3 sec

**ELECTROMAGNETIC RADIATION TESTER  
G-TECH EMR 822A**



**Features**

- \* One Instrument with two uses, It can test the electric field and the magnetic field radiation at the same time
- \* Sound Light Alarm : When the test result exceeds the safe value, the instrument alarm automatically
- \* Data locking : One-key lock of the radiation value
- \* LCD graphic display of the radiation value trend
- \* Radiation assessment : Remind you whether the radiation value is safe or not
- \* Fashionable design : Easy on hand operations, it is easy to move or make field measurement.

	Electric Field	Magnetic field
Unit	V/m	uT
Precision	1V/m	0.01uT
Range	1V/m-1999V/m	0.01uT - 99.99uT
Reading display	3-1/2 digit LCD	
Testing bandwidth	5Hz-3500MHz	
Test mode	Bimodule synchronous test	
Over range indication	LCD display Max. measure range	
Operating temperature	0° C ~ 50° C	

**INFRARED THERMOMETER  
MODEL G - TECH MT-2**



**Specification**

Specification	Range	
Temperature range	-50°C~380°C (-58°F~716°F)	✓
Accuracy	±2%	✓
Response time	500ms	✓
Emmissivity (EMS)	Fixed, 0.95	✓
Emmissivity (EMS)	Adjustable, 0.1to1.0	✓
Distance to spot ratio	12:1	✓
MAX temperature		✓
Low Battery Indication		✓
LCD Display		✓
Backlight Selection		✓
Automatic Data Hold		✓
Auto Power Shut Off		✓

2 x AAA batteries , Manual

**INFRARED THERMOMETER  
MODEL G - TECH MT-4**



**Specification**

Specification	Range	
Temperature range	-50°C~550°C (-58°F~716°F)	✓
Accuracy	±2%	✓
Response time	500ms	✓
Emmissivity (EMS)	Fixed, 0.95	✓
Emmissivity (EMS)	Adjustable, 0.1to1.0	✓
Distance to spot ratio	12:1	✓
MAX temperature		✓
Low Battery Indication		✓
Color LCD Display		✓
Backlight Selection		✓
Automatic Data Hold		✓
Auto Power Shut Off		✓

2 x AAA batteries , Manual



**INFRARED THERMOMETER  
G-TECH MT-5**



**INFRARED THERMOMETER  
G-TECH MT-8**



**Specification**

Temperature range	-50°C~750°C (-58°F~1382°F)
Accuracy	±2%
Response time	< 1s
Optical Resolution	12:1
Emmissivity (EMS)	0.1 to 1.0 adjustable
Alarm	High / Low
Laser Target	✓ Dual
Data Hold	✓
Back Light	✓
Max/Min/Avg	✓
Alarm Set	✓
Auto Power Off	✓
°C / °F	✓

**Range**

**Specification**

Temperature range	-50°C~1100°C (-58°F~2012°F)
Accuracy	±2%
Response time	< 1s
Optical Resolution	50:1
Emmissivity (EMS)	Fixed at 0.1 to 1.0 Adjustable
Laser Target	✓ Dual
Data Hold	✓
Back Light	✓
Max/Min/Avg	✓
Alarm Set	✓
Auto Power Off	✓
°C / °F	✓

**Range**

9V Battery Power Supply  
Manual, Case

9V Battery Power Supply  
Manual, Case

**INFRARED THERMOMETER  
G-TECH MT-13**



**INFRARED THERMOMETER  
G-TECH MT-16**



**Specification**

Temperature range	-50°C~1300°C (-58°F~2372°F)
Accuracy	±2%
Optical Resolution	50:1
Emmissivity (EMS)	0.1 ~ 1.0 Adujustable
Laser Target	✓ Dual
Resolution	500ms
Response time	1% or 1°C
Repeatability	✓
Laser Target	✓
Data Hold	✓
Back Light	✓
Max/Min/Avg	✓
Alarm Set	✓
Auto Power Off	✓
°C / °F	✓

**Range**

**Specification**

Temperature range	-50°C~1600°C (-58°F~2912°F)
Accuracy	±2%
Response time	<0.15s
Optical Resolution	50:1
Emisivity	0.1 ~ 1.0 Adujustable
Laser Target	✓ Dual
Data Hold	✓
Back Light	✓
Max/Min/Avg	✓
Alarm Set	✓
Auto Power Off	✓
°C / °F	✓
9 Data Storage	✓

**Range**

9V Battery Power Supply  
Manual, Hard Case

9V Battery Power Supply  
Manual, Hard Case



**Function**

- With small volume, the product is easy to operate and has strong function. It is the ideal selection for electric power, electronic manufacturing, Industrial inspection and other fields.
- With a visible light camera, The thermal images and visible images are stored in the device and can be read through USB.
- The radiation coefficient may be adjusted to increase the measurement accuracy of objects with half reflection surface.
- The radiation coefficient may be adjusted to increase the measurement accuracy of objects with half reflection surface.
- The highest temperature and lowest temperature cursor may guide the users to the areas with highest and lowest temperature of the thermal images. The selectable color palette.

**Application**

- The inspection of electric equipment, lines of transmission and transformers.
- Search of concealed fire source in fire control.
- Personnel search and rescue and commanding at fire site.
- Make analysis of the leakage position and heat loss of thermal pipeline and heating equipment.
- Determine the position of heating failure of the operation train.
- Analysis of rationality of wire of microelectronic industry.
- Night monitoring of security departments.

	<b>G-TECH TIC 22</b>	<b>G-TECH TIC 23</b>
Infrared image resolution	160x120	320x240
Temperature measurement range	-20°C~450°C (-4°F~842°F)	-20°C~300°C (-4°F~572°F)
FOV/Shortest focal length	35° x 26° / 0.5m	56° x 42° / 0.5m
Measurement accuracy	± 2C/±2%	
Display screen	2.8 inch full-view TFT display	
Visible image resolution	300000 pixel	
LCD resolution	320x240	
Thermal sensitivity	70mk	
Emissivity	Adjustable from 0.01 to 1.00	
Frame rate of thermal images	9Hz	
Wavelength coverage	8-14µm	
Focus mode	Fixed	
Colour palette	Rainbow, iron oxide red, cold color, black & white, white & black	
Storage capacity	Built -in 3G (above 20 thousand image stored)	
File format	JPG	
USB	Micro USB 2.0	
Power Supply	Built in chargeable 18650 battery	
Working Time	2-3 hours	
Automatic Power-off time	Selectable : 5 minutes /20Minutes/not power off automatically	
Setting command	Unit, language, date, time, information	
Language	English	
Operating temperature	0°C ~ 45°C	
Storage temperature	-20°C ~ 60°C	
Humidity	<85%RH	

**DIGITAL INSULATION TESTER  
WITH MULTI METER FUNCTION G-TECH - 9510**



**G-TECH®**

Specification	Range	Accuracy
Display	3 3/4 Digit , Jumbo LCD Display, 3999 Counts	-
Test Insulation	at 250V/500V/1000V With a Ohms range of 0.25m - 40G Ohms	
DC Voltage	400mV-4-40-400-1000V	± 0.5%
AC Voltage	4-40-400-700V	± 0.8%
DC Current	40mA - 400mA	± 1.0%
AC Current	40mA - 400mA	± 1%
Resistance	400Ω-40k-400k-4M-40MΩ	± 0.8%
Capacitance	40nF-400nF-4uF-40uF	± 3%
Frequency	40Hz-400Hz-4KHz-40KHz-4MHz	

Dual Display, Data Hold,  
Continuity test, 1.5V x 6A Battery Supply  
Soft Carrying Case

**DIGITAL INSULATION TESTER  
WITH MULTI METER FUNCTION G-TECH - 9525**



Specification	Range	Accuracy
Display	3 3/4 Digit Jumbo LCD Display, 3999 Counts	-
Test Insulation	at 500V/1000V/2500V With a Ohms range of 4MΩ - 40GΩ	
DC Voltage	400mV-4-40-400-1000V	± 0.5%
AC Voltage	400mV-4-40-400-700V	± 0.8%
DC Current	40mA - 400mA	± 1.0%
AC Current	40mA - 400mA	± 1%
Resistance	400Ω-40k-400k-4M-40MΩ	± 0.8%
Capacitance	40nF-400nF-4uF-40uF	± 3%
Frequency	40Hz-400Hz-4KHz-40KHz-4MHz	

Dual Display, Data Hold,  
Continuity test, 1.5V x 6A Battery Supply  
Soft Carrying Case

**DIGITAL INSULATION TESTER 5000V  
MULTIRANGE G-TECH - 9550**

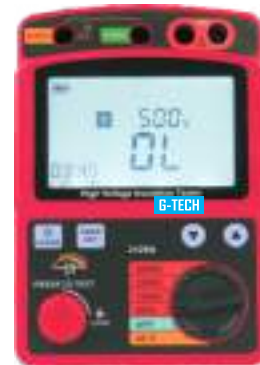


**G-TECH®**

Specification	Range
Display	LCD Display, 1999 Counts
Test Voltage	500V/1000V/2500V/5000V
Insulation	
Resistance	1M Ohm - 200G Ohms
Accuracy	3% of R <sub>dg</sub> +5digits (1M-200M Ohms) 5% of R <sub>dg</sub> +5digits (200M-10G Ohms) 10% of R <sub>dg</sub> +5digits (10GM-200G Ohms)
AC Voltage	750V
Range Select	Auto
	▶ Data hold ✓ ▶ Low Batt.indication ✓ ▶ Back Light ✓ ▶ HV Red Indication lamp light ✓

Dual Display, Data Hold,  
Continuity test, 1.5V x 6A Battery Supply  
Test Leads & Hard Carrying Case

**INSULATION TESTER WITH TIMER & MEASUREMENT  
UPTO 1TOHMS, WITH PI & DAR G-TECH 3125A**



**Timer measurement**  
Press ▲ or ▼ button,  
time can be set at a  
every 5sec  
from 00:00 to 01:00.  
after that rang time  
can be set at every  
30 sec. Upto 60Min.

Specification	Range
Rated Voltage	500V/1000V/2500V/5000V
Testing Range	500V:0.0~999M Ohms 1000V:0.0~1.99G Ohms 2500V :1.99~99.9G Ohms 5000V : 0.0~1000G Ohms
Accuracy	± 5% rdg ± 5 digits
DC/AC Testing Voltage	30~600V
Resolution	1.0V
Overload Protection	AC 1200V/10 Second
Withstand Voltage	AC8320V/5 Seconds
Insulation Resistance	1000M Ohms / DC 1000V
Line Probe ✓ Polarization Index ✓ DAR ✓ Timer ✓	

Optional 12V adaptor operated or  
1.5V x 8 Battery Power Supply  
Test Lead, Soft Carrying Case, Manual



Earth Ground Resistance	Range	Resolution	Precision
	0.01-.99 Ohms	0.01 Ohms	± 1%+0.01 Ohms
	1.0-49.9 Ohms	0.1 Ohms	± 1.5%+0.1Ohms
	50.0-99.5 Ohms	0.5 Ohms	± 2.0% +0.5 Ohms
	100-199 Ohms	1 Ohms	± 3.0% + 1 Ohms
	200-395 Ohms	5 Ohms	± 6% + 5 Ohms
	400-590 Ohms	10 Ohms	± 10% + 10 Ohms
	600-1000 Ohms	20 Ohms	± 20% + 20 Ohms
<b>Minium Resolution</b>	0.01 Ohms		
	Range	Resolution	Precision
<b>Leakage Current</b>	0 ~ 10mA	0.05mA	± 2.0% + 0.05mA
	10mA ~ 100mA	0.1mA	± 2.0% + 0.3mA
	100mA ~ 1000mA	1mA	± 2.0% + 3mA
	1000mA ~ 5A	5mA	± 2.0% + 10mA
	5A~30A	10mA	± 2.0% + 20mA
<b>Conductor Size</b>	65MM		



“G-TECH” Digital Earth Resistance Tester is a very versatile & Handy Instrument for checking Earth Resistance. It consists of the indicator & set of 2 spikes (stake) and connecting wires. Earth resistance is measured by putting the spikes in the earth at distance of 5-10m & switching ON the instrument indicates the Earth Resistance directly in ohms.

