

## Latest Products from...

### Thermal Image Cameras



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### 719 Series Pressure Calibrators



See page 1535

### High performance Sound level meters



See page 1538

### Infrared Non Contact Thermometers



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## Calibration

### Calibration Services



We offer two levels of calibration on most products:



#### NAMAS Calibration

In addition to Standard Calibration, UKAS provides you with:  
Instruments calibrated to UKAS approved procedures  
NAMAS labels  
NAMAS calibration certificate  
UKAS approved calibration equipment  
UKAS approved, temperature-controlled testing equipment

#### Standard Calibration

Instruments calibrated to manufacturers' specification, complete with:  
Calibration labels  
Integrity seals  
Calibration certificate  
All calibration results recorded and stored for five years  
Re-calibration advice  
Suitability for **ISO9000**

Calibration to UKAS - UK Accreditation of Measurement and Sampling, part of UKAS - (United Kingdom Accreditation Service) offers the highest industry standard of integrity available. The service is accepted by all UK approval agencies and is also recognised in many other countries.

The calibration of your equipment is essential wherever you must ensure accuracy of measurement. To arrange for re-calibration of your equipment contact our Value Added Services on 0870 1200 206.

#### Delivery

We will give you a precise delivery date at the time of your enquiry

#### How to Order

Products highlighted with the **CT** symbol should be ordered by their normal order code, followed by the standard of calibration required. Calibration is charged at the stated rate. For all other items displaying the calibration logo, contact Value Added Services and we will supply you with a full quotation

231084

## Anemometers

### Handheld Anemometer / Thermometer

13/430/0



- Accurate measurement of windspeed and ambient temperature
- Windspeed measurement in m/s, ft/min, km/h, mph, knots and Beaufort scale bargraph
- Windchill display
- NTC Thermometer with temperature display in °C or °F
- Backlit LCD display
- Auto power off
- Supplied with battery and neckband

#### Anemometer

Range 0 to 30 m/s  
Resolution 0.1 m/s  
Accuracy ±5%

#### Thermometer

Range -10 to +45°C  
Resolution 0.2°C  
Accuracy ±2°C  
Battery CR2032 3V Lithium (included)

446666.434967

Order Code	Price Each	
	1+	10+
127-1858	28.59	25.51

### Pocket Anemometer



The pocket sized meter has a lightweight low-friction ball vane providing high accuracy at high and low air velocity. The robust case incorporates a large easy to read display and wrist strap.  
**Requires 1 x PP3 battery**

- Selectable m/s, fpm, mph, km/hr or knots
- Easy to use push button operation
- Data hold freezes current measured value
- Min/Max memory since power on
- Supplied with instructions for use

Range	Resolution
0.4 to 30 m/s	0.1
80 to 5910 ft/min	1
1.4 to 108 km/hr	0.1
0.9 to 67 mph	0.1
0.8 to 58 knots	0.1
Accuracy	Below 20m/s ±3%FS, above 20m/s ±4%

333717.275784

Order Code	Price Each	
	1+	5+
462-5869	81.82	78.00

### Handheld Anemometers

EA3000 and EA3010



These handheld anemometers are ideal for the outdoor professional, being water resistant and having a backlight makes them ideal for all weather conditions.

#### EA3000 features

- Wind speed measurement in mph, Km/h, m/s or Knots
- LCD backlight
- Auto power off
- Neck band included
- Water resistant

#### EA3010 extra features

- Beaufort wind graph display
- Wind chill display
- Max wind speed memory
- Temperature display in degrees Celsius or Fahrenheit

381131.344352

Mfrs. List No.	Order Code	Price Each	
		1+	3+
EA3000	838-8733	21.89	21.74
EA3010	838-8741	31.27	30.68

### Vane Anemometer

72-6638



H=76.2, W=38.1, L=110

A small, low cost meter that can accurately measure air velocity and wind speed in air conditioning and heating systems.

- 3 1/2 digit LCD
- Accurate ±(3% + 2 digit) air velocity measurement
- Measurement in ft/min, m/sec, knots and km/hr
- Low-friction ball bearing wheel
- Includes owner manual
- Requires 9V battery (not included)
- CE marked

m/sec Kt/min	0.8 to 30.0m/sec 2.8 to 108 km/h	Resolution 0.1m/sec 0.1km/hr	knots ft/min	1.6 to 58 knots 160 to 5900 ft/min	Resolution 0.1 knots 10 ft/min
Mfrs. List No.	Order Code	1+	3+		
72-6638	356-2669	65.00	61.75		

228156

### Pocket Anemometers

410-1 &amp; 410-2



Available in two models:

**410-1** wind or air flow and temperature

**410-2** wind or air flow, temperature and humidity

- Integrated 40mm vane
- Timed mean value calculation
- Hold function and min./max. values
- Windchill calculation for outdoor areas
- Backlit display
- Auto-off

Both models supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries

Measuring Range	Flow Velocity	Temperature	Humidity (410-2 only)
Resolution	0.4 to 20 m/s	-10 to 50°C	0 to 100 %rh
Accuracy	0.1 m/s	0.1°C	0.1 %rh
Units	± 0.2 m/s + 2% of m.v.	± 0.5 °C	± 2.5 %rh (5 to 95 %rh)
Operating Temperature	m/s, km/h, fpm, mph, knots, perceived temp. °C/°F (wind-chill), Beaufort	°C/°F	%rh, wet bulb, dewpoint
Battery Type	-10 to 50°C		
Battery Life	Alkaline (2 x AAA)		
Dimensions	100hrs (410-1), 60hrs (410-2) (average, without display illumination)		
	133 x 46 x 25mm (Incl. Protective Cap)		

488462.503098

Mfrs. List No.	Order Code	1+	2+	5+
410-1	147-1402	78.00	72.00	66.86
410-2	147-1403	122.00	112.62	104.57

## Flexible Thermo-Anemometer



- Measures air velocity in m/s, ft/min, km/h, knots & mph
- °C/°F temperature
- Impact-resistant ABS case
- Flexible gooseneck probe adjusts easily to the shape required then remains rigid to allow easy one-hand operation
- Large 25mm backlit 4 digit LCD display with function indicators
- Simultaneous display of airflow and temperature
- Data hold & max/min hold functions
- Auto off and low battery indicator
- Supplied with carry case & battery

New

Anemometer	m/s	ft/min	mph	km/h	knots
Min	0.6	119	1.4	2.2	1.2
Max	30	5900	67	108	58
Resolution	0.01	1	0.1	0.1	0.1
Accuracy	±3%	±3%	±3%	±3%	±3%
Thermometer					
Range	-10°C to +60°C				
Resolution	0.1°C				
Accuracy	±1.5°C				
Physical					
Battery	1x 9V PP3				
Dimensions (WxHxD)	45 x 163 x 34mm				
Weight	247g				

A vane thermo-anemometer with a 0.4m flexible gooseneck sensor which measures air velocity and temperature. This easy-to-use velocity thermo-anemometer allows easy access to areas that are hard to reach. Excellent for ventilation surveys, air conditioning, heating and environmental monitoring.

480540.466706

Order Code	1+	3+	5+
142-6152	79.19	71.79	64.71

## Vane Thermo-Anemometer


W=76 H=162 D=39mm.  
Weight 413g

- Suitable for single-handed operation using the vane mounting clip attached to the instrument
- Supplied with rubber boot, carry case, shoulder strap & 9V battery

Measurement	Range	Resolution	Accuracy
Air Velocity (m/s)	0.3 - 45m/s	0.1m/s	±3%
Air Velocity (ft/min)	60 - 8800ft/min	10ft/min	±3%
Air Velocity (km/h)	1 - 140km/h	0.1km/h	±3%
Air Velocity (knots)	0.6 - 88knots	0.1knots	±3%
Temperature (°C)	0 - 60°C		±2°C
Temperature (°F)	32 - 140°F		±3°F

450393.460951

Mfrs. List No.	Order Code	1+	3+	5+
AVM-618B	129-7749	100.30	88.26	85.52
Standard Calibration Charge			34.10	
UKAS Calibration Charge			58.75	

RoHS Compliant  
Non-compliant


08447 11 11 11

## Thermo-Anemometer 72-6698

TENMA®



H = 184, W = 79 D = 38 (mm)

Temperature	
Range	0C to +50C/32F to 122F
Resolution	0.1
Accuracy	±0.8C
Air Velocity	
Ranges	
m/sec	0.4 to 25m/sec, 0.1m/sec Resolution
km/hr	1.4 to 90km/hr, 0.1km/hr Resolution
mph	0.9 to 55.9mph, 0.1mph Resolution
knots	0.8 to 48.6 knots, 0.1knots Resolution
ft/min	80 to 4930ft/min, 1ft/min Resolution
Air Velocity Accuracy	±(2% + 1dgt)

248988

Mfrs. List No.	Description	Order Code	1+	10+
72-6698	Thermo-Anemometer	428-4355	101.39	89.76

## Thermo-Anemometers CA 824 and 826

CHAUVIN ARNOUX



- Flow rate measurement
- Dual display
- MAX-MIN and Hold functions
- Automatic average
- Magnetised impact-resistant protecting sheath
- CA824 uses a propeller type sensor (∅=100mm) for precise measurements up to 35m/s
- CA826 uses a hot-wire sensor for precise measurements from 0.01m/s

	CA 824	CA 826
Speed		
Range	0.20 to 35m/s	0 to 30m/s
Resolution	0.01 to 0.1m/s	
Best accuracy	3%L + 0.1m/s	3%L + 0.05m/s
Units	m/s, fpm	
Ambient Temperature		
Range	-20 to +80°C	
Resolution	0.1°C	
Accuracy	2%L + 0.2°C	
Units	°C, °F, K	
Flow Rate		
Range	0 to 65 000 m³/h	0 to 2000m³/h
Resolution	1m³/h	
Accuracy	3%L + 10m³/h	
Units	m³/h, m³/s, l/s, cfm	
General		
Operating/storage Temperature	0 to 50°C	
Operating/storage Humidity	<85% HR	
Dimensions	145 x 75 x 34mm	190g
Sensor size	365 x 100mm	8 x 300mm



## Anemometers - continued

## Thermo-Anemometers - continued

CA 824 and 826 - continued

339419

Description	Mfrs. List No.	Order Code	1+	3+	5+
<b>Anemometers</b>					
Thermo Vane	CA824	774-2258	457.42	448.92	437.41
Thermo Hot wire	CA826	774-2282	415.08	393.92	378.62
<b>CA824 Accessories</b>					
Flow rate measurement cone (10 to 300m³/h)	CA825	774-2266	79.35	75.68	75.34
Telescopic extension	P01102012	774-2274	146.89	144.01	140.32
<b>CA826 Accessories</b>					
Flow rate measurement cone (30 to 750m³/h)	CA828	774-2304	235.32	231.98	226.03

## Anemometer with Remote Probe

TMA10A



The TMA10A is ideal for HVAC/R technicians measuring Heat / Ventilation / Air Conditioning / Refrigeration wind flow and temperature in residential, commercial and industrial air conditioning systems. It offers numerous functions - use it to check air velocity FPM (Feet Per Minute), air volume (flow) CFM (Cubic Feet per Minute) plus remote vane allows greater measurement flexibility. Switch between °C and °F, Input area of flow measurement to gain accurate air velocity results. Measure an air flow

source for a continuous moving average for up to two hours. Determine minimum, maximum and average readings from a single point air source.

- Measuring Air velocity
- Direct measuring of air flow
- Continuous Moving Average for up to 2 hours
- MIN/MAX/AVG reading on a single point
- Air Velocity average for multiple points
- Non Sleep Mode (bypass auto power off)
- Data hold to freeze measurement display of both readings
- RS232 interface output with optional software and cable
- Obtain air flow (CFM) average for multi-point

489620.502903

Mfrs. List No.	Order Code	1+	3+	5+
TMA10A	146-6472	158.00	153.26	148.66

## Thermo-Anemometers

AN100 &amp; AN200



Two handheld thermo-anemometers, one with built-in non-contact IR thermometer for measuring surface temperatures (AN200)

- Simultaneously displays ambient temperature and air flow or air velocity
- Up to 8 easy set area dimensions can be stored in memory
- 20 point average function for air flow
- Large backlit LCD display
- Low friction 72mm diameter vane wheel with 1.2m lead
- Max/Min and data hold functions
- Auto power off
- Air velocity measurements in m/s, km/h, ft/min, mph and knots
- Air velocity range: 0.4 to 30m/s. Basic accuracy: ±3%
- Air flow measurements in m³/min and ft³/min
- Air Temperature range: -10 to 60°C. Basic Accuracy: ±3°C

- Supplied with 9V battery, protective rubber holster and carry case

AN200 only

- Non-contact IR temperature measurement with 8:1 spot ratio
- Surface Temperature range: -50 to 260°C. Basic Accuracy: ±2% of reading
- Laser pointer

446741.437817

Mfrs. List No.	Order Code	1+	3+	5+
AN100	127-1502	101.42	90.20	75.14
AN200	127-1503	140.94	118.39	100.18

## Large-Area Vane Anemometer

417



Features a fixed flow-temperature vane to measure flow, volume flow and temperature. Volume flow is shown directly on the clear backlit display. Just input the duct measurements, and accurate volume flow calculations are automatically displayed. You can also switch between flow and temperature. Flow direction, either from pressure or vacuum source, is visible in the display.

- Direction recognition of flow
- Temperature, flow and volume flow measurement
- Multi-point or timed mean calculation
- Max/min values
- Hold button to freeze readings
- Display light
- Auto-Off function
- 2 years warranty

Probe Type	NTC	Vane	Volume Flow
Measurement range	0 to 50°C	0.3 to 20 m/s	0 to 99999 m³/h
Resolution	0.1°C	0.01 m/s	0.1 m³/h (0 to 99.9 m³/h)
			1 m³/h (100 to 99999 m³/h)
Accuracy	±0.5°C ± 1 digit	± (0.1 m/s + 1.5% of mv) ± 1 digit	
Operating Temperature	0 to 50°C		
Battery	9V		
Battery life	50 hours		

418057

Description	Order Code	1+	3+	5+
Vane Anemometer	108-2990	249.60	223.52	213.94
Instrument and Probe Case	108-3011	17.70	15.85	15.17
Funnel Set	108-3033	110.20	98.69	94.46

## Compact Vane Anemometer

416



An easy to use anemometer with an attached 16mm vane probe on a telescopic handle (maximum length 890 mm). Just enter the duct measurements directly into the testo 416 and the volume flow measurement is shown on the clear display. You can switch between flow and temperature readings easily. Timed and multi-point mean flow calculations allow easy flow analysis, volume accumulation estimates, and temperature variation monitoring.

- Direct display of volume flow
- Multi-point or timed mean calculation
- Max/min values
- Hold button to freeze readings
- Display light
- Auto-Off function
- Optional TopSafe protects instrument from dirt and impact
- 2 years warranty

Probe Type	Vane
Measurement range	0.6 to 40 m/s
Resolution	0.1 m/s
Accuracy	± (0.2 m/s + 1.5% of mv) ± 1 digit
Operating Temperature	-20 to 50°C
Battery	9V Alkali Manganese
Battery life	80 hours

418051

Description	Order Code	1+	3+	5+
Vane Anemometer	108-2988	345.30	309.22	295.97
Instrument and Probe Case	108-3011	17.70	15.85	15.17
TopSafe - Protective Carry Case	108-2989	17.00	15.22	14.57

## Technical information at your fingertips



Over **352,000** technical datasheets available online.

Visit **www.farnell.co.uk** and look for the **Tech Info** heading in your search results.

## Compact Thermal Anemometer

425



An easy to use, compact anemometer with an attached thermal probe on a telescopic handle (max. 820mm). Duct measurements are easily entered and the volume flow measurement is calculated and shown on the clear display. In addition, it is possible to switch easily between flow and temperature readings.

- Temperature, flow and volume flow measurement
- Multi-point or timed mean calculation
- Max/min values
- Hold button to freeze readings
- Display light
- Auto-Off function
- 2 years warranty

Probe Type	NTC	Thermal Anemometer
Measurement range	-20 to +70°C	0 to 20 m/s
Resolution	0.1°C	0.01 m/s
Accuracy	±0.5°C ±1 digit	±(0.03m/s + 5% of mv) ±1 digit
Operating Temperature	-20 to 50°C	
Battery	9V	
Battery life	20 hours	

418065

Description	Order Code	1+	3+	5+
Thermal Anemometer	108-2992	316.20	283.16	271.03
Instrument and Probe Case	108-3011	17.70	15.85	15.17
TopSafe - Protective Carry Case	108-2989	17.00	15.22	14.57

## Thermo-Anemometer

975 AirMeter™



W=114 x H=287 x D=51mm.  
Weight 544g



Combining five tools in one, the Fluke 975 provides instant answers on temperature, humidity, air velocity, CO<sub>2</sub>, and CO and enables users to quickly generate detailed reports for further analysis.

- Rugged and easy to use
- Instantly calculates dewpoint and wet bulb temperatures, % of outside air, and air flow
- Single point (99 records) or continuous data logging (25,000 records) functionality
- Meter has a keypad lockout feature and it accepts a Kensington lock
- Powerful FlukeView Forms software makes reporting and analysis simple and fast.



## Fluke 975 AirMeter includes:

Meter, 3x AA alkaline batteries, user manual, calibration cap, hard carrying case, FlukeView forms software, AC power adapter and international power plugs.

**Fluke 975V AirMeter additionally includes:** 1x 975VP Air Velocity Probe.

Feature	Range	Accuracy
Temperature	-20°C to 50°C	±0.5°C
Relative Humidity	10% to 90%	±2%
Air Velocity	0.25 to 15 m/s	±4%
CO <sub>2</sub>	0 to 5000 ppm	2.75% + 75 ppm
CO	0 to 500 ppm	±5% or ±3 ppm whichever is greater
Dew Point Temperature	-44°C to 50°C	±1°C
Wet Bulb Temperature	-16°C to 50°C	±1.2°C
Volume Flow Rate	0 to 3965 m <sup>3</sup> /min	1x PP3 battery (supplied)

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

447122.460943

Description	Mfrs. List No.	Order Code	1+	3+	5+
Thermo-Anemometer	975	127-2835	1,151.00	1,116.47	1,082.98
AirMeter with Velocity Probe	975V	127-2836	1,305.00	1,265.85	1,227.87
Air Velocity Probe	975VP	127-2837	240.00	232.80	225.82

## Airflow Meter

Fluke 922



A simple solution for diagnosing ventilation issues. The Fluke 922 makes airflow measurements easy by combining three tools: differential pressure, airflow, and velocity into a single, rugged meter.

- Measure pressure drops across key HVAC equipment to drive peak performance and extend equipment life
- Match ventilation to occupant loads
- Monitor indoor vs. outdoor pressure relationships and manage the building envelope
- Promote indoor comfort and quality
- Perform duct traversals for accurate airflow readings
- Powerful meter provides differential and static pressure, air velocity and flow readings
- Convenient coloured hoses help proper interpretation of pressure readings
- Easy to use without sacrificing performance
- Bright, backlit display for clear viewing in all environments
- User-defined duct shape and size for maximum airflow accuracy
- Resolution down to 0.001 in H<sub>2</sub>O
- 99 point data storage capacity
- Min/Max/Average/Hold functions for easy data analysis
- Auto power off saves battery life

Feature	Range	Accuracy
Air Pressure	4000 Pa	±(1% + 1Pa)
	16 in H <sub>2</sub> O	±(1% + 0.01 in H <sub>2</sub> O)
	400mm H <sub>2</sub> O	±(1% + 0.1mm H <sub>2</sub> O)
	40mbar	±(1% + 0.01mbar)
	0.6 PSI	±(1% + 0.0001PSI)
Air Velocity	250 to 16000fpm	±2.5% of rdg
	1 to 80 m/s	±2.5% of rdg
Air Flow (Volume)	0 to 99,999 cfm	
	0 to 99,999 m <sup>3</sup> /hr	
	0 to 99,999 l/s	
Temperature	0°C to 50°C	±(2% + 2°C)
Dimensions	W=78 x H=175 x D=42mm. Weight 640g	

## Fluke 922 includes:

Meter, 2x Rubber Hoses, 4x AA Batteries, Users Manual Soft Carrying Case

**Fluke 922 Kit additionally includes:** 12" pitot tubes, TPak Magnetic Strip, TPak Strap, TPak Latch Tab, Hard Carrying Case.

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

469774.469766

Description	Mfrs. List No.	Order Code	1+	3+	5+
Thermo-Anemometer	922	132-7237	345.00	334.65	324.61
T-A with velocity probe	922/KIT	132-7238	404.00	391.88	380.12
Air Velocity Probe	PT12	132-7241	65.00	63.05	61.16

## Hazardous Gas &amp; Liquid Testers

## Carbon Monoxide

Carbon Monoxide is difficult to detect, as it is a colourless, odorless, tasteless and toxic gas produced as a by-product of combustion. Because you can't see, taste or smell it, carbon monoxide can kill you before you know it is there. Fire professionals are increasingly called upon to respond to calls regarding possible carbon monoxide poisonings. Any fuel burning appliance, vehicle, tool or other device has the potential to produce dangerous levels of carbon monoxide gas. Examples of carbon monoxide producing devices commonly in use in or around your home include:

- Fuel fired furnaces (non electric)
- Gas water heaters
- Fireplaces and wood stoves
- Gas stoves and Gas dryers

Over 480,000 products online



## Hazardous Gas & Liquid Testers - continued

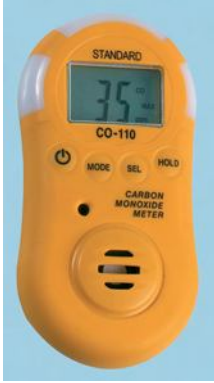
### Carbon Monoxide - continued

222548

Carbon Monoxide Levels	
0 ppm	Desirable level
100 ppm	Slight headache 2 to 3 hours
400 ppm	Frontal headache 1 to 2 hours, widespread in 2.5 to 3.5 hours
800 ppm	Dizziness, Nausea, convulsions within 45 minutes
1600 ppm	Headache, dizziness, nausea within 20 minutes, death within 1-2 hours
3200 ppm	Headache, dizziness, nausea within 5 to 10 minutes, death within 1 hour
6400 ppm	Headache, dizziness, nausea within 1 to 2 minutes, death within 25 to 30 minutes

### Carbon Monoxide Detector

New



Detects the presence of Carbon Monoxide (CO) and measures concentrations between 1-1000ppm. The Meter indicates the presence of CO by a reading on the LCD and a beeper tone. From 35 PPM to 200 PPM, the beeper sounds intermittently with the concentration of CO. Above 200ppm, the beeper sounds continuously.

- Memory for 10 complete data sets
- Auto/Manual zero
- MAX and Data Hold
- Visual (flashing LEDs) and audible alarm

**Includes** Detector, Carry Pouch, Battery, Aspirator and Manual

Measurement Range	0 to 1000ppm
Resolution	1ppm
Accuracy	±5% or ±10ppm
Operating Temperature	0°C to 50°C
Operating Humidity	0 - 90% RH (non-condensing)
Sensor Type	Stabilised electromechanical
Warm Up Period	Less than 2 secs
Dimensions (WxHxD)	52 x 102 x 29mm
Weight	84g

486617.465473

	Order Code	Price Each	
		1+	3+
Standard Calibration Charge	143-0723	72.85	68.63
UKAS Calibration Charge			
		S C4	34.10
		N C4	58.75

### Carbon Monoxide Analyser

SGA 71



A CO meter, designed to fit into a shirt pocket and attach to an optional desktop datalogger. Shows changes in gas concentration using a digital display, tri-colour LED and audible alarm.

- Measures CO anywhere in domestic and commercial buildings
- Easy one button operation
- Automatic calibration at power on
- Measures and displays 0-1999 ppm in 1ppm steps
- Fast response sensor
- Small portable lightweight design

Range	0 to 1999ppm CO
Response time	Typically 30 to 40 seconds
Sensor Type	Electrochemical cell
Sensor Life	Typically 2 years
Calibration	Automatic zero calibration on power on Annual span calibration required
Operating Range	0 to +40°C/±32°F to +140°F, 10 to 90% Rh non condensing
Accuracy	±10% of reading using dry continuous gas at S.T.P
Battery Life	Typically 6 months normal use 350 hours continuous use with an Alkaline battery

The CO check should not be regarded as a substitute for any recommended spillage test.

220429

	Order Code	Price Each			
		1+	3+	6+	12+
CO Analyser	325-6121	133.25	124.93	119.34	114.22

### CO Meter

315-2



The CO warning instrument for the heating engineer that checks the exact CO level in ambient air. Efficient extraction of flue gases is a requirement for the safe functioning of burners.

- Reliable warning of CO poisoning
- Adjustment of different alarm limits
- TopSafe, protection case for tough applications

H=215, W=68, D=47mm Weight = 400g

Measuring Range	0 to +2000 ppm CO	Display	LCD, 2 lines
Accuracy	±10%	Operating temperature	5 to +45°C
Resolution	1 ppm	Battery	9V block battery

377684.381259

Description	Mfrs. List No.	Order Code	Price Each		
			1+	2+	5+
CO Meter	315-2	836-9224	228.80	204.90	196.11

### CO<sub>2</sub> Meter

535



An efficient CO<sub>2</sub> measuring instrument for measuring indoor air quality. Bad air quality in rooms can lead to tiredness, lack of concentration and sickness due to high CO<sub>2</sub> (> 1000 ppm).

- Measures CO<sub>2</sub>
- Long-term monitoring based on max and mean calculation
- Long-term stable 2 channel infrared sensor
- Highly accurate and efficient

H=190, W=57, D=42mm  
Weight = 300g

Sensor	2 channel infrared	Display	LCD, 2 lines
Measuring Range	0 to 9999 ppm	Operating temp	0°C to +50°C
Resolution	1 ppm	Storage temp	-20°C to +70°C
Best Accuracy	±50ppm °C	Battery	9V block battery
Measuring medium	Air	Battery Life	6 hours (10 mins auto off)

377681.381256

Description	Mfrs. List No.	Order Code	Price Each		
			1+	2+	3+
CO <sub>2</sub> Meter	535	836-9194	416.00	372.54	356.57

### Combustible Gas Leak Detector



W=72 H=221 D=46mm. Weight 520g

#### Solid State, Low Power Semiconductor Sensor

Sensor sensitivity:	50 ppm (methane)
Response time:	< 2 second

#### Gases Sensed (Partial List)

Methane, Natural Gas, Ammonia, Hydrogen Sulphide, Propane, Acetone, Petrol, Naphtha, Smoke, Steam, Lacquer Thinners, Jet Fuel, Butane, Industrial Solvents, Alcohol

#### Alarm

Visible & audible alarm at 10% LEL for Methane. Can be calibrated for other concentrations or gases.

#### Physical

Battery Type	3x C (supplied)
Battery life	8 hours continuous use
Flexible gooseneck	400mm/16" reach

446885.430827

Order Code	Price Each	
	1+	+
127-0536	19.67	--



## Leak Detector - Flammable Gas



W=38 H=254 D=28mm.  
Weight 100g

Compliant with EN50270:1999, this instrument gives an instant audible and visual warning on detecting minute traces of any combustible gases. Once gas has been detected the sensitivity can be decreased so that the probe has to be moved nearer to the source to reactivate the alarms. This enables the user to precisely identify the source of a leak. Ideal for maintenance, heating & gas installation engineers.

- Detects natural gas, LPG, ethane, butane, propane, methane etc
- Fast reacting semi-conductor sensor
- Detects down to 5ppm for methane in air
- High frequency sonic alarm (80 dB at 1 metre)
- Rising alarm pitch in line with increasing concentration of gas
- Auto zeroing with visual confirmation
- Visual indication of gas concentration at 100, 1,000 & 10,000ppm
- Automatic LCD backlight when used in low light environments
- Battery level indicator
- Supplied with 2x 1.5V AA batteries

450416

Mfrs. List No.	Order Code	1+	3+	5+
GLD-3000	129-7751	47.51	41.81	39.07

## Combustible Gas Leak Detector



- Simple adjustable 'tick rate' increases as the sensor tip approaches a leak
- Detects Methane, natural gas, butane and propane
- Long 400mm gooseneck for hard to reach places
- 'Tip-light' illuminates the area of the leak
- Sensor provides accurate detection
- Rubber boot protects instrument



<b>Solid State, low power semiconductor sensor</b>	Sensor sensitivity: 50 ppm (Methane) Typical sensor life: 3 years Reaction time: < 1 second
<b>Gases sensed</b> (Partial list)	Methane, Natural Gas, Ammonia, Hydrogen, Propane, Acetone, Petrol, Refrigerants, Ethylene, Halon, Laquer, Thinners, Industrial Solvents, Alcohol, Jet fuel
<b>Red LED</b>	Flashes to indicate gas presence. ON continuously indicates low battery
<b>Audible indicator</b>	From internal speaker, increased 'tick-rate' with gas presence. Optional ear-piece for noisy environments
<b>Green LED indicator</b>	Indicates power on
<b>Battery type</b>	1 x 9 volt battery (PP9)
<b>Battery life</b>	>>5h continuous
<b>Flexible gooseneck</b>	400mm/18" reach Bright LED incorporated in sensor head
<b>Dimensions</b>	100mm x 205mm x 36mm 4" x 8" x 1.5"
<b>Weight</b>	460g/15oz

220427

Mfrs. List No.	Order Code	1+	3+	6+	12+
CD100A	325-6145	102.99	100.93	98.91	96.93

## Combustible Gas Detector



- Precision combustible detector locates the source of even the most difficult gas escape
- Easy to use one-handed operation
- Long goose neck probe for hard to reach areas
- Solid state sensor for reliability
- Audio and visual indication
- Thumbwheel operation eliminates background gas
- Ultra sensitive tip to 50ppm methane
- Operator calibration of gas percentage settings for alarm levels



<b>Power Supply</b>	Four AA-sized alkaline batteries
<b>Sensitivity</b>	<50ppm methane
<b>Sensor</b>	Solid state
<b>Level indicators</b>	Six LED's moving from green at low concentration through yellow to red. Level is adjustable and hence does not give concentration reading
<b>Alarm</b>	Visual and audio at approximately 10% of L.E.L. with an absolute maximum of 40% L.E.L. for methane. Can be calibrated for other concentration or gases

<b>Warm-up</b>	Approximately 1 minute
<b>Response time</b>	Less than 2 seconds (from 40% L.E.L.)
<b>Recovery time</b>	Less than 4 seconds (from 40% L.E.L.)
<b>Duty cycle</b>	Continuous
<b>Battery life</b>	Approximately 12h
<b>Dimensions</b>	80x220x60mm
<b>Weight</b>	450g
<b>Probe length</b>	400mm
<b>Accessories</b>	Carry case Earphone Alkaline batteries Instruction manual

220425

Mfrs. List No.	Order Code	1+	3+	6+	12+
LS1	325-6157	153.91	146.22	138.91	131.96

## Heating &amp; Refrigeration

Combustion Meter  
KANE 250

The KANE 250 is the lowest priced combustion analyser that does not compromise on performance or features. Its unique rotary switch also makes it the simplest and quickest to use.

The KANE 250 is also available as a kit, consisting of infra red printer, charger/mains adapter and carry case.