**Features :**

- \* Display LCD : 3 ½ Digit 2000 counts
- \* Earth resistance measuring range : 0-20 ohm / 200 ohm / 2000ohm
- \* Measures Earth Voltage (VAC) : 0-200VAC
- \* Battery Operated
- \* Data Hold Function
- \* Small & Light Weight
- \* Display back light

**Accessories :**

- Auxiliary Earth Bars (2 No's) & Test Leads
- Carrying Bag Instruction Manual, Batteries





**Functions :**

- \* This instrument is only suitable for **single phase 230V / 50Hz (with power supply voltage range).**
- \* Automatic data holding : After test is completed, the displayed measurement results are hold for certain period of time.
- \* AUTO RAMP test : The AUTO RAMP test can test tripping current and time simultaneously.
- \* Shutdown alarm function : After 3 minutes of operation, the instrument will let out a shutdown beep alarm.
- \* Built in FUSE security protection.
- \* Power supply : directly supplied by circuit under test (power supply 230V / 50Hz)

**Specification :**

Measurement range and measurement error (temperature: 23 + 5° C , Humidity : 45% - 75% RH, altitude 2000m)

**RCD Test function :**

Functions	Operating Voltage (AC)	Rated Operating Current (LΔN)	Fault function time (MAX)	Accuracy	
				Action Current	Action time
X 1/2	230V (Error range -15% ~ 10%)	10/20/30/100/300/500 mA	1000 ms	Error range : -10%~+10%	± 0.6% rdg ± 8dgt
X 1		10/20/30/100/300mA	1000 ms		
		500mA	300 ms		
X 5	Frequency : 50Hz	10/20/30mA	1000 ms	Error range : -10%~+10%	
AUTO RAMP test		10/20/30/100 /300/500mA	(RAMP Increasing : step 10% )		Error range : -10%~+10%

**COATING THICKNESS METER F & NF BOTH  
G-TECH CM 8829 WITH PROBE & USB**



Measuring Principle : Magnetic Induction (F) Eddy current (N)  
 Measuring Range : F(0-5000um) + N (0-3000um)  
 Accuracy : (2% + 1um)  
 Memory : 2000 reading  
 Units : um, mm, mils  
 Three 1.5 AAA battery  
 Comes with 1m separated probe  
 Alarm setting and backlight indication  
 Connect with PC via USB and download reading

Accessories : Metal Case, External Probe, CD, Manual, Three Battery, USB Cable, Ferrous and non Ferrous metal, 5 Foil.

**COATING THICKNESS GAUGE**



**Specification**

	Probe F	Probe N
Principle	Magnetic Incuction	Eddy Current
Range	0~1500um 0~59.1mil	0~1500um 0~59.1mil
Accuracy	± (3%+2um) ± (3%+0.08mil)	± (3%+2um) ± (3%+0.08mil)
Resolution	0.1um/0.01mil	0.1um/0.01mil
Calibration	Zero point	
Units	um, mil / Multi point	
Min. Curvature radius convex	: 1.5mm	
Min. Curvature radius concave	: 25mm	
Min. measuring are	: Diameter 6mm	
Min. thickness of substrate	0.5mm (0.02")	0.5mm (0.02")
Power	2 x AAA Batteries	
Operation Environment	Temp. : 0~40°C (32~104°F) Humidity : 20%~90%RH	

**DIGITAL MOISTURE METER  
WOOD + CONSTRUCTION MATERIAL  
G-TECH 291**



**G-TECH®**

**Function**

- 4 gears wood and 3 gears construction material selection
- Data lock
- Low battery indication
- Automatic/manual shutdown
- Backlight display

**E. Comparison table of material grade**

Wood	Grade	Wood	Grade
Rhodes west teak	1	African white wood	3
Ormosia hosiei	1	Rose wood	3
Brazil walnut tree	1	Elm tree	3
Walnut tree	2	Gmelina chinensis benth	3
Apitong	2	Hemlock	3
White poplar	2	Dipterocarpus	3
Teak	2	Oak	3
Banya pine	3	Chinese red pine	4
Douglas fir / D.fir	3	Coquito	4
Lauan	3	Abies holophylla Maxim	4
Manchurian ash	3	Larch	4
European silver	3	Apitong	4
Maple	3	Birch	4
White ash	3	Basswood	4
Construction Material			
Cement martar	5		
Lime martar	6		
Brick	7		

Specification	Grade	Range	Resolution
Name of Wood + y/°	1	7.2%~40%	0.10%
	2	8.7%~50%	
	3	10.6%~60%	
	4	12.2%~70%	
	5	0.7%~7.9%	
Construction material	6	0.5%~8.5%	
Bricks	7	0%~15.2%	

**DIGITAL WOOD MOISTURE METER  
G-TECH MD4G**



The Instruments is a dedicate one, which used to measure the containing water of wood, bamboo, cotton, paper etc.

**Features :**

- Digital large size LCD display
- Range : 5% to 40%
- Resolution : 1%
- High resolution and response quickly
- Data hold and can hold value
- Symbol and unit display can read the value conveniently
- Low battery symbol
- Dimension : 126x70x29mm
- Weight : approx 150g (including battery)
- Operating Temperature : 0°C to 40°C (32°F to 104°F), 0 to 70%RH

**PINLESS WOOD MOISTURE METER  
G-TECH PMM 10**



**Features**

- \* Pinless Wood Moisture Measurement
- \* Moisture range 0.5% - 79.5%
- \* 8 Kind of wood density group type
- \* Temperature range 0 to 50° C
- \* Backlight control function
- \* Data hold function
- \* Battery level indication
- \* Auto power-off function

## DIGITAL FORCE GAUGE G-TECH 5Kg/20Kg



**G-TECH®**

Specification	Range	Range
Model No.	5Kg	20Kg
Force gauge	50N	200N
Resolution	0.01N	0.1N
	0.001Kg	0.01Kg
	0.00Lb	0.0Lb
The Sensor	Sensor inside	Sensor inside
Accuracy	± 0.5%	± 0.5%
Power	3.7V lithium battery	3.7V lithium battery
Continues usage time of battery	About 15 Hours	About 15 Hours
Battery Life	≥300 times	≥300 times

Charger : Input : AC 220V 50Hz 1000mA, Output : DC 5V, 1000mA

## ULTRASONIC THICKNESS GAUGE G-TECH UTM-9



### Application

This unit is suitable for measuring materials that are good ultrasonic conductor such as metal, plastic, ceramic, glass etc., as long as the measured part in two parallel surfaces for measurement for measurement of thickness.

\* This unit is not suitable for cast iron due to its big crystalloid composition.

### Specifications :

Display : 4 digital LCD display

Min. Display unit : 0.1mm

Working frequency : 5MHz

measuring range : 1.2 to 225.0mm (Steel)

Min. limit for tube measuring : 20x3 mm (Steel)

Accuracy : ± (1%H+0.1) mm H denotes the measured thickness

Sound velocity with a given thickness :

\* Measuring range : 1000 to 9999 m/s

\* When the given thickness over 20mm, the accuracy is ± 1%:  
when the given thickness less than 20mm the accuracy is ± 5%

**G-TECH®**

## PHASE SEQUENCE INDICATOR G-TECH 5801



This instrument is used to measure the operating phase condition and order through LED and BUZZER.

Operational Voltage : 200 to 480V (3Phase AC)

Limit Support Voltage : 2000V/minute (Impulse Voltage 4000V)

Measuring Frequency Range : 20 Hz to 400Hz

Time Limit For Continious Measurement :

60 minutes at 200V AC

4 minutes at 480V AC

**G-TECH®**

## PEN TYPE VIBRATION METER G-TECH VB 63



### Technical parameter

### Technical indicators

LCD Display	Color display
Vibration acquisition	Piezoelectric ceramic accelerometer (shear type)
Shuffle interval of data display	1 Second
Measurement range	Acceleration 0.1~199.9m/S <sup>2</sup>
	Velocity : 0.1~199.9mm/s
	Displacement 0.001~1.999mm
Frequency range of acceleration measurement	High frequency : 1KHz ~ 4KHz (HI) Low Frequency : 10Hz ~ 1KHz (LO)
Frequency range of speed measurement	10Hz ~ 1KHz (LO)
Frequency range of displacement measurement	10Hz ~ 1KHz (LO)
Maximum groups of data storage	500 pieces (5 groups x 100 pieces/group)



12V/24V Car Battery  
 CCA : 100-1700  
 Voltage range :9V-35V  
 Battery capacitance : 30-200AH

12V Battery, Print function  
 CCA : 100-1700  
 Voltage range : 9V-18V  
 Battery capacitance : 30-200AH

**Features**

- Key parameters Measured for Diagnosis of Vehicle Battery & Electrical System • Display of Battery condition (Good / OK / Pay Attention / Replace)
- Overload Protection to ensure Operator Safety • Loose Lea Detection - Reverse Polarity Protection • Internal Unit Conversion CCA / IEC / EN / DIN
- Battery Recharge Indicator, Detects and Display Bad Cell, Overload Protection of input Voltage

Product Name	G-TECH BT31	G-TECH BT31P
Applicable Battery	12V/24V Storage Battery	12V/24V Storage Battery
Print or not	No	Yes
CCA range	100~1700	100~1700
Operating Temperature	-18°C ~ 50°C	-18°C ~ 50°C
Voltage Range	9 ~ 35V	9 ~ 18V
Battery Range	30AH - 200AH	30AH - 200AH
Testing method	Kelvin four-terminal sensing	
Battery selection criteria	CCA : 100~1700IEC : 100~1000 EN : 100~1700 DIN : 100~1000	
Main function	Battery starting test, engine system start load test, huge load system test, charging system test etc.	
Notes	This battery tester is only used for car battery testing measuring voltage range is 12V (12V~24V)	
	Measuring CCA range is 100~1700	
	Battery range is 30 AH-200AH Warning : the below cars of batteries are not allowed to test : electric vehicle, UPS batteries, electric tricycle	



Specifications	Range
Battery Type	Lead Acid & Li-ion Battery
Battery Voltage	6V / 12V DC
Battery Capacity	40 Ah ~ 200Ah
Battery Load Test Current	80A
Load Test Time Control Timer	<10 seconds
Battery Drop Voltage in Load Test	√
Temperature control in Load Test	√
Battery Internal Resistance by Load Test	0 ~ 99mΩ.
Battery Internal Resistance by : 4 - Wires Test	0 ~ 99mΩ
Battery conclusion by Load Test or by 4 - Wires Test	Good / Weak / BAD
Reverse Polarity Protection	√
Detects and Display Bad cell	√
Missing Lead Detection	√
Overload Protection of Input Voltage	√

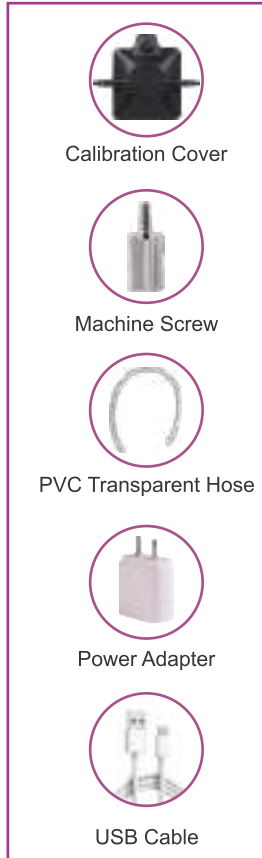
**SPECIFICATION AND PARAMETERS**

1. Maximum voltage: DC 19.99V
2. Internal resistance range of battery : 1.00milliohm ~ 99.99milliohm
3. LED status indication : Battery condition "Green" (Sufficient Capacity), "Yellow" (Insufficient Capacity), "Red" (Replace battery), Charging system : "Green" (Normal Charging), "Yellow" (Abnormal Changing)
4. Accumulator capacity presetting : continuously adjustable in the range of 40-200Ah, with 5Ah increment.
5. Test time : less than 10s : test time interval : it is suggested as about 5min.
6. Poor contact prompt for test clamp : reverse clamp connection protection : input over voltage protection.





**G-TECH GT2000**



**G-TECH GT1000**

Oxygen monitor adopts high quality gas sensors, which display safety and reliability with accurate measurement and stable performance. It has excellent sensitivity and repeatability, easy to use and maintain, and meets the requirements by safety monitoring in industrial site for high reliability of the equipment. The shell is made of high strength engineering plastics and compound nonslip rubber, dust and explosion proof, with high strength and smooth handfeel.