L=200, W=90, D=45mm

- O<sub>2</sub>, CO, CO<sub>2</sub>, CO/CO<sub>2</sub> ratio and efficiency readings
- Multi fuel
- Professional quality sensors (CO readings to 1ppm)
- Detachable flue probe
- Real time clock
- Infra-red output to optional printer
- Rubber sleeve with integral magnet
- Designed to meet BS7927

	Range	Resolution	Accuracy
<b>Temperature Measurement</b>			
Flue Temperature	0 - 600°C	1°C	±2°C±0.3% of reading
Inlet Temperature (Internal Sensor)	0 - 100°C	1°C	±1°C±0.3% of reading
Temp (Nett)	0 - 600°C	1°C	±2°C±0.3% of reading
<b>Gas Measurement</b>			
Oxygen	0 - 21%	0.1%	±0.2%
Carbon Monoxide	0 - 1000ppm	1ppm	±10ppm<100ppm ±5% of rdg
	4000ppm max for 15 mins		
Carbon Dioxide	0 - 30%	0.1%	±0.3% reading
Efficiency	0 - 99.9%	0.1%	±1% reading
Excess Air	0 - 250%	0.1%	±0.2%
CO/CO <sub>2</sub> ratio	0 - 0.9999	0.0001	±5% reading
<b>General</b>			
Pre Programmed Fuels	Natural gas, light oil (28/35 sec), propane, butane, LPG		
Battery life	4x AA type, approx 12 hours		
Weight	1kg		

339526.409900

Description	Mfrs. List No.	Order Code	1+	Price Each	2+	5+
Combustion Analyser	KANE250	505-7670	318.27	293.79	272.81	
Combustion Analyser Kit	KANE250 KIT	505-7681	489.25	451.61	419.35	

## Coming soon



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## Heating & Refrigeration - continued

### Gas Analyser KANE 425



**New**



L=200, W=90, D=45mm

- "Send" button for instant printout and logging
- Separate reports for: Combustion, Pressure, Let-by and Tightness, Temperature, CO build up
- Battery life typically 12+ hours
- Designed to meet BS7927, BS7967 and EN50379
- Torch light

Designed to meet EN50379, BS7927, BS7967 and IGE/11/UP/1B the latest British and European standards for flue gas analysers. A simple rotary switch enables the engineer to quickly measure combustion performance, differential pressure, differential temperature and to perform timed let-by/tightness tests and room CO build-up tests. On screen prompts guide the user where necessary. Thanks to the high accuracy and stability of its pressure readings, difficult tasks such as measuring flue draught or setting the differential pressure of air/fuel ratio valves can be performed with confidence.

- Four line backlit display controlled by rotary switch
- Protective rubber sleeve with magnet for "hands free" use
- Multi-fuel: Natural Gas, Propane, Butane, LPG, Light Oils (28/35 sec)
- O<sub>2</sub>, CO, CO<sub>2</sub>, CO/CO<sub>2</sub> ratio, temperature and efficiency readings
- High accuracy differential manometer
- Differential thermometer

	Range	Resolution	Accuracy
<b>Temperature Measurement</b>			
Flue Temperature	0 - 600°C	0.1°C	±2°C±0.3% of reading
Inlet Temperature (Internal Sensor)	0 - 50°C	0.1°C	±1°C±0.3% of reading
Inlet Temperature (External Sensor)	0 - 600°C	0.1°C	±2°C±0.3% of reading

<b>Gas Measurement</b>			
Oxygen	0 - 21%	0.1%	±0.2%
Carbon Monoxide	0 - 2000ppm (nom.)	1ppm	±10ppm<100ppm ±5% of rdg
	4000ppm max for 15 mins		
Carbon Dioxide	0 - 30%	0.1%	±0.3% reading
Efficiency	0 - 99.9%	0.1%	±1% reading
Excess Air	0 - 250%	0.1%	±0.2%
CO/CO <sub>2</sub> ratio	0 - 0.9999	0.0001	±5% reading

<b>Pressure (Differential)</b>			
Nominal Range ±80mBar	±0.2 mBar	0.001 mBar	±0.005 mBar
Maximum over-range without damage to sensor is ±400mBar	±1 mBar	0.001 mBar	±0.03 mBar
	±80 mBar	0.01 mBar	±3% of reading

#### Storage Capacity

99 Combustion Tests, 20 Pressure Tests, 20 Let-by / Tightness Tests, 20 Temperature Tests, 20 Room CO Tests

#### General

**Pre Programmed Fuels** Natural gas, Propane, Butane, LPG, Light Oils (28/35 sec)  
**Ambient Operating Range** 0°C to +40°C. 10% to 90% RH non-condensing.  
**Battery life** 4x AA type, >12 hours (alkaline)  
**Dimensions** Handset: 200x45x90mm. Probe: L=300mm Ø6mm. Hose: 3m  
**Weight** 0.8kg (handset with boot)

#### Each KANE425 is supplied with:

Flue probe, protective rubber sleeve with integral magnet, 2 pressure connectors, 4 x AA alkaline batteries and instruction manual.

#### The KANE425KIT additionally includes:

Soft protective carry case, infra-red printer, plug-in gas leak detection probe, temperature probe, NiMH rechargeable batteries and 220V mains charger.

491377

Description	Mfrs. List No.	Order Code	1+	2+	5+
Gas Analyser	425	<b>134-7870</b>	410.97	369.77	352.26
Gas Analyser Kit	425 KIT	<b>134-7873</b>	540.75	484.10	463.50
Gas Leak Detection Probe	GLD450	<b>134-7874</b>	41.20	39.14	37.60
Temperature Probe	KPCP	<b>134-7875</b>	37.08	36.05	35.02
Battery Charger	KMCU250/UK	<b>134-7876</b>	25.75	24.72	23.69
NiMH Rechargeable Batteries	B15	<b>134-7877</b>	25.75	24.72	23.69
Soft Carry Case	17820	<b>134-7878</b>	25.75	24.72	23.69

### Refrigerant Leak Detector RLD10



The RLD10 makes pinpointing leaks as easy as one, two. Detect leaking refrigerant using the high sensitivity mode then switch to the low sensitivity mode to pinpoint its source. If background noise makes the audible tick hard to hear, you can count on the colour scaled LED indicators.

- Auto zeros when turned on
- LED panel indicates refrigerant leak concentration
- Two position sensitivity selector
- Audible tick rate
- Long gooseneck probe
- One-hand operation
- Automatically detects all existing refrigerants and blends

Sensor Sensitivity	Advanced ionisation detection 0.5 oz per year R134A	Indicators	Audible: Variable tick Visual: Scaled LED array
--------------------	--	------------	--

Warm-up	<10 seconds	Probe length	18-1/2"
Response time	<1 second	Ambient operating conditions	0-40°C, 0 to 80% RH
Duty cycle	Continuous	Power supply	One 9V battery
Battery life	Approximately eight hours		

339530

Mfrs. List No.	Order Code	1+	2+	5+
RLD10	<b>505-7772</b>	107.59	99.31	92.22

### Ultrasonic Leak Detector Kit Set of ULD-300 with UT-300 Transmitter



**New**

- Includes transmitter
- Transmitter [inch]pressurizes" area with ultrasonic sound enabling the ULD 300 to pinpoint leaks (used in areas where gas is not sufficiently pressurized)
- Applications include air tightness of cars or houses

525681

Mfrs. List No.	Order Code	1+	2+	5+
TMULD-300	<b>167-1208</b>	309.00		299.73

## Hygrometers

### Pen Type Hygrometer DTH10



The DTH10 has an excellent combination of features, temperature and humidity measurement in a convenient pen-style case.

- Compact design; convenient to use
- Temperature range: -10°C to 50°C
- Easy to read LCD
- Humidity Range: 5 to 95% RH
- Electronic capacitance polymer film sensor
- MAX/MIN function
- Auto power off
- Data hold

H=175, W=42, D=16mm

Sensor	Advanced ionisation detection	Accuracy	±5% for 5 to 95% RH at 25°C and ±1°C from -10 to +45°C
Temperature range	-10 to 50°C	Resolution	0.1°C
Humidity range	5 to 95% RH	Battery life	1 lithium CR2032, 150hours

339531

Mfrs. List No.	Order Code	1+	2+	10+
DTH10	<b>505-7784</b>	53.25	49.15	45.64

### Thermo-Hygrometer



- Compact digital Hygro-Thermometer
- Fast response time
- High performance
- Max hold and data hold function
- Dual display and backlight

Humidity	Range	Accuracy
Temperature	0 to 100% RH	±3.5% RH
	-20 to 60°C	±2°C

W=45 H=255 D=34mm.  
Weight 200g

414908.403928

Description	Order Code	1+	2+	10+
Thermo-Hygrometer	<b>100-3032</b>	26.65	25.25	22.96
Standard Calibration Charge	S <b>C12</b>		60.93	
UKAS Calibration Charge	N <b>C12</b>		89.27	



**Humidity, Temperature, Wet Bulb & Dew Point Meter**  
DL7102Di-106<sup>+</sup>

- Large backlit LCD display
- Dual display - simultaneous display of temperature and humidity
- Microprocessor based design
- Selectable °C or °F
- Humidity displayed in % RH
- Max and Data Hold functions
- Auto-power off
- Supplied with battery

	Range	Resolution	Accuracy
Temperature (°C)	-30°C to 100°C	0.01°C	±0.8°C
Temperature (°F)	-22°F to 199°F	0.01°F	±1.5°F
Humidity	0% to 100%	0.01%	±2%
Dew Point Temperature	-30°C to 100°C	0.01°C / 0.01% RH	
Wet Bulb Temperature	0°C to 80°C	0.01°C / 0.01% RH	

W=45 H=225 D=34mm Weight = 200g

450362.460886

Mfrs. List No.	Order Code	1+	3+	5+
DL7102	129-6894	102.47	92.12	87.82

**Relative Humidity and Temperature Meter**  
TH-3AMPROBE<sup>®</sup>

The TH-3 uses a precision capacitance sensor to deliver accurate performance with long term stability. This high accuracy instrument measures the full range of relative humidity from 0% to 100% and features an exceptionally wide ambient temperature measurement range from -20°C (-4°F) to 60°C (140°F). The sensor is mounted on a long shaft extending from the top surface of the unit, making probing of ductwork and hard to reach areas more easy. The large LCD displays two measurements simultaneously with a full range of display options including Hold, Min, Max, and Relative. The TH-3 is a complete package and comes with soft carry case, sensor cover, battery and manual.

- Laboratory grade
- Dual display of Relative Humidity and Temperature simultaneously
- Relative function monitors humidity and temperature changes
- Extended probe stem to easily access air ducts

- Min/Max readings Data hold to freeze measurement value on display
- Capacitive sensor with protective cover
- Auto power off
- Soft carrying case
- User manual includes Wet Bulb chart

489623.502902

Mfrs. List No.	Order Code	1+	3+	5+
TH-3	146-6476	78.00	75.66	73.39

**Pocket Hygrometer**  
610

testo



- Long-term drift-free Testo humidity sensor
- 2.5 %rh accuracy with calibration protocol
- Including dewpoint calculation and wet bulb
- Hold function and max./min. values
- Backlit display
- Auto-off

Supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries

**Temperature**  
Measuring Range  
Resolution  
Accuracy  
Units

-10°C to 50°C  
0.1°C  
± 0.5°C  
°C/°F

**Humidity**  
Measuring Range  
Resolution  
Accuracy  
Units

0 to 100 %rh  
0.1 %rh  
± 2.5 %rh (5 to 95 %rh)  
%rh, wet bulb, dewpoint

**General Specifications**

Battery Type Alkaline (2 x AAA)  
Battery Life 200 hrs (average, without display illumination)  
Dimensions (Incl. Protective Cap) 119 x 46 x 25mm

488389.503095

Mfrs. List No.	Order Code	1+	2+	5+
610	147-1397	109.00	100.62	93.43

**Handheld Thermo-Hygrometer**

New

**Thermometer**

Range -30°C to 100°C  
Resolution 0.1°C  
Accuracy ±0.5°C

**Humidity Meter**

Range 0 to 100% RH  
Resolution 0.1% RH  
Accuracy ±2% RH

**Dew Point**

Range -30°C to 100°C  
Resolution 0.1°C  
Accuracy ±1°C

**Wet Bulb**

Range 0°C to 80°C  
Resolution 0.1°C  
Accuracy ±1°C

**Physical**

Battery 1x 9V PP3 (included)  
Dimensions (WxH) 72 x 155 x 35mm  
Weight 210g

- Dual display of humidity and temperature
- Measures temperature in °C or °F
- Impact-resistant ABS case with rubber boot and flip-out desk stand
- Probe with 1.8m coiled cable
- 45mm high intensity backlit LCD with dual display and status indicators
- Sampling rate 2.5 times per second
- Data hold and max/min hold functions
- Auto power off
- Mounting clip on the instrument allows single-handed use
- Supplied with carry bag & strap, rubber boot and battery

480495.466703

Order Code	1+	3+	5+
142-6148	89.74	83.41	73.34

**Thermo-Hygrometer**  
CA 848

CHAUVIN ARNOUX



H=173, W=60.5, D=38mm Weight=190g

- 2 parameters displayed simultaneously
- Measurement of dew point
- Remoted probe
- MAX-MIN / Hold functions
- Magnetised impact-resistant protecting sheath

**Relative humidity**

Range 5 to 95% HR  
Resolution 0.1% HR  
Accuracy 2%L + 1.8%HR  
Units %HR

**Temperature / Dew point**

Range -20 to +80°C  
Resolution 0.1°C  
Accuracy 2%L + 0.3°C  
Units °C, °F, K

**General**

Operating temperature 0 to 50°C  
Storage temperature -20 to +60°C  
Operating/storage humidity <75% HR

339420

Description	Mfrs. List No.	Order Code	1+	3+	5+
Hygrometer	CA848	774-2339	240.63	228.14	226.72
Telescopic extension	P01102012	774-2274	146.89	144.01	140.32

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## Hygrometers - continued

## Relative Humidity Meter



- Portable relative humidity and temperature meter
- Large LCD
- Detachable 1m probe
- Fast response, high accuracy
- Measurement in °C or °F, selectable
- Supplied complete with probe and battery

Range	10% to 95% RH 0 - 60°C (32 to 140°F)
Resolution	0.1% RH 0.1°C, 1°F
Accuracy	2% RH, 0.4°C, 1°F
Weight	315g
Battery	1 x 9V PP3 (supplied)
Battery life	100 hrs

**HANNA**  
instruments

222472

Order Code	1+	5+	10+
710-6208	205.44	189.63	176.09

Temperature Humidity Meter  
971

**FLUKE**



Invaluable for facility maintenance and utility technicians, HVAC-service contractors, and specialists who assess indoor air quality (IAQ). Lightweight and easy to hold, with a rugged holster and twist-open protective sensor cover.

- Simultaneously measures humidity and temperature
- Measures dew point and wet bulb
- 99 record storage capacity
- Min/Max/Avg Data Hold
- Ergonomic design with built-in belt clip and protective holster
- Backlit, dual readings display
- Twist-open protective cap
- Low battery indicator

**LATEST  
PRICING**

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnellone.com](http://www.farnellone.com) for the latest prices.

W=60 H=194 D=34mm. Weight 188g

## Temperature Measurements

Range	Resolution	Accuracy
-20° to 60°C	0.1°C	±0.5°C (0°C-45°C) / ±1.0°C (rest of range)
Response Time	500 ms	
Sensor Type	NTC	

## Humidity Measurements

Range	Resolution	Accuracy
5% to 95% R.H.		±2.5% R.H. (10%-90% R.H.) / ±5% (rest of range)
Response Time	60 s with 1 m/s air movement	
Sensor Type	Electronic Capacitance Polymer Film Sensor	

426001.460953

Mfrs. List No.	Order Code	1+	3+	5+
971	114-7977	138.00	133.86	129.84
		Price Each		
Standard Calibration Charge		\$  13	63.11	
UKAS Calibration Charge		N  13	95.81	

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## Temperature and Humidity Instrument

625

**testo**



W=64 H=182  
D=40mm. Weight  
195g

An ideal entry level instrument for measurements of temperature, humidity and dewpoint. Use it to monitor hard-to-reach points in AC and heating system ducts, environmental changes in remote rooms or storage areas, anywhere you need to be two places at the same time or only have one hand free to work. The clear back-lit display can be switched between relative humidity, wet bulb, and dewpoint at the touch of a button. The temperature / humidity probe can be used 2 ways: either attached to the instrument or connected via a probe handle and cable (108-3014).

Probe	Range	Accuracy (±1 digit)	Resolution
NTC Temperature Probe	-10 to +60°C	±0.5°C	0.1°C
Capacitive Humidity Sensor	0 to 100% RH	±2.5% RH (5 - 95% RH)	0.1% RH

## Wireless Probes

As well the probe head and cable connected probe, the testo 625 can also be used with a wireless probe handle (108-3003). This offers users exceptional practicality as hindrance during measurement and potential damage to the probe cable are eliminated. The probe handle uses the probe head supplied with the standard instrument. To convert the instrument for use with the wireless handle an optional wireless module (108-3002) is also required.

**Includes:** humidity/temperature measuring instrument, incl. plug-in humidity probe head, battery and calibration protocol.

418875

Description	Order Code	1+	3+	5+
625 Thermo Hygrometer	108-3012	166.40	149.01	142.63
<b>Accessories</b>				
Plug-In Probe Handle	108-3014	31.20	27.94	26.74
Wireless Module	108-3002	25.20	22.57	21.60
Wireless Handle	108-3003	66.60	59.64	57.09
Instrument and Probe Case	108-3011	17.70	15.85	15.17
Protective Case	108-2989	17.00	15.22	14.57

Hygrometers  
2020RP and 2080RP

**Digitron**



L=155, W=67, D=40mm



Designed for the effective and reliable measurement of controlled environments. The two models 2020RP and 2080RP both supplied with a temperature/humidity probe, offer excellent accuracy. Their ergonomic case design with advanced technology sensors combine to give instruments with excellent performance and long life.

**New**

- Waterproof to IP65 (with plug connected)
- Magnified display
- Separate battery compartment
- Accuracy: 0 to 100%RH 1.5%
- -40°C to +85°C
- Back light
- Auto switch-off
- °C/°F/RH selection button
- Dew Point measurement
- Ice Point measurement (2020R only)
- External probe option
- Max/Min averaging
- Display hold
- Logging (250 readings on demand or 50 at pre set interval)
- Data store with 4 digit data code input
- Auto range/range lock

## 2080R (additional features)

Sensors	pt100 RTD plus capacitive RH sensor, 2080R also has input for type k thermocouple
Ranges	0 to 100%RH -40°C to +85°C
Resolution	0.1%RH, 0.1° from -199.9°C, 1° elsewhere
Accuracy	1.5% RH at 23°C over 0 to 100%RH window
Accuracy (pt100 RTD)	±0.3°C
Accuracy (thermocouple)	0.1% rdg ±0.3% above -100°C, ±2 digits
	0.5% rdg ±0.3°C below 100°C, ±2 digits
Operating temperature	-10°C to +50°C
Operating humidity	0 to 100%RH (non-condensing)
Battery type	2x AA batteries
Battery life	Approx 150 hours
Display	12.7mm custom LCD
Environmental	IP65
Weight	180g

492920

Description	Mfrs. List No.	Order Code	1+	3+	5+
Hygrometer	2020RP	151-1068	287.75	257.81	246.65
Hygrometer + Logger	2080RP	151-1069	363.37	325.82	311.61
Air Temperature Probe	K0000	717-4147	12.59	11.74	11.33
Protective Boot	2000BT	300-3413	20.50	20.09	19.69
Cal check vessel	ER15	151-1070	97.50	87.31	83.57
35% RH capsules	EA35	151-1072	51.50	46.12	44.14
50% RH capsules	EA50	151-1073	51.50	46.12	44.14
80% RH capsules	EA80	151-1074	51.50	46.12	44.14

## Light Meters

### Lux Meter



- 3½ digit display
- Low battery indicator
- Hand held digital light meter with integral sensor
- 3 switchable ranges
- Supplied with carry case

0 - 1999 lux (resolution 1 lux)  
0 - 19999 lux (resolution 10 lux)  
19999 - 50,000 lux (resolution 100 lux)

Requires 9V PP3 battery for operation

224552

Mfrs. List No.	Order Code	1+	5+	10+
LX101	725-109	41.15	36.05	32.96

### Lux Meter

540



- Sensor is adjusted to the spectral sensitivity of the eye
- Hold reading function
- Max./min. values
- Backlit display
- Auto-off

Supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries



Measuring Range	0 to 99,999 Lux 1 Lux (0 to 19,999 Lux) 10 Lux (20,000 to 99,999 Lux)
Accuracy	± 3% (Compared to reference)
Units	Lux, Footcandle
Operating Temperature	0 to 50°C
Battery Type	Alkaline (2 x AAA)
Battery Life	20 hrs (average, without display illumination)
Dimensions (Incl. Protective Cap)	133 x 46 x 25mm

488530.503099

Mfrs. List No.	Order Code	1+	2+	5+
540	147-1404	90.00	83.08	77.14

### Digital Light Meter

72-6693



W=72, D=32, L=180

An easy to use, versatile, hand-held, microprocessor controlled, digital light meter.

- 3 ranges 2,000/20,000/50,000 LUX
- 3 ranges 200/2,000/10,000 Ft-cd
- Extra large, dual function display with contrast adjustment
- User selectable lighting type (tungsten, fluorescent, daylight and mercury)
- Records max./min./avg. readings
- Data hold and auto power off
- Includes owner manual
- CE marked

Range	Resolution	Range	Resolution	Power	9V Battery (not included)
20,000 LUX	1 LUX	200 Ft-cd	0.1Ft-cd	Dimensions	W = 55mm, L = 85mm, D= 12mm
20,000 LUX	10 LUX	2,000 Ft-cd	1Ft-cd	(sensor probe)	
100,000 LUX	100 LUX	10,000 Ft-cd	10Ft-cd		

228182

Mfrs. List No.	Order Code	1+	3+
72-6693	356-2670	62.00	58.90

### Portable Light Meter

HI97500



H=164, W=76, D=45mm Weight=170g

This portable light meter combines has a high degree of accuracy and a choice of resolutions. Supplied with sensor fitted to a 1.5m cable, the meter can be operated in 3 separate ranges to suit the application and has a water and dust resistant case to allow use in dusty and humid environments.

- Choice of 0.001, 0.01 and 0.1 resolution
- Waterproof keyboard for use in humid and dusty environments
- Light sensor mounted on a 1.5m cable
- The HI-97500 is suitable for use in daylight only

Range	0.001 to 1.999 Klx, 0.01 to 19.99 Klx, 0.1 to 199.9 Klx
Resolution	0.001, 0.01 & 0.1 Klx
Accuracy	±6% (±2 digits)
Sensor	Silicon photodiode
Battery type and life	1x 9V PP3, 200 hours

339516

Mfrs. List No.	Order Code	1+	3+	10+
HI97500	505-7395	81.20	74.95	69.60

### Light Meter



W=80 H=170 D=43mm. Weight=390g

- Fully cosine corrected
- Sensor connected to the instrument by a fixed approx 1.5 metre coiled cable
- Measuring rate of 1.5 times per second
- Easy to read - large 43mm backlit LCD display with 41 segment bar graph and function indicators
- Peak hold, Data hold and Max/min hold
- Relative reading
- Over range indication
- Reset function
- Auto power off and low battery indication
- Supplied with carry pouch, rubber boot, protective lens cap & 9V battery

Range	Resolution	Accuracy
40,400,4000,40000,400000 Lux	0.01,0.1,1,10,100 Lux	±(5%+10d) <10kLux, ±(10%+10d) >10kLux,
40, 400, 4000, 40,000 FC	0.01, 0.1, 1, 10 FC	±(5%+10d) <10kLux, ±(10%+10d) >10kLux,

450419.460952

Mfrs. List No.	Order Code	1+	3+	5+
LX-1308	129-7753	89.74	78.97	73.34

### Hand-Held Light Meter



- Measures both Lux and Foot Candles (FC), user selectable
- Range selection of 4 ranges (Lux), 4 (FC)
- Impact-resistant ABS case with protective rubber boot
- Silicon photo diode sensor and spectral response filter
- Fully cosine corrected
- Sensor connected to the instrument by a fixed approx 1.5 metre coiled cable
- Measuring rate of 1.5 times per second
- Easy to read - large backlit LCD display with 40 segment bar graph and function indicators
- Peak hold and Data hold freezes measured values
- Max/min hold
- Relative reading
- Over range indication
- Auto zero
- Auto power off and low battery indication
- USB interface for output to PC
- Supplied with carry pouch, rubber boot, USB interface cable, protective lens cap & battery





## Light Meters - continued

## Hand-Held Light Meter - continued

Range	400 / 4000 / 40000 / 400000 Lux 40 / 400 / 4000 / 40000 FC
Resolution	0.1 / 1 / 10 / 100 Lux 0.01 / 0.1 / 1 / 10 FC
Accuracy	±(5% + 10 digits) below 10000 Lux ±(10% + 10 digits) above 10000 Lux
Power	1x 9V PP3
Dimensions (WxHxD)	80 x 170 x 43mm
Weight	390g

480545.466707

Description	Order Code	1+	3+	5+
Light Meter	142-6153	89.74	83.41	76.61

## Light Meter Manual Ranging



- Measure in Lux or Footcandles, front panel switchable
- Measuring Range to 20,000 Lux or Foot candles
- Silicon photodiode sensor and filter
- Data Hold to freeze reading on the digital display
- MIN / MAX ability to show high and low readings
- Includes protective sensor cap
- Large, 3-1/2 digit display



525724

Mfrs. List No.	Order Code	1+	5+
LM-100	167-1222	74.00	71.78

## Light Meter Auto Ranging



- Measure in Lux or Footcandles, front panel switchable
- Measuring Range to 200,000 Lux or 20,000 Foot candles
- Silicon photodiode sensor and filter
- Data Hold to freeze reading on the digital display
- MIN / MAX ability to show high and low readings
- Autoranging plus Manual Range
- Zero function to null display before a reading
- Auto Power Off to save battery life
- Includes protective sensor cap
- Large, 3-1/2 digit display



525725

Mfrs. List No.	Order Code	1+	5+
LM-120	167-1223	94.00	91.18

Portable Light Meter  
LM631A

The LM631A is a portable, easy-to-use, compact sized digital light meter designed for simple one hand operation with the measurement reading in lux or fc units. This value priced unit offers high resolution readings and adherence to published standards for human eye response to illuminance.

- Sensor dome has 1143mm (45") attached cord for measurement flexibility
- Large 3-1/2-digit display with backlight feature
- Analogue output for monitoring and charting
- Meets CE EN61326-1 certification for safety ratings
- Peak hold and data hold
- Built-in CIE spectrum curve for accurate human eye response

**Includes:** carry case, extra lens cover, 4 AAA batteries and manual

W=44 H=170 D=40mm. Weight 220g

Ranges	20, 200, 2000, 20000 lux / 20, 200, 2000 20000 fc
Resolution	0.01 lux / 0.01 fc
Accuracy	±(3% + 10 digits)
Temperature Coefficient	0.1 x (specified accuracy) per °C
Spectral Response	CIE Photopic - CIE Standard Illuminant A
Battery type and life	4x AAA, 200 hours

489626.502899

Mfrs. List No.	Order Code	1+	3+	5+
LM631A	146-6445	88.00	85.36	82.80

Light Meter  
T545

H=50mm, W=68mm, L=220mm

In order to have good light quality the luminous intensity in places of work, hospitals, offices or schools has to fulfil specific minimum values. This can be measured and documented

- Timed mean calculations
- Multi-point mean calculations via 99 measurement points
- Up to 99 locations can be selected
- Logger function (3000 measured values)
- Hold/Max/Min/Mean
- 2 switchable ranges of resolution
- Supplied with probe, battery and instruction manual

Measurement range	0 to 100,000 Lux	0 to 100,000 Lux 10 Lux
Resolution	0 to 32,000 Lux 1 Lux	
Weight		500g

222568

Mfrs. List No.	Order Code	1+	5+	10+
T545	311-8447	283.90	254.24	243.34

## Liquid Testers



## pH Tester



- Low cost
- Ideal for testing involving test-tubes or limited access
- Large clear LCD
- pH meter 710-7535
- Replacement pH electrode 710-7547

pH: replacement electrode available  
0-14pH, 0.01 res  
Accuracy: ±0.2pH  
Calibration: 4/10 and 7

Dimensions: 66 x 50 x 25mm

222471

Description	Order Code	1+	+	+
pH tester	710-7535	25.00	--	--
Replacement electrode	710-7547	19.95	--	--

## Waterproof pocket pH Meters



- Dual level display shows pH and °C
- Battery life indication
- Replaceable pH electrode
- Waterproof and floating case
- Automatic calibration

		HI 98127	HI 98128
pH	Range	0.0 to 14.0	0.00 to 14.00
	Resolution	0.1	0.01
	Accuracy (@20°C)	±0.1	±0.05
Temperature	Range	0.0 to 60.0°C	0.0 to 60.0°C
	Resolution	0.1	0.1
	Accuracy	±0.5°C	±0.5°C
Calibration	Automatic 1 or 2 points with 2 sets of memorised buffers (pH 4.01/7.01/10.1 or pH 4.01/6.86/9.18)		
Temperature compensation	Automatic (user may disengage)		
Environment	From 0 to 50°C; RH 100%		
Battery type/life	4 x 1.5V with BEPS (battery error prevention system)/350 hours		
Auto shut off	After 8 minutes		
LCD	Custom, dual-level		
Casing	Waterproof, 100% buoyancy		
Stability indicator	Illuminates when pH reading is stable		
Dimensions	163x40x26		
Weight	85g		

234810

Mfrs. List No.		Order Code	1+	2+	5+
HI-98127	pH meter	<b>369-5876</b>	56.65	52.29	48.55
HI-98128	pH meter	<b>369-5888</b>	64.95	59.95	55.67
HI-73127	pH electrode	<b>369-5890</b>	37.95	35.03	32.54

### pH Meter PH100



A stick style pH meter with a built-in Smart chip that offers advanced functions and features not found anywhere else

- RENEW feature that tells you when it's time to replace your pH electrode
- CAL feature that tells you when it's time to recalibrate your meter
- Flat Surface pH electrode that is completely waterproof and rugged enough to withstand harsh environments

- Analogue bargraph originates at neutral point (pH 7.00) to conveniently view trends in acidity or alkalinity
- ATC plus measures Temperature
- 1, 2 or 3 point calibration
- Replacement pH sensor electrodes are available

446805.437880

Description	Order Code	1+	5+	10+
PH100 pH Meter	<b>127-1521</b>	61.96	55.25	45.10
Replacement pH Sensor	<b>127-1523</b>	24.75	22.55	20.30

### pH Meter 206



H=197, W=33, D=20mm Weight = 69g

Compact pH measuring instruments for measuring liquids (model: pH1) or semi-solids (model: pH2). Automatic recognition of a stable reading makes it easier to measure. The TopSafe case makes the instruments ideal for outdoor applications or use in tough industrial conditions.