Function	GT2000	GT1000
----------	--------	--------

Colour screen display	✓	☒
Three alarm forms (sound/light/vibration)	✓	☒
Data recording (up to 120,000data)	✓	☒
Data playback	✓	☒
Data retention	☒	✓
Charging function	✓	☒
Maximum/minimum display	✓	✓
°C/°F unit switch	✓	✓
Shut down regularly (within 10Min)	✓	✓
Calibration function	✓	✓
High and low temperature alarm settings	✓	✓
Battery reminder	✓	✓
Automatic shutdown	✓	☒
Backlit screen	✓	✓

Specification	GT2000	GT1000
---------------	--------	--------

Measuring range	0~30% VOL	0~25% VOL
Response time (90%)	Less than 30 seconds	Less than 15 seconds
Power supply	LP103450-1800mAh	3x1.5V AAA batteries
Weight	215.4g	111.9g
Dimensions	71x153x49mm	67.98x28.47x119.98 mm

**Application**



Metallurgical Refining



Biochemical Medicine



Agricultural Research



Petrochemical

Carbon Monoxide monitor adopts high quality gas sensors, which displays safety and reliability with accurate measurement and stable performance. It has excellent sensitivity and repeatability, easy to use and maintain, and meets the requirements by safety monitoring in industrial site for high reliability of the equipment. The shell is made of high strength engineering plastics and compound nonslip rubber, dust and explosion proof, with high strength and smooth hand feel.



**Features**

- Data retention
- Maximum/minimum display
- °C/°F unit switch
- Shut down regularly (within 10Min)
- Calibration function
- High and low temperature alarm settings
- Battery reminder
- Automatic shutdown
- Backlit screen
- Unit conversion (%VOL, % LEL, PPM, (mg/M))

**Specification**

Measuring range	0~1000ppm 0~0.1%VOL 0~0.8%LEL 0~1250mg/M3
Response time	Less than 30seconds
Power supply	3x1.5V AAA batteries
Dimensions	67.98x28.47x119.98 mm
Weight	111.9g

**Application**



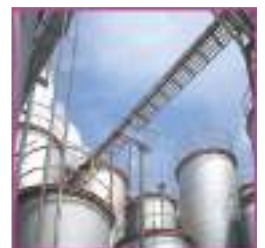
Metallurgical Refining



Biochemical Medicine



Agricultural Research



Petrochemical



**Calibration Cover**



Power Adapter



USB Cable



PVC Transparent Hose

Carbon Dioxide Monitor adopts high-quality gas sensors, which display safety and reliability with accurate measurement and stable performance. It has excellent sensitivity and repeatability easy to use and maintain, and meets the requirements by safety monitoring in industrial site for high reliability pf the equipment. The shell is made of high-strength engineering plastics and compound non slip rubber, dust and explosion-proof with high strength and smooth hand feel.

**Function**

- Colour-screen display, user-friendly interface.
- Two alarm forms : sound / light
- Data recording and review function, continuously record 7605 data.
- Charging function.

**Specification**

Gas detection	CO <sub>2</sub>
Measuring range	0~10000μmol/mol
Resolution	1
Accuracy	±40μmol/mol±3%
Response time (90%)	About 2 minutes
Indication Mode	LCD displays real-time data and system state, LED and sound indication alarm
Low battery indication	Temperature : -10~55°C; Humidity: <85%/RH non-condensing
Power supply	DC 3.7V (Lithium battery capacity 1800mAH)
Working voltage	Temperature : 0~50°C Humidity : <85%RH non-condensing
Battery model	LP1034150-1800mAh
Charging time	About 4 hours
Standby time	More than 8h on end (slightly change with working state)
Dimension	71x153x49 mm
Weight	215.4g (with battery and back button)

**Application**



Metallurgical Refining



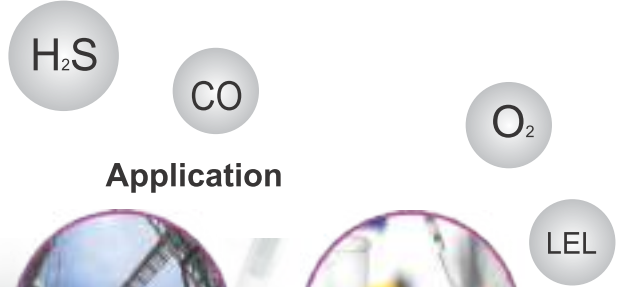
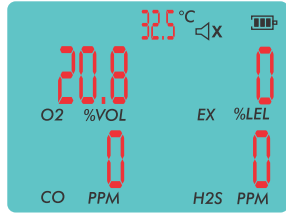
Biochemical Medicine



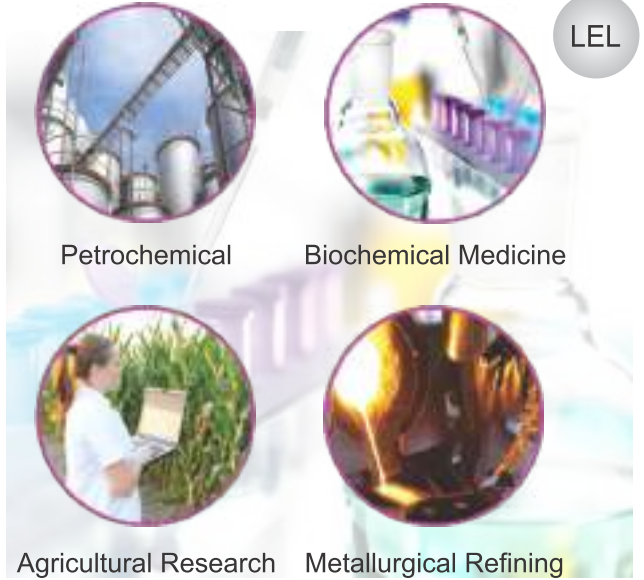
Agricultural Research



Petrochemical



**Application**



Compound Gas Monitor adopts high-Quality gas sensors, which display safety and reliability with accurate measurement and stable performance, it has excellent sensitivity and repeatability, easy to use and maintain and meets the requirements by safety monitoring in industrial site for high reliability of the equipment,

**Features :**

- Simultaneous detection of four gases (O<sub>2</sub>, Co, H<sub>2</sub> S, LEL)
- There are three alarm forms : sound, light and vibration
- Data logging
- Charging function
- High and low value alarm
- °C\°F temperature unit conversion
- Automatic shutdown
- Battery display
- Calibrate the zero point
- Temperature compensation
- Data retention
- Maximum and minimum measurement

Specification			
Compound Gas Monitor range			
Measuring item	Unit	Range	Resolution
Combustible gas LEL	%LEL	0~100	0.1
Oxygen O <sub>2</sub>	%VOL	0~30	0.1
Hydrogen sulfide H <sub>2</sub> S	μmol/mol	0~100	0.1
Carbon monoxide CO	μmol/mol	0~1000	1
Accuracy	≤ ±5%FS		
Response time (90%)	Less than 30 seconds		
Indication mode	LCD display real-time data and system state, LED, sound, vibration indication alarm		
Storage Conditions	Temperature : 10~55°C' Humidity<85%RH		
Operation conditions	Temperature : 20~50°C Humidity : < 95%RH non-condensing		
Working voltage	DC 3.7V (Lithium battery capacity 1800mAH)		
Charging time	4 Hour		
Standby time	More than 8H on end (slightly change with working state)		
Dimension	71 x 53 x 49 mm		
Weight	218.7 g With battery		





**General Features**

- Display : 5 digit LCD display
- Accuracy : ± 0.5%
- Maximum allowed voltage : 30V (within terminals or between terminal and earth ground)
- Operation temperature range : 0°C ~50°C
- Operation humidity range : = 80%RH
- Storage temperature range : = -10°C~55°C
- Storage humidity range : =90% RH
- Temperature coefficient : 0.1 x (dedicated accuracy) %/°C (5°C~18°C~40°C)
- Power : Two 1.5V alkaline batteries (Lr6)
- Power consumption : About 70m/3v
- Weight : About 500g
- Accessory : User's Manual Industrial testing lead CF-36 (clips for probe) Holster & Carrying case
- Safety : Complies with IEC 1010

**Simple & Easy To Carry**

**Basic Accuracy 0.05%**

This Calibrator is a source for Volts, Ohms RTD & Thermocouples, It gives output of Volts in 2 range 100mV & 1000mV & also gives output of Ohms in 2 ranges 400Ω & 4000Ω & output for calibrating R, S, B, E, K, J, T & N Type thermocouples. It also gives output for RTD Pt1000 & Cu50. It has very high accuracy of 0.05%



Digital large screen Display



8 Thermocouple Outputs



Low pressure tips



Clear function



Automatic shut-down



High precision Measurement



5 RTD Outputs



Unit Conversion

**Output Function**

Output	Range	Output range	Resolution	Accuracy	Illustration
DC Voltage	100mV	-10.00 ~ 110.00mV	0.01mV	± 0.05%+ 30μV	max. Output Current ± 2mA
	1000V	-1000 ~ 1100.0V	0.1mV	± 0.05% + 0.3mV	
OMH	400Ω	0 ~ 400.0Ω	0.1Ω	0.05%+0.2Ω	± 0.5 ~ ±3 mA Note1, Note 2
	4000Ω	0 ~ 4000Ω	1Ω	0.05%+ 2Ω	± 0.5 ~ ±0.3 mA Note1, Note 2
TC	R	-40°C ~ 1760°C	1°C	0.05% + 3°C (Less than or equal to 100°C) 0.05% +2°C (more than 100°C)	Employs ITS-90 temperature standard Note 3
	S	-20°C ~ 1760°C	1°C		
	B	400°C ~ 1800°C	1°C	0.05% + 3°C (400~ 600°C) 0.05% + 2°C (more than 600°C)	
	E	-200°C ~ 1000°C	0.1°C		
	K	-200°C ~ 1370°C	0.1°C	0.05% + 2°C (Less than or equal to -100°C) 0.05% + 1°C (more than 100°C)	
	J	-200°C ~ 1200°C	0.1°C		
	T	-200°C ~ 400°C	0.1°C		
N	-200°C ~ 1300°C	0.1°C			

Output	Range	Output range	Resolution	Accuracy	Illustration
RTD	Cu10	-10.0°C ~ 250.0°C-	0.1°C	0.05% + 0.6°C	Incentive current is ±0.5 ~ ±3mA when the incentive current is ±0.1 ~ 0.5 mA, 0.5°C additional error
	Cu50	-50°C ~ 150°C	0.1°C	0.05% + 0.6°C	
	Pt10 385	-200°C ~ 850°C	0.1°C	0.05% + 0.6°C	
	Pt 100 385	-200°C ~ 850°C	0.1°C	0.05% + 0.6°C	
	Pt 200 385	-200°C ~ 630°C	0.1°C	0.05% + 0.6°C	Incentive current is ±0.05 ~ ±0.3 mA
	Pt 500 385	-200°C ~ 630°C	0.1°C	0.05% + 0.6°C	
	Pt 1000 385	-200°C ~ 630°C	0.1°C	0.05% + 0.6°C	

Note 1 : Affiliated resistance of test leads is excluded

Note 2 : The range of incentive current is from 0.05mA to 3mA, and the maximum output is less than or equals to 2V

Note 3 : The accuracy does not include the error of interior temperature compensation sensor the range of interior temperature compensation sensor is from -10 to 50°C, and the error compensation is less than or equal to 0.5°C






**General Features**

- Display : 5 digit LCD display
- Accuracy : ± 0.5%
- Maximum allowed voltage : 30V (within terminals or between terminal and earth ground)
- Operation temperature range : 0°C ~50°C
- Operation humidity range : = 80%RH
- Storage temperature range : = -10°C~55°C
- Storage humidity range : =90% RH
- Temperature coefficient : 0.1 x (dedicated accuracy)%
- Power : Two 1.5V alkaline batteries
- Power consumption : About 70m/3v %/°C (5°C~18°C~40°C)
- Weight : About 500g
- Accessory : User's Manual Industrial testing lead CF-36 (clips for probe) Holster & Carrying case
- Safety : Complies with IEC 1010

**Simple & Easy To Carry      Basic Accuracy 0.05%**

This is a Thermocouple "Source" & "Sink" Calibrator. It gives output of DC Volts & output for R,S,B,E,K,J,T & N Thermocouples. It measures DC Voltage & also R,S,B,E,K,J,T, & N Thermocouples. It has 5 digit LCD display & extremely high accuracy 0.05%