- Versatile, accurate pH measuring instrument
- Not affected by dust or dirt thanks to the TopSafe protection case
- Maintenance-free gel electrode
- Built-in temperature probe
- 2 line display
- Automatic full scale value recognition
- pH1 offers a probe head for liquids, pH2 offers a probe head for semi-solids

**Starter Kits also available, consisting of:**

- Testo 206 instrument
- Belt / wall holder
- 2 x 250ml buffer solution with dosing chamber (pH4 and pH7)
- High standard aluminium storage case

Parameters	pH / °C	Temperature compensation	Automatic
Sensor	pH electrode / NTC	Display	LCD, 2 line, 0 to 70°C
Measurement channels	2	Probes	Screw-in pH / °C probe modules
Measuring Range	0 - 14 pH	Measurement rate	2 measurements per second
Resolution pH	0.01 pH	Operating temp	0°C to +60°C
Resolution Temperature	0.1°C	Storage temp	-20°C to +70°C
Accuracy pH	±0.02 pH	Battery	1x CR2032
Accuracy Temperature	±0.4 °C	Battery Life	80 hours (auto off 10 min)

377679.381254

Description	Mfrs. List No.	Order Code	1+	2+	5+
pH Meter for liquids	206 PH1	<b>836-9089</b>	94.60	84.72	81.09
pH Meter for liquids starter kit	206 PH1 KIT	<b>836-9097</b>	146.00	130.75	125.14
pH Meter for semi-solids	206 PH2	<b>836-9100</b>	161.20	144.36	138.17
pH Meter for semi-solids starter kit	206 PH2 KIT	<b>836-9119</b>	218.00	195.22	186.86
pH Buffer 4.01, 3 pack	05542062	<b>836-9054</b>	26.20	23.46	22.46
pH Buffer 7.00, 3 pack	05542064	<b>836-9062</b>	25.90	23.19	22.20
pH Buffer 10.01, 3 pack	05542066	<b>836-9070</b>	25.90	23.19	22.20

### pH/ion/temp Meter HI-8424



Easy-to-use portable pH/temperature meter with mV range ion selective electrode work and redox measurements. For easy and speed of use the meter benefits from auto or manual temperature compensation and auto calibration with three standard pH buffers recognised. Self-diagnostic error codes are displayed on the LCD for example, to indicate an incorrect buffer or defective electrode so that problems are quickly and easily corrected by the user. Supplied complete with general-purpose epoxy-bodied pH electrode and temperature probe.

- Hand-held pH/mV/°C meter
- Automatic calibration and 3 buffer recognition
- Auto and manual temperature compensation

- Supplied complete with epoxy-bodied pH electrode and temperature and temperature probe
- Self-diagnostic error codes for problem solving

Range	0-14pH 0 to ±399.9mV (ISE), 0 to ±1999mV (ORP) 0.0°C to 100.0°C
Resolution	0.01pH 0.1mV (ISE), 1mV (ORP) 0.1°C
Accuracy	±0.01pH, ±1mV, ±0.4°C
Calibration	auto with 3 memorised buffers 4.01, 7.01, 10.01
Temperature Compensation	auto or manual from 0°C to 100°C
Battery type/life	9V PP3 (supplied), 100 hours
Dimensions	185 X 82 X 45mm
Weight	520g

224542

Mfrs. List No.	Order Code	1+	5+	10+	20+
HI-8424	<b>710-8102</b>	202.90	--	--	--
Spare pH electrode HI-1230B	<b>327-7033</b>	52.53	50.03	47.76	45.68

### Pocket Conductivity Testers Primo and Primo5



Microprocessor stick meters for conductivity and TDS with push-button, single point auto-calibration and temperature compensation. Battery life is 250 hours with new battery indicator on the LCD display.

- Automatic calibration
- Automatic temperature compensation
- TDS or conductivity models
- Suitable for laboratory, industry, production or field use

W=50mm, D=25mm, L=180mm

Range	Primo 1999 mg/l	Primo5 1999S/cm
Resolution	1mg/l	1S/cm
Accuracy	1.5% full scale	1S/cm
Calibration	auto at 1382mg/l	auto at 1413 S/cm
Temp compensation	auto from 0 to 60°C with B = 2%/°C	
Battery life/type	250h, 2 x 1.5V	
Weight	80g	

228161

	Order Code	1+	5+	10+
Primo	<b>327-7150</b>	35.00	32.31	30.00
Primo5	<b>327-7161</b>	34.45	31.80	30.51

### Digital Pocket TDS Meters



- Splash proof membrane keypad
- Electrode can be extended up to 80mm
- Manual calibration via screw trim pot
- Pocket clip moulded on the rear of the case
- Automatic temperature compensation
- Supplied with electrode, protective cap, calibration screwdriver, 50ml calibration solution, battery, carry case and instructions for use

Range	10 to 9990 ppm
Resolution	10 ppm
Accuracy	±1% FS

These pocket Total Dissolved Solids meters are easy to use giving fast, accurate and repeatable measurement of TDS values. They have the unique feature of a retractable electrode. The protective cap protects the electrode when not in use.



## Liquid Testers - continued

### Digital Pocket TDS Meters - continued

339931.277074

Description	Order Code	1+	5+
TDS Meter (10 - 9990ppm)	499-0171	47.85	43.73

### Conductivity, pH and TDS Meter

HI98129 and HI98130



	HI98129	HI98130
Range	EC: 0 to 3999µS/cm TDS: 0 to 2000ppm pH: 0 to 14pH Temp: 0 to +60°C and 32 to +140°F both meters	0 to 20mS/cm 0 to 10ppt 0 to 14pH 0 to 14pH
Resolution	EC: 1µS/cm TDS: 1ppm pH: 0.01pH Temp: 0.1°C & 0.1°F	0.01mS/cm 0.01ppt 0.01pH 0.1°C & 0.1°F
Accuracy	EC/TDS: ±2% full scale both meters pH: ±0.05pH both meters Temp: ±0.5°C or ±0.5°F	
Calibration	1 or 2 points automatic for pH, 1 point automatic for pH, 1 point automatic for EC/TDS	
Compensation	Temperature automatically compensated for in all ranges	
Electrode	HI73127 pH electrode cartridge (supplied)	
Power Supply	4x1.5v batteries, 100 hours use	

These pocket meters are fully automatic and combine several parameters within a compact and waterproof case. Temperature compensation and calibration is automatic and the meters also incorporate a reading stability indicator to ensure false readings are not taken. Measure either pH, conductivity or Total Dissolved Solids together with temperature in either °C or °F. All readings are clearly shown on the dual level LCD display.

339518

Description	Mfrs. List No.	Order Code	1+	2+	5+
Combo Meter	HI98129	505-7437	94.95	87.65	81.39
Combo Meter	HI98130	505-7449	94.95	87.65	81.39
Spare Probe	HI73127	505-7450	37.95	35.02	32.53
Electrode Cleaning Soln	HI7061	505-7292	12.90	11.91	11.05

38

### pH & Conductivity/TDS Meter



- Reads both pH and conductivity
- Simply dip into the sample and take your reading
- Rugged, specifically designed for field applications
- Automatic temperature compensation guarantees accurate reading

Range	WATERCHECK 0-14pH 0 to 1990 µS/cm	WATERCHECK 1 0-14pH 0 to 1990ppm (mg/l)	Accuracy	±0.2 pH/ ±2% F.S.
Resolution	0.1pH 10µS/cm	0.1pH 10ppm	Battery Life	approx 290h
			Dimensions	194 x29 x15
			Weight	70g

224549

Mfrs. List No.	Order Code	1+	5+	10+	20+
WATERCHECK	725-9165	70.04	64.65	60.90	58.87
WATERCHECK1	327-7173	70.04	64.65	60.03	58.83

### pH/EC/TDS Meter

HI-9812



- Measures both pH and conductivity using the same sensor
- More robust and accurate than the pocket version
- Microprocessor control provides automatic temperature compensation

Range	0-14pH 0 to 1990 ppm 0 to 1990 µS/cm
Resolution	0.1 pH 10 ppm 10 µS/cm
Accuracy	±0.2 pH ±2% pH ±2% µS/cm

Compensation	Automatic from 0 to 50°C	Dimensions	182mm x 82mm x 45mm
Battery Life	approx 100 hours	Weight	520g

228178

Mfrs. List No.	Order Code	1+	5+	10+	20+
HI-9812	725-9189	142.45	133.24	126.07	121.97

### Hand-Held Conductivity Meter

HI 8733



Designed for use in quality control, industry, production areas, general laboratory and field use, the HI-8733 uses a single, easy-to-clean multirange PVC probe with four stainless steel rings to measure from de-ionised water to brine. Single point calibration gives accurate readings across the entire range and a built-in temperature sensor provides automatic temperature compensation. Temperature coefficient is adjustable from 0 to 2.5%/°C. Supplied complete with probe and battery.

- Microprocessor hand-held conductivity meter
- Single probe covers the range: de-ionised water to brine
- Single point calibration
- Automatic temperature compensation

Range	0.0 to 199.9µ S/cm 0 to 1999µS/cm 0.00 to 19.99mS/cm 0.0 to 199.9mS/cm
Resolution	0.1µS/cm, 1µS/cm, 0.01mS/cm, 0.1mS/cm
Accuracy	±1% full scale
Calibration	Manual single point through trimmer
Temperature compensation	Automatic with a compensation of 0 to 2.5% per °C
Battery type / life	9V PP3, 100 hours
Dimensions	185 x 82 x 45mm
Mfrs. List No.	HI-8733
Weight	355g

224545

Order Code	1+	2+	3+
710-7110	284.15	264.08	253.52

### Combined pH/Conductivity/TDS Meter and Thermometer

HI-991300



Simply press a button to go from one parameter to the next. Calibration is automatic for ease of use with auto-buffer recognition. The LCD is dual level with a continuous temperature display in either °C or °F, and with a stability indicator to ensure accuracy. Ideal for industrial, production and field use, saving both time and resources. Supplied with combination probe/electrode and battery.

- Measuring pH, conductivity, TDS and temperature all with one probe

Range pH	0 to 14	Resolution	0.01	Accuracy	±0.02
Conductivity	0 - 3999 µS/cm		1 µS/cm		2% full scale
	0 - 1999ppm		1ppm		
Temperature °C	0 - 60°		0.1		±0.5

Calibration	1 or 2pt(4.01, 6.86, 7.01, 9.18, 10.01)	Battery/life	4 x AAA, 500h
Conductivity	1 pt at 1382ppm or 1413µS/cm		

224550

Mfrs. List No.	Order Code	1+	5+	10+
HI-991300	327-7197	293.95	271.35	251.97

### pH Buffer Solutions



- Each 25ml sachet contains enough solution for one calibration
- Simple to use, open sachet, insert test-er and calibrate
- No extra containers required
- No solution is wasted
- Sachets are supplied in packs of 25

223058

25 Per Pack	Mfrs. List No.	Order Code	1+	5+	10+	20+
pH Sachets						
4.01pH	HI-70004P	725-9130	17.52	16.48	15.46	14.42
7.01pH	HI-70007P	725-9141	17.26	16.24	15.23	14.21
10.1pH	HI-70010P	725-9153	17.26	16.24	15.23	14.21

### Technical information at your fingertips



Over 352,000 technical datasheets available online.

Visit [www.farnell.co.uk](http://www.farnell.co.uk) and look for the Tech Info heading in your search results.



## Pre-mixed Calibration Solution

## pH and Conductivity



- 460ml plastic screw top bottles
- Available for both conductivity and pH calibration
- Ready to use calibration standards
- Supplied with calibration chart

222570

pH buffer solution	Order Code	Price Each
pH4.01	710-5423	9.64
pH7.01	710-5435	9.36
pH10.01	710-5447	9.26
Conductivity calibration solution		
12880 µS/cm	710-7365	13.78
1413 µS/cm	710-7377	13.78
84 µS/cm	710-7389	13.78

## Moisture Meters

## Moisture Meter



Measures the moisture level in sawn timber (also cardboard or paper) and hardened materials (plaster, concrete and mortar).

W=47 H=139 D=25mm. Weight 93g

Measuring Principle	Electrical Resistance	Accuracy Wood: ±1% Material: ±0.05%
Electrodes	8mm integrated electrodes, replaceable	Power 3x AAA
Measuring Range	Wood: 6-44% Material 0.2-2%	

446883.430817

Order Code	1+	Price Each	5+
127-0535	26.34		22.70

## Moisture Meter



- 2-in-1 digital and analogue moisture meter
- Large LCD display
- Wood - Range: 6-44% Accuracy: ±1%
- Material - Range: 0.2-2% Accuracy: ±0.05%
- Dimensions (WxHxD): 40 x 130 x 33mm. Weight 99g



486672.465666

Order Code	1+	Price Each	5+	10+
143-0726	23.77		21.80	20.13
Standard Calibration Charge				
UKAS Calibration Charge				
	S	C4	34.10	
	N	C4	58.75	

## Pocket Moisture Meters

606-1 &amp; 606-2



Available in two models:  
**606-1** material moisture  
**606-2** material moisture, air temperature and humidity

- Measurement of wood moisture e.g. beech, spruce, larch, oak, pine
- and maple
- Curves for cement screed, concrete, plaster, anhydrite, cement mortar, lime and brick
- Hold and auto-test functions
- Backlit display
- Auto-off

**606-2 Additional features:**

- Air temperature and humidity measurement for monitoring drying processes

Both models supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries

	Moisture	Air Humidity (606-2 only)	Air Temp. (606-2 only)
Measuring Range	0 to 90%	0 to 100%rh	-10 to 50°C
Resolution	0.1	0.1%rh	0.1°C
Accuracy	± 1% (Conductivity)	± 2.5%rh (5 to 95%rh)	± 0.5°C
Units	-	%rh, wet bulb, dewpoint	°C/°F
Operating Temperature	-10 to 50°C		
Battery Type	Alkaline (2 x AAA)		
Battery Life	200hrs (606-1), 130hrs (606-2) (average, without display illumination)		
Dimensions	119 x 46 x 25mm (Incl. Protective Cap)		

486398.503097

Mfrs. List No.	Order Code	1+	Price Each	5+
606-1	147-1400	72.00	66.46	61.71
606-2	147-1401	130.00	120.00	111.43

Moisture Meter  
MO100

Convenient pocket size meter with adjustable pins for wood and building materials.

- Unique dual LCD displays wall moisture (0 to 100%) and air temperature (0 to 50°C) simultaneously
- Moisture content displayed on a relative scale
- Multi-position pins with safe storage of replaceable pins
- Easy to operate with selectable side switch (OFF, Test, and Calibrate)
- Data hold to freeze reading on display
- Calibration adjustment for better repeatability

446787.437874

Mfrs. List No.	Order Code	1+	Price Each	10+
MO100	127-1516	51.81	42.28	33.83

## Moisture Meters

MMS-7002



For measuring the moisture content of wood, concrete, gypsum and other non wood materials.

## Features:

- Impact resistant case
- Max memory and data hold
- 30mm LCD with function indicators
- Auto power off and low battery indication
- 1m probe connection cable
- Supplied with probe, 10 pins and carry case
- 3 function keys for wood / concrete & other non-wood materials / gypsum
- RS232 interface for connection to PC
- Requires 1 x 9V PP3 battery

Range

6% to 40% for wood  
 0% to 100% relative moisture for concrete & non-wood materials  
 0.2% to 50% for gypsum

Resolution

0.1 %

Accuracy

±4% + 5 digits

Power

9V PP3 Battery

447227.275726

Description	Order Code	1+	Price Each	3+
	127-6195	119.03		117.25
MS-7002	127-6196	210.10		200.59
50 Replacement Pins	127-6199	6.02		5.40

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## Multi-function Instruments

## Multi-Function Measuring Instrument

435



W=74 H=225 D=46mm.

is both easy to use and of strong construction. For example, the housing material offers built-in protection against knocks and jars and the large illuminated display is set back in the housing to offer protection. To assist everyday use the instrument features a carrying strap and magnets on the back panel for attachment at the measuring location.

## Features:

- Wide selection of probes
- Easy use with user profiles
- Printing on the testo report printer

- Instrument store for 10,000 readings
- PC software for analysing, archiving and documenting measurement data

**testo 435-2**, multi-function measuring instrument for air conditioning, ventilation and Indoor Air Quality with readings memory, PC software, USB data transmission cable, battery and calibration protocol.

**testo 435-4**, multi-function measuring instrument with built-in differential pressure measurement for A/C, ventilation and Indoor Air Quality with readings memory, PC software, USB data transmission cable, battery and calibration protocol

## Probes:

## Multi-function Probes:

## IAQ Probe (108-2995):

To assess Indoor Air Quality, CO<sub>2</sub>, humidity, temperature and absolute pressure measurement.

Range	Accuracy
0 to 50°C	±0.3°C
0 to 100% RH	±2% RH (2% to 98% RH)
0 to 10000 ppm CO <sub>2</sub>	±(50ppm CO <sub>2</sub> + 2% of mv) (0 - 5000ppm CO <sub>2</sub> )
	±(100ppm CO <sub>2</sub> + 3% of mv) (5000-10000ppm CO <sub>2</sub> )
600 to 1150 hPa	±5 hPa

## Flow Probes:

## 16mm Vane Probe (108-2996):

16mm diameter, with telescopic handle max. 890mm, e.g. for measurements in ducts

## 60mm Vane Probe (108-2997):

60mm diameter, with telescopic handle max. 910mm, e.g. for measurements at duct exit

## Hot Wire Probe (108-2998):

For m/s and °C, probe head diameter 7.5mm, with telescopic handle max. 820mm

	Range	Accuracy
16mm Vane	0.6 to 40 m/s	±(0.2m/s + 1.5% of mv)
60mm Vane	0.25 to 20 m/s	±(0.1m/s + 1.5% of mv)
Hot Wire	0 to 20 m/s	±(0.03m/s + 5% of mv)

## Other Probes:

## Air Probe (108-3001):

Efficient, robust NTC air probe.

## Immersion Probe (108-3000):

Waterproof immersion / penetration probe, T/C Type K.

## Temperature / Humidity Probe (108-2999):

12mm diameter humidity / temperature probe.

Range	Accuracy
-50 to 150°C	±0.2°C (-25 to 74.9°C)
	±0.5% of mv (100 to 150°C)
	±0.4°C (rest of range)

Range	Accuracy
-60 to 400°C	Class 2

Range	Accuracy
-20 to 70°C	±0.3°C
0 to 100% RH	±2% RH (2 to 98% RH)

## Other Accessories:

## Wireless Probes

As well as cable connected probes, the testo 435 can also be used with a range of wireless probes. Wireless probes offer users exceptional practicality as hindrance during measurement and potential damage to the probe cable are eliminated. To convert the instrument for use with the wireless probes an optional wireless module (108-3002) is required. This can be used in conjunction the Wireless Probe Handle (108-3003) and Humidity Probe head (108-3005) for the measurement of temperature and humidity.

Range	Accuracy	Range	Accuracy
-20 to 70°C	±0.5°C	Radio Frequency	869.85 MHz
0 to 100% RH	±2% RH (2 to 98% RH)		

418078

A multi-function instrument designed for the analysis of air quality. The instrument is suitable for ensuring employees' safety and well-being in workplace environments and the maintenance of optimum conditions in storage and production processes. The testo 435 can be used to measure CO<sub>2</sub>, relative humidity and air temperature to ensure conditions are at the correct level and to indicate whether air conditioning systems are working at optimum levels.

**Designed for ease of use** with easy to follow menus that offer users the ability to allocate measured values to measurement locations. These instruments also offer the ability to switch between 2 User Profiles for channel measurement and for measuring Indoor Air Quality (IAQ).

**Robust design for durability** to protection class IP 54. The testo 435 has been designed to provide an instrument that

Description	Order Code	Price Each		
		1+	3+	5+
435-2 Measuring Instrument	108-2993	384.80	344.60	329.83
435-4 Measuring Instrument	108-2994	561.60	502.93	481.37
<b>Multi-Function Probes</b>				
IAQ Probe	108-2995	491.90	440.50	421.60
<b>Flow Probes</b>				
16mm Vane Probe	108-2996	301.60	270.08	258.50
60mm Vane Probe	108-2997	302.60	281.72	269.64
Hot Wire Probe	108-2998	166.40	149.01	142.63
<b>Other Probes</b>				
Temp/Humidity Probe	108-2999	222.60	199.34	190.80
Type K Immersion Probe	108-3000	26.40	23.64	22.63
NTC Air Probe	108-3001	46.70	41.82	40.03
<b>Other Accessories</b>				
Pitot Tube	501-0720	91.50	81.94	78.43
Wireless Module	108-3002	25.20	22.57	21.60
Wireless Handle	108-3003	66.60	59.64	57.09
Humidity Probe Head	108-3005	124.30	111.31	106.54
Service Case	108-3006	55.00	49.25	47.14

## Pressure &amp; Calibration

## Pocket Manometer - Differential Pressure

510



- Measuring range of 0 to 100 mbar
- Temperature compensation
- Magnetic base for hands free instrument mounting
- Flow velocity measurement with Pitot tube
- Air density compensation
- Backlit display
- Auto-off

Supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries

Measuring Range	0 to 100 mbar
Resolution	0.01 mbar
Accuracy	± 0.03 mbar (0 to 0.30 mbar) ± 0.05 mbar (0.31 to 1.00 mbar) ± 0.1 mbar + 1.5% of m.v. (1.01 mbar to 100 mbar)
Units	hPa, mbar, Pa, mmH <sub>2</sub> O, mmHg, inH <sub>2</sub> O, inHg, psi, m/s, fpm
Operating Temperature	0 to 50°C
Battery Type	Alkaline (2 x AAA)
Battery Life	500 hrs (average, without display illumination)
Dimensions (Incl. Protective Cap)	119 x 46 x 25mm

488182.503092

Mfrs. List No.	Order Code	Price Each		
		1+	2+	5+
510	147-1394	99.50	89.10	85.29

## Pocket Manometer - Absolute Pressure

511



- Measures absolute pressure - For absolute pressure compensation at duct measurements with pitot tube
- Calculation of barometric pressure
- Barometric altitude measurement
- Backlit display
- Auto-off

Supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries

Measuring Range	300 to 1,200 mbar
Resolution	0.01 mbar
Accuracy	± 3.0mbar
Units	hPa, mbar, Pa, mmH <sub>2</sub> O, mmHg, inH <sub>2</sub> O, inHg, psi, m, ft
Operating Temperature	0 to 50°C
Battery Type	Alkaline (2 x AAA)
Battery Life	500 hrs (average, without display illumination)
Dimensions (Incl. Protective Cap)	119 x 46 x 25mm

488347.503093

Mfrs. List No.	Order Code	Price Each		
		1+	2+	5+
511	147-1395	122.00	112.62	104.57

## Manometers

EM150, EM200



The EM150 is a single input device used to measure water pressure, the EM200 is a dual input device used to measure water and gas pressure. A simple, time-saving alternative to u-tube pressure measurement.

- Auto power off
- Digital readout with back-lit display
- Rubber boot with built in magnet
- Positive and negative pressure water gauge

## EM200 extra features

- Dual input
- Min/Max capture
- Data hold
- Measure in inches water gauge or mBar

	EM150	EM200
Measurement range	-20" to 20" WG	-60" to 60" WG -150 to +150mBar
Accuracy	±1.5% FS	±1.5% FS
Resolution	0.05"-9.95" to +9.95" WG 0.1"<10">+10" WG	0.01"-9.99" to +9.99" WG 0.1"<10">+10" WG
Operating range	0 - 40°C 10 - 90% RH Non condensing	0 - 40°C 10 - 90% RH Non condensing
Battery life	50 hours min	40 hours min

339529.410067

Description	Mfrs. List No.	Order Code	1+	Price Each	5+
Single Input	EM150	505-7759	103.24	95.30	88.49
Dual Input	EM200	505-7760	117.37	108.34	100.60

## Pressure and Flow Meters

512



W=57 H=202 D=42mm.  
Weight 300g



A range of 4 instruments for the measurement of pressure and velocity. All of the instruments can be used with the testo printer (836-9240) to provide onsite documentation of readings with date/time and minimum/maximum values. Also available is a TopSafe case (108-2989) to protect your instrument from dirt, water and impact.

- Simultaneous display of flow and pressure value
- 8 units for pressure: kPa, mbar, bar, mm H<sub>2</sub>O, mmHg, psi, inch H<sub>2</sub>O, inch Hg
- 2 units for flow: m/s, fpm
- Built-in density compensation
- Smoothing adjustable between 1 to 20 display refreshes (0.5 s) as rolling mean

- Readings printout with date/time and min./max. values
- Hold/Max/Min function
- Backlit display
- 2 years warranty

Model	108-3007	108-3008	108-3009	108-3010
Pressure Measurement				
Probe Type		Built-in Pressure Probe		
Measuring Range	0 to 2 mbar	0 to 20 mbar	0 to 200 mbar	0 to 2000 mbar
Resolution	0.001 mbar	0.01 mbar	0.1 mbar	1 mbar
Overload	±10 mbar	±200 mbar	±2000 mbar	±4000 mbar

## Flow Measurement

Probe Type	Pitot Tube	Pitot Tube	Pitot Tube	No Flow
Measuring Range	2 to 17.5 m/s	5 to 55 m/s	10 to 100 m/s	
Resolution	0.1 m/s	0.1 m/s	0.1 m/s	
General Specifications				
Accuracy ±1 digit	0.5% of fsv	0.5% of fsv	0.5% of fsv	0.5% of fsv
Operating Temperature	0 to 60°C	0 to 60°C	0 to 60°C	0 to 60°C
Battery Life	120 hours	120 hours	120 hours	120 hours

418790

Description	Order Code	1+	Price Each	5+
Manometer, 0-2mbar	108-3007	298.50	267.31	255.86
Manometer, 0-20mbar	108-3008	285.00	255.22	244.29
Manometer, 0-200mbar	108-3009	276.60	247.70	237.09
Manometer, 0-2000mbar	108-3010	285.00	255.22	244.29
Accessories				
Pitot Tube	501-0720	91.50	81.94	78.43
Meter / Probes Case	108-3011	17.70	15.85	15.17
Protective Case	108-2989	17.00	15.22	14.57

## Manometers

DPI705 and DPI705/IS



An easy to rugged hand held portable pressure indicators, designed to offer accurate and reliable pressure measurement. An absolute pressure measurement version is also available.



- 0.1% accuracy
- Large 13mm 5 digit LCD display
- 16 selectable pressure units
- Ambient temperature indication in °C or °F
- Automatic 60 second leak test mode
- Averaging filter for unstable pressure measurement
- Min/max peak hold
- Manual tare facility
- Zero pressure correction

- Adjustable audio/visual high pressure alarm
- Auto power off
- Supplied with 3x AA alkaline batteries, user guide and soft carry pouch
- Intrinsically safe models available for use in hazardous areas

339611

Description	Order Code	1+	Price Each	5+
200mbar Differential	494-9936	360.00	349.20	338.72
2bar Gauge	494-9948	360.00	349.20	338.72
2bar Absolute	494-9950	360.00	349.20	338.72
20bar Gauge	494-9961	360.00	349.20	338.72
Intrinsically Safe Versions				
200mbar Differential	494-9973	461.00	447.17	433.76
2bar Gauge	494-9985	461.00	447.17	433.76
2bar Absolute	494-9997	461.00	447.17	433.76
20bar Gauge	495-0008	461.00	447.17	433.76

## Hand Held Digital Manometers

2000 Series



The 2000P series of hand held manometers represents a new standard in pressure measurement, ease of use and accuracy of reading. Selected models feature automatic leak testing and logging

- Pressure ranges from 25mbar to 7 bar
- Scales in mbar, bar, psi, inH<sub>2</sub>O, in HG, mmH<sub>2</sub>O, mH<sub>2</sub>O, mm/cm/mHg, Pa and kPa
- Accuracy performance 0.2% of reading
- Automatic zero calibration for added accuracy
- Logging mode for storage, retrieval and output readings
- Long battery life 200 hours
- 200BT protective holder with tilt stand
- Sealed to IP67





## Pressure &amp; Calibration - continued

## Hand Held Digital Manometers - continued

## 2000 Series - continued

Model	2001P	2002P	2003P	2005P	2021P	2022P	2023P	2081P	2082P	2083P
Operating Range	130 mBar	1999 mBar	7 Bar	7 Bar	130 mBar	2 Bar	7 Bar	130 mBar	2 Bar	7 Bar
Backlight	●	●	●	●	●	●	●	●	●	●
Zeroing	●	●	●	●	●	●	●	●	●	●
Hold	●	●	●	●	●	●	●	●	●	●
Range Lock	●	●	●	●	●	●	●	●	●	●
Max/Min	●	●	●	●	●	●	●	●	●	●
Smoothing	●	●	●	●	●	●	●	●	●	●
Units of Pressure	●	●	●	●	●	●	●	●	●	●
Datalogging	●	●	●	●	●	●	●	●	●	●
Operating Temperature	0°C to 50°C				Battery Type 2AA					

493259

Mfrs. List No.	Order Code	1+	3+	5+
2001P	151-1085	218.23	206.05	196.91
2002P	151-1086	218.23	206.05	196.91
2003P	151-1088	218.23	206.05	196.91
2005P	151-1089	215.00	203.00	194.00
2021P	300-3360	228.38	211.12	195.90
2022P	493-855	228.38	211.12	195.90
2023P	493-867	228.38	211.12	195.90
2081P	493-879	258.83	238.53	222.29
2082P	493-880	258.83	238.53	222.29
2083P	207-597	258.83	238.53	222.29
2000BT Protective Holster	300-3413	20.50	20.09	19.69
Nylon Tubing, 30m, 6mm ID	314-3326	39.67	38.35	37.24

## Differential Manometers

## PM Series



- Differential Input - 8mm tube connectors
- Water Resistant (IP67 rated)
- Rugged case with protective rubber boot
- Magnetic attachment or tilt stand
- Push button Zero and Hold features
- Backlit Digital Display
- Auto Power Off after 12 minutes
- 0.01 resolution up to 19.99 mbar, then auto switches to 0.1 resolution
- Measurement unit options (Selectable on the PM80)

Using measurement technology developed from the 2000 Series the PM range offers good performance at an affordable price.

Specifically designed for engineers using twin tube

connections, the PM range is ideal for soundness testing and setting up boiler differential gas pressures. Manufactured from tough ABS plastic, this water-resistant instrument is supplied with a rubber boot to provide added protection during routine use. It can be magnetically attached for ease of use, and the back lit LCD allows easy viewing of the display in poor light conditions.

The PM series is a suitable replacement for the conventional U-tube, having a fast response coupled with high accuracy and at low cost.

Instruments are available with alternative pressure measurement units as factory set options or as a selectable option on the PM-80 which also incorporates a smoothing and min/max function.

Operating temperature	-10°C to 50°C (ambient)
Battery type	2x AA (supplied)
Battery life	Approx 200 hours
Display	12.7mm custom LCD
Environmental	Water resistant (IP67 with hoses connected)
Auto power off	12 minutes
Accuracy	0.2% of reading + 0.2 of full scale + 1 digit (over -10 to 50°C)
Resolution	0.01 up to 19.99mbar then auto ranges to 0.1 up to 130mbar
Dimensions	155x67x40mm
Weight	180g
Units of measurement	PM20 - mbar
Selectable	PM80

339435

Mfrs. List No.	Order Code	1+	3+	5+
PM20 mbar	500-4536	119.00	109.00	99.01
PM80 selectable	500-4603	139.00	128.01	119.01

## Technical information at your fingertips

Over **352,000** technical datasheets available online.

Visit [www.farnell.co.uk](http://www.farnell.co.uk) and look for the **Tech Info** heading in your search results.



## Intrinsically Safe Digital Manometers

## P200 Series



IS certified by BASEEFA for use in inflammable or explosive atmospheres, the units are classified as EEx ia IIC T4. This certification is equivalent to EN 50 014:1997 + Amendments 1&2 and EN50 020:2002. The units are ready for site use anywhere, immediately. P200 instruments are suitable for use with non-corrosive, non-ionic liquids and gases. Liquid pressure can be measured using an air buffer. Case proven their tough construction makes them extremely durable and, therefore functional in not only hazardous atmospheres but also rough environments.