Digital large screen Display



8 Thermocouple Outputs



Low pressure tips



Clear function



Automatic shut-down



Unit Conversion



High precision Measurement



HD Large Screen

**Output Function**

Output	Range	Output range	Resolution	Accuracy	Remarks
DC Voltage	100mV	-10.00 ~ 110.00mV	0.01mV	± 0.05% ±30µV	The max. Output Current ± 2mA
	1V	-0.1000 ~ 1.1000V	0.1mV	± 0.05% ±30mV	
Thermo couple	R	-40°C ~ 1760°C	1°C	± 0.05% + 3 (Less than or equal to 100°C) ± 0.05% + 2 (more than 100°C)	Employs ITS-90 temperature standard The accuracy does not include the error of interior temperature compensation sensor The accuracy does not include impact of interior thermoelectric force.
	S	-20°C ~ 1760°C	1°C		
	B	400°C ~ 1800°C	1°C	± 0.05% + 3 (Less than or equal to 600°C) ± 0.05% + 2 (more than 600°C)	
RTD	E	-200°C ~ 1000°C	0.1°C	± 0.05% + 20 (Less than or equal to 100°C) ± 0.05% + 10(more than 100°C)	
	K	-200°C ~ 1370°C	0.1°C		
	J	-200°C ~ 1200°C	0.1°C		
	T	-200°C ~ 400°C	0.1°C		
	N	-200°C ~ 1300°C	0.1°C		

**Input Function**

Output	Range	Output range	Resolution	Accuracy	Remarks
DC Voltage DC mV	100mV	-10.00 ~ 110.00mV	0.01mV	± 0.05% ±3	Input Resistance : 1mΩ
Thermo couple TC	R	-40°C ~ 1760°C	1°C	± 0.05% + 3 (Less than or equal to 100°C) ± 0.05% + 2 (more than 100°C)	Input Resistance : 1mΩ  Employs ITS-90 temperature standard The accuracy does not include the error of interior temperature compensation sensor The accuracy does not include impact of interior thermoelectric force.
	S	-200°C ~ 1760°C	1°C		
	B	400°C ~ 1800°C	1°C	± 0.05% + 3 (Less than or equal to 600°C) ± 0.05% + 2 (more than 600°C)	
	E	-200°C ~ 1000°C	0.1°C	± 0.05% + 20 (Less than or equal to 100°C) ± 0.05% + 10(more than 100°C)	
	K	-200°C ~ 1370°C	0.1°C		
	J	-200°C ~ 1200°C	0.1°C		
	T	-200°C ~ 400°C	0.1°C		
	N	-200°C ~ 1300°C	0.1°C		



**General Features**

- Display : 4 digit LCD display
- Accuracy : ± 0.5%
- Maximum allowed voltage : 30V (within terminals or between terminal and earth ground)
- Operation temperature range : 0°C ~50°C
- Operation humidity range : = 80%RH
- Storage temperature range : = -10°C~55°C
- Storage humidity range : =90% RH
- Temperature coefficient : 0.1 x (dedicated accuracy)
- Power : Two 1.5V alkaline batteries (Lr6)
- Power consumption : About 70m/3v
- Measurement : %/°C (5°C~18°C~40°C)
- Weight : 180 (L) x 90 (W) x 47 (D) mm (with protector)
- Accessory : About 500g
- Safety : User's Manual Industrial testing lead CF-36 (clips for probe) Holster & Carrying case Complies with IEC 1010

**Simple & Easy To Carry    Basic Accuracy 0.05%**

Output Function	Range	Output range	Resolution	Accuracy	illustration	
Simulate resistance OHM	400Ω	0.0 ~ 400Ω	0.1Ω	0.05%+2	Incentive current is set as : ± 0.5 ~ ± 3mA when the incentive current is set as ± 0.1 ~ 0.5mA, add an extra 0.1Ω to additional error. The accuracy does not include lead resistance	
	4000Ω	0 ~ 4000Ω	1Ω	0.05%+2	incentive current is set as ± 0.05 ~ ± 0.3mA The accuracy does not include lead resistance	
Thermal resistance RTD	Cu10	-10°C ~ 250°C	0.1°C	0.05%+6	Incentive current is set as ± 0.5 ~ ± 0.3mA When the incentive current is set as ± 0.1 ~ 0.5mA, add an extra 0.5° C to additional error	Employs Pt (385) Std. temperature The accuracy does not include lead resistance
	Cu50	-50°C ~ 150.0°C				
	Pt10-385	-200.0°C ~ 850.0°C				
	Pt100-385	-200.0°C ~ 850.0°C				
	Pt200-385	-200.0°C ~ 630.0°C				
	Pt 500-385	-200.0°C ~ 630.0°C				
	Pt1000-385	-200.0°C ~ 630.0°C				



Digital Large screen Display



Automatic shut-down



5 RTD Output



Low pressure tips

Input Function	Range	Output range	Resolution	Accuracy	illustration	
resistance OHM	500Ω	0.0 ~ 500Ω	0.1Ω	0.05%+2	Measurement current :about 1mA Open circuit voltage : about 2.5V The accuracy does not include lead resistance	
	5000Ω	0 ~ 5000Ω	1Ω	0.05%+2	Measurement current : about 1mA Open circuit voltage : about 25V The accuracy does not include lead resistance	
Thermal resistance RTD	Cu10	-10°C ~ 250°C	0.1°C	0.05%+6	Incentive current is set as ± 0.5 ~ ± 0.3mA When the incentive current is set as ± 0.1 ~ 0.5mA, add an extra 0.5° C to additional error	High precision Measurement
	Cu50	-50°C ~ 150.0°C				
	Pt10-385	-200.0°C ~ 850.0°C				
	Pt100-385	-200.0°C ~ 850.0°C				
	Pt200-385	-200.0°C ~ 630.0°C				
	Pt 500-385	-200.0°C ~ 630.0°C				
	Pt1000-385	-200.0°C ~ 630.0°C				



Clear function



High precision Measurement



Analog Resistance

G-TECH MAKE Volt & milliampere Calibrator Model G-TECH 04+ is a high Accuracy (0.05%) Calibrator. It has 5 digit LCD display with high stability. It can be used for calibrating, transmitters, Thermocouple, SCADA systems, Transducers, It also provides loop circuit power 24V.



The Max. load is 1Ω at 20mA range when the power higher than 6.8V;  
The Max. Load is 700Ω at 20mA range when the power is within 5.8V - 6.8V.  
Temperature Coefficient ± 0.005%, range / °C (5°C ~ 18°C ~ 28°C ~ 40°C).  
It works on 9Volt alkaline battery and battery life is approx 20 hours under the condition of 10mA.

**General Specification**

- Display : 5 Digit LCD display.
- Basic Accuracy : ± 0.05%
- Max. Allowable Voltage : 30V
- Operating Temperature Range : 0 ~ 50°C
- Humidity range : ≤ 80% RH
- Storage Temperature Range : ≤ -10°C ~ 55°C
- Humidity range : ≤ 90% RH
- Temperature Coefficient : 0.1 x (designed Accuracy) % / °C (5°C ~ 18°C ~ 28°C ~ 40°)
- Power : 1.5V x 2 alkaline batteries.
- Power Consumption : about 400mA / 3V in condition of 20mA with 1KΩ load.
- Dimension : 180(L) x 90 (W)x 47 (D)(mm) (with holster)
- Weight : About 500g

**OUTPUT FUNCTION**

Output	Range	Output Range	Resolution	Accuracy	Remarks
DC Voltage	10V	0.000~11.000V	0.001V	± 0.05% + 2	Max. Output 5mA
DC Current	20mA	0.000~22.000mA	0.001mA	± 0.05% + 4μA	20mA Max. load 1KΩ
Simulate transmitter (Sinking current)	-20mA	0.000~22.000mA	0.001mA	± 0.05% + 4μA	20mA Max. load 1KΩ Note : Power supply range 5 ~ 25VDC
Loop Power	24V			± 10%	Max. Output current Upto 25mA

**Accessories :**

User Manual, Test Lead CF-36, (Clips for probe), Holster & Carrying case.

**Safety :**

Complies with IEC1010

**voltage, active/passive current output**

**Basic Accuracy 0.05%**



Current function



Voltage function



Digital Display



High precision Measurement



Easy to use



Automatic shut-down



**General Specification**

- Basic Accuracy : ± 0.05%
- Display : 4 Digit LCD display.
- Max. Allowable Voltage : 30V
- Operating Temperature Range : 0 ~ 50°C
- Humidity range : ≤ 80% RH
- Storage Temperature Range : ≤ -10°C ~ 50°C
- Humidity range : ≤ 90% RH
- Temperature Coefficient : 0.1 x (designed Accuracy) % / °C (5°C ~ 18°C ~ 28°C ~ 40°)
- Power : 1.5V x 2 alkaline batteries.
- Power Consumption : about 400mA / 3V in condition of 10mA with 1KΩ load.
- Dimension : 180(L) x 90 (W)x 47 (D)(mm) (with holster)
- Weight : About 500g

**Simple & Easy to Carry**

Basic Accuracy 0.05%

**Accessories :**

User Manual, Test Lead CF-36, (Clips for probe), Holster & Carrying case.

**Safety :**

Complies with IEC1010(safety standard issued by International Electrician Committee)



Auto Ranging



Automatic shut-down



Digital Display



Large screen Display



High precision Measurement



Low pressure tips

**OUTPUT FUNCTION**

Output	Range	Output Range	Resolution	Accuracy	Remarks
DC Current	20mA	0.0000~22.000mA	0.001mA	± 0.05% set value + 4µA	Max. load 1KΩ at 20 mA
Simu-transmitter (absorption current)	-20mA	0.000~22.000mA	0.001mA	± 0.05% set value + 4µA	Max. load 1KΩ at 20 mA Note : Power supply range 5 ~ 25VDC
Loop Power	24V			± 10%	Max. Output current Upto 25mA

**INPUT FUNCTION**

Input	Range	Output Range	Resolution	Accuracy	Remarks
Voltage	28V	-0.200~28.000V	1mV	± 0.02% reading ± 2mV	Input Resistance about 1MΩ
Current	20 mA	-1.000 ~ 22.000mA	0.001mA	± 0.02% reading ± 4µA	Resistance about 20Ω
Loop Current	20 mA	0.000 ~ 22.000mA	0.001mA	± 0.02% reading ± 4µA	Providing 24V Loop Power





**GENERAL SPECIFICATION**

- High Accuracy of 0.02% for source, 6 digits display for source.
- Source: DC Voltage, DC current, resistance, simulating transmitted temperature (thermocouple/resistance temperature detector), frequency, pulse, contact
- Provides 25% step or 100% step DC current output manually or automatically.
- TC source terminals and built-in lead connector of same temperature (RJ compensation with auto - reference joint point): the unit can be converted between °C and °F.
- Outside place temperature detector with high accuracy of ±2°C.
- Big LCD can display the TC/RTD value and voltage/resistance value, mA value and mA% value corresponding simultaneously.
- Carefully designed key layout, each pair of increase/decrease key correspond with the set value on the LCD.
- It can be calibrated without open the cover of the calibrator.
- White LED backlight with auto turn off and auto turn off the power, it is suitable for use on locale.

**TECHNICAL SPECIFICATIONS**

- These specification assume • A 1-year calibration cycle
- An operating temperature of 18°C to 28°C (64.4°F ~82.4°F)
  - Relative humidity of 35% to 70% (non condensing)
- Accuracy is expressed as ± (percentage of reading + percentage of range).

**Analog Transmitter** High precision measurement



Output pulse



Output/measure current



Output/measure frequency



Digital Display



Thermal resistance



Thermocouple



Large screen Display



Output / measure resistance

Function	Reference	Range	Resolution	Accuracy	Remarks
DC Voltage	100mV	-10.000~110.000mV	1µV	0.02+0.01	Maximum output : 0.5mA
	1000V	- 100.00~1100.00mV	10µV	0.02+0.01	Maximum output : 2mA
	10V	-10000~11.0000V	0.1mV	0.02+0.01	Maximum output : 5mA
DC Current	20mA	0.000mA~22.000mA	1µA	0.02+0.02	Simulator transmitter: 5-28V power supply outside :1KΩ at 20mA
Resistance	400Ω	0.00Ω~400.00Ω	0.01Ω	0.02+0.02	Excitation current : ±0.5-3mA; if ±0, 1-0.5mA, add 0.1Ω;
	4KΩ	0.0000KΩ~4.0000KΩ	0.1Ω	0.05+0.025	Does not include lead resistance Excitation current : ±0.0/mA
	40KΩ	0.000KΩ~40.000KΩ	1Ω	0.1+0.1	Does not include lead resistance Excitation current : ±0.01/mA Does not include lead resistance
TC	R	0°C~1767°C	1°C	0~100°C; 1.5°C 100~1767°C:1.2°C	By using ITS-90 temperature scale; the accuracy does not include the error of internal temperature compensation caused by sensor
	S	0°C~1767°C		0~100°C; 1.5°C 100~1767°C:1.2°C	
	K	-200.0°C~1372.0°C	0.1°C	-200.0~100.0 : 0.6C -100~400.0 : 0.5°C 400.0~1200.0°C : 0.7°C 1200.0~1372.0 : 0.9°C	
	E	-200.0°C~1000.0°C		-200.0~100.0 : 0.6C -100~600.0 : 0.5°C 600.0~1000.0°C : 0.4°C	

Specification continued next page.....