- Certified to EEx ia IIC T4
- High accuracy
- Choice of pressure ranges
- Robust case
- Clear, digital display
- Battery low indication
- Auto range
- Quality electronics give excellent reliability
- Easy to use

**Model**  
Operating Range (Low Range)  
Operating Range (High Range)  
Accuracy

## P200 AHIS

0 to 199.9 mBar  
0 to 2 Bar absolute

±(0.1%rdg + 0.1%fs + 1d) (20 to 30°C)  
±(0.15%rdg + 0.15%fs + 1d) (-20 to 50°C)

4000 mBar

Maximum Over Pressure  
Battery  
Dimensions (WxHxD)  
Weight

**P200 ULIS**  
0 to 19.99 mBar  
0 to 100 mBar  
9V PP3 giving approx. 100 hours life  
70 x 140 x 26mm  
250g

493315

Mfrs. List No.	Order Code	1+	3+	5+
P200AHIS	151-1083	303.49	284.20	268.98
P200ULIS	151-1084	299.00	280.00	265.00

## Intrinsically Safe Manometers

## C9500 Series



- Internal sensor intrinsically safe pressure meters
- Dust and waterproof to IP67 (BS EN 60529, IEC529) standards
- Selectable pressure units, PSI, mbar, inH<sub>2</sub>O, inHg, mmHg, torr, Pa, mmH<sub>2</sub>O
- ATEX compliant, certified to II 1 G EEx ia IIC T4 Baseefa 03 ATEX 0079
- Twin inputs for gauge or differential pressure measurement
- Positive or negative (vacuum) pressure measurement
- Adjustable zero value
- Maximum, minimum pressure and hold function
- Averaged reading function
- Over-range indication
- Selectable auto switch off
- Supplied with tubing, connectors and hard carrying case

Scale	Range	C9501/IS	C9503/IS	C9505/IS	C9507/IS
PSI	Resolution	0 to ±2	0 to ±5	0 to ±30	0 to ±100
	Resolution	0.001	0.001	0.01	0.1
mbar	Range	0 to ±140	0 to ±350	0 to ±2000	0 to ±6900
	Resolution	0.1	0.1	1	1
inH <sub>2</sub> O	Range	0 to ±55	0 to ±140	0 to ±830	0 to ±2750
	Resolution	0.01	0.1	0.1	1
inHg	Range	0 to ±4	0 to ±9.999	0 to ±61	0 to ±200
	Resolution	0.001	0.001	0.01	0.1
mmHg	Range	0 to ±99.99	0 to ±260	0 to ±1500	0 to ±5200
	Resolution	0.01	0.1	1	1
torr	Range	0 to ±99.99	0 to ±260	0 to ±1500	0 to ±5200
	Resolution	0.01	0.1	1	1
Pa	Range	0 to ±9999	-	-	-
	Resolution	1	-	-	-
Kpa	Range	-	0 to ±35	0 to ±200	0 to ±690
	Resolution	-	0.01	0.1	0.1
mmH <sub>2</sub> O	Range	0 to ±1400	0 to ±3500	-	-
	Resolution	1	1	-	-
cmH <sub>2</sub> O	Range	-	-	0 to ±1200	0 to ±7000
	Resolution	-	-	1	1
Kgcm <sup>-2</sup>	Range	-	-	0 to ±2.1	0 to ±7.0
	Resolution	-	-	0.001	0.001
Maximum Over Pressure		6 PSI/400mbar	15 PSI/1000mbar	90PSI/6200mbar	200 PSI/13700mbar
Accuracy		0.2% of full scale at +23°C/+73°C			
Repeatability		0.1% of full scale at +23°C/+73°C			
Mean Temperature Coefficient		Better than 0.1% per °C			
Temperature Range		0°C to +50°C			
Humidity Range		10 to 90% RH non condensing			
Environmental Rating		IP67, BS EN 60529, IEC 529			
Protection Levels		II 1 G EEx ia IIC T4 Baseefa 03 ATEX 0079			
Connections		1/8 BSP female			
Battery		9V PP3			
Battery Life		90 hours			

382647

Mfrs. List No.	Order Code	1+	3+	5+	10+
C9501/IS	<b>858-9097</b>	317.24	277.07	260.59	249.26
C9503/IS	<b>858-9100</b>	317.24	277.07	260.59	249.26
C9505/IS	<b>858-9119</b>	317.24	277.07	260.59	249.26
C9507/IS	<b>858-9127</b>	317.24	277.07	260.59	249.26

## Pressure Calibrator

Fluke 718 30/100 psi

FLUKE



The new Fluke 718 Pressure Calibrator presents a fresh alternative in pressure calibration. A complete, self-contained calibration solution, the 718 offers:



- Built-in pressure/vacuum hand pump, with vernier and bleed valve
- Pressure measurement to 0.05% of full span, using an internal pressure sensor
- Wide range of selectable measurement units for pressure
- Current measurement with 0.025% accuracy and 0.001 mA resolution
- 24 volt loop power supply
- Min-Max Hold functions
- Compact size and weight
- Simple, push-button user interface
- Rugged and reliable, for field use

## Operating Modes

Measure pressure (using internal sensor)  
Measure current  
Measure current and supply loop power  
Pressure Specifications (internal sensor)

Range	Resolution	Accuracy
0-30psi (207kpa)	.001psi (.01kPa)	.05%FS
0-100psi (690kpa)	.01psi (.01kPa)	.05%FS
<b>Temp Coeff.</b>	±.01% of range per °C	
-10 to 18°C		
28 to 55°C		

## Engineering Units (in Hg)

PSI, in. H2O (4°C) in H2O (20°C), kPa, cm H2O (4°C), cm H2O (20°C), BAR, mBAR, kg/cm2, mmHg, in Hg

## Media

Gasses/Liquids (non corrosive)

## Pressure

F.S. on 30G  
F.S. on 100G  
Current Specifications

Range	Resolution	mA +5°C	Temp Coeff. 18°C to 55°C
0 to 24mA	.001mA	.025% Rdg +1 count	+/- .005% or range per °C

## Input/Output

Pressure Input 1/8 in. NPT pressure fitting  
Pressure module input LEMO connector  
Current input shrouded banana jacks

## Loop Supply

Voltage No. 24 Volts  
Power Two 9 volt alkaline batteries  
ANSI/NEDA 1604A or IEC 6LR619V  
Battery Life 4 to 20 hours, depending on functions used  
Safety CSA C22.2 No. 1010.1:1992  
EMC EN50082-1:1992 and EN55022:1994 Class B

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

228159

Mfrs. List No.	Order Code	1+	5+	10+
FLUKE 718/30	<b>318-3324</b>	1,818.00	1,763.46	1,710.56
FLUKE 718/100	<b>318-3336</b>	1,818.00	1,763.46	1,710.56

## Fluke Pressure Calibrators

FLUKE



719-100G

- Electric pump for one handed pressure calibration
- Best in class pressure measurement uncertainty of 0.025 %
- Measure and source mA with best in class 0.015 % accuracy
- Precision pressure adjust vernier
- Variable release rate bleed valve for easy pressure adjustment
- Ideal performance for high accuracy transmitter calibration
- 30 PSI and 100 PSI pressure ranges
- Programmable pump limit
  - Eliminates over-pressurization
  - Allows the user to program target pressures for pumping
- Extended measurement range with any of twenty-nine (29) 700Pxx Pressure Modules
- Source mA with simultaneous pressure measurement to test valves and I/Ps
- Simulate mA signals to troubleshoot 4-20 mA loops
- Test pressure switches with built in switch test function
- Power transmitters during test using 24 V loop supply

New

- Proven cleanout ports reduce pump failures

**Includes:** TL75 Test leads, AC72 Alligator clip set, Push fit connectors, Translucent test hose, Product overview manual (print), and User's manual (CD-ROM) in 14 languages

## General specifications

Storage temperature:	-30 °C to 60 °C
Operating temperature:	-10 °C to 55 °C
Relative humidity:	95 % (-10 °C to 30 °C); 75 % (30 °C to 40 °C); 45 % (40 °C to 50 °C); 35 % (50 °C to 55 °C)
Shock:	1 meter drop test
Safety:	CSA C22.2 No. 1010.1:1992
EMC:	EN50082-1:1992 and EN55022:1994 Class B
Size (HxWxD):	210 mm x 87 mm x 60 mm
Weight:	912 g
Battery:	Two 9 V alkaline batteries
Battery life:	12 hours with 12 mA into 500 Ω, 200 pump cycles to 100 psi, 500 pump cycles to 30 psi

## Specifications

Function Measure or Source	Range	Resolution	Accuracy
Fluke-719 30G	-12 to 36 psi, -850 mbar to 2.4 bar	0.001 psi, 0.1 mbar	0.025 % range for 6 months.
Fluke-719 100G	-12 to 120 psi, -850 mbar to 8 bar	0.01 psi, 1 mbar	0.035 % of range for one (1) year
Loop supply	24 V dc	N/A	± 10 %

524988

Mfrs. List No.	Order Code	Price Each
FLUKE-719 30G	<b>165-9632</b>	1,995.00
FLUKE-719 100G	<b>165-9633</b>	1,995.00

## Portable Pressure Calibrators

GE Druck

## DPI610/615 Series



A range of weatherproof, documenting portable battery powered calibrators. They feature a pressure generator, fine pressure control, device energising (not IS version) and output measurement capabilities, as well as facilities for 4-20mA loop testing and data storage. Intrinsically safe versions are available for use in hazardous areas.



L=300, W=170, D=140mm  
Weight = 3kg

- Choice of 2bar or 20bar pressure ranges
- Accuracy from 0.025% F.S.
- Integral combined pressure/vacuum pump (-850mbar to +20bar)
- Current and voltage measurement
- 4 to 20 mA loop test facility
- RS 232 interface and data storage
- Up to 11 sensors per instrument
- Error analysis with pass/fail status and graphs
- Set-up key to determine default working parameters
- Automatic zero correction for input and output parameters
- Documenting keys to store and recall screen snapshots
- Intrinsically safe versions also available (supplied in yellow case)

## DPI615 Extra Features:

- Error analysis for field reporting of calibration errors and pass/fail status

Pressure range	Overpressure	Pressure port	Accuracy	Resolution
0 to 2 bar	4 bar	G 1/8 (female)	±0.05% rdg ±0.004% FS	100µV
0 to 20 bar	35 bar	G 1/4 (female)	±0.05% rdg ±0.004% FS	0.001mA
			±1°C	0.1°C
Inputs	Range			
Voltage	±50V (30V IS version)			
Current	±55mA			
Temperature	-10 to 40°C			
Outputs				
Current	0 to 24mA		±0.05% rdg ±0.1% FS	0.001mA
Voltage	10V d.c		±0.1%	
Voltage	24V d.c (not IS)		±5%	Max load 26mA
Ranges				
Accuracy	2.5 mbar to 700 bar			
Integral pneumatic pressure source	0.025% FS for ranges 200 mbar to 700 bar			
Integral hydraulic pressure source	-850 mbar to 20 bar			
Measure	0 to 400 bar			
Output	Pressure, mA, V, Switch state, Temperature			
Energising supplies	Pressure, mA step, mA ramp, mA value			
Data storage	10 and 24 Vdc (not IS version)			
Documenting	92 Kb			
Remote pressure sensors	Error analysis with pass/fail and graphs			
	Up to 10 sensors per calibrator			

383415

Description	Order Code	1+	2+	5+
DPI610PC Pressure Calibrator, 0-2bar	<b>495-0010</b>	2,270.00	2,201.90	2,135.84
DPI610PC Pressure Calibrator, 0-20bar	<b>495-0033</b>	2,270.00	2,201.90	2,135.84
DPI615PC Pressure Calibrator, 0-20bar	<b>857-0590</b>	2,480.00	2,405.60	2,333.43
<b>Intrinsically Safe Versions</b>				
DPI610PC/IS Pressure Calibrator, 0-20bar	<b>495-0069</b>	2,845.00	2,759.65	2,676.86



## Pressure & Calibration - continued

### Pressure Handpump PV411-HP



The PV411 multi-function hand pump is an easy to use pressure generation system and replaces four conventional hand pumps for the generation of vacuum, low pressure gas, medium pressure gas and hydraulic pressures from a few bar up to 700bar.

- Multifunction 4-in-1 hand pump
- 60 bar pneumatic, 700 bar hydraulic
- Generates vacuum to 95%
- Vacuum priming for hydraulic systems
- Excellent low pressure control
- Adjustable overpressure protection

#### Kit Includes:

- Multi-function pressure generator
- Rigid lightweight transit case
- 50cm length of flexible hose rated to 700 bar terminated in 1/4" BSP (female)
- A set of 7 1/4" BSP (male) stainless steel BSP test point adaptors
- Bonded seals for hose and adaptors
- Spare 'O' ring seals for reservoir and swivel adaptors

Vacuum	to 95%	Medium pressure (gas)	to 60 bar
Low pressure (gas)	0.1 mbar resolution	High pressure (hydraulic)	to 700 bar

382055

Mfrs. List No.	Order Code	1+	3+
PV411-HP	857-0639	786.00	762.42

## Sound Level

### Analogue Sound Level Meter



- Analogue sound level meter ideal for monitoring noise levels in the work place
- Measurements are indicated on a clear graduated scale
- Calibration can be checked and adjusted via an internal sine wave oscillator
- Supplied with a soft carry case
- Requires a 9V PP3 heavy duty battery

Range	40 to 80dB (Lo) / 80 to 120dB (Hi)
Resolution	2dB increments
Accuracy	±3% to JISdB(A) standard

224561

Order Code	1+	3+	6+	12+	24+
723-0564	37.45	36.29	35.34	34.64	33.95

### Mini Sound Level Meter



- Wide dynamic range from 30 to 130dB
- 1.5dB accuracy
- Max hold and data hold
- Frequency weighting A and C to respond for human sense or machine monitoring
- Fast and slow time constant setting
- Meets IEC651 type 2

Level Range	Low = 30 - 100dB High = 60 - 130dB
Accuracy	±1.5dB (ref 94dB @ 1kHz)
Frequency Range	31.5Hz to 8kHz
Frequency Weighting	A, C
Time Weighting	Fast, Slow
Battery Type	9V battery

W=55 H=210 D=32mm.  
Weight 230g

414852.403927

Description	Order Code	1+	5+	10+
Sound Level Meter	100-3031	41.15	39.14	38.11

### Digital Sound Level Meter



A low cost, digital sound level meter for audio and general purpose application.

- Large 3½ digit LCD display with function indication
- Wide, accurate measurement range
- Data and Max hold
- 2.5dB or 3.5dB accuracy
- A and C weighted measurements
- 0.1dB resolution
- Fast/Slow response
- Built-in 94dB calibration check
- Supplied with carry case and 9V PP3 battery
- Dimension (WxHxD): 63.8x251x40mm
- Weight: 250g

Ranges	35-100dB and 65-130dB	Accuracy	±3.5dB at 94dB 1kHz
Resolution	0.1dB	Frequency Range	31.5Hz to 8kHz

333719.275648

Description	Order Code	1+	5+
Sound Level Meter	462-6620	47.51	41.18

### Sound Meter



- Designed to meet the measurement requirements of Safety Engineers, Health, Industrial safety offices and quality control in various environments.
- A and C weightings for checking compliance with safety regulations as well as acoustic analysis
- Measuring ranges:  
A Weighting 30 ~130dB  
C Weighting 35~130dB
- Frequency range: 31.5Hz~8KHz
- Display with 0.1dB steps on a 4 digits LCD
- Slow (1 sec) and fast (125ms) response settings to check peak and average noise levels
- MAX/MIN recording
- Data Hold to freeze reading on digital display
- Accessories supplied: Carrying case, windscreen, user manual and 9V Battery
- CE, designed to meet IEC651 Type2, ANSI S1.4 Type2

525726

Mfrs. List No.	Order Code	1+	5+
SM-10	167-1225	118.00	114.46

### Sound Level Meter



- Electret condenser microphone
- Large backlit LCD display with Bargraph
- MAX hold
- Over and Under range display
- Frequency weighting A and C to respond for human sense or machine monitoring
- IEC 651 Type 2
- Fast and slow time constant setting
- AC/DC voltage outputs for attachment to frequency analyser etc
- Auto or manual ranging
- Date and time display

Level Range	30 - 130dB
Dynamic Range	50dB
Accuracy	±1.5dB
Resolution	0.1dB
Frequency Range	31.5Hz to 8kHz
Frequency Weighting	A, C
Time Weighting	Fast (125ms), Slow (1s)
Display Update	2 times per second
Analogue Output	AC = 0.707V <sub>rms</sub> at FS, DC = 10mV/dB
Dimensions (WxHxD)	80 x 245 x 35mm
Weight	350g

Includes: windshield, batteries, earphone plug, instruction manual and carry case

468365.468363

Description	Order Code	1+	3+	5+
Sound Meter	133-9602	58.79	51.32	48.10



## Sound Level Meter



New

- Complies to IEC61672-1 class 2, ANSI S1.4 class 2
- 1/2" electret condenser microphone
- MAX and MIN measurements
- Over and Under range display
- Frequency weighting A and C to respond for human sense or machine monitoring
- Fast and slow time constant setting
- AC/DC voltage outputs for attachment to frequency analyser etc
- Auto or manual ranging
- Large backlit LCD display with Bargraph
- User calibration via externally accessible potentiometer

Level Range	30 - 130dB
Dynamic Range	50dB
Accuracy	±1.4dB
Resolution	0.1dB
Frequency Range	31.5Hz to 8kHz
Frequency Weighting	A, C
Time Weighting	Fast (125ms), Slow (1s)
Display Update	2 times per second
Analogue Output	AC = 1V <sub>rms</sub> , DC = 10mV/dB
Dimensions (WxHxD)	76 x 278 x 50mm
Weight	350g

**Includes:** tripod, windshield, battery, UK mains adaptor, 2m USB cable, software CD, instruction manual and carry case

486564.465171

	Order Code	1+	3+	5+
	143-0720	83.41	72.85	66.52
Standard Calibration Charge		S C4	Price Each	
UKAS Calibration Charge		N C4	34.10	58.75

## Digital Sound Level Meter

TENMA®



An easy to use, hand-held, digital sound level meter.

- A weighting
- 3 ranges, 35-130dB measurement
- 3 1/2 digit LCD
- Fast response
- Meets IEC 651 type 2 standards
- Over and under range indicator
- Data hold
- Includes owner manual
- Requires 9V battery (not included)
- CE marked

Range	35-80dB/50-100dB/80-130dB
Resolution	0.1dB
Accuracy	±1.5dB at 1kHz(94dB level)

H=25, W=67

228191

Mfrs. List No.	Order Code	1+	3+	5+
72 - 6635	356-2657	76.50	72.68	70.77
		1+	3+	12+
PP3 Battery	378-5786	4.30	4.20	4.09
				3.92

## Digital Sound Level Meter

72-860A

TENMA®



The 72-860A is a hand held, general purpose sound meter for type 2 measurement.

- A and C weighting
- 35 1/2 digit LCD
- 35-130dB measurement
- 2 ranges
- Meets IEC 651 type 2 standards
- 1/2" condenser microphone
- Fast and slow dynamic response
- Over and under range indicator
- Maximum level hold
- Internal oscillator for calibration
- AC and DC signal output
- RS232 interface
- Includes owners manual, 9V battery, carrying case, RS232 interface cable wind screen and adjustment screwdriver

Range	35-90dB(low), 75-130dB(high)
Resolution	0.1dB
Frequency Range	30Hz-12kHz
Accuracy	±2.0dB at 1kHz(94dB level)
AC output	0.65 V RMS corresponding to each range step
DC output	10mV/dBm nominal
Dimensions	66.68 (W) X 241.3 (L) X 25.4 (H)

336783.343913

Mfrs. List No.	Order Code	1+	5+	10+
72-860A	490-8430	114.83	111.31	103.36

## Sound Level Meters

815

testo



**testo 815:** The ideal instrument for daily use. Whether it is for air conditioning or heating, disco noise, machine noise or noise in combustion systems.

## Common Features:

- Accuracy class 2 according to IEC 60651
- Easy to adjust (calibration screwdriver included)
- Frequency weighting according to characteristic line A and C
- Max / Min memory
- Built-in stand screw (1/4 inch)
- Switchable time weighting Fast / Slow

Measuring Range	32 to 130dB°C
Accuracy ±1 digit	Class 2 ±1.0dB
Resolution	0.1dB
Battery Life	70 hours

W=55 H=255  
D=43mm. Weight  
195g



**Sound Level Calibrator:** Sound level measuring instruments should be re-calibrated in case of changes in place or temperature. With the help of the calibrator, available as an accessory, both instruments can easily be controlled and adjusted. Two levels can be adjusted (94 and 114 dB). It is as well suited for 1/2 inch and 1 inch microphones of other makes.

Accuracy	±0.5dB in accordance with Class 2 to IEC60942
Sound Pressure Level	94dB / 114dB switchable
Frequency	1kHz
Battery Life	40 hours

418997

Description	Order Code	1+	3+	5+
815 Sound Level Meter	108-3015	188.20	168.54	161.31
Sound Level Calibrator	108-3018	280.80	251.46	240.69

## Coming soon



Register your interest for items that are 'Coming Soon' at [www.farnell.co.uk](http://www.farnell.co.uk) and we'll email you to let you know that they're in stock.

## Troubleshooting tips



Chat live online to one of our technical engineers at [www.farnell.co.uk](http://www.farnell.co.uk)



## Sound Level - continued

## Sound Level Meter - Type 2

Model 52



These instruments are ideal for measuring general noise levels to identify whether a site is in need of further investigation as well as for monitoring problematic areas. Type 2 (general purpose) Model 52.

- Designed with current regulations in mind
- Compact with robust construction
- Compliance to all the appropriate standards
- Simple and user friendly

KIT Contents:

Sound level meter (with software and download cable), operation manuals, acoustic calibrator (Model 101), attache case and a windshield.



Standardisation	IEC 60651 (BS EN 60651) Type 2.
	IEC 60874 Type 2. IEC 61672
Weightings	Frequency A & C Time F (fast) S (Slow) I (Impulse)
Display	3½ digit LCD with overload, under range, over range, low battery, display hold.
Outputs	AC 2.2V for FSD and log DC at 25mV/dB with continuous range from 25 to 140dB
Environmental	Temperature from -10°C to +50°C and Humidity from 10 to 95% RH non-condensing
Power	2x 9V (PP3) batteries to provide over 40hrs continuous use
Preamp/ifier	Type 2 Fixed as standard
Functions	Sound Level SPL, Maximum Sound Level $L_{max}$ , Display Hold, Battery Level, Display Backlight
Range	25-40dB(A) and 43-140dB(C) for SPL and $L_{max}$
Physical	255x75x26mm 455g

339235

Description	Order Code	1+	2+	5+
Level Meter	501-9217	346.73	330.61	295.35
Level Meter + KIT	501-9229	557.97	529.80	495.97

## Sound Level Monitor

SL130



- Bright LEDs (red flashing or green) alert user when sound level is too high or too low
- LEDs can be read from 30m
- Continuous Monitoring of Sound Level Wall
- Desk or tripod mount
- User settable high or low limit (30 to 130dB) with output to drive external relay module
- Meets ANSI Type 2 and EN 60651 accuracy specs - compliant to OSHA

446795.437876

Mfrs. List No.	Order Code	1+	3+	5+
SL130	127-1518	191.62	163.49	125.22

## Sound Level Meter

Model 82 &amp; 84



MODEL 82CAK



MODEL 82A

The Assessor Range of high performance instruments appeal to a user requiring an affordable, simple to use meter whilst complying with international standards.

Model 82A, Model 82CA and Model 84 come supplied with Operating Manual, Certificate of Calibration & Batteries

Model 82AK, Model 82CAK and Model 84K noise measurement kits come supplied with Sound Level Meter, Acoustic Calibrator, Windshield, Hard Attache Case, Wrist Strap, Batteries & Certificate of Calibration.



Mfrs. List No.	Class 2	A Weighted Leq	C Weighted Peak	HML Method PPE	1:1 Octave Band Filters PPE	Software as Standard	SU80 Software Upgrade Option	Measurement Kits
MODEL 82A	✓	✓	✓	—	—	—	✓	Model 82AK
MODEL 82CA	✓	✓	✓	✓	—	—	✓	Model 82CAK
MODEL 84	✓	✓	✓	—	✓	✓	—	Model 84K

520115

Mfrs. List No.	Order Code	Price Each
MODEL 82A	163-7409	1+
MODEL 82AK	163-7650	671.72
MODEL 82CA	163-7410	980.15
MODEL 82CAK	163-7412	774.18
MODEL 84	163-7413	1,033.97
MODEL 84K	163-7414	1,395.18
		1,703.61

## Acoustic Calibrator Class 2



- Auto correction for temperature and barometric pressure
- Auto switch-off in normal mode and 'permanent-on' mode available
- Low battery indicator
- 94dB Sound Pressure Level
- Fits 1/2 inch international standard microphones
- 1/4 microphone adapter available

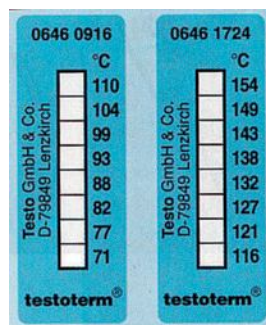
The Model 106 is part of the New generation of Pulsar Instruments acoustic calibrators that allow you to quickly check the accuracy of your sound level meter or dosimeter thus complying with international regulations and codes of practice.

520127

Mfrs. List No.	Order Code	Price Each
MODEL 106	163-7415	1+
		253.58

## Thermometers

## Thermometer Strips



These self-adhesive thermometer foils are ideal for situations in which ordinary thermometers cannot be used, such as small or moving parts. Once the temperature sensitive elements react there is a colour change (to black) – this is permanent and is irreversible.

- Supplied in booklets of 10

Size 50 x 18mm  
Accuracy  $\pm 1^\circ\text{C}$  of temperature rating  
Storage Up to 2 years (longer if stored in a fridge)  
Maximum storage temperature  $25^\circ\text{C}$

339938.268073

Temperature Range	Order Code	1+	5+
Range: $+116^\circ\text{C}$ to $+154^\circ\text{C}$	499-0389	15.38	14.43
Range: $+160^\circ\text{C}$ to $+199^\circ\text{C}$	499-0390	15.38	14.43

## Pocket Test Thermometer

Heavy Duty



- Red spirit filled thermometer
- Supplied with a heavy duty protective case with pocket clip
- Temperature range of  $-10^\circ\text{C}$  to  $+110^\circ\text{C}$

224532

Order Code	1+	5+	Price Each	10+	15+	20+
722-6408	15.68	14.90	14.17	13.44	12.76	

## Pocket Thermometer

17/346/2

Brannan



An easy to use but cleverly designed low cost red spirit thermometer. Scaled  $-10$  to  $110^\circ\text{C}$  total immersion. Used by engineers for a multiple of applications. The case can clip into the top pocket and can also double as an extension handle.

339417

Mfrs. List No.	Order Code	1+	Price Each	10+	25+
17/346/2	505-3870	5.67	5.23	3.98	

Over 480,000 products online



**Wall Thermometer****General Purpose**

- General purpose wall thermometer
- Red spirit filled in moulded plastic case
- Temperature range of -20°C to +50°C

224525

Order Code	Price Each				
	1+	5+	10+	15+	20+
722-6410	3.22	3.06	2.92	2.76	2.63

**UK Factory & Shops Act Thermometer**

- Wall mounted red spirit filled thermometer
- Indicates optimum working environment temperature
- Complies to the Offices, Shops and Railway Premises Act 1963 and Factory Act 1961
- Scale reading of -10°C to +50°C

224527

Order Code	Price Each				
	1+	5+	10+	15+	20+
722-6354	5.63	5.34	5.08	4.82	4.58

**'Quick Set' Max-Min. Thermometer**

- Wall mounted max-min thermometer
- Retains both highest and lowest readings
- Easily resettable via push-button
- No separate magnet needed
- Temperature range of -30°C to +50°C

224526.410622

Order Code	Price Each				
	1+	5+	10+	15+	20+
722-6342	11.20	10.63	10.12	9.61	9.13

**Masons Hanging Hygrometer**

- Wall mounted wet and dry bulb hanging hygrometer
- Suitable for use when relative humidity measurement is required constantly
- White plastic case with red spirit filled tubes
- Scaled range of -5°C to +50°C
- Supplied with calculation chart

224529.410627

Order Code	Price Each				
	1+	5+	10+	15+	20+
722-6378	11.39	10.83	10.28	9.76	9.28

**Mercury Free Thermometer**

12/408/3



200mm white case with blue temperature scale and push button re-set. Unique blue filling (Patent pending no. 00/54014) for a safer environment

- Environmentally Friendly
- Reliable and Accurate
- Capable of Low Temperatures
- Easy to Read
- Push Button
- Centigrade and Fahrenheit Scale

Brannan

339920.277155

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
12/408/3	505-3778	12.26	11.31	11.00

**Magnetic Surface Thermometer**

33/409/0



A robust dial reading thermometer in a 63mm diameter case with chrome bezel and aluminum finish scale. A large circular magnet on the rear provides instant fixing to ferrous surfaces. Ideal for taking surface temperatures such as radiators, etc.

Brannan

339924.277187

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
33/409/0	505-3857	13.87	13.25	12.42

**Food Thermometers**

38

Convenient fixed probe penetration thermometer for easy checking of core temperatures of cooked meat or fried foods.

- Easy to read display of recommended temperatures
- Stainless steel dial thermometer
- Sharp pointed penetration tip
- Mounting clip (deep fry model only)

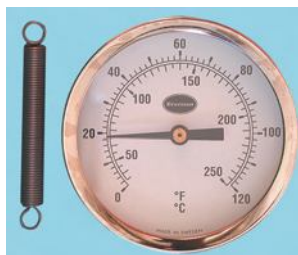
	Roast Meat	Deep Fryer
Range	0°C to +120°C	0°C to +300°C
Resolution	1°C divisions	10°C divisions
Probe	110 x ∅4mm	150 x ∅4mm
Overall Length	125mm	165mm
Dial Diameter	50mm	50mm
Weight	29g	32g

480173.465818

Description	Order Code	Price Each		
		1+	10+	25+
Roast Meat	142-6141	4.44	4.17	3.89
Deep Fry	142-6142	5.39	5.02	4.74

**Clip-on Pipe Thermometer**

33/401/0



A robust dial reading thermometer in a 63mm case with a chrome bezel and aluminium finish scale. A spring attachment on the back provides a secure fitting to pipework. Ideal for testing inlet and outlet pipework to boilers etc.

Brannan



## Thermometers - continued

## Clip-on Pipe Thermometer - continued

33/401/0 - continued

339923.277186

Mfrs. List No.	Order Code	1+	5+	10+
33/401/0	505-3845	11.23	10.66	10.04

## Fridge/Freezer Thermometer



- Horizontal fridge/freezer thermometer
- Moulded in food-safe white plastic
- Will hang or stand on shelf
- Zoned red scale (non toxic liquid) to indicate fridge and freezer storage temperatures

224528

Order Code	1+	5+	10+	15+	20+
722-6366	2.76	2.63	2.49	2.37	2.25

## Oven Thermometer

23/400/3

Brannan



A 50mm chrome plated dial oven thermometer with a black temperature scale, scale is in °C and °F.

339412.410092

Mfrs. List No.	Order Code	1+	Price Each	10+	25+
23/400/3	505-3780	4.33	3.61		3.11

## Pen Type Test Thermometer

31/160/0



- 120mm stainless steel probe
- Battery included
- Range -50 to +150°C

446667.434979

Order Code	1+	Price Each	10+	25+
127-1860	6.23	5.67		5.27

## Waterproof Pen Type Thermometer



The thermometer offers low cost, rapid response, high accuracy and ease of use with a robust waterproof design. It is ideal for liquid and semi-solid sampling. The probe protection sheath has a vent hole in the end so that the instrument can be used as a stirrer and display the sample temperature. The sheath can be connected to the head of the unit and used as a handle extension. Powered by 1 x 1.5V button cell battery.

- IP-65 waterproof polycarbonate case and sheath
- Push button membrane keypad and display
- 133mm length, 4mm dia. stainless steel probe
- 10mm high contrast LCD display
- Supplied with probe protector sheath, battery and instructions for use

Range -50°C to +150°C  
Resolution 0.1°C (-19.9° to 149°), 1° (others)

Accuracy ±1°C

333371.275379

Order Code	1+	Price Each	10+	25+
127-1859	10.25	9.53		8.51

## Pocket Digital Thermometer

FM10



- Low cost, high accuracy thermometer
- Water resistant
- Auto off after 35mins
- C/F selection
- Data hold

Temperature range -50°C to 150°C/58°F to 300°F  
Resolution 0.1°C/F  
Accuracy ±1°C/±2°F

Sampling time 1.5sec  
Battery 1.5V button

339955.277395

Mfrs. List No.	Order Code	1+	Price Each	10+	25+
FM10	500-4469	17.31	15.97		14.82

## Probe Thermometers

TPP-C Celsius



Celsius probe thermometers ideal for testing and troubleshooting as quick reference in HVAC and Industrial applications. Available as the TPP1-C1 for Immersion and TPP2-C1 for surface measurements.

- Temperature range -50 to 250°C
- 0.1°C resolution
- Data hold
- Overload display
- 3 1/2 digit LCD
- Long battery life 200 hours typical
- CE rated
- Flat surface probe section
- Easy to read digital display
- Slim compact style

489622.502897

Description	Mfrs. List No.	Order Code	1+	Price Each	5+
Immersion	TPP1-C1	146-6474	9.00	8.73	8.47
Surface	TPP2-C1	146-6475	9.00	8.73	8.47

## Digital Stem Thermometers



- On/Off switch
- Data hold function
- °F and °C switchable -58°F to 302°F (-50°C to 150°C)
- Resolution 0.1° between -19.9° to 199.9°, 1° over 200°
- Accuracy <2°F / 1°C

- Automatic power off
- Stainless steel probe
- Complete with protective probe cover and battery
- Applications include: Air conditioning, food processing, storage, heating and ventilating

232216

Mfrs. List No.	Order Code	1+	Price Each	2+	5+
72-6788	'Round' stem 360-6818	18.36	17.85		17.34
72-6789	'T' shape 360-6820	13.77	13.39		13.01

## Premium service without a premium price



With thousands of prices already reduced, go online to see our most up-to-date pricing: [www.farnell.co.uk](http://www.farnell.co.uk)

## Surface Thermometer



- Low cost
- Direct temperature reading
- Wide temperature range
- Surface thermometer with a widened measuring tip
- Applications include: servicing electrical products, measurements on motors, bearings and metal processing
- Battery included

H=140, W=220, D=230

Temperature range -50 to +250°C  
 Accuracy  $\pm 1^\circ\text{C}$  (-10°C to +99°C),  $\pm 2^\circ\text{C}$  (-19.9°C to +150°C)  
 Resolution 0.1°C (-19.9°C to +150°C), 1.0°C (remaining range)

222484

Order Code	1+	Price Each	10+
892-853	23.00	20.60	19.71

## Checkridge Temperature Monitor



- Thermal probe with 1m cable designed to reach into refrigerators and freezers
- Thermistor probe made of fast responding food grade stainless steel and silicon cable are easy to keep clean
- Compact casing is durable and easy to keep clean
- Large, easy to read LED

- User can easily verify the status of the meter with Cal check feature
- Low battery warning "ERR" message displays when battery needs charging
- Magnetic backing provides an easy way to attach to metal refrigerators and freezers

Range	-50.0 to +220°C
Resolution	0.1° (-50 to 199.9°C), 1° (200 to 220°C)
Accuracy (@25°C/77°F)	$\pm 0.3^\circ\text{C}$ (-20 to 90°C)
All other ranges	$\pm 0.4^\circ\text{F.S}$
Typical EMC Deviation	$\pm 0.3^\circ\text{C}$
Calibration	Internal 2 point
Calibration check	Manual with front mounted switch
Probe/Probe dimensions	Stainless steel, general purpose/ 40 x 5mm (1.5 x .187") and 1 meter silicon cable
Battery type/life	1 x 1.5V AAA / approximately 3000 hours of continuous use
Dimensions/Weight	92x36x28/65g

234811

Mfrs. List No.	Order Code	1+	Price Each	5+
HI-14700	369-5918	39.00	36.00	33.43

Min/Max Thermometer with Alarm  
MST-9258

W=60 H=120 D=20mm. Weight 77g

- 100mm x  $\varnothing 4\text{mm}$  stainless steel penetration probe with handle and 1m cable
- Audible alarm at programmable high/low temperature limits
- Min/Max memory and data hold function
- Impact resistant case features desk stand and cable storage compartment
- Auto power off and low battery indication
- 30mm LCD display with function indicators
- One second sampling rate

Range -50 to +150°C Accuracy  $\pm 1^\circ\text{C}$   
 Resolution 0.1°C Battery 1.5V Button Cell (included)

447222.435089

Order Code	1+	Price Each	5+
127-6192	21.06		20.00

## Digital Thermometers



## Check Temp



- Low cost high accuracy thermometer
- Fast acting stainless steel probe
- Inbuilt calibration test

Check temp: Stick meter with pointed tip probe  
 Check temp 1: With pointed tip probe and 1m cable

Range -50 to +150°C  
 Resolution 0.1°C  
 Accuracy  $\pm 0.3^\circ\text{C}$  (-20 to +90°C)  
 $\pm 0.5^\circ\text{C}$  (-50 to +20°C)  
 $\pm 0.5^\circ\text{C}$  (+91 to +150°C)

Battery-life 3000 hrs continuous  
 Weight 80g

222470

Mfrs. List No.	Order Code	1+	Price Each	10+
CHECKTEMP 1	710-5769	39.50	36.46	33.86
CHECKTEMP	710-5757	24.20	22.34	20.74

## Hand-held Thermometer

## FM31



- Supplied complete with hand-held instrument with Lumberg connector, rubber boot and general purpose probe
- Water resistant
- Auto off after 3 mins
- Open circuit indication

Thermistor probe range -40°C to 110°C  
 Accuracy  $\pm 0.5^\circ\text{C}$  (0°C to 70°C)  
 Battery type 1 x 9V  
 Battery life 3000 hours

333727.277397

Description	Mfrs. List No.	Order Code	1+	Price Each	10+
Thermometer	FM31	465-8607	60.90	56.84	52.78
Standard Calibration Charge		SCA		34.10	
UKAS Calibration Charge		NCA		58.75	

38

## Temperature Probe Style Meter



- Compact size goes and measures anywhere
- Dual display for RH and Temperature
- Put meter into metric or English for measurement results
- Stores Min/Max readings for comparisons
- Data Hold function

525732

Mfrs. List No.	Order Code	1+	Price Each	5+
TH-1	167-1228	52.02		49.42

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## Thermometers - continued

Digital Thermometer  
2046T

Digitron



An attractive, hand-held thermometer giving a reliable and cost effective solution to contact temperature measurements in a variety of applications including the food hygiene market. Thermistor probe based. Exceeds the recommendations in the Food Hygiene Regulations.

- Attractive, robust case design with strengthened display and re-enforced keypad
- Large LCD with backlight
- Suitable for use with thermistor type probes
- Autoranging display
- Display hold
- Self calibrated to zero to eliminate inaccurate readings caused by long-term or thermal drift
- Selectable Auto switch-off
- Low battery indication
- 500 hours battery life (typical)
- Splashproof IP65 rated

Note: The thermometer is not supplied with a probe, see below for manufacturers recommended options.

Measurement Range -40°C to +120°C Power 1x 9V PP3 type battery – not supplied  
Best Accuracy ±0.3%

339932-268050

Description	Mfrs. List No.	Order Code	1+	5+	10+
Thermometer	2046T	500-4275	70.04	63.95	59.89
Probe, General Purpose	H0234	877-1278	24.51	24.03	23.54
Probe, Air	H0334	877-1286	28.32	26.74	25.95

## Digital Thermometer

HANNA Instruments



- Ideal for education
- Uses a miniature silicon sensor which is precalibrated in factory to measure a wide temperature range
- Highly accurate with a very fast response time
- Sensor is housed in a rugged, stainless steel penetration probe
- Large LCD display provides clear, easy to read digits

Range -40 to +150°C Battery life approx. 900 hours  
Resolution 0.1°C Dimensions 180 x 83 x 40mm  
Accuracy ±0.5% full scale Weight 280g  
for one year

224539

Mfrs. List No.	Order Code	1+	5+	10+	20+
HI-8751	725-9256	63.44	58.56	54.37	53.28

Food Thermometer - Type T  
C22

COMARK



- High strength polycarbonate case with rubber over-moulding
- Water and dust proof to IP67 standards
- Easy to use keypad and large LCD display
- Selectable °C or °F scales
- Permanent clock display and countdown timer function
- Data hold function
- Lumberg connector for use with wide range of Comark thermistor and type T probes
- Auto switch-off
- Interactive cell-phone style menu
- Exceptional battery life of up to 14000 hours

H=152, W=58, D=22mm Weight = 128g

Sensor type  
Measurement range  
Scales  
Resolution  
Accuracy  
Operating temperature  
Display  
Countdown timer interval  
Battery  
Battery life

Type T Thermocouple  
-200 to +400°C  
°C and °F  
>-100: 0.1° ≤-100: 1°  
0.1% ±0.2°C  
-20 to +50°C  
4 digit, 12.5mm LCD  
1 second to 24 hours  
2x Type I.E.C LR6 AA  
Thermocouple probes: 700 hours,  
Thermistor probes: 14000 hours

382640

Description	Mfrs. List No.	Order Code	1+	3+	5+	10+
Thermometer	C22	858-8872	58.96	—	—	—
Penetration probe	PX22L	858-8899	36.05	31.42	29.36	28.33

## Digital Thermometers

72-2060/72-2065

TENMA



Two rugged, K type single and dual input thermometers, ideal for field or bench use - includes protective holster.

- 3 1/2 digit LCD
- Selectable °C/°F, 1° resolution
- Front panel offset adjustment
- Dual thermocouple input (72-2065)
- Displays T1 and T2 and T1-T2 in differential mode (72-2065)
- Data hold
- Maximum record
- Includes holster, 9V battery, owner manual, thermocouple probe (72-2065 includes two thermocouple probes)

Temperature range -50 to 1300°C -58 to 1999  
Accuracy -15°C to 0°C: ±2°C, 0°C to 1000°C: ±(0.3% + 1°C)  
Dimensions 69.85 (W) x 146.05 (H) x 38.14 (D)

228184

Description	Mfrs. List No.	Order Code	1+	5+	10+
Single Channel	72-2060	342-1557	49.00	47.53	45.16
Dual Channel	72-2065	342-1569	56.00	54.32	51.60

## Dual Channel Digital Thermometers

TENMA

New



**Models: 72-7712, 72-7715**  
Dual channel digital thermometers with backlight LCD displays and multiple probe type compatibility.

**Model**  
Total Range  
Best Accuracy  
Resolution  
Data Logging  
LCD Size (WxH)  
Dimensions (WxHxD)  
Weight

- 4 Digit LCD display with dual readings and backlight
- °C/°F/°K measurements
- Dual probe inputs
- K, J, T and E type probe compatibility
- Max/Min/Dif/Avg temperature display with hold function
- Sleep mode and low battery warning
- USB data transfer and datalogging (software supplied)
- USB or 9V battery Power
- Supplied with 9V battery, software, USB lead, K type probe and user manual

## 72-7715 Additional Features

- Hi/Lo alarm and signal output
- User self-calibration
- Additional R, S and N type probe compatibility

510032-509478

Mfrs. List No.	Order Code	1+	5+
72-7712	156-3717	45.28	44.83
72-7715	156-3718	52.75	52.22

## Type K single input thermometer

AMPROBE

New

- Ideal for HVAC/R contractor, plant maintenance, commercial building service
- Unique, mini-stick design thermometer
- Small, go-anywhere size
- Type K thermocouple compatible
- °C/°F and 1°/0.1° selectable
- Data and max hold
- Type K probe and carrying case included

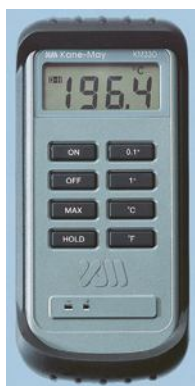
525679

Mfrs. List No.	Order Code	1+	5+
TM45A	167-1206	77.00	74.69



## Digital Thermometers

KM330 and KM340



- Type K thermocouple thermometer
- Selectable 0.1°/1° resolution
- Displays temperature in °C or °F
- Maximum temperature memory
- Hold function
- Protective slip-on boot with desk stand
- Sub-miniature connector

## KM340 Extra Features

- Twin inputs (differential)
- For all HVAC usage including flow and return temperature measurements and radiator output checks

Sensor type	Thermocouple Type K	Accuracy	±(0.2% of reading + 1°C)
Scales	°C / °F	Operating temperature	0 to +50°C
Measurement range	-50 to +1300°C	Battery type	9V IEC 6LF22 alkaline
Resolution	KM330: 0.1° / 1° selectable KM340: 1°	Battery life	200 hours

382643

Description	Mfrs. List No.	Order Code	1+	3+	5+	10+
Thermometer	KM330	858-8937	74.99	73.49	72.02	69.94
Differential thermometer	KM340	858-8945	82.00	80.36	78.75	77.19
Surface probe	SK21M	858-8961	36.05	31.93	29.87	28.41
Penetration probe	PK24M	858-8970	36.05	31.93	29.87	28.41
Air probe	AK28M	858-8988	12.36	10.82	10.30	9.76
Insulated probe	IK21M	858-8996	46.35	40.69	39.66	36.52

## K Type Thermometers



These single and dual input K-Type thermometers offer high accuracy and fast response times. They are suitable for industrial and laboratory use.

- Measures in °C or °F (plus Kelvin for ATK-610B only). User selectable
- Impact-resistant ABS case with protective rubber holster & flip out stand
- 45mm LCD display with backlight and function indicators
- Sampling rate of 2.5 times per second
- Auto power off
- Max hold and data hold functions
- Over range indication
- Low battery indication
- Room temperature compensation (ATK-610B)

W=76 H=162 D=39mm. Weight 210g

- ATK-612 Dual Input Thermometer accepts 2 inputs with individual measurements or as differential measurements, T1 minus T2
- Powered by 1x 9V battery (included)
- Supplied with carry case, rubber holster, 950mm bead probe & battery (2 bead probes with ATK-612)

Range -50°C to +1300°C (-58°F to 2000°F) Accuracy ± 0.5%rdg + 1°C (0 - 1000°C)  
Resolution 0.1° (below 199.9°, 1° above 200°) Accuracy (Bead Probe) ±2.2°C or ±0.75% of rdg

450385.460944

Description	Mfrs. List No.	Order Code	1+	3+	10+
Single Input	TK-610B	129-7747	58.07	51.10	49.09
Dual Input	TK-612	129-7748	68.63	62.29	58.07
			Price Each		
Standard Calibration Charge			34.10		
UKAS Calibration Charge			58.75		

## Troubleshooting tips



Chat live online to one of our technical engineers at  
[www.farnell.co.uk](http://www.farnell.co.uk)

## High Accuracy Dual Input Thermometer



This dual input K-Type thermometer offers high accuracy and fast response times. Suitable for industrial and laboratory use.

New

- Measures in °C, °F or Kelvin, user selectable
- Impact-resistant ABS case with protective rubber holster and flip out stand
- 45mm LCD display with high intensity backlight and function indicators
- Sampling rate of 2.5 times per second
- Auto power off
- Max hold and data hold
- Over range indication
- Low battery indication
- Scan function for T1, T2, T1-T2, max, hold
- Room temperature compensation
- Dual Input Thermometer accepts 2 inputs with individual measurements or as differential measurements, T1 minus T2
- Supplied with carry case, rubber holster, 2 x 950mm bead probes & battery

Range	-200°C to +1372°C
Resolution	0.1°C
Accuracy	±(0.15%rdg + 1°C) (above -100°C)
Power	1x 9V PP3 battery
Dimensions (WxHxD)	76 x 165 x 43mm
Weight	403g

480174.465850

Order Code	1+	Price Each	3+	5+
142-6143	79.19	71.79	64.71	

## Dual Input Thermometer

TMD90A



The TMD90A is a dual input thermometer that accepts K, J, T, R, S, and E type thermocouples and is ideal for HVAC/R technicians, electricians, research, industrial process and quality control. The dual inputs allow easy super-heat and sub-cool temperature measurement as well as cut-out and in temperature. The triple display with backlight shows T1, T2, and T1 - T2 and includes Hold, Min/Max, Relative, and Timer / Date stamp function. The TMD90 supports dual channel real time data acquisition using the built-in RS-232 interface and optional software and data transfer cable (Model TM-SW). The TMD90 includes a standard Type K thermocouple probe, hard carrying case, battery and manual.

- High accuracy, multiple Type input thermometer
- Measures to 3200°F / 1760°C
- Accepts Type J, K, T, R, S, E Inputs
- Triple display of T1, T2, T1 - T2, and relative time
- Deluxe hard carrying case included
- RS232 output with optional cable and software

Thermocouple	Range	Resolution	Accuracy
K	-200 to 650°C	0.1°C	(0.1% rdg + 0.7°C)
	651 to 1370°C	1.0°C	
	-328 to 1000°F	0.1°F	(0.1% rdg + 1.4°F)
J	1000 to 2498°F	1.0°F	
	-200 to 5000°C	0.1°C	(0.1% rdg + 0.7°C)
	501 to 760°C	1.0°C	
T	-328 to 940°F	0.1°F	(0.1% rdg + 1.4°F)
	941 to 1400°F	1.0°F	
	-200 to 390°C	0.1°C	(0.1% rdg + 0.7°C)
R/S	-328 to 730°F	0.1°F	(0.1% rdg + 1.4°F)
	0 to 1000°C	0.1°C	(0.3% rdg + 0.7°C)
	1001 to 1760°C	1.0°C	
E	32 to 1000°F	0.1°F	(0.1% rdg + 1.4°F)
	1001 to 3200°F	1.0°F	
	-200 to 380°C	0.1°C	(0.3% rdg + 0.7°C)
	381 to 736°C	1.0°C	
	-328 to 720°F	0.1°F	(0.1% rdg + 1.4°F)
	721 to 1832°F	1.0°F	

489621.502904

Mfrs. List No.	Order Code	1+	Price Each	3+	5+
TMD90A	146-6473	96.00	93.12	90.33	



## Thermometers - continued

## Relative Humidity Temperature Meters

- Dual display
- Relative function monitors humidity and temperature changes (TH-3)
- Extended probe stem to easily access air ducts
- Capacitive sensor with protective cover
- Min/Max readings
- Wet bulb (THWD-3 only)
- Dew point (THWD-3 only)
- Data Hold
- Auto Power off
- Soft Carrying Case



525680

Mfrs. List No.	Order Code	1+	5+
THWD-3	167-1207	83.00	80.51

Hand Held Digital Thermometers  
2000 Series

A new range of microprocessor thermometers with ease of use and accuracy of reading. The 2000T's ability to self calibrate achieves long-term accuracy and stability, and eliminates readings caused by long term drift. They have a robust design, strengthened display, re-enforced key pad and isolated battery compartment.

- SpeedRead for quicker readings
- Logging mode for storage, retrieval and output of readings
- Accurate performance: 0.2% of reading
- Automatic zero calibration
- Wide temperature range
- Last settings memorised
- Simple to operate
- Long battery life: typically 500 hours
- 200BT protective holder with tilt stand
- Three K type probes designed to give a long life. The handles are ultrasonically welded and can be scrub washed
- Rugged construction
- Fast response

## Common Specification

Resolution	0.1° from -199.9°C to +199.9°C 1°C elsewhere
Operating temperature	-10°C to +50°C (ambient)
Battery type	2x AA batteries
Battery life	Typically 500 hours
Display	12.7mm custom LCD
Sensor open circuit	Indicated by O-C on display
Overrange/Underrange	Out displayed
Environmental	IP65
Auto switch off	12 minutes
Dimensions	155x67x40mm
Weight	180g

## Instrument Accuracies

## 2000T and 2088T

Range	-200°C to +1350°C
Accuracy	0.1% rdg $\pm 0.2^\circ\text{C}$ above -100°C 0.5% rdg $\pm 0.2^\circ\text{C}$ below -100°C

## 2006T

Range	-250°C to +400°C
Accuracy	$\pm 0.2^\circ\text{C}$ over range -20°C to +70°C 0.1% rdg $\pm 0.2^\circ\text{C}$ elsewhere

## 2029T and 2098T

K range	-200°C to +1350°C
T range	-250°C to +400°C
J range	-750°C to +750°C
N range	-200°C to +1300°C
R and S range	0°C to +1750°C
Accuracy	0.1% rdg $\pm 0.2^\circ\text{C}$ above -100°C 0.5% rdg $\pm 0.2^\circ\text{C}$ below -100°C

## Series Option Table

Model	2000T	2006T	2088T	2029T	2098T
Sensor type	K	T	K	KT JNRS	KT JNRS
Connector type	2 pin mini	2 pin mini	2 pin mini	2 pin mini	2 pin mini
°C/°F	●	●	●	●	●
Hold	●	●	●	●	●
Range lock	●	●	●	●	●
Max./Min	●	●	●	●	●
Averaging	●	●	●	●	●
Logging	●	●	●	●	●

222543

Mfrs. List No.	Order Code	1+	5+	10+
2000T	493-508	100.49	89.32	83.23
2006T	500-4366	100.49	89.32	83.23
2029T	500-4391	137.03	126.88	116.73
2098T	493-521	191.84	177.63	164.43
K0234 Type K general probe	493-533	32.84	32.33	31.53
2000BT Protective holster	300-3413	20.50	20.09	19.69

Pocket Thermometer - Type K  
C28

- K type food thermometer
- Countdown timer
- Data hold function
- Permanent clock display
- °F or °C scales
- Auto switch-off
- Stylish case, waterproof to IP67 standards

Sensor type	K type thermocouple
Measurement range	-200 to +600°C
Scales	°C and °F
Resolution	>100°: 0.1°, ≤100°: 1°
Accuracy	0.1% $\pm 0.2^\circ\text{C}$
Operating temperature	-20 to 50°C
Display	4 digit, 12.5mm LCD
Countdown timer interval	1 second to 24 hours
Battery	2x Type IEC LR6 Size AA
Battery life	Thermocouple: 7000 hours, Thermistor probes: 14000 hours

382642

Description	Mfrs. List No.	Order Code	1+	3+	5+	10+
Thermometer	C28	858-8929	91.67	83.43	77.25	72.06
Surface probe	SK21M	858-8961	36.05	31.93	29.87	28.41
Penetration probe	PK24M	858-8970	36.05	31.93	29.87	28.41
Air probe	AK28M	858-8988	12.36	10.82	10.30	9.76
Insulated probe	IK21M	858-8996	46.35	40.69	39.66	36.52

## Hand-Held Thermometers



Two hand-held, compact microprocessor-controlled thermometers for use in the laboratory, field or for industrial use. Ergonomically designed with a rubber keypad to resist accidental splashes, moulded side grips, a wrist strap and optional yellow outer protective holster to protect the meter if dropped onto a hard surface.

**HI-93530:** Industry standard K-type thermocouple thermometer with 0.1° resolution from -200°C to 999.9°C and full range to 1370°C. Other benefits include a HOLD button to freeze the current reading on the display and readout in either °C or °F. Supplied with battery.

**HI-93510:** High accuracy thermistor thermometer with a range -50°C to +150°C and display to 0.1°C. In addition to a HOLD button and readout in °C or °F, HI-93510 also has high and low memory recall to check temperature extremes at any time. Easy to use and supplied with a general purpose thermistor probe with plug and 1m cable, battery included.

- Microprocessor controlled advanced thermometers
- HI-93530 K-type thermocouple meter (supplied without probe)
- HI-93510 high accuracy thermistor meter (supplied complete with probe)
- Compact design with side grips and wrist strap

Range	HI-93510 -50 to +150°C	HI-93530 -58 to 199.9°F 200 to 302°F
Resolution	0.1°C	0.1°F/1°F
Accuracy	$\pm 0.4^\circ\text{C}$ (-20 to 80°C) 0.7% F.S. outside above ranges in brackets	$\pm 0.8^\circ\text{F}$ (-4 to +176°F) 1 x 9V approx. 500 hours of continuous use : auto shut-off after 7 minutes
Battery Life/Type	0°C to +50°C (32 to +122°F): RH 95%	
Environment	143 x 80 x 38mm	
Dimensions	320 grams	
Weight		

224536

Mfrs. List No.	Order Code	1+	5+	10+
HI-93510 Thermistor thermometer	710-6063	101.60	93.79	87.09
HI-93530 K-type thermometer (non-food)	710-6075	101.45	93.64	86.96

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## Microprocessor Thermocouple Thermometers



- Range -200 to 1370°C
- Resolution of 0.1 to 999.9°C
- Use with any K type probe
- K type with HI/LO recall
- K type dual input
- KJT type

Easy to use, splashproof thermometers which fit comfortably in the hand with a wrist strap for security and optional protective rubber holster. Microprocessor controlled for 0.1 resolution, high accuracy and wide temperature range. **HI-93531** displays temperature in °C/°F and gives HI/LO temperature memory and HOLD button.

**HI-93532** accepts two temperature probes at the same time with readout in °C, differential temperature, hold/memory button allowing a reading to be stored for later recall.

Range (K)	HI-93531 & HI-93532
(J)	-200.0 to 1370°C/-300 to 2500°F
(T)	
Resolution	0.1°C (200 to 999.9°C), 1°C outside
Accuracy	0.2% FS
Battery life	1 x 9V/100h
Weight/Dimensions	320g/143 x 80 x 38mm

228212

Mfrs. List No.	Order Code	1+	3+	5+
HI-93531K	356-5105	109.93	101.47	94.22
HI-93532K	356-5117	129.41	119.46	110.92

## Digital Thermometer

110



An affordable thermometer designed to provide accurate measurements for many general temperature applications. The instrument's robust engineering makes it ideal for refrigerated storage rooms, freezers/coolers, storage cabinets, and general outdoor use. In addition, the optional TopSafe protective case guards against damage from water, impact and dirt. Minimum and maximum values are shown on a clear, 2-line backlit display for easy reading. A wide choice of probes for a range of applications are available. In addition, the testo 110 can be upgraded for use with a wireless temperature probe.

W=64 H=182 D=40mm. Weight 171g

Probe Type	Range	Accuracy	Resolution
NTC	-50°C to +150°C	±0.2°C (-0 to 80°C) else ±0.3°C	0.1°C
NTC High Temperature Probe	0 to 275°C	0.2°C (0 to 80°C) else 0.3°C	0.1°C
Battery Life		Upto 200 hours	

- User-adjustable audible alarm limits aid in temperature control
- User-adjustable measuring rate (wireless mode) helps save battery power
- On-site documentation with the optional Testo printer, for easy temperature recording
- 2 years warranty

## Probes:

In order to meet a wide spectrum of measuring requirements, Testo provides a large range of air, immersion, surface and penetration probes.

Description	Range	Accuracy	t <sub>99</sub>	Order Code
NTC Air Probe	-50°C to +150°C	±0.2°C (-25 to 74.9°C)	60s	108-3001
NTC Surface Probe	-50°C to +150°C	±0.2°C (-25 to 74.9°C)	35s	108-3805
NTC Immersion Probe	-50°C to +150°C	±0.2°C (-25 to 74.9°C)	10s	108-3852

## Wireless Probes and Accessories

As well as cable connected probes, the thermometer can also be used with a range of wireless probes (eg 108-3024). Wireless probes offer users exceptional practicality as hindrance during measurement and potential damage to the probe cable are eliminated. To convert the thermometer for use with the wireless probes an optional wireless module (108-3002) is required.

Description	Range	Accuracy	t <sub>99</sub>	Order Code
Wireless Immersion Probe	-50 to 275°C	±0.8°C (-50 to 200°C)	12s	108-3024
Radio Frequency		869.85 MHz		

418987.429029

Description	Order Code	1+	3+	5+
Digital Thermometer	108-3804	64.50	57.76	55.29
<b>Probes</b>				
NTC Air Probe	108-3001	46.70	41.82	40.03
NTC Surface Probe	108-3805	52.00	46.57	44.57
NTC Immersion Probe	108-3852	45.50	40.75	39.00

Description	Order Code	1+	3+	5+
<b>Wireless Probes &amp; Accessories</b>				
Wireless Module	108-3002	25.20	22.57	21.60
Wireless Immersion Probe	108-3024	65.00	58.21	55.71
<b>Other Accessories</b>				
Instrument and Probe Case	108-3011	17.70	15.85	15.17

## Digital Thermometers

922 and 925



W=64 H=182 D=40mm. Weight 171g

**Testo 922:** A differential thermometer with 2-line display for easy temperature comparisons. An optional wireless temperature probe makes remote temperature monitoring easy. Differential temperatures are easily displayed, while an audible alarm sounds if user-adjustable limit values are exceeded. Current measurements and Max-Min values can be printed on-site with the optional Testo printer. Timed-interval printing (eg. once per minute) is possible and controlled from the testo 922.

- 2 channel measuring instrument with optional wireless probe
- Displays differential temperature
- Cyclical printing of readings, e.g. once a minute

**Testo 925:** 925 Type K thermocouple thermometer uses both corded and optional wireless probes. A user-adjustable audible alarm sounds if set limits are exceeded. Measurements, as well as Max-Min values, with time/date can be printed on-site with the optional Testo printer.

- 1 channel measuring instrument with optional wireless probe
- Audible alarm sounds if limit value is exceeded
- Continuous display of max/min values
- Hold button to freeze reading
- Backlit display
- 2 years warranty

Probe Type	Range	Accuracy	Resolution
Type K (NiCr-Ni)	-50 to +1000°C	±(0.5°C + 0.3% of mv) (-40 to 900°C)	0.1°C/1°C (from 200°C)
		±(0.7°C + 0.5% of mv) (remaining range)	
Battery Life	Upto 200 hours		

## Probes:

In order to meet a wide spectrum of measuring requirements, Testo provides a large range of professional probes for immersion, surface and air measurements.

Description	Range	Accuracy	t <sub>99</sub>	Order Code
Type K Immersion Probe	-60 to 400°C	Class 2	12s	108-3000
Type K Fine Wire Probe	-50°C to +400°C	Class 2	5s	561-642
Type K Air Probe	-60 to 400°C	Class 2	25s	108-3022
Type K Surface Probe	-60 to 300°C	Class 2	3s	108-3023

## Wireless Probes and Accessories

As well as cable connected probes, the thermometers can also be used with a range of wireless probes. Wireless probes offer users exceptional practicality as hindrance during measurement and potential damage to the probe cable are eliminated. To convert the thermometer for use with the wireless probes an optional wireless module (108-3002) is required. This can be used with either a wireless probe (108-3024) or with the highly versatile universal wireless handle (108-3003) with exchangeable surface or immersion / penetration probe heads (e.g. 108-3025). In addition, the universal wireless handle comes with an adapter for temperature probes with thermocouple plugs. Any thermocouple probe (Type K) with a TC plug can therefore be attached to the universal radio handle and used for wireless measurement.