Function	Reference	Range	Resolution	Accuracy	Remarks
TC	J	-200.0~1200°C		-200.0~100.0 : 0.6°C -100~400.0 : 0.5°C 800.0~1200.0°C : 0.7°C	
	T	-250.0~400.0°C		-250~400.0°C : 0.6°C	
	N	-200.0~1300.0°C		-200.0~100.0°C : 1.0°C -100~900.0°C : 0.7°C 900.0~1300.0°C : 0.8°C	
	B	600°C~1820°C	1°C	600.0~800°C : 1.5°C 800.0~1820°C : 1.1°C	
	L	-200°C~900.0°C	0.1°C	-200.0~0.0°C : 0.7°C 0.0~900°C : 0.5°C	
	U	-200°C~600.0°C	0.1°C	-200.0~0.0°C : 0.7°C 0.0~600°C : 0.5°C	
RTD	Pt 100 385	-200°C~800.0°C	0.1°C	-200.0~0.0°C : 0.3°C 0.0~400.0°C : 0.5°C 400~800.0°C : 0.8°C	By using ITS-90 Excitation current : ±0.5~±3mA for Pt 100, Cu 10, Cu50 and add 0.5°C when excitation current is ± 0.1mA-0.5mA Excitation current : ± 0.05mA~±0.3mA for Pt200, Pt500, Pt1000  Does not include lead resistance
	Pt 200 385	-200°C~630.0°C		-200.0~100.0°C : 0.8°C 100.0~300.0°C : 0.9°C 300.0~630.0°C : 1.0°C	
	Pt 500 385	-200°C~630.0°C		-200.0~100.0°C : 0.4°C 100.0~300.0°C : 0.5°C 300.0~630.0°C : 0.7°C	
	Pt 1000 385	-200°C~630.0°C		-200.0~100.0°C : 0.2°C 100.0~300.0°C : 0.5°C 300.0~630.0°C : 0.7°C	
	Cu10	-100°C~260.0°C		1.8°C	
	Cu50	-50°C~150.0°C		0.6°C	
Frequency	100Hz	1.00Hz~110.00Hz	0.01Hz	±2 Count	Output voltage : +1 ±11V (zero base waveform): Amplitude accuracy : ± 5% reading value +0.5V : Maximum load : > 100KΩ Duty Cycle : 50%
	1KHz	0.100KHz~1.100KHz	1Hz		
	10KHz	1.0KHz~11.0KHz	0.1KHz		
	100KHz	10KHz~110KHz	2KHz		
Pulse	100Hz	1~100000 cycles	1 cyc	±2 Count	
	1KHz				
	10KHz				
Switch	100Hz	1.00Hz~110.00Hz	0.01Hz	±2 Count	Contact output (with 0.0V amplitude setting, FET switch ON/OFF) Maximum Open/Close Voltage/Current : + 28V/50mA
	1KHz	0.100KHz~1.100KHz	1Hz		
	10KHz	1.0KHz~11.0KHz	0.1KHz		
	100Hz	10KHz~110KHz	2KHz	±5 Count	

**Other Feature**

- Temperature Coefficient : 0.1 times the applicable accuracy specification per degree C for 5°C to 18°C and 28°C to 50°C
- The range of the internal temperature compensation sensor is from 0°C to 40°C , Compensation error <0.5°C.  
The accuracy of the temperature probe : ±0.2°C, The range of the measurement temperature is from -20°C -100°C.
- Maximum voltage between any output terminal and earth 30Vp-p
- Maximum output current : Approximately 25mA

**General Specification**

- Operating temperature and humidity <80% at 0°C to 50°C (non-condensing)  
<70% at 40°C
- Storage temperature and humidity <90% at -25°C to 60°C (non-condensing)
- Display and backlight - A dual, Liquid Crystal Display, White LED for backlight
- Power supply 4 x 1.5AA Size alkaline batteries
- Automatic power off : it's allowed set the Automatic power - off from 0 to 60min.
- size : 245x95x42 (mm)
- Weight : About 500g
- Accessories, Test leads, Fuse



**GENERAL FEATURES**

- High Accuracy of 0.02% for measure and source. 6 digits for generated value and 5 digits for measure value
- Measure :  
DC voltage, resistance, thermocouple temperature detector, resistance temperature detector
- Source :  
DC voltage, resistance, thermocouple temperature detector, resistance temperature detector
- Measured Resistance and resistance temperature with 2-wire, 3-wire or 4-wire
- Reference junction compensation automatically for thermocouple temperature measure and source. Temperature unit °C, °F
- Can use temperature detector with high accuracy of ±0.2°C
- The temperature and equivalent voltage or resistance or operating temperature can be displayed simultaneously on the large LCD
- The keys for the generation functions and the measurement function are separate from each other, and carefully designed the key layout, the each pairs of UP/DOWN keys are corresponding the each digit of the LCD
- It can be calibrated without open the cover of the calibrator
- the backlight and power supply can be shut off automatically

**TECHNICAL SPECIFICATION FOR MEASUREMENT**

These specification assume

- A 1-year calibration cycle
- An operating temperature of 18°C to 28°C (64.4°C ~82.4°C )
- Relative humidity of 35% to 70% (non condensing)

Accuracy is expressed as ± (percentage of reading + percentage of range).



Digital large screen display



Clear function



Data retention



Backlight function



Low pressure tips



High precision Measurement



Automatic shut-down

Function	Reference	Range	Resolution	Accuracy	Remarks
DCV	50mV	-5.000~55.000mV	1μV	0.02+0.02	Input Resistance : 100 MΩ
	500mV	-50.00~550.00mV	10μV	0.02+0.01	
OHM	Test Current Approximately 1mA	0.00Ω~550.00Ω	0.01 ohm	0.05+0.02	Open Circuit Voltage About 2.5V : Accuracy, 2-Wire, 3-Wire, 4-Wire : Does not include lead resistance
	Test Current Approximately 0.1mA	0.0000KΩ~5.000KΩ	0.1 ohm	0~500°C : 1.8°C	-
TC	R	0°C ~1767°C	1°C	0~500°C : 1.8°C	By using ITS-90 temperature scale : The accuracy does not include the error or internal temperature compensation caused by sensor : The range of the Internal temperature compensation sensor is from 0°C to 40°C
	S	0°C ~1767°C		500~1767°C:1.5°C	
	K	-100.0°C~1372.0°C	0.1°C	-100~0.0°C:1.2°C 0~1372.0°C: 0.8°C	
	E	-50.0°C~850.0°C		-50~0.0°C : 0.9°C 0~850.0°C : 1.5°C	
	J	-60°C~1120.0°C		-60~0.0°C : 1.0°C 0~1120.0°C : 0.7°C	
	T	-100.0°C~400.0°C		-100~0.0°C : 1.0°C 0~1400°C : 0.7°C	
	N	-200.0°C~1300.0°C		-200~0.0°C : 1.5°C 0~13000.0°C : 0.9°C	

Specification Detail Continued in next page....

Function	Reference	Range	Resolution	Accuracy	Remarks
TC	B	600°C~1820°C	1°C	600~800°C : 2.2°C 800~1000°C : 1.8°C 1000~1820°C :1.4°C	
	L	-60°C~900°C	0.1°C	60~0°C : 0.7°C 0~1300°C : 0.5°C	
	U	-100°C~600°C	0.1°C	-100~0°C : 0.7°C 0~600°C : 0.5°C	
RTD	PT100-385	-200.0°C~800.0°C	0.1°C	-200°C~0°C : 0.5°C 0°C~400°C : 0.7°C -400°C~800°C : 0.8°C	By using Pt100-385 does not include lead resistance
	PT200-385	-200.0°C~630.0°C		-200°C~100°C : 0.22°C	
	PT500-385	-200.0°C~630.0°C		-100°C~300°C : 0.3°C	
	PT1000-385	-200.0°C~630.0°C		300°C~630°C : 0.4°C	
	Cu10	-100.0°C~260.0°C		-50°C~0°C : 0.5°C	
	Cu50	-50.0°C~150.0°C		-100°C~260°C : 2°C 0°C~150°C : 0.7°C	
CONTINUITY	500Ω	500≤Ω Sound	0.01Ω	0.02%+0.2	

**OTHER FEATURE :**

- Rate: 2 Reading per Second for DC Voltage. DC Current, Resistance.
- DCV  
Normal mode Rejection Ratio (NMRR)  
> 60dB (at 50Hz or 60Hz)  
Common Mode Rejection Ratio (CMRR)  
> 120 dB (at 50 Hz or 60Hz)
- Temperature Coefficient 0.1times the applicable accuracy specification per degree for 5°C to 28° to 50°
- The range of the internal temperature compensation sensor is from 0° to 40° compensation error< ± 0.5° C
- Maximum voltage between VΩHz terminal and COM terminal : 60 Vp-p

**TECHNICAL SPECIFICATIONS FOR SOURCE :**

These specifications assume :

- A 1-year calibration cycle
- An operating temperature of 18°C to 28°C (64.4°C ~82.4°C °F)
- Relative humidity of 35% to 70% (non condensing)

**GENERAL SPECIFICATION:**

- ≤ 80% At 0°C 50°C (non-condensing)  
≤ 70% At 40°C to 50°C
- Storage temperature and humidity ≤ 90% at -25°C to 60°C (non-condensing)
- Display and backlight, A dual, Liquid Crystal Display,White LED for backlight
- Power Supply : 4 x 1.5 AA-size alkaline batteries, 4x1.2AA-size Ni-Hi batteries  
AC adapter can charge Ni-Hi battery (Optional)  
Automatic Power-off. It's allowed set the Automatic Power-off time from 0 to 60 min.
- Size : 205x95x42 (mm)
- Weight : about 500g
- Accessories : A couple of test leads for measure  
A couple of test leads for source fuse.

**MEASUREMENT AND OUTPUT FUNCTIONS**

**Basic accuracy  
0.02%**





This is a source and measure type of calibrator and it gives high accuracy of 0.02% It has dual display. 5 digits display for measure and 6 digits display for source & with LED for backlight

### FEATURES

- High Accuracy of 0.02% for measure and source.
- A dual, Liquid Crystal Display.
- 5 digit display for measure • 6 digit display for source • White LED for backlight

### GENERAL SPECIFICATIONS

- Accuracy :  $\pm 0.02\%$
- Max. Allowable Voltage : 30v
- Operation Temperature Range : 0~50°C
- Operation Humidity Range : 80% RH
- Storage Temperature Range : -10°C ~ 55°C
- Storage Humidity Range : 90% RH
- Power supply : 4x1.5AAA size alkaline batteries (AC adaptor can charge Ni-Ni-battery)
- Size : 205 x 95 x 42 mm
- Weight : 500 g (with holster)
- Safety : Conforms to IEC 1010

ACCESSORIES : Test leads, Fuse, User's Manual, Carrying Case.

Measurement and output functions  
Basic Accuracy 0.02%

OPTIONAL ACCESSORIES :  
(AC adaptor (VCPS))



Digital large screen display



Clear function



Data retention



Low pressure tips



Backlight function



High precision Measurement



Automatic shut-down

### TECHNICAL DATA (Output Function)

Function	Range	Measuring Range	Resolution	Accuracy	Remarks
DC Voltage	1000mV	-100.00~1100.00mV	10 $\mu$ V	0.02 + 0.01	Maximum output : 2mA
	10V	-1.0000~11.0000V	0.1mV	0.02 + 0.01	Maximum output : 5mA
DC Current	20 mA	0.000mA ~ 22.000mA	1 $\mu$ A	0.02 + 0.02	Simulator Transmitter : 5-28V Power Supply outside : 1KW at 20mA
Frequency	100Hz	1.00Hz~110.00Hz	0.01 Hz	$\pm 2$ Count	Output Voltage : $+1 \pm 11V$ (zero base waveform) : Amplitude accuracy : $\pm 10\% + 0.5V$ ; maximum load : $>100KW$ Duty Cycle : 50%
	1KHz	0.100KHz ~1.100KHz	1Hz		
	10 KHz	1.0KHz ~11.0KHz	0.1KHz		
Pulse	100Hz	1~100000 cycles	1 Cycle	—	
	1KHz				
	10KHz				
Loop	24V	—	—	$\pm 10\%$	Maximum output current : 25mA Short circuit protected

### MEASURING FUNCTION

Function	Range	Measuring Range	Resolution	Accuracy	Remarks
DC Voltage	200mV	-20.00~220.00mV	10 $\mu$ V	0.02% + 0.02	Input resistance Approximately 100M $\Omega$
	5V	-0.5000~5.50000V	0.1mV	0.02% + 0.01	Input resistance
	50 V	-5.000 ~ 55.000V	1mV	0.02% + 0.01	Approximately 1M $\Omega$
DC mA	50mA	-4.000~55.000mA	1 $\mu$ A	0.03% + 0.01	Input resistance 5 $\Omega$
Frequency	500Hz	3Hz ~500.00Hz	0.01Hz	$\pm 2$ Count	Input impedance 100K $\Omega$ at least sensitivity 3V p-p minimum Duty cycle : 50%
	5 KHz	3Hz ~5.0000KHz	0.1Hz		
	50KHz	3Hz ~50.000KHz	1Hz		
Continuity	250 $\Omega$	CLOSE/OPEN	—	—	Open circuit voltage about 2.5V
Pressure	Defined by Pressure module	—	Defined by Pressure module	Defined by Pressure module	For more detail refer the pressure module about APM

Accuracy : ± 0.02%  
Two independent channels for input and output allowing in time input and output operation



Range		Performance Parameter	Model	24	25
<b>Source</b>	DC Millivolt	Range		-10~110mV	-10~110mV
		Accuracy = ± (% of the set value + % of Range)		0.02%+0.01%	0.02%+0.01%
		Resolution		1µV	1µV
	DC voltage	Range		-0.1~11v	-0.1~11v
		Accuracy = ± (% of the set value + % of Range)		0.02%+0.01%	0.02%+0.01%
		Resolution		10µV/0.1mV	10µV/0.1mV
	DC current	Range		0~22mA	0~22mA
		Accuracy = ± (% of the set value + % of Range)		0.02%+0.02%	0.02%+0.02%
		Resolution		1µA	1µA
	Sink current	Range		0~22mA	0~22mA
		Accuracy = ± (% of the set value+% of range)		0.02%+0.02%	0.02%+0.02%
		Resolution		1µA	1µA
		External Power Supply		5~28V	5~28V
	Resistance	Range		0~40KΩ	0~40KΩ
		Accuracy = ± (% of the set value + % of Range)		0.02%+0.02%	0.02%+0.02%
		Resolution		0.01Ω/0.1Ω/1Ω	0.01Ω/0.1Ω/1Ω
	Thermocouple	Range		R/S/K/E/J/T/B/N	R/S/K/E/J/T/B/N
		Accuracy		0.4°C	0.4°C
		Resolution		0.1°C/1°C	0.1°C/1°C
	RTD	Range		Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50
Accuracy			0.2°C	0.2°C	
Resolution			0.1°C	0.1°C	
Frequency	Range		1Hz~110KHz	1Hz~110KHz	
	Accuracy		±2words	±2words	
	Resolution		0.01Hz/1Hz/0.1KHz/2KHz	0.01Hz/1Hz/0.1KHz/2KHz	
Pulse	Frequency			1Hz~10KHz	
	Range		N/A	1~100000cyc	
	Accuracy			±2words	
Switch	Resolution			1cyc	
	Range			1Hz~110KHz	
	Accuracy		N/A	±2words	
Pressure	Resolution			0.01Hz/1Hz/0.1KHz/2KHz	
	Range		N/A	Depends on the pressure module	
	Accuracy ± (% of the set value+% of range)			Depends on the pressure module	
		Resolution		5 digit display	

Detail Specification continued next page .....

Detail Specification continued ...

<b>MEASUREMENT</b>	DC Millivolt	Range	-5~550mV	-5~550mV
		Accuracy = ± (% of Reading + % of range)	0.02%+0.01%	0.02%+0.01%
		Resolution	1μV/10μV	1μV/10μV
	DC voltage	Range	-0.5~55v	-0.5~55v
		Accuracy = ± (% of Reading + % of range)	0.02%+0.01%	0.02%+0.01%
		Resolution	0.1mV/1mV	0.1mV/1mV
	DC current	Range	-5~55mA	-5~55mA
		Accuracy = ± (% of Reading + % of range)	0.02%+0.01%	0.02%+0.01%
		Resolution	1μA	1μA
	Resistance	Range	0~5.5KΩ	0~5.5KΩ
		Accuracy = ± (% of Reading + % of range)	0.05%+0.02%	0.05%+0.02%
		Resolution	0.01Ω/0.1Ω	0.01Ω/0.1Ω
	Thermocouple	Range	R/S/K/E/J/T/B/N	R/S/K/E/J/T/B/N
		Accuracy	0.7°C	0.7°C
		Resolution	0.1°C/1°C	0.1°C/1°C
	RTD	Range	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50
		Accuracy	0.3°C	0.3°C
		Resolution	0.1°C	0.1°C
	Frequency	Range	3Hz~50KHz	3Hz~50KHz
		Accuracy	±2words	±2words
		Resolution	0.01Hz/0.1Hz/1Hz	0.01Hz/0.1Hz/1Hz
	Switch	Range	N/A	CLOSE/OPEN
		Threshold		200~300Ω
	Pressure	Range	N/A	depends on pressure module
		Accuracy = ± (% of Reading + % of range)		depends on pressure module
		Resolution		5 digit display
Continuity Beeper	Range	0~500Ω	0~500Ω	
	Accuracy	≤50Ωsound	≤50Ωsound	
	Resolution	0.01Ω	0.01Ω	
Loop Power Supply	Range	24V	24V	
	Accuracy	±10%	±10%	
	The maximum current	22mA	22mA	
Backlight		✓	✓	
Auto Power off		✓	✓	
Charging function		✓	✓	
Room temperature display		✓	✓	
Battery detetion		✓	✓	
The ramp signal		✓	✓	
Communication function		Rs232 Serial communication, can realize remote control instrument by the device driver software	Rs232 Serial communication, can realize remote control instrument by the device driver software	
Safety		EN61010-1 : 2001	EN61010-1 : 2001	
Withstand voltage		The input and output AC 350V/1 Min.	The input and output AC 350V/1 Min.	
Insulation		The input and output DC500V/50MΩ	The input and output DC500V/50MΩ	
EMC		EN61326-1:2006	EN61326-1:2006	
Authentication		CE	CE	
Display		Double display on the LCD screen	Double display on the LCD screen	
Power supply		4x1.5 AAAAkaline battery	4x1.5 AAAAkaline battery	
Size		205 x 95 x 42 mm	205 x 95 x 42 mm	
Weight		about 500g	about 500g	

Protection grade : IP65  
 Accuracy : ± 0.01%  
 HART communication (only G-TECH 26H)  
 Two independent channels for input and output, allowing in-time input and output operation



Project	Performance Parameter / Model	26	26H	
Source	DC Millivolt	Range	-10~110mV	-10~110mV
		Accuracy = ± (% of the set value+% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	1μV	1μV
	DC voltage	Range	-0.1~11v	-0.1~11v
		Accuracy = ± (% of the set value+% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	10μV/0.1mV	10μV/0.1mV
	DC current	Range	0~33mA	0~33mA
		Accuracy = ± (% of the set value+% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	1μA	1μA
	Sink current	Range	0~33mA	0~33mA
		Accuracy = ± (% of the set value+% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	1μA	1μA
		External Power Supply	5~28V	5~28V
	Resistance	Range	0~4KΩ	0~4KΩ
		Accuracy = ± (% of the set value+% of )	0.01%+0.01%	0.01%+0.01%
		Resolution	0.01Ω/0.1Ω/	0.01Ω/0.1Ω/
	Thermocouple	Range	R/S/K/E/J/T/B/N/L/U	R/S/K/E/J/T/B/N/L/U
		Accuracy	0.4°C	0.4°C
		Resolution	0.1°C/1°C	0.1°C/1°C
	RTD	Range	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50
		Accuracy	0.2°C	0.2°C
Resolution		0.1°C	0.1°C	
Frequency (HZ)	Range	1Hz~50KHz	1Hz~50KHz	
	Accuracy	±2words	±2words	
	Resolution	0.01Hz/1Hz/0.1KHz/2KHz	0.01Hz/1Hz/0.1KHz/2KHz	
Frequency (CMP)	Range	60~1200 CPM	60~1200 CPM	
	Accuracy	±2words	±2words	
	Resolution	1CPM	1CPM	
Pulse	Frequency	1Hz~10KHz	1Hz~10KHz	
	Range	1~100000Cyc	1~100000Cyc	
	Accuracy	±2words	±2words	
Switch	Resolution	1Cyc	1Cyc	
	Range	1Hz~50KHz	1Hz~50KHz	
	Accuracy	±2words	±2words	
Pressure	Resolution	0.01Hz/1Hz/0.1KHz/2KHz	0.01Hz/1Hz/0.1KHz/2KHz	
	Range	Depends on the pressure module	Depends on the pressure module	
	Accuracy ± (% of the set value+% of range)	Depends on the pressure module	Depends on the pressure module	
	Resolution	5 digit display	5 digit display	

Detail specification continued next page.....



Detail specification continued

<b>MEASUREMENT</b>	DC Millivolt	Range	-5~550mV	-5~550mV
		Accuracy = ± (% of Reading +% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	1μV/10μV	1μV/10μV
	DC voltage	Range	-0.5~35v	-0.5~35v
		Accuracy = ± (% of Reading +% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	0.1mV/1mV	0.1mV/1mV
	DC current	Range	-5~55mA	-5~55mA
		Accuracy = ± (% of Reading +% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	1μA	1μA
	Resistance	Range	0~5.5KΩ	0~5.5KΩ
		Accuracy = ± (% of Reading +% of range)	0.01%+0.01%	0.01%+0.01%
		Resolution	0.01Ω/0.1Ω	0.01Ω/0.1Ω
	Thermocouple	Range	R/S/K/E/J/T/B/N/L/U	R/S/K/E/J/T/B/N/L/U
		Accuracy	0.5°C	0.5°C
		Resolution	0.1°C/1°C	0.1°C/1°C
	RTD	Range	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50	Pt100/Pt200/Pt500/ Pt1000/Cu 10/Cu 50
		Accuracy	0.3°C	0.3°C
		Resolution	0.1°C	0.1°C
	Frequency Hz	Range	3Hz~50KHz	3Hz~50KHz
		Accuracy	±2words	±2words
		Resolution	0.01Hz	0.01Hz
	Frequency CMP	Range	180~3000000CPM	180~3000000CPM
		Accuracy	±2words	±2words
		Resolution	1CPM	1CPM
	Switch	Range	CLOSE/OPEN	CLOSE/OPEN
		Threshold	200~300Ω	200~300Ω
	Pressure	Range	depends on pressure module	depends on pressure module
Accuracy = ± (% of the set value+% of range)		depends on pressure module	depends on pressure module	
Pulse	Resolution	5 digit display	5 digit display	
	Range	1-100000Cyc	1-100000Cyc	
	Accuracy	±2words	±2words	
Loop Power Supply	Resolution	1 Cyc	1 Cyc	
	Range	24V	24V	
	Accuracy	±10%	±10%	
The maximum current	Resolution	1 CPM	1 CPM	
	Range	22mA	22mA	
HART	Accuracy	±10%	±10%	
	Resolution	1 CPM	1 CPM	
	Range	22mA	22mA	
	Backlight	✓	✓	
	Auto Power off	✓	✓	
	Charging function	✓	✓	
	Room temperature display	✓	✓	
	Battery detetion	✓	✓	
The ramp signal	✓	✓		
Communication function		Rs232 Serial communication, can realize remote control instrument by the device driver software	Rs232 Serial communication, can realize remote control instrument by the device driver software	
Safety		EN61010-1 : 2001	EN61010-1 : 2001	
Withstand voltage		The input and output AC 350V/1 Min.	The input and output AC 350V/1 Min.	
Insulation		The input and output DC500V/50MΩ	The input and output DC500V/50MΩ	
EMC		EN61326-1:2006	EN61326-1:2006	
Authentication		CE	CE	
Display		3.2" TFT screen	3.2" TFT screen	
Power supply		4x1.5 AAA Alkaline battery	4x1.5 AAA Alkaline battery	
Size		206 x 97 x 60 mm	206 x 97 x 60 mm	
Weight		about 633g	about 633g	



**HART COMMUNICATIONS**

The 709H adds HART communication and supports a select set of the HART universal and common practice commands. This makes the 709H unique as both an affordable, compact loop calibrator and powerful HART communication troubleshooting tool.