Description	Range	Accuracy	t <sub>99</sub>	Order Code
Wireless Immersion Probe	-50 to 275°C	±0.8°C (-50 to 200°C)	12s	108-3024
Radio Frequency	869.85 MHz			

418965.429028

Description	Order Code	1+	3+	5+
922 Dual Channel Thermometer	108-3019	97.80	87.58	83.83
925 Digital Thermometer	108-3020	63.40	56.78	54.34
<b>Probes</b>				
Type K Immersion Probe	108-3000	26.40	23.64	22.63
Type K Fine Wire Probe	561-642	14.00	12.54	12.00
Type K Air Probe	108-3022	45.00	40.30	38.57
Type K Surface Probe	108-3023	77.90	71.67	70.60
<b>Wireless Probes &amp; Accessories</b>				
Wireless Module	108-3002	25.20	22.57	21.60
Wireless Immersion Probe	108-3024	65.00	58.21	55.71
Wireless Handle	108-3003	66.60	59.64	57.09





## Thermometers - continued

## Digital Thermometers - continued

## 922 and 925 - continued

Description	Order Code	1+	Price Each 3+	5+
<b>Other Accessories</b>				
Instrument and Probe Case	108-3011	17.70	15.85	15.17
Protective Case	108-3021	17.70	15.85	15.17
Protective Case	108-2989	17.00	15.22	14.57
<b>Standard Calibration Charge</b>				
UKAS Calibration Charge	N		34.10	58.75

Advanced Multi-channel Thermometer  
735-2

A highly versatile multi-channel temperature measuring instrument. The instrument has the capability to register and display up to 6 temperature probes: 3 wireless probes, 2 fast thermocouple probes (Type K / T) and one high precision PT100 probe. The testo 735 has a large measuring range - from -200 to +1350 °C (dependent on probe used). Two freely selectable temperature values are shown in the readout display. The differential temperature between any temperature values can be calculated. The display of minimum or maximum values is possible for all temperature channels.

The testo 735 is designed for ease of use. The easy to follow menus allow users to take key measurements including time and point mean calculation, differential temperature measurement, max/min value display and the fixing of measurement values. The testo 735-2 offers 3 User Profiles (Standard, Route and Longterm) which can be tailored to suit specific applications. For example, using the Route function, users can easily select measurement locations and the Longterm function provides direct access to the number of measurements and the measurement rate.

W=74 H=220 D=46mm.  
Weight 428g

**Features:**

- Connection of 3 attachable probes and 3 radio probes
- Data printing on testo report printer
- Audible alarm when limit values are exceeded
- System accuracy up to 0.05°C
- Display of Delta T, min/max and mean values
- Instrument store for 10,000 readings
- PC-Software for filing and documenting measurement data
- Storage of single measurements or measurement series by location
- Quick access to the most important functions via user profiles

**Applications:**

- Simultaneous measurement of several temperatures, e.g. in a refrigeration system
- Fast temperature measurement on surfaces
- Precise temperature measurements

**Probes:**

In order to meet a wide spectrum of measuring requirements, Testo provides a large range of professional probes. The range includes a choice of PT100 and thermocouple (Type K / T) probes for immersion, surface and air measurements. Thermocouple probes offer users rapid measurements and a wide measuring range. The PT100 immersion/penetration probe offers high accuracy (up to 0.05°C, resolution of 0.001°C), ideally suited for use as a working standard in quality assurance, laboratories and calibration services.

Description	Range	Accuracy	t <sub>90</sub>	Order Code
Type K Immersion Probe	-60 to 400°C	Class 2	12s	108-3000
Type K Fine Wire Probe	-50°C to +400°C	Class 2	5s	561-642
Type K Air Probe	-60 to 400°C	Class 2	25s	108-3022
Type K Surface Probe	-60 to 300°C	Class 2	3s	108-3023
PT100 Immersion Probe	-50°C to +400°C	Class A	12s	108-3034

**Wireless Probes and Accessories**

As well as cable connected probes, the testo 735 can also be used with a range of wireless probes. Wireless probes offer users exceptional practicality as hindrance during measurement and potential damage to the probe cable are eliminated. To convert the instrument for use with the wireless probes an optional wireless module (108-3002) is required. This can be used with either a wireless probe (108-3024) or with the highly versatile universal wireless handle (108-3003) with exchangeable surface or immersion / penetration probe heads (e.g. 108-3025). In addition, the universal wireless handle comes with an adapter for temperature probes with thermocouple plugs. Any thermocouple probe (Type K) with aTC plug can therefore be attached to the universal radio handle and used for wireless measurement.

Description	Range	Accuracy	t <sub>90</sub>	Order Code
Wireless Immersion Probe	-50 to 275°C	±0.8°C (-50 to 200°C)	12s	108-3024
Radio Frequency	869.85 MHz			

418940.429027

Description	Order Code	1+	Price Each 3+	5+
735-2 Multi-channel Thermometer	108-3031	266.00	238.21	228.00
<b>Probes</b>				
Type K Immersion Probe	108-3000	26.40	23.64	22.63
Type K Fine Wire Probe	561-642	14.00	12.54	12.00
Type K Air Probe	108-3022	45.00	40.30	38.57
Type K Surface Probe	108-3023	77.90	71.67	70.60
PT100 Immersion Probe	108-3034	55.00	49.25	47.14

Description	Order Code	1+	Price Each 3+	5+
<b>Wireless Probes &amp; Accessories</b>				
Wireless Module	108-3002	25.20	22.57	21.60
Wireless Immersion Probe	108-3024	65.00	58.21	55.71
Wireless Handle	108-3003	66.60	59.64	57.09
<b>Other Accessories</b>				
Service Case	108-3006	55.00	49.25	47.14

## Digital Thermometers

## Fluke 511I/Fluke 52 II

**51 and 52 Series II:**

- Large backlit dual display shows any combination of T1, T2 (52 only), T1-T2 (52 only) plus MIN, MAX, or AVG
- Relative time clock on MIN, MAX, and AVG provides a time reference for major events
- Electronic Offset function allows compensation of thermocouple errors to maximise overall accuracy
- Measures J, K, T and E-types of thermocouples
- Readout in °C, °F or Kelvin (K)
- Sleep mode increases battery life

- Battery door allows easy battery replacement without breaking the calibration seal
- Optional Tool Pak accessory for hanging your thermometer (302-9578)

The new Fluke 50 Series II contact thermometers offer fast response and laboratory accuracy (0.05% + 0.3°C) in a rugged handheld test tool

**Temperature range**

J-type Thermocouples	-210°C to 1200°C (-346°F to 2192°F)
K-type Thermocouples	-200°C to 1372°C (-328°F to 2501°F)
T-type Thermocouples	-250°C to 400°C (-418°F to 752°F)
E-type Thermocouples	-150°C to 1000°C (-238°F to 1832°F)

**Temperature accuracy**

Above -100°C (-148°F)	± [0.05% + 0.3°C (0.5°F)]
J, K, T, E and N-type**	± [0.20% + 0.3°C (0.5°F)]
Below -100°C (-148°F)	T-type ± [0.50% + 0.3°C (0.5°F)]

Battery life  
Weight

1000 hours typical, AA  
400g

Prices where indicated by a are subject to change. Please call your local sales office or visit www.farnell.com for the latest prices.

222579

Mfrs. List No.	Order Code	1+	Price Each 5+	10+	+
FLUKE 51 SERIES II	318-3361	189.00	183.33	177.83	--
FLUKE 52 SERIES II	318-3373	247.00	239.59	232.40	--
TPAK	302-9578	22.00	21.34	20.70	--
C101 Carry Case	947-9783	34.00	32.98	31.99	--
<b>Standard Calibration</b>					<b>Price Each</b>
UKAS Calibration	N				34.10
					50.45

## Digital Thermometers

## Fluke 53/54 Series II



The new Fluke 53/54 Series II contact thermometers offer fast response and laboratory accuracy (0.05% + 0.3°C) in a rugged handheld test tool.

- Large backlit dual display shows any combination of T1, T2, T1-T2, plus MIN, Max or AVG
- Relative time clock on MIN, MAX and AVG provides a time reference for major events
- Electronic Offset function allows compensation of thermocouple error to maximize overall accuracy
- Measures J, K, T and E-types of thermocouples
- Readout in °C, °F or Kelvin (K)
- Sleep mode increases battery life
- Battery door allows easy battery replacement without breaking the calibration seal
- Optional Tool Pak accessory for hanging your thermometer (302-9578)
- Data Logging up to 500 points of data with user adjustable recording interval
- Additional thermocouple types R, S and N (for a total of 7 different types)
- Real time clock captures the exact time of day when events occur
- Recall function allows logged data to be easily reviewed on the meter display
- IR communication port allows data to be exported to optional Fluke View Temperature PC software

**Fluke View Forms Software**

Here's a fast and easy way to document, store and analyse temperature measurements.

- Produce professional-looking documents
- In-depth analysis with records, charts and graphs
- Standard and customisable forms
- Export data to the measurement analysis programs
- Infra-red interface between thermometer and PC makes data transfer fast and easy
- Optional IR adaptor and cable for PCs without an IR port

Thermocouple types	K, J, T, E, N, R, S	Min./Max./Avg recording	Yes
Number of inputs	53-II (Single), 54-II (Dual)	Compatible with optional toolpack	Yes
Time stamp	Time of day	Differential (T1-T2) readout	54-II only
Splash/dust resistant	Yes	Data logging up to 500 points	Yes
Dual display with backlight	Yes	IR data port for interface to PC	Yes

**Temperature Range**

J-type Thermocouples	-210°C to 1200°C (-346°F to 2192°F)
K-type Thermocouples	-200°C to 1372°C (-328°F to 2501°F)
T-type Thermocouples	-250°C to 400°C (-418°F to 752°F)
E-type Thermocouples	-150°C to 1000°C (-238°F to 1832°F)
N-type Thermocouples	-200°C to 1300°C (-328°F to 2372°F)
R and S-type Thermocouples	0°C to 1767°C (32°F to 3212°F)

**Temperature Accuracy**

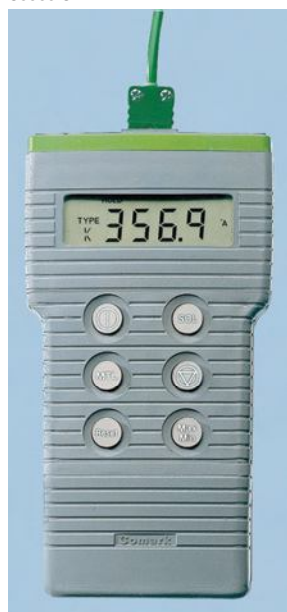
Above - 100°C (-148°F):	
J, K, T, E and N-type	± [0.05% + 0.3°C (0.5°F)]
R and S-type	± [0.05% + 0.4°C (0.7°F)]
Below - 100°C (-148°F):	
J, K, E and N-types	± [0.20% + 0.3°C (0.5°F)]
T-type	± [0.50% + 0.3°C (0.5°F)]

Battery	1000 hours typical, AA
Weight	400g
Warranty	3 years

Prices where indicated by a **1** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

220406

Mftrs. List No.	Order Code	1+	5+	10+
FLUKE 53 SERIES II	<b>318-3385</b>	278.00	269.66	261.57
FLUKE 54 SERIES II	<b>318-3397</b>	328.00	318.16	308.62
FlukeView Forms Software SC1	<b>418-6060</b>	144.00	139.68	135.49
Meter Hanging Kit TPAK80-4	<b>302-9578</b>	22.00	21.34	20.70
C101 Carry Case	<b>947-9783</b>	34.00	32.98	31.99

**Intrinsically Safe Thermometer****C9006IS**

- Electronic thermometer with type K, N, T, J, R and S thermocouple compatibility
- For use in hazardous areas such as refineries, petrochemical plants and gas distribution
- Certified to II 1 G EEx ia IIC T4 Baseefa 03 ATEX 0056
- Dust and waterproof to IP67 (BS EN 60529, IEC529) standards
- Max, min temperature memory and hold functions
- Displays temperature in °C, °F and K
- Selectable auto switch off
- Sub-miniature connector

Thermocouple Type K  
Thermocouple Type N  
Thermocouple Type T  
Thermocouple Type J  
Thermocouple Type R and S  
Scales  
Resolution

-200°C to +1372°C  
-200°C to +1300°C  
-200°C to +400°C  
-200°C to +1200°C  
-50°C to +1767°C  
°C, °F, °A  
0.1° below +1000°  
1° above (autoranging)  
±0.1% ±0.2°C  
-20°C to +40°C  
Sub-miniature

382644

Description	Mftrs. List No.	Order Code	1+	3+	5+	10+
Thermometer	C9006IS	<b>858-8953</b>	231.75	216.30	194.67	182.09
Surface probe	SK21M	<b>858-8961</b>	36.05	31.93	29.87	28.41
Penetration probe	PK24M	<b>858-8970</b>	36.05	31.93	29.87	28.41
Air probe	AK28M	<b>858-8988</b>	12.36	10.82	10.30	9.76
Insulated probe	IK21M	<b>858-8996</b>	46.35	40.69	39.66	36.52

**Intrinsically-Safe Thermometer****3208IS****Digitron**

- Certified to ATEX directive 94/19/EC
- High accuracy: 0.2% F.S. at ambient
- High and low resolution
- Wide temperature range
- Robust case
- One handed operation

This accurate and easy-to-use instrument is certified for use in flammable or explosive atmospheres up to and including Zone 0. The tough construction makes it extremely durable and therefore functional in not only hazardous atmospheres but also hostile working environments. To complement the 3208i.s the following probes are available:

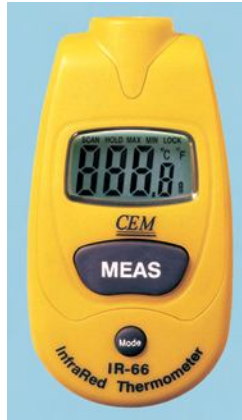
**S004K** Surface probe providing a fast response and comprising a 3.5mm  $\frac{1}{2}$  disk to allow uniform pressure on surface to be measured.

**S10PK** Exposed junction thermocouple, PTFE-insulated for general-purpose use.

Temperature range	-50 to 950°C	Battery type	9V PP3
Sensor	Type K	Battery life	1000 hrs
Resolution HI	0.1°C ±0.2% reading ±0.5°C	Weight	250g
Resolution LO	1°C ±0.2% reading ±1°C	Environmental	<b>IP64</b>
Operating temperature (ambient)	0°C to +50°C		

223045

Description	Mftrs. List No.	Order Code	1+	3+	6+
Meter	3208I.S	<b>717-4123</b>	228.38	212.03	206.45
General Probe	K0234/S	<b>500-4342</b>	32.51	30.01	27.87
Surface probe	K0454D	<b>717-4135</b>	34.61	30.87	28.59
Thermocouple	K0000	<b>717-4147</b>	12.59	11.74	11.33

**Thermometers - Non Contact (IR)****Pocket Infrared Thermometer****New****38**

- Easy to use: hold within 2 feet of the area being measured and push the button
- User selectable °C/°F
- Response time less than 1 second
- Large 12mm LCD display for readings and functions
- Automatic data hold
- Set min/max and lock
- Auto power off and low battery indication
- Impact-resistant ABS case
- Supplied with carry case, wrist strap & lithium battery

Measuring Range	-35°C to +230°C°C
Resolution	0.1°C°C
Accuracy	± (2%rdg + 2°C)
Emissivity	0.95, fixed
Battery	1 x 3V Lithium
Dimensions (WxHxD)	40 x 75 x 20mm
Weight	33g

This pocket size and easy-to-use infrared thermometer is ideal for precise non-contact measurement of surface temperatures. Suitable for monitoring appliances, heating, ventilation & air conditioning systems, food preparation and storage temperatures.

480460.465857

Order Code	1+	5+	10+
<b>142-6144</b>	28.51	26.40	24.34

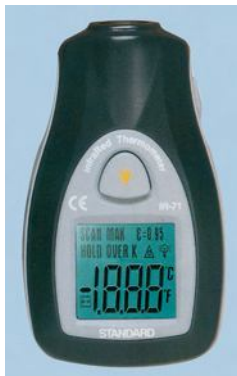
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**Please recycle after use.**



## Thermometers - Non Contact (IR) - continued

### Pocket Infrared Thermometer



A pocket size infrared thermometer that can check all types of heating ventilation and air-conditioning (HVAC) systems. Monitor performance of appliances such as refrigerators, dishwashers, freezers and ovens to ensure proper cooking, grilling and storage temperatures.

- 6:1 distance to spot size ratio
- Easy to use
- Large LCD display
- Backlit display
- User selectable °C or °F
- Automatic data hold
- Auto power off
- Low battery indication

H=94, W=56, D=28mm  
Weight = 76g

Range -30 to +270°C (-22 to +518°F) Optical resolution 6:1 distance to spot size ratio  
Basic accuracy ±2% of reading Emissivity 0.95 fixed  
Resolution 1°F/°C Power 2x 1.5V AAA batteries (supplied)  
Response time < 1 second

381015.345256

Order Code	Price Each	
	1+	5+
838-8580	32.65	30.11

### Pocket Infrared Thermometer



A compact pocket size, non-contact infrared thermometer ideal for taking surface temperature readings on hot or moving objects. A clear backlit LCD and laser guide provide precise measurements.

- Pocket size with fast simple operation
- Fixed emissivity (0.95) covers 90% of surface applications
- Narrow 8:1 field of view (at 8cm distance, measures 1cm target)
- Built in laser pointer for better accuracy
- Fast sampling time
- Resolution to 1°
- Built in °C/°F switchable
- Auto hold
- Max hold function
- Conforms to EN50081 and EN50082
- Large 3 1/2 digit backlit multifunction backlit LCD
- Dimensions (WxHxD): 93.5x50x23.5mm

Ranges -50°C to 270°C, -58°F to 518°F Resolution 1°C, 1°F  
Accuracy ±2% reading or ±2°C/±2°F Spectral response 6 to 14 µm nominal  
Sample Rate 1 sec. approx Emissivity Pre-set to 0.95

333731.275626

Description	Order Code	Price Each	
		1+	10+
IR Thermometer	462-6631	42.18	35.54

### Mini Infrared Thermometer



A non-contact thermometer, fits into any jacket pocket and is always within reach. TopSafe protection case is watertight. Measuring range is -22 to +110°C and ratio of distance to measuring spot is 1:1. Ideally suited for rapid measurements in food industry, supermarkets or the home.

- Small and handy, fits into a jacket pocket
- High accuracy
- Watertight and robust
- TopSafe case is dishwasher proof
- Max and Min values displayed
- Scan mode for permanent measurement

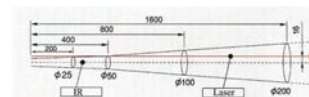
Parameters °C/°C Sensor 0.95  
Sensor Infrared Operating temp 0°C to +50°C  
Measuring Range -25 to +250°C Storage temp -20°C to +65°C  
Resolution 0.1°C Battery CR 2032  
Accuracy ±1°C to ±3 Battery Life 40 hours

H=80, W=31, D=19mm  
Weight = 28g

377677.381252

Mfrs. List No.	Order Code	Price Each		
		1+	3+	5+
805	836-9020	45.00	40.30	38.57

### Infrared Thermometer



- 400mm gooseneck probe for hard-to-reach / hot areas
- Laser pointer
- Backlit display
- Overrange indication
- Auto data hold when trigger released
- Auto power off
- Low battery indication
- User selectable °C or °F
- Supplied with soft carry case, battery and instruction manual

W=45 H=163 D=34mm. Weight 263g

Range -50 to 600°C Optical resolution 8:1 distance to spot size ratio  
Response time Less than 1 second Emissivity 0.95 fixed  
Resolution 0.1°C up to 200°C, 1°C over 200°C Power 9V battery (supplied)  
Accuracy ±2% of reading or ±2°C

446874.430597

Order Code	Price Each	
	1+	5+
127-0533	35.980	33.156

### Non Contact/Contact Thermometers

#### 825 - T4 with Laser Sighting



Fast, non contact measurement and precise contact measurement in one instrument

- Non-contact measurement on the infra-red side
- Contact measurement on the patented sprung thermocouple band
- Small, handy - fits in every shirt pocket.
- Waterproof and robust through Top-Safe
- Simple calibration on the infra-red side on the reference sprung thermocouple band
- High and low limit visible and audible alarm

Quick - and surface measurement for a wide range of applications:  
non contact:

- on rotating shaft
- on electrotech active and poorly accessible parts

Surfaces:

- on rough surfaces
- in the housing construction eg. heating systems

Measured quantity Temperature (°F/°C)  
Measuring sensor Thermocouple type K/infrared probe  
Meas. range type K: Permanent measurement -58°F to +482°F/-50°C to +250°C  
Short-time meas. (max. 10s) +482°F to +932°F/+250°C to +500°C  
Meas. range IR: -58 to +772°F/-50 to +400°C  
Type K: 0.1°F/0.1°C  
Resolution IR: 0.5°F/0.5°C  
Type K: ±°F/°C (-4°F to +212°F/-20°C to +99.9°C)  
±1% of meas. value (rem. Range)  
IR: ±2°F/°C or 2% of meas. value adjustable 0.2 to 1.0  
Emissivity 8 - 14µm  
Wavelength 1:3  
Spotsize Integr. Infra-red and sprung thermocouple band  
Probe 1.75 sec  
Response time Type K: 0.75 sec  
Operating temperature -4°F...+122°F/-20°C...+50°C  
Storage temperature -40°F...+158°F/-40°C...+70°C  
Power 2\* AAA Microcells  
Battery-life 15 hrs (permanent service)  
Battery-change By user  
Housing ABS (black), IP67\*\*  
Top Safe TPU

\*\* Attention: seal sprung thermocouple band

228183

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
825-T4 Infra-red + Laser Sighting	321-4114	184.10	164.87	157.80



## Pocket Thermometer

### 810



- Surface temperature IR measurement with 1-point laser spot marking and 6:1 optics
- Air temperature measurement
- Display of differential temperature (e.g. between window and air)
- Hold function and max./min. values
- Backlit display
- Auto-off

Supplied with Calibration protocol, wrist strap, belt holder, protective cap & batteries

### Surface Temperature

Measuring Range -30°C to 300°C  
Resolution 0.1°C  
Accuracy  $\pm 2.0^\circ\text{C}$  (-30 to +100°C,  $\pm 2\%$  of m.v. remaining range)  
Optics 6:1

### Air Temperature

Measuring Range -10 to 50°C  
Resolution 0.1°C  
Accuracy  $\pm 0.5^\circ\text{C}$   
Units °C/°F

### General Specifications

Operating Temperature -10 to 50°C  
Battery Type Alkaline (2 x AAA)  
Battery Life 50 hrs (average, without display illumination)  
Dimensions (Incl. Protective Cap) 119 x 46 x 25mm

488395.503096

Mfrs. List No.	Order Code	1+	2+	5+
810	147-1398	71.00	65.54	60.86

## Infrared Thermometer

### FLUKE 61



The Fluke 61 thermometer provides a quick non-contact temperature measurement in a compact case surrounded with a protective holster. Targeting objects is easy with the bright laser beam activated via the simple push button operation. Even in the dark the display is simple to read with the quality backlit screen. Ideal for measuring surface temperatures of rotating, hard-to-reach, electrically live or dangerously hot targets.



- Shock-absorbing holster increases ruggedness
- Bright laser beam provides easy targeting
- Large display clearly supplies data at a glance
- Quality backlight illuminates the screen in the dark
- Automatic sleep mode after 15 seconds extends battery life
- Alkaline batteries provide over 4000 typical measurements
- Battery life: 12 hours with laser and backlight activated
- Dimensions (LxWxH): 184x45x38mm
- Weight: 227g

Ranges -18°C to 275°C (0°F to 527°F)  
Response Time < 1 second  
Resolution 0.2°  
Repeatability  $\pm 2^\circ$  of reading or  $\pm 2\%$ , whichever is greater  
Accuracy Four Targets at:  
(Assumes ambient operating temperature of 23°C)  
-18°C to -1°C (0°F to 30°F):  $\pm 3^\circ$  ( $\pm 5^\circ\text{F}$ )  
-1°C to 275°C (30 to 527°F):  $\pm 2\%$  of reading or  $\pm 2^\circ\text{C}$  ( $\pm 3.5^\circ\text{F}$ ), whichever is greater

Optical resolution 8:1 Distance to spot size ratio  
Emissivity Fixed at 0.95  
Minimum spot size Minimum 200mm (spot 25mm)

Prices where indicated by a **ff** are subject to change. Please call your local sales office or visit [www.farnellonline.com](http://www.farnellonline.com) for the latest prices.

333733

Mfrs. List No.	Order Code	1+	2+	5+
FLUKE 61	397-0061	108.00	104.76	101.62

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## Infrared Food Thermometers

### FoodPro Series



### FoodPro - Quick surface scanning

The perfect companion to contact thermometers

- Fast non-contact temperature measurement without danger of contamination
- Signals potentially risky temperatures with lighted LEDs
- Measurement spot illumination

### FoodPro Plus - Complete food inspection

The all-in-one temperature monitoring tool

Features same as FoodPro with added:

- Integrated contact probe for confirmation of vital core temperatures
- Timer with alarm function

Complete food temperature measurement devices - FoodPro and FoodPro Plus thermometers scan food surfaces for instant temperature readings. Measurements trigger green or red HACCP lights to alert user of safe or unsafe conditions. A bright LED light illuminates entire target for easy aim. FoodPro Plus unit has built-in probe and timer.

	FoodPro	FoodPro Plus
<b>Infra red thermometer</b>		
Temperature range	-30 to +200°C	-35 to +275°C
Accuracy		0 to +65°C: $\pm 1^\circ\text{C}$ <0°C: $\pm 1^\circ\text{C} \pm 0.1$ degree/degree > 65°C: $\pm 1.5\%$ of reading <500ms after initial reading
Response time		8 - 14µm
Spectral response		Pre-set for food applications
Emissivity		2.5:1 @ 90% energy
Distance to spot size		25 to 250mm
Working range		12mm
Minimum target size		13mm
Illumination to IR channel offset		
<b>Probe Thermometer</b>		
Temperature Range	-	-40 to 200°C
Accuracy	-	-5 to +65: $\pm 0.5^\circ\text{C}$ <-5°C: $\pm 1^\circ\text{C}$ > 65°C: $\pm 1\%$ of reading
Response time	-	7 - 8 seconds (3 time constants)
Probe dimensions	-	ø: 3mm, Length: 80mm
Sensor type	-	Thin film platinum, class A RTD
<b>Operational</b>		
Ambient operating range		0 to 50°C
Relative humidity		90% ( $\pm 5\%$ ) RH noncondensing @ 30°C
Storage temperature		-20 to 60°C
Power	1x AA Alkaline	1x 9V Alkaline
LCD backlight	x	✓
Temperature display		4 digits, 0.2°C resolution
Max temperature displayed	x	✓
Timer	x	✓
Environmental	IP54 sealing (hand washable, non submersible)	
Dimensions	150 x 30 x 50mm	165 x 32 x 50mm
Weight	100g	150g

339609.409820

Mfrs. List No.	Order Code	1+	3+
FP	127-2819	61.00	59.17
FP PLUS	127-2820	112.00	108.64

## Infrared Non Contact Thermometer



### Model: 72-820

A general purpose infrared, non-contact thermometer with adjustable emissivity. Simply target the unit using the built-in laser pointer and squeeze the trigger to take fast and accurate surface temperature measurements.

Range -18°C to +550°C  
Accuracy  $\pm 1.8\%$   
Resolution 0.1°C  
Repeatability  $\pm 0.5\%$   
Emissivity 0.10 to 1.00  
Response Time 250ms  
LCD size (WxH) 29x32mm  
Dimensions (WxHxD) 53x169x138mm  
Weight 270g



## Thermometers - Non Contact (IR) - continued

### Infrared Non Contact Thermometer - continued

- 4 Digit LCD with backlight
- °C/°F measurements
- 12:1 distance to spot ratio
- Max/Min/Dif/Avg temperature display with hold function
- Sleep mode and low battery warning
- USB or 9V battery power
- Tripod mount
- Supplied with 9V battery, carry bag, USB lead and user manual

510028.509462

Description	Order Code	1+	Price Each	5+
Infrared Thermometer	156-3715	35.00		34.65

### Infrared Non Contact Thermometer



#### Model: 72-823

A general purpose infrared, non-contact thermometer, with a wide temperature measurement range. Simply target the unit using the built-in laser pointer and squeeze the trigger to take fast and accurate surface temperature measurements.

Range	-32°C to +650°C
Accuracy	±1.8%
Resolution	0.1°C
Repeatability	±0.5%
Emissivity	0.10 to 1.00
Response Time	250ms
LCD size (WxH)	29x32mm
Dimensions (WxHxD)	53x169x138mm
Weight	270g

- 4 Digit LCD with backlight
- °C/°F measurements
- 20:1 distance to spot ratio
- Max/Min/Dif/Avg temperature display with hold function
- Sleep mode and low battery warning
- USB or 9V battery power
- Tripod mount
- Supplied with 9V battery, carry bag, USB lead and user manual

510029.509474

Description	Order Code	1+	Price Each	5+
Infrared Thermometer	156-3716	45.65		45.19

### Dual Laser Infrared Thermometers



- Dual laser pointers converge to a single spot when the unit is at the optimal distance from the object being measured
- Measures °C and °F
- Distance to spot size ratio is 8:1 at the focal point
- Impact-resistant double moulded ABS case
- Response time less than 150 milliseconds
- Large backlit LCD display with function indicators
- Automatic data hold when trigger released
- Auto power off
- Over range indication
- Supplied with carry case and battery

This compact infrared thermometer with dual laser targeting provides fast and accurate non-contact measurement of most surface temperatures. Suitable for a wide range of temperature measurement applications including plant & general maintenance, HVAC, transport & automotive and health & safety.

<b>Model</b>	<b>IR-8861</b>	<b>IR-8862</b>
Measuring Range	-50°C to +600°C°C	-50°C to +800°C°C
Resolution	0.1°C°C	0.1°C°C
Accuracy	±1%	±1%
Emissivity	0.95, fixed	0.1 to 1.0, variable
Battery	1 x 9V PP3	
Dimensions (WxHxD)	43 x 146 x 104mm	
Weight	163g	

480461.466695

Model	Order Code	1+	Price Each	3+	5+
IR-8861	142-6145	79.19		71.79	67.60
IR-8862	142-6146	89.74		83.41	76.61

### Infrared Thermometer IR608A



The IR 608A non-contact thermometer is the ideal tool for customers who want to measure temperature in a variety of applications. The unit has the following additional features:

- "Pistol grip design" for comfortable grip
- Measuring range -18°C to 275°C
- Laser sighting for accurate targeting
- Display hold (7 seconds)
- Distance to spot size ratio 8:1
- Accuracy to 2%
- Backlit display
- One year "no hassle" warranty



W=60 H=230 D=165mm. Weight 500g

Prices where indicated by a **1** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

489625.502382

Description	Order Code	1+	Price Each	3+	10+
Infrared Thermometer	146-6481	60.00		58.20	56.45
Standard Calibration Charge	S <b>C4</b>			34.10	
UKAS Calibration Charge	N <b>C4</b>			58.75	

### Infrared Thermometer



- Wireless USB Interface (RF 433MHz)
- High 30 : 1, distance to target ratio measures smaller surface areas at greater distances
- Built-in laser pointer
- Type K temperature measurements
- Max, Min, DIF, AVG, record
- Automatic Data Hold
- High and low alarm
- Adjustable emissivity

Form factor	Pistol grip	Optical resolution	30:1
IR Temperature range	-50°C to 1050°C	Emissivity	Adjustable, 0.1 to 1.0
K Type Temperature range	-50°C to 1370°C	Dimensions (WxHxD)	106 x 180 x 48mm
Basic Accuracy	±1.5%	Weight	250g
Response Time	Less than 1 second		

**Includes:** 9V battery, carry case, Type K temperature probe, wireless PC interface, Mains adaptor & charger, tripod and manual.