In the communication made the user will be able to read basic device information, perform diagnostic tests, and trim the mA output on most HART enabled transmitters. In the past this could only be done with a dedicated communicator, a high-end multifunction calibrator, or a laptop computer with HART modem. 709H will allow virtually any technician to service and support HART devices.

Supports HART general instructions and general application instructions. Able to read the device basic information, perform diagnostic testing and calibration to fine tune most HART transmitter, can store up to 20 HART device configuration file.

**Performance index**

Output Performance Index (applicable to temperature range from 18°C to 28°C, within one year after calibration)

Output	Range	Output Range	Resolution	Accuracy	Remarks
DCA	20mA	0.000 ~ 22.000mA	0.001mA	± 0.01% set Value ±0.015% Range	Max. load 1Kohm at 20mA
Simu-transmitter (Absorption Current)	-20mA	0.000 ~ -22.000mA	0.001mA	± 0.01% Set Value ± 0.015% Range	Max. load 1K ohm at 20mA Note : power supply range : 5 ~ 25VDC
Loop Power Supply	24V			±10%	Max. output current up to 25mA

input Performance Index (applicable to temperature range from 18°C to 28°C, within one year after calibration)

Input	Range	Output Range	Resolution	Accuracy	Remarks
Voltage	28V	-2.000 ~ 28.000V	1mV	± 0.01% Reading ±0.01% Range	Input resistance about 1mΩ
Current	30mA	-4.000 ~ 33.000mA	0.001mA	± 0.01% Reading ± 0.01% Range	Input resistance about 20Ω
Loop Current	20mA	0.000 ~ 22.000mA	0.001mA	±0.01% Reading ± 0.01% Range	providing 24V loop Power

**GENERAL SPECIFICATIONS**

- Power supply : four 1.5V alkaline batteries (LR6)
- Battery life : about 360 mA/5V under the condition of 20mA with 1Kohm load
- Max. permitted voltage : 30V (between any two terminals or between any terminal and earth ground)
- Operating temperature : 0°C ~ 50°C
- Operating relative humidity : ≤ 80% RH
- Storage temperature : ≤-20°C ~ 60°C
- Relative humidity for storage : ≤90%RH
- Temperature co-efficiency : 0.1xBasic accuracy / °C (Temperature <18°C or > 28°C)
- protection level : IP65(Dust, Water spray)
- Display : 3.2 inch TFT color display
- Size : 206(L) x 97(W) x 60(D) mm
- Weight : 600g
- Safety : EN61010-1:2001
- Optional : PC infrared communications accessories package, Linear power adapter (DC5V), Hook type tester

**Accessories :**

Test pen, Industrial test lead, Corcodile clip, Quick guide, Product qualification certificate, product user manual, insurance tube, 5 x alkaline battery



**Features**

- Process meter is a handheld, battery-operated tool for measuring electrical parameters. It has all the features of digital multimeter (besides the features of RTD and ID) It could also output signals of direct voltage, current, resistance temperature and frequency as well.
- Auto / Manual range switch, Measure value display hold
- The thermocouple high accuracy could end can auto offset panel auto calibrated the function of auto close backlight and auto power off
- Large LCD include white LED backlight
- It is easy to operate by user cabinet and solicit adapt to be used at locate
- Safety compelled with IEC 1010 terms

**Technical Specification**

All the specifications apply to +18°C to +28°C, 10% to 70% RH unless stated otherwise

All specification assume a 5-minute warm-up period. Standard specification is valid for one year.

**DC Voltage Measurement**

Range (DCV)	Resolution	Accuracy ± (% of reading + counts)
4.000V	0.001V	0.2% + 4
40.00V	0.01V	0.2% + 4
400.0V	0.1V	0.2% + 4

- Measuring impedance : 10MΩ (nominal) <100pf
- Common mode rejection ratio : 50Hz or 60Hz > 100dB
- Normal mode rejection ratio : 50Hz or 60Hz > 45dB
- Over voltage protection : 600Vp

**DC mV Measurement**

Range (DCmV)	Resolution	Accuracy ± (% of reading + counts)
40.00mV	0.01V	0.5% + 6
400.0mV	0.1V	0.2% + 4

- Measuring impedance : 10MΩ (nominal)
- Over voltage protection : 600Vp

**AC Voltage Measurement**

Range (ACV)	Resolution	Accuracy ± (% of reading + counts) 40 ~ 400Hz
400.0mV	0.1mV	1.0% + 4
4.000V	0.001V	0.5% + 4
40.00V	0.01V	0.5% + 4
400.0V	0.1V	0.5% + 4

Specification are valid from 5% to 100% of amplitude range  
400mV is only confined to manual range

- AC conversion : Average value
- Measuring impedance : 10MΩ (nominal) <100pf
- Common mode rejection ratio : 50Hz or 60Hz > 100dB
- Over voltage protection : 600Vp

**DC Current Measurement**

Range (DC mA)	Resolution	Accuracy ± (% of reading + counts)
40.00mA	0.01mA	0.2% + 4
400.0mA	0.1mA	0.2% + 4
Over voltage protection	:	0.5A, 250V fast blow fuse
Measuring impedance	:	1Ω

**Temperature Measurement**

Range (type)	Set Range	Resolution	Accuracy ± (% of reading + counts)
R	-40°C ~ 1760°C	1°C	0.5%+3 (≤100°C) 0.5%+2 (>100°C)
S	-20°C ~ 1760°C	1°C	0.5%+3 (≤100°C) 0.5%+2 (>100°C)
B	400°C ~ 1800°C	1°C	0.5%+3 (≤ 600°C) 0.5%+2 (> 600°C)
E	-200°C ~ 500°C	1°C	0.5%+2 (≤ -100°C) 0.5%+1 (> -100°C)
K	-200°C ~ 950°C	1°C	0.5%+2 (≤ -100°C) 0.5%+1 (> -100°C)
J	-200°C ~ 700°C	1°C	0.5%+2 (≤ -100°C) 0.5%+1 (> -100°C)
T	-200°C ~ 400°C	1°C	0.5%+2 (≤ -100°C) 0.5%+1 (> -100°C)
N	-200°C ~ 1000°C	1°C	0.5%+2 (≤ -100°C) 0.5%+1 (> -100°C)

**AC Current Measurement**

Range (AC mA)	Resolution	Accuracy ± (% of reading + counts)
40.00mA	0.01mA	0.5% + 4
400.0mA	0.1mA	0.5% + 4
Over voltage protection	:	0.5A, 250V fast blow fuse
Measuring impedance	:	1Ω

**Resistance Measurement**

Specification are valid from 5% to 100% of amplitude range

**Detail Specification continued next page...**

Detail Specification continued

### Resistance Measurement

Range (ACV)	Resolution	Accuracy ± (% of reading + counts) 40 ~ 400Hz
400.0Ω	0.1Ω	0.2% + 4
4.000KΩ	0.001KΩ	0.2% + 4
40.00KΩ	0.01KΩ	0.2% + 4
400.0KΩ	0.1KΩ	0.2% + 4
4.000MΩ	0.001MΩ	0.5% + 4
40.00MΩ	0.01MΩ	1.0% + 4

Open circuit voltage : 0.4V  
 Test lead resistance excluded in the accuracy  
 Over voltage protection-1 : 600Vp-p

### Frequency Measurement

Range (ACV)	Resolution	Accuracy ± (% of reading + counts)
50.00Hz	0.01Hz	0.1% + 3
500.0Hz	0.1Hz	0.1% + 3
5.000KHz	0.1Hz	0.1% + 3
50.00KHz	0.01KHz	0.1% + 3
100.0KHz	0.1KHz	0.1% + 3

Display updates 3 times/second (at > 10Hz)

### Diode Test & Continuity test

Displays voltage drop across device, open circuit voltage 1.1V-1.6V  
 Short circuit current : <0.2mA (typical value), Accuracy ± (2% reading + 1 count)

### Continuity test indication :

Continuous audible tone for test resistance	< 50Ω
Open circuit voltage	<0.45V
Short circuit current	130μ A typical
Over load protection	600V (peak)

### RTD Measurement

Range (type)	Input range	Resolution	Accuracy ± (% of reading + counts)
Pt 100	-200°C~700°C	1°C	0.5% + 2
Cu 50	-50°C~150°C	1°C	0.5% + 4

By using Pt100-385 temperature scale  
 Measurement current 1mA  
 Note : attached lead resistance excluded

### TECHNICAL SPECIFICATIONS

Function	Range	Set range	Resolution	Precision	Remark
OHM (Ω)	400Ω	0 ~ 400Ω	0.1Ω	0.5%+4	1mA exciting current without accessory lead resistance
DC mV	100.0mV	-10.00mV ~ 10.00mV	0.01mV	0.5%+4	Max. output current 5mA
DC V	5.0000V	-0.5000V ~ 5.5 000V	0.1mV	0.2%+4	Max. output current 5mA
FREQ	100.0Hz	1.0Hz ~ 110.0 Hz	0.1Hz	0.2%+2	Square wave 50% duty cycle ratio 5V p-p
	1.000KHz	0.100KHz ~ 1.00KHz	10.00KHz	0.2%+2	
	10.0KHz	1.0KHz ~ 11.0KHz	0.1KHz	0.2%+4	
XMT	20.000mA	0 ~ -22.000mA	0.001mA	0.2%+4	External power supply 28V Max. load 1KΩ at 20mA
DC mA	20.000mA	0 ~ 22.00mA	0.001mA	0.2%+4	internal power supply 15V Max. load 500Ω at 20mA
RTD	Pt100	-200.0°C ~ 850°C	0.1°C	0.5%+6	By using Pt100-385 temperature without accessory lead resistance
	Cu50	-50.0°C ~ 150°C			
TC	R	-50.0°C ~ 1760°C	1°C	0.5%+3 (≤100) 0.5%+2(> 100)	By using ITS-90 temperature Note : The accuracy does not include the error of internal temperature compensation caused by sensor
	S	-20.0°C ~ 1760°C	0.1°C	0.5%+20 (≤ -100)	
	K	-200.0°C ~ 1370°C			
	E	-200.0°C ~ 1000°C			
	J	-200.0°C ~ 200°C			
	T	-200.0°C ~ 400°C			
N	-200.0°C ~ 1300°C				
B	-40.0°C ~ 1760°C	1°C	0.5+3 (≤ 600) 0.5+3 (> 600)		

Maximum voltage applied between any output jack and earth ground : 30V DC

Fuse protection for output jacks 63mA, 250V fast blow fuse.



**INTRODUCTION**

This meter is an industrial, battery-powered instrument for field maintenance, an integration of a digital multi-meter and process signal source.

It conforms to safety standards of 600V CAT.IV and 1000V CAT.III defined in IEC 610101-1 Safety Requirement for Electrical Equipment for measurement, Control and Laboratory Use.

It is designed with a dual-color plastic enclosure of Ip65, for application in harsh environment.

It has the following functions:

- **Measurement Functions :**  
Measurement of AC Voltage, DC Voltage, Ohm, Capacitance, DC Current, AC Current, On-Off, Diode, Frequency, Thermocouples, Thermal Resistance, Data display and Retention;  
Measurement of relative values
- **Output Functions :**  
Output of DC voltage, Resistance, Frequency, Thermocouples, Thermal Resistance and DC Current (Constant output, manual stepping and SIMULATE)
- **Loop Inspection:**  
Supply power to 24V circuits and meanwhile measurement current with built-in 250Ω HART loop resistance.



**Features**

- Process meter is a handheld, battery-operated tool for measuring electrical parameters. It has all the features of digital multimeter (besides the features of RTD and ID). It could also output signals of direct voltage, current, resistance, temperature, and frequency as well.
- Auto / Manual range switch, Measure value display hold
- The thermocouple high accuracy could end can auto offset panel auto calibrated the function of auto close backlight and auto power off
- Large LCD include white LED backlight
- It is easy to operate by user cabinet and solicit adapt to be used at locate

**Technical Specification**

Overload protection	V-COM terminal AC 1000V/10seconds mAV terminal 500mA/250V quick acting fuse
Regulatory compliance	IEC1010-1 (CAT 600V, CAT 1000V, pollution level)
Electromagnetic compatibility	Consistent with Group 1 and Class B of IEC 61326-1
Surge Protection	8kV(As per IEC61001.1-2001
Authentication mark	CE
Quality standard	It is developed, designed and produced according to ISO 9001

**Detailed precision indexes for measurement**

Function	Range	Measuring scope	Resolution	Precision
DC Voltage DCV	50mV	-55.00mV~55.00mV	0.01mV	0.1%+4
	500mV	-550.0mV~550.0mV	0.1mV	0.1%+4
	5V	-5.500V~5.500V	0.001V	0.1%+4
	50V	-55.00V~55.00V	0.01V	0.1%+4
	500V	-550.0V~550.0V	0.1V	0.1%+4
	1000V	-1000V~1000V	1V	0.1%+4

Detailed precision indexes for measurement continued next page ...