486645.465496

Order Code	1+	Price Each	3+	+
143-0724	93.97		84.46	—
Standard Calibration Charge	S <b>C4</b>		34.10	
UKAS Calibration Charge	N <b>C4</b>		58.75	

Over 480,000 products online



## Infrared Thermometer

830-T1/-T2



H=190, W=75, D=38mm Weight=200g

## 830-T1 features

- Fast logging
- Laser sighting
- Adjustable alarm limits
- Audible and visual alarm if limits are exceeded
- Easy handling via pistol design
- Backlit display
- Adjustable emissivity factor (0.2 to 1.0)

## 830-T2 Extra features

- Exact 2-point sighting
  - Accurate 12:1 lens
  - External temperature probes can be connected
  - Emissivity level can be determined
- 830-T2 Set Consists of**
- 830-T2 Thermometer
  - Accurate surface probe
  - Leather protection sleeve

An infrared thermometer with choice of 1 or 2-point laser sighting. Has adjustable limit values and alarm function, the 830-T2 also has connection for external probes.

Measuring Range	-30 to +400°C
Resolution	0.5°C
Accuracy	±1.5°C (0.1 to +400°C) ±2°C (-30 to 0°C)
Application temp	-20°C to +50°C
Storage temp	-40°C to +70°C
Battery	9V Block
Life	15 hours
Lens	830-T1: 10:1 830-T2: 12:1
Contact temp measurement (type K)	-50 to +500°C
Resolution	0.1°C
Accuracy	±0.5°C

377676

Mfrs. List No.	Order Code	1+	3+	5+
830-T1	836-8996	90.50	81.04	77.57
830-T2	836-9003	123.80	110.87	106.11
830 TS SET	836-9011	197.60	176.96	169.37

## Infrared Thermometer

Model 62



- Laser guided sighting system for easy targeting with 1% accuracy
- Display in °C or °F
- Backlit display for easy reading in the dark
- MAX temp reading

Form factor	Pistol grip
Temperature range	-30 to 500°C
Optical resolution	10:1
Response time	≤0.5 seconds
Resolution	0.2°C
Repeatability	2%
<b>Accuracy</b>	
<10°C:	±1.5°C
10 to 30°C:	±1°C ±1.5% of reading
30 to 500°C:	±1.5°C
Distance to target	1.5m
Emissivity	Fixed at 0.95

W=101 H=152 D=38mm.  
Weight 200g

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

413770.429079

Description	Mfrs. List No.	Order Code	1+	3+	5+
IR Thermometer	62	947-9813	74.00	71.78	69.63
HOLSTER	H6	828-3931	16.00	15.52	15.05
CASE, HARD	C101	947-9783	34.00	32.98	31.99

## Technical information at your fingertips

Over **352,000** technical datasheets available online.

Visit [www.farnell.co.uk](http://www.farnell.co.uk) and look for the **Tech Info** heading in your search results.

## Infrared Thermometers

60 Series



W=160 H=200 D=55mm. Weight 320g

The Fluke 60 Series non-contact thermometers are the ideal professional diagnostic tools for quick and accurate temperature measurements. Ideal for measuring surface temperatures of rotating, hard-to-reach, electricity live or dangerously hot targets like electrical motors and -panels, and heating and ventilation systems. Laser sighting system guides measurements to the right target and in less than a second, the large temperature display provides a readout of the surface temperature.

- Laser guided sighting system for easy targeting with 1% accuracy
- Up to 12 points datalogging with min, max and average functions
- Up to 50:1 optical resolution
- Choice between models with fixed or adjustable emissivity
- Backlit display for easy reading in the dark
- Temperatures up to 760°C



	63	66	68
Form factor	Pistol grip	Pistol grip	Pistol grip
Temperature range	-32 to 535°C	-32 to 600°C	-32 to 760°C
Optical resolution	12:1	30:1	50:1
Laser beam	●	●	●
Backlit LCD display	●	●	●
Selectable °C or °F	●	●	●
MIN/MAX/AVG/DIF	MAX only	●	●
Datalogging	●	●	●
Hi/Lo Alarm	●	●	●
Adjustable emissivity	●	●	●
Response time	≤0.5 secs	≤0.5 secs	≤0.5 secs
Resolution	0.2°C	0.1°C	0.1°C
Repeatability	±0.5% or ≤±1°C	±0.5% or ≤±1°C	±0.5% or ≤±1°C
<b>Accuracy</b>			
<26°C:	±3°C	±3°C	±3°C
-26 to -18°C:	±2.5°C	±2.5°C	±2.5°C
-18 to 23°C:	±2°C	±2°C	±2°C
23 to 510°C:	±1% of reading or ±1°C	±1% of reading or ±1°C	±1% of reading or ±1°C
>510°C:	±1.5% of reading	±1% of reading or ±1°C	±1% of reading or ±1°C
Distance to target	Up to 2m	5m	8m
Emissivity	Fixed at 0.95	0.1 to 1.0 by 0.01 steps	0.1 to 1.0 by 0.01 steps

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

403475.429078

Description	Mfrs. List No.	Order Code	1+	3+	5+
IR Thermometer 535°C	63	921-0083	158.00	153.26	148.66
IR Thermometer 600°C	66	921-0091	290.00	281.30	272.86
IR Thermometer 760°C	68	921-0105	374.00	362.78	351.90
HOLSTER	H6	828-3931	16.00	15.52	15.05
CASE, HARD	C101	947-9783	34.00	32.98	31.99
<b>Standard Calibration Charge</b>			S	C4	34.10
<b>UKAS Calibration Charge</b>			N	C4	58.75

## Coming soon



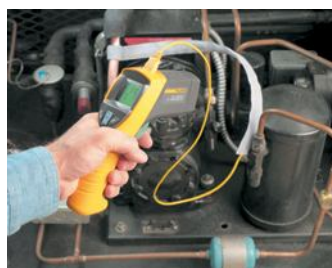
Register your interest for items that are 'Coming Soon' at [www.farnell.co.uk](http://www.farnell.co.uk) and we'll email you to let you know that they're in stock.





## Thermometers - Non Contact (IR) - continued

### Infrared & Contact Thermometer 561 HVACPro

**FLUKE**

**LATEST  
PRICING**

W=52 H=177 D=164mm. Weight 340g

Combines the temperature measurement functions that professionals need most for inspecting heating, ventilation, air conditioning and refrigeration systems. The Fluke 561 HVACPro provides both non-contact and contact temperature measurements, replacing several other test tools. It is fast, efficient and easy to use, saving you valuable time and effort.

- IR thermometer for quick measurements up close or at a distance, without a ladder
- Compatible with all standard mini-connector K-type thermocouples
- Velcro pipe probe for superheat, sub-cooling or other contact and ambient measurements
- Single-point laser sighting
- Temperature range optimized for HVAC/R applications
- Easy emissivity adjustment for measuring pipes and ducts more accurately
- Lightweight, portable and very easy to use
- Efficient - no need to shut down equipment when making IR measurements
- MIN, MAX and DIF temperature readings help you quickly identify problems
- Scan large areas or small objects quickly and efficiently
- HVAC/R measurement guide included to maximize your productivity
- Backlit LCD display with dual temperature measurements
- MAX, MIN and DIF functions
- 7 second Data Hold
- Two year warranty

**Supplied with:** K-type velcro pipe probe, hard carry case, 2x AA batteries, user manual and measurement guide.

Temperature range -40°C to 550°C  
Optical resolution 12:1  
Emissivity Three settings: 0.3 / 0.7 / 0.95  
Response time <500 ms

**Accuracy**  
0°C to 550°C ±1% of reading or ±1°C whichever is greater  
<0°C ±(1% of reading + 1°C)  
Resolution 0.1°C  
Repeatability 0.5%  
Velcro Pipe Probe (Range 0 -100°C) ±2.2°C

**Physical**  
Power 2x AA batteries, giving 12 hours operation

Prices where indicated by a **£** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

440686.502109

Description	Mfrs List No.	Order Code	1+	5+	10+
Thermometer	561	121-8793	111.00	107.67	104.44
HOLSTER	H6	828-3931	16.00	15.52	15.05
			<b>Price Each</b>		
Standard Calibration Charge			S <b>C4</b>	34.10	
UKAS Calibration Charge			N <b>C4</b>	58.75	

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## Infrared & Contact Thermometers 566 and 568

**FLUKE**

**New**
**LATEST  
PRICING**

With a straight-forward user interface and soft-key menus, the Fluke 566 and 568 make even complex measurements easy. Quickly navigate and adjust emissivity, start data logging, or turn on and off alarms, with just a few pushes of a button. With a rugged, easy-to-use, ergonomic design, the Fluke 566 and 568 can stand up to tough industrial, electrical, and mechanical environments.

- Measure -40°C to 800°C / -40°F to 1472°F (568) or -40°C to 650°C / -40°F to 1202°F (566)
- Easily access advanced features with the soft-key buttons and graphical display
- Measure smaller objects from further away, with a distance-to-spot ratio of 50:1 (568) or 30:1 (566)
- Compatibility with all standard mini-connector K-type thermocouples allows you to preserve your thermocouple investments
- Confidently measure a wide variety of surfaces with the adjustable emissivity feature, including a built-in material table
- Capture up to 99 points (568) or 20 point (566) of data, for downloading and recalling later
- Easily trend and analyze data with included FlukeView Forms software (568) Two-in-one infrared and contact thermometers with an innovative dot matrix display.
- See your data right away without leaving the site, using the USB (568) and your laptop for "Hands-free" datalogging
- Confidently troubleshoot equipment with 1% measurement accuracy
- Versatile interface with six languages from which to choose
- 98 x 96 pixel dot matrix display with two level backlight
- Hi / Low Alarms
- Min / Max / Avg / Diff
- Trigger Lock

**Includes:** Infrared thermometer with contact thermometer capabilities, FlukeView Forms software (568 only), USB cable (568 only), K-type thermocouple bead probe, hard carrying case, quick start guide, and users manual.

	566	568
Optical resolution	30:1	50:1
Emissivity	Adjustable from 0.1 to 1.00	
Response time	<500 ms	
<b>Infrared Measurement Specs</b>		
Temperature range	-40°C to 650°C	-40°C to 800°C
0°C to 550°C	±1% of reading or ±1°C whichever is greater	
<0°C	±(1% of reading + 1°C)	

<b>K-Type Thermocouple Measurement Specs</b>		
Temperature range	-270°C to 1372°C	
-40°C to 1372°C	±1% or 1°C whichever is greater	
-270°C to -40°C	±1°C + 0.2°	

<b>K-Type Bead Thermocouple Measurement Specs</b>		
Temperature range	-40°C to 260°C	
-40°C to 260°C	±1.1°C	

<b>Physical</b>		
Data Storage	20 points	99 points
Power	2x AA batteries, giving 12 hours operation	

Prices where indicated by a **£** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

492395.503400

Description	Mfrs List No.	Order Code	1+	3+	5+
Thermometer	566	150-3751	283.00	274.51	266.28
Thermometer	568	150-3752	373.00	361.81	350.96
			<b>Price Each</b>		
Standard Calibration Charge			S <b>C4</b>	34.10	
UKAS Calibration Charge			N <b>C4</b>	58.75	

## Troubleshooting tips



Chat live online to one of our technical engineers at [www.farnell.co.uk](http://www.farnell.co.uk)

## Infrared Thermometers

## 570 Series



Model 572/574:

W=170 H=200 D=55mm. Weight 480g

The Fluke 570 series of advanced IR non-contact thermometers are ideal for predictive and preventative maintenance applications. Offering a broad temperature range and a true dimension laser sighting system for precise targeting resulting in more accurate measurements. From close-up electrical connections, to fardistance room balancing checks, the Fluke 570 series can take IR temperature measurements with ease and precision.

## Included Accessories

**Fluke 572:** Hard carry case, batteries.

**Fluke 574:** Hard carry case, batteries, thermocouple K probe, 220V PSU, DataTemp software, RS232 cable

Temperature range  
Optical resolution  
Three dot laser beam for accurate targeting  
Adjustable emissivity  
Bar graph display  
Backlit LCD display  
Selectable °C or °F  
Audible and visible Hi/Lo alarm  
MIN / MAX readings  
AVG / DIF readings  
Data logging (number of measurements)  
PC interface  
Built-in digital camera

	572	574
Temperature range	-30 to 900°C	-30 to 900°C
Optical resolution	Standard 60:1 / Close Focus 50:1	Standard 60:1 / Close Focus 50:1
Three dot laser beam	•••	•••
Adjustable emissivity	•••	•••
Bar graph display	•••	•••
Backlit LCD display	•••	•••
Selectable °C or °F	•••	•••
Audible and visible Hi/Lo alarm	•••	•••
MIN / MAX readings	•••	•••
AVG / DIF readings	•••	•••
Data logging (number of measurements)	•••	100
PC interface	•••	RS232
Built-in digital camera	•••	•••

## 572 / 574

Response time 250 ms (95% of reading)  
Resolution 0.1°C of reading up to 900°C  
Repeatability ±0.5% of reading or ±1°C \*  
Accuracy ±0.75% of reading, ±0.75°C \*  
Typical distance to target 10.5 m  
Emissivity Digitally adjustable from 0.1 to 1.0 in 0.01 increments  
\* whichever is greater

Prices where indicated by a **£** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

413796

Mfrs List No.	Order Code	1+	3+	5+
<b>Without Close Focus</b>				
572	947-9821	605.00	586.85	569.24
574	947-9848	903.00	875.91	849.63
<b>With Close Focus</b>				
572CF	947-9830	605.00	586.85	569.24
574CF	947-9856	903.00	875.91	849.63
<b>Accessories</b>				
ANS Analogue Data Cable	947-9864	41.00	39.77	38.58
C570 Holster	947-9872	29.00	28.13	27.29
<b>Standard Calibration Charge</b>		<b>Price Each</b>		
		S £4 34.10		

FLUKE



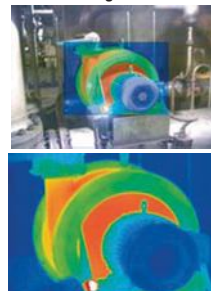
## Thermal Imagers

FLUKE

## Thermal Imager

## Ti10 &amp; Ti25

The Ultimate Tools for Troubleshooting and Maintenance!



New



The Fluke Ti25 and Ti10 are the perfect tools to add to your problem solving arsenal. Built for tough work environments, these high-performance, fully radiometric imagers are ideal for troubleshooting electrical installations, electro-mechanical equipment, process instrumentation, HVAC equipment and others.

New IR-Fusion™ Technology, combines both visual and infrared images at the same time, making the images easier to understand.

- Engineered and tested to withstand a 2 meter drop, when was the last time you dropped a tool?
- Withstands dust and water-tested to an IP54 rating
- Innovative protective lens cover protects the lens when not in use. The cover is securely attached and out of the way while images are being taken.
- Works in ambient temperatures as low as -10 °C and high as +50 °C
- Delivers the clear, crisp images needed to find problems fast
- Identify even small temperature differences that could indicate problems with excellent thermal sensitivity (NETD)
- High performance, low noise sensor provides high quality image and stable temperature reading
- Even the smallest details become visible with the large, widescreen full VGA color LCD display
- Intuitive, three-button menu is easy to use... simply navigate with the push of a thumb.
- No need to carry pen and paper, record findings by speaking into the camera. Voice annotations can be recorded with every image you take. Voice comments are saved along with individual images for future reference (Ti25 only)
- Store more than 3,000 screen images
- (.bmp format) for easy reporting direct into Microsoft Word™ and other programs or 1,200 IR-Fusion images, including thermal image, visual image, temperature data and voice recorded comments for reporting and analysis purpose. Data is stored on included 2 GB SD memory card.

## Fluke SmartView™ software is included with each Fluke thermal imager.

- Powerful, modular suite of software tools for viewing, annotating, editing and analyzing of infrared images.
- Generate customizable, professional-looking reports in a few easy steps.
- Full support of IR-Fusion Technology lets you edit images in five viewing modes.

**Compatibility:** Windows® 2000 SP4 with update rollup 1/XP SP2/Vista

	Ti25	Ti10
<b>Infra Red Performance</b>		
Thermal sensitivity @ 30°C	≤ 0.1°C (100mK)	≤ 0.2°C (200mK)
Minimum span (Auto/Manual)	5 °C / 2.5 °C	10 °C / 5 °C
Picture in Picture Modes	Blending-Min, Mid, & Max	Standard
Measurement range	-20 °C to 350 °C, 2 ranges	-20 °C to 250 °C
Accuracy	± 2 °C or 2% (whichever is greater)	± 5 °C or 5% (whichever is greater)
Markers	Centre, Hot & Cold	Centre
Voice memo recorder	✓	—
Protection	IP54	IP54
Field of view		23° Horizontal x 17° Vertical
Spatial resolution		2.5 mrad
Minimum focus distance		15cm

Prices where indicated by a **£** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

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Mfrs List No.	Order Code	1+	+	+
Ti25	155-3576	4,480.00	—	—
Ti10	155-3577	2,986.00	—	—
<b>Accessories</b>				
TI-CAR CHARGER	155-3578	84.00	—	—
<b>Standard Calibration Charge</b>		<b>Price Each</b>		
		S £8 45.13		
<b>UKAS Calibration Charge</b>		N £8 73.70		

## Express checkout



With no need to re-enter your details, returning customers can now buy products even faster - **order online today at [www.farnell.co.uk](http://www.farnell.co.uk)**

## FREE global legislation support



RoHS, REACH, WEEE, EuP, Batteries Directive - we've got it covered at:  
**[www.global-legislation.com](http://www.global-legislation.com)**

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## Thermal Imagers - continued

### Thermal Imager Ti20

**FLUKE**


W=102 H=254 D=178mm. Weight 1.2kg

- Fully radiometric for detailed temperature analysis and tracking of critical components
- Complete solution with InsideIR software for analysis, reporting and routing
- Large colour LCD displays uncluttered image with data and routing instructions
- Uses revolutionary detector technology to provide a clear thermal image while accurately measuring the temperature
- Measures up to 350°C to cover a broad range of industrial applications
- Protected against dust and moisture (IP54 rated) to withstand harsh industrial environments
- Provides 3 hours continuous operation per battery charge
- Facilitates one-handed point-, shoot- and image capture operation
- Assists fast inspections with clear on-screen step-by-step routing instructions
- Comes complete with all necessary accessories and professional application training material to ensure a fast return on investment

Representing a price/performance breakthrough in thermal imaging, the Fluke Ti20 lowers the entry threshold for this powerful technology. Designed for industrial applications, the Ti20 puts the capabilities of thermal imaging within the hands of service and maintenance personnel who know the facility and equipment best.

#### Typical Applications

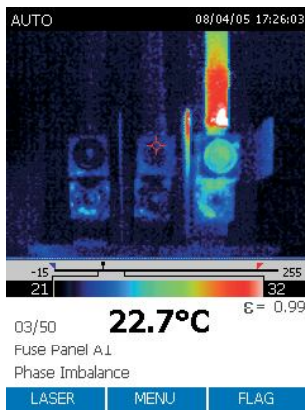
Electrical power distribution systems: three-phase systems, distribution panels, fuses, wiring and connections

Electro-mechanical equipment: motors, pumps, bearing and gear boxes

Process instrumentation: process control equipment, pipes, valves, steam traps and vessels

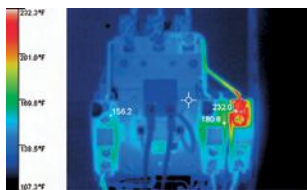
Facility maintenance: HVAC systems, buildings and roofs

An overheated motor may be an indication of electrical power problems, an underrated motor or insufficient cooling. Temperature differences between phases may indicate unbalanced loads, harmonics, component problems, bad connections or bad wiring. Ball bearings running hot are an early indication of upcoming failure. Monitoring process installations is made easy using thermal imaging.



#### Powerful InsideIR Software

The Fluke Ti20 comes with the powerful InsideIR software for storing and analyzing thermal images and creating professional reports. The software makes it possible to adjust key parameters in a stored image downloaded from the camera such as emissivity, reflected temperature compensation, level, gain, and colour palette in the comfort, quiet and safety of the



office. This not only improves inspection safety and convenience, but also makes it unnecessary to re-scan equipment if different settings are desired in a previously captured thermal image.

#### Fluke Ti20 Thermal Imager includes:

InsideIR software, USB cable, AC power adapter, 2x rechargeable battery packs, 1x AA battery case, hard case, soft case, wrist strap, printed "Getting Started" guide and manual on CD.

#### Thermal Specifications

Temperature Range	-10°C to 350°C
Detector Type	128 x 96 thermal element focal plane array
Accuracy	±2% or ±2°C (whichever is greater)
Repeatability	±1% or ±1°C (whichever is greater)
Resolution	0.1°C

#### Optical/IR Specifications

Spectral Range	7.5 - 14 microns
Target Sighting	Single laser dot
Optical Resolution	75:1
Image Frame Rate	9 Hz
Field of View	20° Horizontal and 15° Vertical
Palettes	Grey, Reverse Greyscale, Ironbow or Rainbow.
Adjustable Emissivity	0.10 to 1.00 in 0.01 increments

#### Electrical Specifications

Power	Rechargeable battery pack giving 3 hours continuous use
Supported OS	Windows 2000 and Windows XP
Data Transfer	USB - 25s to transfer 50 frames
Storage	Flash memory - capacity of 50 images

Prices where indicated by a **+** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

449477

Description	Mfrs. List No.	Order Code	Price Each
Thermal Imager	Ti20	122-5564	1+ 4,437.00

## Process Timers

### Bench Process Timer



Easy to use as a standard timer or automatically triggered by external devices for start/stop via 4mm jack sockets. A high accuracy timer, with a robust construction ideal for regular use. Colour coded buttons and jack sockets make the timer extremely practical and convenient to use.

**New**

● Robust construction - impact-resistant ABS case with non-slip rubber feet for stability on the bench

● 30ppm quartz crystal with a fixed calibrated capacitor of 27pF for high accuracy timing

● 15mm LCD display

- 4mm jack sockets for Start/Stop & Reset allow automatic triggering of timer by external devices
- Pressing the reset button during a timing cycle displays the time elapsed
- Supplied with battery

Capacity	99mins, 59s, 99/100ths with auto roll-over
Resolution	0.01s
Accuracy	± 1 Sec. in 24 hours
Power	1x 1.5V AAA battery
Dimensions (WxHxD)	105x80x100mm
Weight	151g

480551.466709

Order Code	1+	10+	25+
142-6154	10.03	9.45	9.06

## Probes & Accessories

### Fine Wire Probes KA Series



K type fine wire thermocouple sensors in a choice of temperature ranges.

- PTFE fine wire sensors for KA01 and Fibre Glass for KA02
- Class 1 material
- Moulded thermocouple miniature connector

339597.409722

Mfrs. List No.	Temperature Range	Order Code	1+	10+	25+
KA01	-100 to + 250°C	492-0971	4.69	4.29	3.99
KA02	-100 to + 650°C	492-0983	6.09	5.50	5.09

### General Purpose Probes KM Series



K type surface probes for for general purpose measurement, with a choice of shaft sizes.

- Temperature range: -50 to +1100°C
- The material can be bent without affecting performance
- Excellent for measurement of air, gas, liquid and applications requiring

- difficult access
- Supplied with 2m curly cable with miniature plug

339595.409681

Mfrs. List No.	Shaft Size (mm)	Order Code	1+	10+	25+
KM01	100 x 1.5	492-0909	32.27	28.71	26.65
KM03	100 x 3.0	492-0880	35.50	31.45	29.20
KM04	300 x 3.0	492-0892	35.50	31.45	29.20



## Surface Probes

## KS Series



A range of K type surface probes for measuring within different temperature ranges.

- Excellent accuracy

- Fast response
- Fitted with 2m curly cable and miniature plug

339593.409615

Mfrs. List No.	Measuring Range	Order Code	1+	Price Each	10+	25+
KS08	-50 to +950°C	492-0831	61.36	53.32	49.51	
KS07	-50 to +600°C	492-0843	40.40	35.61	33.06	
KS01	-50 to +250°C	492-0855	35.01	31.05	28.83	

## Needle Probes

## KP Series



K type surface probes for for general purpose (KP05), or heavy duty (KP07) measurement.

- Temperature range: -100 to 600°C
- With pencil point tip for ease of penetration
- Ideal for measurement of semi-solid or solid materials
- Waterproof

339594.409670

Mfrs. List No.	Shaft Diameter	Order Code	1+	Price Each	10+	25+
KP05	3.3mm	492-0867	32.27	28.71	26.65	

## Air Probe K Type

## KA04



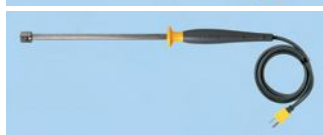
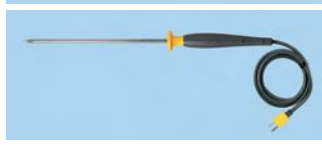
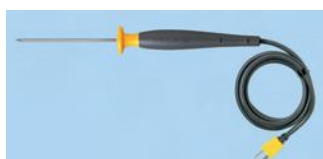
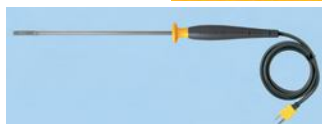
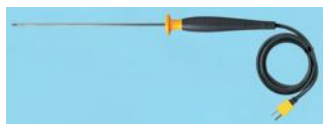
- K type with temperature range of -50 to +400°C
- Designed for measuring air or gas temperatures
- Ideal for temperature measurement through small openings
- Fitted with sensor protection tube
- Fitted with 2m curly cable and miniature plug

339592

Mfrs. List No.	Order Code	1+	Price Each	10+	25+
KA04	492-0820	30.08	26.69	24.79	

## Temperature Probes

FLUKE



A range of thermocouple probes designed for use with Fluke test meters for contact temperature measurements. SureGrip™ accessories are designed to improve steadiness in slippery hands. Rubber overmoulded surfaces and finger-hugging curves give the user a comfortable, reliable grip on the accessory so they can focus on making an accurate measurement.

## 80PK-22 SureGrip™ Immersion Probe

- Type-K thermocouple for use in liquids and gels
- Measurement range: -40°C to 1090°C

## 80PK-24 SureGrip™ Air Probe

- Type-K thermocouple for use in air and non-caustic gas measurements
- Bead protected by perforated baffle
- Measurement range: -40°C to 816°C

## 80PK-25 SureGrip™ Piercing Probe

- Type-K thermocouple suitable for food industry, liquids and gels
- Measurement range: -40°C to 350°C

## 80PT-25 SureGrip™ Piercing Probe

- 80PT-25: operates with T-type thermometers
- Measurement range: -196°C to 350°C

## 80PK-26 SureGrip™ General Purpose Probe

- Type-K thermocouple with tapered tip for use in air, non-caustic gas and surface applications
- Measurement range: -40°C to 816°C

## 80PK-27 SureGrip™ Industrial Surface Probe

- Type-K thermocouple for surfaces in rugged environment
- Durable ribbon sensor
- Measurement range: 127°C to 600°C

Prices where indicated by a **†** are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

339464

Mfrs. List No.	Order Code	1+	Price Each	10+
80PK-22	491-7169	57.00		55.29
80PK-24	491-7170	74.00		71.78
80PK-25	491-7182	67.00		64.99
80PT-25	491-7194	60.00		58.20
80PK-26	491-7200	74.00		71.78
80PK-27	491-7212	215.00		208.55

## Plug Mounted Probes

## KH Series



A range of K type plug mounted probes for various applications and a temperature range of +250°C.

## KHS01 - Surface Probe (Band)

- Fast response for surface temperature measurement
- Uses a thin stainless steel band for contacting the surface

## KHS02 - Surface Probe (Sprung Shield)

- Features a sprung draught shield which serves to protect the tip when not in use
- Also features a thin metal disc giving a low thermal mass, providing a fast response

## KHN01 - Insertion Probe

- Features a pencil tip
- Ideal for measuring temperatures of semi-solids

## KHM01 - General Purpose Probe (Mineral Insulated)

- A 3mm diameter mineral insulated probe
- 100mm long

## KHA02 - Air Probe

- Fast response sensor
- Comprising an exposed thermocouple junction protected by a perforated stainless steel sheath
- Ideal for use in heating and ventilation work allowing for temperature measurement with a simple one-handed operation

## KH01 - Handle Probe

- These probes are used in conjunction with the range of plug-mounted probes
- They provide a handle for all the plug-mounted probes

339596.409702

Probe Type	Mfrs. List No.	Shaft Size (mm)	Order Code	1+	Price Each	10+	25+
Surface Band	KHS01	110 x 10	492-0910	23.06	20.93	19.42	
Surface	KHS02	110 x 10	492-0922	23.06	20.60	19.12	
Needle	KHN01	110 x 3	492-0934	17.36	15.76	14.65	
General Purpose	KHM01	100 x 3	492-0946	17.36	15.76	14.65	
Air	KHA02	110 x 4	492-0958	19.93	17.95	16.67	
Probe Handle	KH01		492-0960	18.86	17.38	16.13	

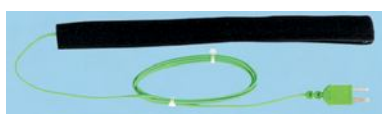
## Probes &amp; Accessories - continued

Pipe Clamp Probe  
KPS10

- K type probe with temperature range: -50 to +150°C
- Ideal for measurement of pipe temperatures, flow and return and radiator balancing
- Supplied with 2m of curly cable plus miniature plug

339598.409740

Mfrs. List No.	Order Code	1+	10+	25+
KPS10	492-0995	28.02	25.12	23.32

Velcro Probe  
KVEL01

- K type probe with temperature range: -50 to +150°C
- Designed to measure the temperature of pipes
- The probe may be wrapped around pipes of varying sizes
- The design ensures that the sensor is kept in good thermal contact with the surface of the pipe

339599.409753

Mfrs. List No.	Order Code	1+	5+	15+
KVEL01	492-1008	24.74	22.33	20.73

## Velcro Temperature Probe



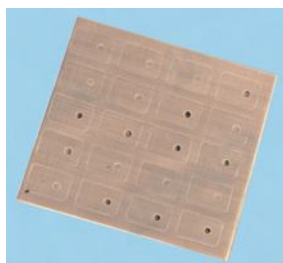
## Model: 80PK-11

- Designed for hands free measurement
- Use several and leave in place for routine maintenance
- Use with any temperature-measuring instrument designed to accept Type-K thermocouples
- Measurement Range: 30°C to 105°C
- Display Accuracy:  $\pm 0.1^\circ\text{C}$
- Measurement Time: 2 seconds
- Max. Voltage: 24V ac rms or 60V dc
- Cable: 0.5m, with 0.5m Velcro cuff

Prices where indicated by a are subject to change. Please call your local sales office or visit [www.farnell.com](http://www.farnell.com) for the latest prices.

460650.460648

Description	Mfrs. List No.	Order Code	1+	3+	5+
Digital Multimeter	80PK-11	132-7567	22.00	21.34	20.70
Standard Calibration Charge				34.10	
UKAS Calibration Charge				58.75	

Temperature Pads  
TAPS

- Temperature pads used for sticking fine wire sensors to clean surfaces
- 100 per book
- Temperature range: -50 to +250°C

Mfrs. List No.	Order Code	1+	25+	50+
TAPS	492-1021	3.50	3.14	2.92

339601.409776

## Dataloggers

Low-cost USB Temperature Data Logger  
EL-USB-LITE

A low-cost data logger that measures and stores temperature readings. The data logger can be configured and the stored data downloaded by plugging the module into a PC's USB port and running the supplied control software. The downloaded data can be graphed, printed and exported to other applications.

- Stores up to 4000 temperature readings
- 30 days continuous use from a single battery
- Supplied software supports Windows 98SE/2000/XP
- Measurement in °C or °F
- Programmable logger name
- Programmable high and low alarm limits
- Red / Green alarm status indication at the push of a button

Measurement Range	-10 to 50 °C	Accuracy (overall error)	$\pm 3^\circ\text{C}$
Internal Resolution	1 °C	Logging Rate	every 30 minutes

415811.428945

Mfrs. List No.	Order Code	1+	5+	10+	25+
EL-USB-LITE	100-6157	24.95	23.50	21.50	19.96

## Temperature Data Logger with USB Interface



Module: H=20.5, W=20.5, L=94

- USB interface for set-up and data download
- 16,000 readings
- -35 to +80°C measurement range
- 2 User-Programmable alarm thresholds
- Bright red, green and amber LED status indication
- Replaceable internal lithium battery
- Translucent lid provides IP67 waterproof seal
- Supplied with batteries

Measurement Range	-35 to +80°C	Internal Resolution	0.5°C	Accuracy (Overall Error)	$\pm 1^\circ\text{C}$ (typ.), $\pm 2^\circ\text{C}$ (Max.)	Logging Rate	10 Sec. to 12 Hrs	Operating Temperature	-25 to +80°C	Battery Life	1 Year (Min.)
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Mfrs. List No.	Order Code	1+	5+	10+	25+
EL USB-1	491-3437	35.00	33.00	31.00	28.00

Thermocouple Data Logger with USB Interface  
EL-USB-TC

This data logger measures and stores over 32,000 temperature readings from either a K, J or T type thermocouple. A thermocouple is attached via the thermocouple socket at the base of the unit. The

user can easily set up the thermocouple type, thermocouple calibration, logging rate, start-time, logging mode, and download the stored data by plugging the module straight into a PC's USB port and running the purpose designed software under Windows 98, 2000 or XP. Data can then be graphed, printed and exported to other applications. The data logger is supplied complete with a long-life lithium battery, which will last for approximately 6 months. The data logger is protected against moisture.

L = 118, Diameter = 27mm

- USB Interface for set-up and data download
- 2 User-Programmable alarm thresholds
- Bright red and green LED Indication
- Replaceable internal lithium battery
- Data Logger Set Ups:
  - Logger name
  - °C, °F
  - Logging rate (1s, 10s, 1m, 5m, 30m, 1hr, 6hr, 12hr)
  - High and low alarms
  - Start date and start Time
  - Range of logging modes available
  - Calibration facility

Contents: Data logger, software on CD, battery, 1.5m K-type thermocouple

Measurement Range (K Type)	-200°C to 1300°C
Measurement Range (J Type)	-130°C to 900°C
Measurement Range (T Type)	-200°C to 350°C
Resolution (Internal and displayed)	1°C
Logging Rate	Min. (every 1s), Max. (every 12 hrs)
Operating Temperature	-35°C to 80°C
Battery	3.6V Lithium

489287.502078

Mfrs. List No.	Order Code	1+	5+	10+	25+
EL-USB-TC	146-9293	49.00	44.00	42.22	40.00

## Real-Time USB Temperature and Humidity Monitor

### EL-USB-RT



L = 77, W = 19, D = 11MM

When plugged into the USB port of a PC installed with the purpose designed software under Windows XP and Vista, EL-USB-RT measures temperature and relative humidity. The PC displays the temperature, humidity and dew point in real-time and saves it to a file which can store up to 7 day's worth of data. This data file is overwritten at the beginning of each new logging session. The software provides the option for the user to save the data file permanently to the hard-drive. Temperature, relative humidity and dew point can be graphed, printed and exported to other applications.

- -10 to +60°C (+14 to +140°F) Temperature measurement
- 0 to 100%RH Relative humidity measurement
- Dew point indication via Windows Control Software
- USB Interface
- User-Programmable alarm thresholds for %RH & T

#### Windows Control Software

Easy to install and use. It provides an environment whereby the user can view the current temperature and humidity or graph in real-time either the current data file or previously saved files. The software can also show the current temperature and humidity in the notification area within the Window's tool-bar. Right-clicking on the EL-USB-RT icon in the notification area enables the user to access the full functionality of the software with just one click.

Contents: Data capture device, software on CD

#### Relative Humidity

Measurement Range	0 to 100 %RH
Repeatability	±0.5 %RH
Accuracy (overall error) (20-80 %RH)	±4.5 %RH
Response Time	5s

#### Temperature

Measurement Range	-10°C to 60°C
Repeatability	±0.3°C
Accuracy (overall error)	±1.5°C
Response Time	20s

489306

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
EL-USB-RT	146-9295	29.00	26.65	25.42	24.66

## USB Relative Humidity and Temperature Data Logger

### EL-USB-2



L = 103, W = 27, D = 27mm

- Status indicated by flashing red and green LED

Humidity measuring range	0 to 100% RH	Resolution	0.5% RH
Resolution	0.5% RH	Accuracy	±2°C
Accuracy	±3.5% RH	Logging rate	10 sec to 12 hours
Temperature measuring range	-35 to +80		

381902.381932

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
EL-USB-2	852-2898	49.00	46.00	42.00	39.20

## Carbon Monoxide (CO) Data Logger with USB Interface

### EL-USB-CO



Length = 112mm Ø27mm

Measures and stores up to 32,000 Carbon Monoxide (CO) readings over 0 to 300ppm measurement range. The user can easily set up the logging rate and start time, and download the stored data by plugging the module into a PC's USB port and running the supplied software. The data can then be graphed, printed and exported to other applications. Data is stored in non-volatile memory and is not lost when the battery is flat. A bright red LED will flash and an alarm will sound when a preset alarm limit is exceeded.

- 0 to 300ppm CO Measurement Range
- Stores 32,000 readings
- Supplied software supports Windows 98SE/2000/XP
- USB Interface for Set-up and Data Download
- User-Programmable Alarm Thresholds
- Bright LED and audible alarm indication
- Up to 3 months continuous operation from supplied lithium battery

Measurement Range	0 to 200ppm CO	max: every 12h
Accuracy (overall error)	±15ppm (typical)	-35 to 80°C
Logging Rate	min: every 10s	

*This product is not designed or approved for protecting humans or animal life against harmful concentrations of CO gas. If protection against harmful concentrations of CO gas is required, then the user should employ a product that has been designed and approved for that purpose.*

415828.428947

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
EL-USB-CO	100-6159	49.00	46.00	42.00	39.20

## USB to InfraRed Converter

### USB-LINK-IR



Converts USB data into InfraRed format. This allows a PC to communicate with other devices without the need for a wire link. To operate, simply plug USB-LINK-IR into a free USB port, install the device driver and point the USB-LINK-IR at the device you wish to communicate with. USB-LINK-IR appears as a COM port to PC applications and requires no special software to operate. It requires no batteries and no power adaptor, as it is powered from the host's USB port. The module is designed to work in existing COM port applications and is ideal for modern PCs which often have no RS232 port.

- Converts USB data into InfraRed format
- Transmit distance up to 1.0m
- Support for Windows 98SE/2000/XP, MAC OS-X, Linux 2.40 and above
- Virtual COM port device driver
- Fully compatible with IrDA 1.4 and USB 1.1/2.0 specifications
- IrDA Data rate of 9600 Baud
- Designed to work with existing COM port applications

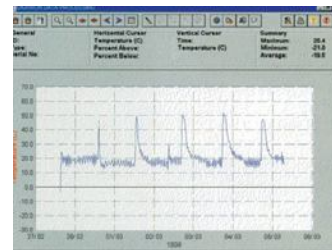
Baud Rate	9600 bps	Communication Cone	±15°
Max. Communication Distance	1m	Operating Temperature Range	-10 to 50°C

415805.428944

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
USB-LINK-IR	100-6156	35.85	33.00	30.89	28.68

## ThermaTag Datalogger

### TTKIT01 and TT01



The Digitron ThermaTag is a low cost single channel datalogger for temperature ranges -40°C to 40°C or 0°C to 80°C, selectable via a user changeable link. Its compact size makes it ideally suited for organisations requiring multiple loggers for critical temperature monitoring of their products.

In addition to a green LED indicating the units active status the datalogger also features programmable alarm limits. If an alarm condition occurs the integral red LED will flash indicating to the observer that the data logger has experienced temperature conditions outside the pre-set parameters.

Once collected, the stored temperature readings (up to 2000) may be downloaded to a computer through a cable interface (RS-232) using Digilog software, available in a number of languages. Downloaded data may then be stored or transferred in a file format which is compatible with most spread sheet packages.

- Compact size and simple to use
- Selectable temperature range:
  - -40°C to +40°C or 0°C to 80°C
- Programmable limit alarms with integral LED indicator
- 2000 Readings
- 12 month battery life
- Free downloadable software - Excel compatible
- Water resistant
- Robust construction

The kit is supplied with software and connection cable

Operating temp.	-40°C to 40°C or 0°C to 80°C	Resolution	<0.1°C
Memory	2000 readings	Battery type	Lithium
Sample rate	60 sec. to 24 hours	Battery life	>1 Year (replaceable)
Alarm LEDs	4 sec red flash when alarm exceeded	Size	42 x 27 x 13mm
Logging	8 sec green flash when active	Weight	20g
Memory full	16 sec green flash when full	Data recovery	Via plug and interface cable to PC Recorder Start Up/Programmed time/date
After down load Sleep			
Accuracy	±0.5°C		



## Dataloggers - continued

## ThermaTag Datalogger - continued

TTKIT01 and TT01 - continued

339432

Description	Mfrs. List No.	Order Code	1+	3+	10+
ThermaTag Kit	TTKIT01	500-4433	44.50	43.61	42.74
Additional datalogger	TT01	500-4445	31.50	30.87	30.25

## Temperature Dataloggers

DigiTag Series

Digitron



DigiTag Dataloggers are truly independent and therefore ideal for tracking critical temperature conditions of sensitive products during transport and storage.

New

## Easy Download Programming

Plugs directly into the serial port of your PC for programming and data download. A USB to serial port adapter can be used to connect to computers without serial ports. Console software is available as a download free from [www.digitron.co.uk](http://www.digitron.co.uk). Continuous back-ground logging ensures key data is available should the user forget to start the logger.

## Start Button

Start recording cycle, or countdown to the start, by holding down the button for over one second. Scroll through the statistics on the multifunctional display by pushing the button during the logging cycle.

## Multifunctional Display

Alarm status is always visible. Analyse recorded data by viewing the statistics on the multifunctional display: Highest, Average and Lowest readings. Time spent over and under specifications limits. Standard display shows the latest reading, or the status of the logger.

## Replaceable Battery

The logger battery typically lasts 1 to 2 years and can easily be replaced without loss of data.

Temperature Measurements	Range: -40°C to 70°C; Accuracy: ±0.5°C; Resolution: 0.5°C
Memory	1868 readings
Sample rate	1 min to 255 mins
Battery type	User replaceable coin cell
Dimensions (WxHxD)	57 x 80 x 20mm
Weight	70g

493113

Description	Mfrs. List No.	Order Code	1+	3+	5+
Temp. Datalogger	MI-1ND	151-1078	50.50	46.00	44.00
Temp. Datalogger & Probe	MI-OED2	151-1079	90.84	81.35	78.16

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## Wireless Temperature Dataloggers

DigiTag RF Series

Digitron



New

Using the latest RF technology, the DigiTag RF wireless datalogging system allows temperature data stored in its loggers to be downloaded remotely and wirelessly to DigiTag RF mobile. A summary of each loggers temperature records can be viewed on DigiTag Mobile's display or alternatively for a more comprehensive analysis, data can be downloaded to a PC. Ideal for applications where temperature critical products are transported from location to location, DigiTag RF mobile can easily collect data without the need to retrieve each logger from its monitoring position. An ideal solution for accessing temperature data from shipments before unloading and even allows you to receive data from loggers without opening refrigerator/chiller doors!

- Download Temperature Data without retrieving loggers from monitored areas
- User Friendly software for easy programming
- Read out of data from 16m away
- Restart logging cycle of Dataloggers remotely
- Customisable Alarm Settings

**DigiTag RF loggers** have a memory capability of two kilobytes and can store up to 1868 samples. In order to measure product and environment temperatures, the loggers has both internal or external sensor options and a temperature range of -30°C to +70°C. Data can also be viewed on the loggers' large LCD display.

**DigiTag RF Mobile** has a simple to use menu driven interface with the ability to display statistics about the loggers as well as temperature data and alarm statuses.

## Dataloggers

Temperature Measurements	Range: -30°C to 70°C; Accuracy: ±0.5°C; Resolution: 0.5°C
Memory	1868 readings
Sample rate	1 min to 255 mins
Communication Frequency	868.35 MHz
Communication Range	Indoor: 16m Outdoor: 70m approx.
Battery type	User replaceable coin cell
Dimensions (WxHxD)	57 x 80 x 20mm
Weight	70g

## DigiTag Mobile

Communication Frequency	868.35 MHz
Communication Range	Indoor: 16m Outdoor: 70m approx.
Display	160 x 160 pixel dot matrix display
Memory	1MB (can store up to 162 logger files)
Battery type	2x AA batteries, giving 60 hours operation (alkaline)
Dimensions (WxHxD)	72 x 155 x 26mm
Weight	110g (exc. batteries)

493137.503202

Description	Mfrs. List No.	Order Code	1+	3+	5+
Temp. Datalogger	MI-1ND-LR8	151-1080	159.00	142.71	138.75
Temp. Datalogger & Probe	MI-OED2-LR8	151-1081	218.23	189.23	183.97
DigiTag Mobile	EA-RI-8	151-1082	558.25	508.08	474.21

## Thermistor Converter

pico Technology



PT104

## PT-104 4 channel RTD Data Logger for PC

- Measures temperature, resistance and voltage
- High resolution and accuracy
- No power supply required
- RS232 and USB interface
- For use with PT100 and PT1000 sensors

The PT-104 is a 4-channel temperature measuring data logger. It offers the ultimate in resolution (0.001 °C) and accuracy (0.01 °C). Along with temperature it can also be used to measure resistance and voltage.

## Temperature

The PT-104 measures temperature using platinum resistance thermometers (PRTs). Both common industry standards (PT100 and PT1000) are supported. The unit is compatible with 2, 3 and 4 wire sensors (4 wire PT100 sensors are recommended for accurate measurements). A wide range of PT100 sensors are available for use with the PT-104.

## Software

The PT-104 is supplied with PicoLog data logging software. PicoLog will automatically detect which sensor is connected and will display readings in the correct units. Also supplied is a software development kit. The SDK contains a range of software drivers and example code that you can use to write your own software or to use your PT-104 data logger with third party software.

#### Sensors

Also available are a range of Class A sensors ( $\pm 0.15$  at  $0^{\circ}\text{C}$ ) and tenth-DIN sensors ( $\pm 0.03$  at  $0^{\circ}\text{C}$ ). Please note that the range and accuracy specifications relate to the SENSOR tip ONLY and not the cable or handle. Furthermore, it is necessary to add the sensor error to the PT-104 error.

#### PT-104 Platinum Resistance Data Logger Specifications

	Temperature	Resistance	Voltage
Sensor	PT-100/PT-1000	N/A	N/A
Range	-200°C to +800°C	0 to 375 $\Omega$	0 to 115mV
Linearity	10ppm	10ppm	10ppm
Accuracy @ 25°C	0.01°C	20 ppm	0.20%
Temp. Coeff.	3ppm/°C	3ppm/°C	100ppm/°C
Resolution	0.001°C	1 $\mu\Omega$	0.156 $\mu\text{V}$
Input Impedance		>>1 M $\Omega$	
Number of inputs		4	
Overvoltage protection		$\pm 100\text{ V}$	
Output	RS232 or USB (converter supplied)		
Environmental	20 to 30 °C for stated accuracy, 0 to 70 overall, 20 to 90% RH		
Software	PicoLog data acquisition software for 32-bit editions of Windows XP (SP2) and Vista SDK containing drivers and example code		

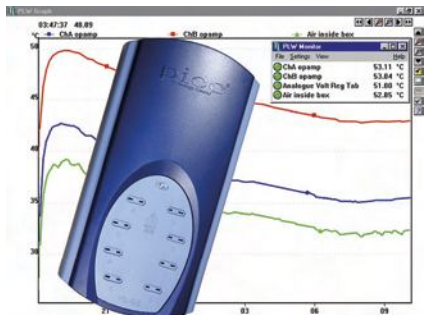
	Immersion	Insertion	Air probe		General purpose
Probe type	SE014	SE016	SE017	SE018	SE019
Temperature range	-75 to +250°C	-150 to +650°C	-75 to +250°C	-150 to +650°C	-75 to +260°C
Accuracy	±0.15°C @ 0°C	±0.15°C @ 0°C	±0.15°C @ 0°C	±0.15°C @ 0°C	±0.15°C @ 0°C
Dimensions:					
Length (mm)	120	150	120	150	120
Diameter (mm):	3.3	4	3.3	4	3
Cable (m)	2	2	2	2	2
Material	s/s probe	s/s probe	s/s probe	s/s probe	s/s probe
	PVC cable	PVC cable	PVC cable	PVC cable	PVC cable
Handle	Yes	Yes	Yes	Yes	Yes

268071

Mfr.	Order Code	Price Each
List No.	499-0249	1+ 3+
PT104		399.00 359.10
Probes		1+ 3+
SE014	167-1123	46.00 42.50
SE016	167-1124	50.00 47.00
SE017	167-1125	46.00 43.60
SE018	167-1126	52.00 47.80
SE019	167-1127	28.00 26.60

## Temperature Datalogger

### TC08 USB



- Measures and records up to 8 thermocouples
- Works with all popular thermocouple types
- High resolution and accuracy
- Wide temperature range (-270°C to 1800°C)
- Multiple units can be used on the same PC if more than 8 channels are required
- No power supply required
- Built in cold junction compensation

- Supplied with PicoLog data logging software
- USB interface ensures easy installation

An 8 channel, PC based temperature data logger with USB interface. It can measure temperatures from -270°C to +1800°C and works with all popular types of thermocouple (B, E, J, K, N, R, S, T). There is also a 60mV range that can be used for other types of sensor. Supplied with PicoLog software for handling and analysis of all data.

Number of channels	8
Accuracy	$\pm (0.3 + 0.5^{\circ}\text{C})$
Overload Protection	$\pm 10\text{V}$
Conversion time	200ms for cold junction compensation + 200ms per active channel
Input connectors	Miniature thermocouple
Common mode voltage	$\pm 5\text{V}$ max
Output connector	USB1.1 connector cable supplied
Dimensions (WxDxH)	85 x 145 x 25mm
Software (supplied)	PicoLog for Windows (9x, ME, NT, 2000, XP)

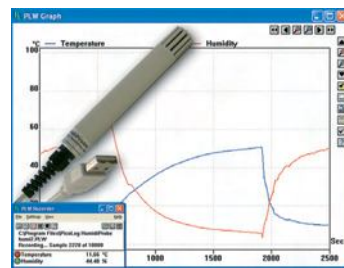
347749.344426

Mfrs.	Order Code	Price Each
List No.	782-0178	1+ 3+
TC08 USB		249.00 246.51

## Relative Humidity and Temperature Data Logger



### HUMIDIPROBE



A straight forward and practical way to monitor relative humidity and temperature readings, and record them directly to your PC or laptop. The compact, all-in-one probe design allows the HumidiProbe to be used in a wide range of applications from storage and transport, environmental and meteorological, human comfort, server and IT room condition monitoring to production test. Using the supplied PicoLog data acquisition software, data can be viewed both during and after data collection in spreadsheet or graphical format. Data can also be easily exported to other applications, and software alarms can be configured for both temperature and relative humidity.

- Measures and records temperature and relative humidity
- Compact, all-in-one probe design
- 0 to 100% (non-condensing) relative humidity measuring range
- 0°C to +70°C temperature range
- Fast humidity response
- Connects to a PC or laptop via USB port - no power supply required
- Supplied with PicoLog data acquisition software
- Sample programs in C, Delphi, Excel, LabVIEW, Visual Basic and Agilent VEE included

	Range	Accuracy	Resolution	Response Time
Temperature	0 to 70°C	$\pm 0.5^{\circ}\text{C}$	0.01°C	5 to 30 seconds
Humidity	0 to 100% RH	$\pm 3\%$ RH	0.03% RH	4 seconds
Conversion Time			2 seconds	
Environmental			0 to 70°C (not waterproof)	
PC Connection			USB 1.1 (USB 2.0 compatible)	
Power Supply			from USB (50mA/port)	
Supported Operating Systems			Windows XP (SP2) and Vista	

417441.428885

## Dataloggers

### 175 / 177 Series



38



The Testo 175 & 177 series data loggers provide simply and accurate solutions to on-site data acquisition.

#### 175-T2

- Dual channel - °C internal and external
- Display
- 16000 logged values
- IP68 rated

#### 175-T3

- Dual channel thermocouple model - 2 x °C external thermocouples (sub miniatur connector)

- Display
- 16000 logged values
- IP54 rated

#### 175-H1

- %RH and °C (internal)
- 4700 logged values

#### 175-H2

- %RH and °C (internal)
- Display
- 16000 logged values

#### 177-H1

- Long term stable humidity sensor
- Fast response time
- Protective Caps for dirt-infested air or corrosive gases

#### 174-T4

- 4 x External probe sockets
- Suitable for temperature extremes
- Real time read outs
- IP43 rated
- 48000 logged values
- Up to 5 years battery life

#### Software

The loggers can be programmed using the Comsoft 3 software, and data can be downloaded





## Dataloggers - continued

## Dataloggers - continued

## 175 / 177 Series - continued

for further analysis.

**Interface:** Contains desktop holder and PC cable

**COMSOFT3 Basic:** Features diagram and spreadsheet functions. Supplied with PC interface and desktop holder.

**COMSOFT3 Pro:** Additional features include database analysis and graphic functions, data analysis and trend curves, Interface is not supplied, order code 501-0550.

## Measuring Range

175-T2	-35°C to +70°C (int); -40°C to +120°C (ext)
175-T3	-50°C to +1000°C (type K); -50°C to +400°C (type T)
175-H1	0 to 100% RH; -10°C to 50°C
175-H2	0 to 100% RH; -20°C to +70°C
177-T4	-200 to +1000°C (probe dependant)

## Accuracy

175-T2	±0.5°C (-20°C to +70°C); ±1°C (-35°C to -20.1°C)
175-T3	±0.5°C (-20°C to +70°C); ±0.7% of reading
(without probes)	±1 digit (70.1°C to +1000°C)
175-H1	±3% RH; ±0.5°C
175-H2	±3% RH; ±0.5°C
177-T4	probe dependant

339568.344015

Mfrs. List No.	Order Code	1+	3+	10+
175-T2	501-0597	88.20	78.98	75.60
175-T3	501-0603	138.30	123.85	118.54
175-H1	501-0615	156.00	139.70	133.71
175-H2	501-0627	194.00	173.73	166.29
177H1	836-9186	356.70	319.43	305.74
177-T4	501-0676	275.60	246.81	236.23
Interface Only	501-0550	54.10	48.45	46.37
COMSOFT3 Basic - 175 Series	825-9291	61.40	54.99	52.63
COMSOFT3 Basic - 177 Series	825-9305	61.40	54.99	52.63
COMSOFT3 Basic +USB Interface	868-2984	86.00	77.01	73.71

## Thermocouple Calibrators

## DS1M Series



The DS1M series of simulators have been designed to provide a quick and easy method of checking the calibration of any T Type or K Type thermocouple instrument. Use the DS1M Series simulators when commissioning new equipment or systems to check the accuracy of equipment. Routine checking can be essential for many process functions and can be required as part of a quality control system.

- 2 Types available - K-Type Thermocouple with mini-plug and T-Type Thermocouple with mini-plug
- Low Battery Indication
- Easy on-site thermometer calibration checking
- Supplied complete with protective rubber sleeve

Model	DS1M - K	DS1M - T
<b>Thermocouple Type</b>	Type K	Type T
<b>Temperature Range</b>	-20°C to +220°C	-20°C to +220°C
<b>Preset Temperature Points</b>	-20°C, 0°C, 5°C, 100°C, 220°C	-20°C, 0°C, 5°C, 100°C, 220°C
<b>Accuracy (@23°C)</b>	±0.5°C	
<b>Cold Junction Stability</b>	±0.08°C/°C	
<b>Operating temperature</b>	-10°C to +35°C, 0 - 80% RH	
<b>Battery type</b>	Alkaline NEDA1604 9V giving approx 120 hours continuous use	
<b>Dimensions (WxHxD)</b>	70 x 140 x 38mm (78 x 154 x 50mm with boot)	
<b>Weight</b>	150g	

493042

Description	Mfrs. List No.	Order Code	1+	3+	5+
Calibrator - K-Type	DS1M-K	151-1076	78.66	70.44	67.43
Calibrator - T-Type	DS1M-T	151-1077	81.71	73.17	70.04

## Paperless Humidity and Temperature Recorder



Easy-to-use paperless chart recorder with remote sensor and 49,000 readings memory. Ideal to monitor and record temperature and humidity conditions and history in controlled environments, laboratories, clean rooms, storage and other critical areas.

New

- Simultaneous numerical and graphical display of Humidity and Temperature readings
- Calculates Dew Point
- Large 120 x 75mm backlit LCD display with adjustable graphical resolution and push-button keypad
- Display indicates time, date, percentage of memory remaining and battery status
- Up to 49,000 data points internal memory and RS-232 interface for data transfer
- User-programmable recording intervals
- Detachable probe extends up to 1 metre for measurements in closed environments (probe can be replaced as separate item and does not require recalibration)
- Audible and visual alarms with high and low limits
- Swivel keypad allows desk or wall mounting for easy viewing
- ExTerm software for Windows allows data transfer to PC, graphical display and export as csv files to MS Excel for data analysis
- Supplied with built-in stand, detachable probe with 1m cable, RS232 cable, ExTerm data download software, AC/DC power adaptor and batteries

<b>Thermometer</b>	Accuracy	±3% RH
Range	-28°C to 60°C	
Accuracy	±1.0°C	
<b>Humidity Meter</b>	<b>Physical</b>	
Range	10% to 95% RH	
	Battery	3x AA batteries or AC adaptor
	Dimensions (WxHxD)	196 x 23 x 127mm
	Weight	357 g

480525.466705

Description	Order Code	1+	3+
Paperless Recorder	142-6149	154.73	142.35

## Barometers, Weather Stations &amp; Office Equipment

## Portable UVI Monitor

## EB612



- Measures UV levels and displays an Ultra Violet Index reading (from low to high)
- Calculates a UV exposure time based on skin type, SPF and UVI
- User settable countdown timer
- Digital clock
- Thermometer
- Splash proof
- Wrist strap

446853.437744

Order Code	1+	5+
127-0981	17.61	15.89

## Hygrometer

## 608



- Standard Testo 608-H1 hygrometer for continuous measurement of humidity, temperature and dew point
- The Testo 608-H2 alarm hygrometer with accuracy of ±2%RH and LED alarm function reliably warns you if limits have been exceeded
- Monitors ambient conditions and dew point in garden centres, storage and clean rooms, museums and laboratories
- Stand alone or attachable

- With td dew point calculation and max/min display
- Humidity sensor not affected by water
- Testo 608-H2 comes with LED alarm to warns if limits are exceeded

New



	608-H1	608-H2
Storage temperature	-40°C to +70°C	
Battery type	9V block battery	
Battery life	8736h	
Measuring rate	18s	
Weight	168g	
Warranty	1 year	
Measuring range	+10 to +95% RH 0 to +50°C -20 to +50°C	+2 to 98% RH -10 to +70°C -40 to +70°C
Accuracy	±3% RH (+10 to +95% RH) ±1 digit	±2% RH (+2 to +98% RH) ±1 digit
Resolution	0.1% RH (0 to +100% RH)	0.1% RH (0 to +100% RH)
Probe type	NTC	NTC
Accuracy	±0.5°C (at 25°C) ±1 digit	±0.5°C (at 25°C) ±1 digit
Resolution	0.1°C (0 to +50°C)	0.1°C (-10 to +70°C)
Operating temperature	0 to +50°C	-10 to +70°C

234384

Mfrs. List No.	Order Code	1+	2+	5+
608-H1	369-5797	46.80	41.91	40.11
608-H2	369-5803	81.10	72.63	69.51

## Mini Weather Forecaster

BAR626



A radio controlled home or office weather forecaster, including date, time, alarm clock and thermometer.

- Kinetic weather forecast
- Multi-channel remote thermometer
- Indoor thermometer
- Radio controlled clock with seconds/weekday
- Alarm clock with snooze button
- Calendar with moonphase
- 3 channel
- LCD size: 50x60mm

381159.344344

Mfrs. List No.	Order Code	1+	5+
BAR626	838-8814	32.05	29.61

## Wireless Weather Station

BAR386



- Radio controlled snooze alarm clock
- Indoor / outdoor temperature with memory and trend indicators
- Customisable high/low temperature alarms
- Ice warning function
- Moon phase
- Supplied with THN132N sensor. Three channels available for additional sensors.

486719.473968

Order Code	1+	5+
143-0728	32.30	29.07

## Troubleshooting tips



Chat live online to one of our technical engineers at [www.farnell.co.uk](http://www.farnell.co.uk)

## Dual Band Weather Station

BAR688



New



- Radio controlled clock
- Weather forecast icons with 12-24 hour forecast
- Crescendo alarm with snooze function
- Displays indoor and outdoor temperature and humidity
- Wireless sensor
- High/low temperature and humidity alarm
- Comfort level and Heat Index indicators
- Barometric pressure reading
- Supports up to 3 sensors (1 supplied)
- Displays pressure and temperature trends
- Moon phase indication
- Ice alert icon
- Ideal for garden applications such as greenhouse monitoring

486844.473982

Order Code	1+	3+
143-0731	39.12	36.33

## Weather Station

BAR629G



Wireless weather station with radio controlled clock and calendar.

- Alarm with 8 minute snooze
- Displays indoor and outdoor temperature and humidity
- Weather forecast via easy-to-use animated weather icons
- Moon phase & seasonal tide display
- Barometric pressure trend indicator
- Temperature and humidity trend indicators
- Communicates wirelessly with a 30m radius
- Takes up to 3 remote sensors (1 supplied)
- Backlit display

414877.407822

Description	Order Code	1+	3+
Weather Station	100-3425	43.05	39.51
Remote Sensor	100-3433	12.93	12.22

## Dual Band Weather Forecaster

BAR688HG



- Self setting radio controlled clock
- Forecast icons display 12-24 hour weather forecast
- Wireless sensor LCD displays humidity and temperature
- Three channel temperature and humidity capability (one sensor supplied)
- Comfort level and heat index indicators
- Barometric pressure reading
- Pressure and temperature trend graphs
- Moon Phase indicator
- Settable high and low temperature and humidity alarms
- Crescendo alarm with snooze function
- Ice Alert icon
- Wireless temperature sensor (-30 to 60°C)

446816.437724

Order Code	1+	3+
127-0975	51.37	44.28

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## Barometers, Weather Stations & Office Equipment - continued

### Weather Forecaster with Frost Alarm

BAR816HG

Oregon  
SCIENTIFIC

- Weather forecaster with easy to read symbols
- Radio controlled clock and calendar
- Displays indoor and outdoor temperature and humidity
- Temperature and humidity trend indicators
- Can support up to 5 remote sensors (1 included)
- Pre-Alarm with snooze and frost alert
- Light blue translucent lens with blue backlight
- Communicates wirelessly with a range of 70m

New

486771.473974

Order Code	1+	Price Each	3+
143-0729	62.61		58.14

### Wireless Weather Station

WMR100

Oregon  
SCIENTIFIC

- All in one remote sensor
- Easy set up
- Full function weather station
- Weather forecast
- Indoor / outdoor temperature and humidity
- Outdoor windspeed and direction
- Barometric pressure and rainfall
- Heat index, windchill and dew-point calculations
- Max and Min memory
- PC download facility

New

486803.473978

Order Code	1+	Price Each	3+
143-0730	129.09		123.55

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