Function	Range	Measuring scope	Resolution	Precision
AC voltage ACV	5V	0~5.500V	0.001V	0.5%+4(<400Hz) 5%+4(>400Hz)
	50V	0~55.00V	0.01V	0.5%+4
	500V	0~550.0V	0.1V	0.5%+4
	1000V	0V~750V	1V	0.5%+4
OHM (Ω)	500Ω	0~550.0Ω	0.1Ω	0.1%+4
	5KΩ	0~5.500KΩ	0.001KΩ	0.1%+4
	50KΩ	0~55.00KΩ	0.01KΩ	0.1%+4
	500KΩ	0~550.0KΩ	0.1KΩ	0.5%+4
	5MΩ	0~5.500 MΩ	0.001MΩ	1%+4
	50MΩ	0~55.00MΩ	0.01MΩ	1%+4
DC current DCI	50mA	-55.000mA~55.000mA	0.001mA	0.1%+5
	500mA	-500.00mA~500.00mA	0.01mA	0.1%+5
AC Current ACI	50mA	0000mA~55.000mA	0.001mA	0.5%+10
	500mA	0.00mA~500.00mA	0.01mA	0.5%+10
Frequency FREQ	10Hz	0~9.9999Hz	0.0001Hz	0.02%+4
	100Hz	0~99.999Hz	0.001Hz	0.02%+4
	1000Hz	0~999.99Hz	0.01Hz	0.02%+4
	10kHz	0~9.9999kHz	0.0001kHz	0.02%+4
	100kHz	0~99.999kHz	0.001kHz	0.02%+4
	DUTY	10%~90%	0.1%	1%
Diode	2V		0.001V	1%+10
On-off test	500Ω		0.1Ω	≤50ΩBB
Thermocouple TC	R	-40°C~1760°C	1°C	0.5%+3°C (≤100)°C 0.5%+2°C (>100)°C
	S	-200°C~1760°C		
	B	400°C~1800°C		
	K	-200°C~1350°C		
	E	-200°C~700°C		0.5%+2°C (≤-100)°C 0.5%+1°C (>-100)°C
	J	-200°C~950°C		
	T	-200°C~400°C		
	N	-200°C~1300°C		
Thermal resistance RTD	Cu50	-50°C~150°C	1°C	0.5%+3°C
	Pt100	-200°C~850°C		
Capacitance CAP	10nF	0~11.00nF	0.01nF	5%
	100nF	0~110.0nF	0.1nF	5%
	1000nF	0~1100.0nF	1nF	5%
	10μF	0~11.00μF	0.01μF	5%
	100μF	0~110.0μF	0.1μF	5%
	1000μF	0~1100.0μF	1μF	5%
	10mF	0~11.00mF	0.01mF	5%
	100mF	0~110.0mF	0.1mF	5%

1. AC measurement True RMS, 20Hz-5kHz, range of 10% ~ 110%
2. The thermocouple measurement adopts the thermometric scale of ITS-90, The precision doesn't include errors in cold-end compensation or influences of therm-electrical potential.
3. The thermal resistance measurement adopts the thermometric scale of PT100-385, The precision doesn't include errors due to lead resistance.
4. During frequency measurement for signals with frequency lower than 3Hz, relevant readings will be zero.

Detailed precision indexes for measurement continued next page...

Function	Range	Measuring scope	Resolution	Precision
AC voltage ACV	5V	0~5.500V	0.001V	0.5%+4(<400Hz) 5%+4(>400Hz)
	50V	0~55.00V	0.01V	0.5%+4
	500V	0~550.0V	0.1V	0.5%+4
	1000V	0V~750V	1V	0.5%+4
OHM ( $\Omega$ )	500 $\Omega$	0~550.0 $\Omega$	0.1 $\Omega$	0.1%+4
	5K $\Omega$	0~5.500K $\Omega$	0.001K $\Omega$	0.1%+4
	50K $\Omega$	0~55.00K $\Omega$	0.01K $\Omega$	0.1%+4
	500K $\Omega$	0~550.0K $\Omega$	0.1K $\Omega$	0.5%+4
	5M $\Omega$	0~5.500 M $\Omega$	0.001M $\Omega$	1%+4
	50M $\Omega$	0~55.00M $\Omega$	0.01M $\Omega$	1%+4
DC current DCI	50mA	-55.000mA~55.000mA	0.001mA	0.1%+5
	500mA	-500.00mA~500.00mA	0.01mA	0.1%+5
AC Current ACI	50mA	0000mA~55.000mA	0.001mA	0.5%+10
	500mA	0.00mA~500.00mA	0.01mA	0.5%+10
Frequency FREQ	10Hz	0~9.9999Hz	0.0001Hz	0.02%+4
	100Hz	0~99.999Hz	0.001Hz	0.02%+4
	1000Hz	0~999.99Hz	0.01Hz	0.02%+4
	10kHz	0~9.9999kHz	0.0001kHz	0.02%+4
	100kHz	0~99.999kHz	0.001kHz	0.02%+4
	DUTY	10%~90%	0.1%	1%
Diode	2V		0.001V	1%+10
On-off test	500 $\Omega$		0.1 $\Omega$	$\leq 50\Omega$ BB
Thermocouple TC	R	-40 $^{\circ}$ C~1760 $^{\circ}$ C	1 $^{\circ}$ C	0.5%+3 $^{\circ}$ C ( $\leq 100$ ) $^{\circ}$ C 0.5%+2 $^{\circ}$ C (>100) $^{\circ}$ C
	S	-200 $^{\circ}$ C~1760 $^{\circ}$ C		
	B	400 $^{\circ}$ C~1800 $^{\circ}$ C		
	K	-200 $^{\circ}$ C~1350 $^{\circ}$ C		
	E	-200 $^{\circ}$ C~700 $^{\circ}$ C		0.5%+2 $^{\circ}$ C ( $\leq -100$ ) $^{\circ}$ C 0.5%+1 $^{\circ}$ C (>-100) $^{\circ}$ C
	J	-200 $^{\circ}$ C~950 $^{\circ}$ C		
	T	-200 $^{\circ}$ C~400 $^{\circ}$ C		
	N	-200 $^{\circ}$ C~1300 $^{\circ}$ C		
Thermal resistance RTD	Cu50	-50 $^{\circ}$ C~150 $^{\circ}$ C	1 $^{\circ}$ C	0.5%+3 $^{\circ}$ C
	Pt100	-200 $^{\circ}$ C~850 $^{\circ}$ C		
Capacitance CAP	10nF	0~11.00nF	0.01nF	5%
	100nF	0~110.0nF	0.1nF	5%
	1000nF	0~1100.0nF	1nF	5%
	10 $\mu$ F	0~11.00 $\mu$ F	0.01 $\mu$ F	5%
	100 $\mu$ F	0~110.0 $\mu$ F	0.1 $\mu$ F	5%
	1000 $\mu$ F	0~1100.0 $\mu$ F	1 $\mu$ F	5%
	10mF	0~11.00mF	0.01mF	5%
	100mF	0~110.0mF	0.1mF	5%

1. AC measurement True RMS, 20Hz-5kHz, range of 10% ~ 110%
2. The thermocouple measurement adopts the thermometric scale of ITS-90, The precision doesn't include errors in cold-end compensation or influences of therm-electrical potential.
3. The thermal resistance measurement adopts the thermometric scale of PT100-385, The precision doesn't include errors due to lead resistance.
4. During frequency measurement for signals with frequency lower than 3Hz, relevant readings will be zero.



**There are following 11 selectable pressure units:** bar, mbar, kPa, kgf/cm<sup>2</sup>, mmHg, cmH<sub>2</sub>O, Ozf/in<sup>2</sup>, psi, inHg, inH<sub>2</sub>O, ftH<sub>2</sub>O. This unit features data save and adjustment, automatic turn-off, connecting with PC to read and export the data with a USB wire.

**Pressure Manometer possesses the following features:**

- 1. Large LCD**
- 2. Data hold**
- 3. With differential mode and record mode**
- 4. USB port**
- 5. Reset and data adjustment**
- 6. Low battery indication and automatic power off**

**G-TECH PM-520 COMES WITH BELOW ACCESSORIES:**

- 1.5V AAA battery\*4
- Operation manual\*1
- USB wire\*1
- CD\*1
- Translucent silica gel hose\*2
- Transparent PVC hose\*2

Measuring range	±35kPa
Accuracy	±0.3%FSO(25°C)
Repeatability	±0.2%(Maximum + / - 0.5 FSO)
Linearity/hysteresis	±0.29 FSO
Response	Typical 0.5s
Low battery indication	Yes
Up overload indication	Err1
Down overload indication	Err2
Operating temperature	0~50°C
Storage temperature	-10~60°C
Power supply	1.5V AAA battery*4
USB communication	Yes

Unit	Range	Resolution	Maximum
bar	0.35	0.001	1.5
mbar	350	0.1	1500
kPa	35	0.01	150
kgf/cm <sup>2</sup>	0.356	0.001	1.529
mmHg	262.5	0.1	1125
cmH <sub>2</sub> O	356.6	0.1	1528.5
Ozf/in <sup>2</sup>	81.2	0.01	348
psi	5.076	0.001	21.755
inHg	10.33	0.01	44.29
inH <sub>2</sub> O	140.3	0.1	601.5
ftH <sub>2</sub> O	11.69	0.01	50.1
<b>Environmental temperature compensation</b>			





**G-TECH AQ-1063 Air Quality Detector possesses the following features:**

- 1.Dynamic and real-time detection of PM2.5 and PM10 concentration in the air.**
- 2.Environmental temperature and humidity measurement and temperature unit conversion.**
- 3.Switching between three different display modes.**
- 4.Display of the maximum and minimum values.**
- 5.Data hold function.**
- 6.Sound and light alarm settings.**
- 7.LCD backlight display of air quality level.**

**Safety Warnings**

- ▶  $0 \text{ ug/m}^3 \sim 75 \text{ ug/m}^3$ : Air quality level is GOOD (green, good).
- ▶  $75 \text{ ug/m}^3 \sim 150 \text{ ug/m}^3$ : Air quality level is FAIL (yellow, slightly polluted, unhealthy).
- ▶  $\geq 150 \text{ ug/m}^3$ : Air quality level is BAD (red, heavily polluted, very unhealthy).

**Three display modes**

Press the Mode button to switch between the three modes.

- (1)Mode 1: display PM2.5 concentration, PM10 concentration and ambient temperature.
- (2)Mode 2: Display PM2.5 concentration, PM10 concentration and ambient humidity.
- (3)Mode 3: Display PM2.5 concentration, ambient temperature and ambient humidity.

Detected gas	Particulate concentrations in the air (PM2.5, PM10)		
Measuring range	(0~5000) ug/m <sup>3</sup>	Minimum reading	1 ug/m <sup>3</sup>
Resolution ratio	1 ug/m <sup>3</sup>	Minimum resolution particle size	0.3um
Response time	≤10S		
Measurement principle	Laser diffusion principle		
Working environment	0~50°C,32~122°F;10~80%RH		
Storage environment	-10~80°C,-14~176°F;10~75%RH		
Power supply	3* 1.2V AA rechargeable NiMH or 5V 1A power adapter		
Dimension	51.5*64.8*135mm	Weight	152g (excluding of batteries)









# G-TECH<sup>®</sup>



DIGITAL MULTIMETER



DIGITAL CAPACITANCE METER



DIGITAL CLAMP METER



DIGITAL K-TYPE THERMO METER



INFRARED THERMOMETER



THERMAL IMAGER



TEMP/RH METER



SOUND LEVEL METER



DIGITAL ANEMO METER



DIGITAL LIGHT METER



DIGITAL INSULATION TESTER



DIGITAL EARTH RESISTANCE TESTER



DIGITAL RCD (ELCB) TESTER



DIGITAL FORCE GAUGE



PEN TYPE VIBRATION METER



RTD CALIBRATOR SOURCE & SINK



PROCESS METER with HART LOOP RESISTANCE



OXYGEN MONITOR



CARBON MONOXIDE MONITOR



CARBON DIOXIDE MONITOR



PORTABLE MULTI-GAS DETECTOR



ELECTROMAGNETIC RADIATION TESTER



DIGITAL MOISTURE METER



COATING THICKNESS METER F & NF BOTH



TACHO METER

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