



2000 series instruments

*Temperature,
Pressure and
Relative
Humidity*

Contents

- 3 Pressure
- 4 Temperature
- 5 Relative Humidity
- 6 DigiLog/DigiLink
- 7 Accessories
- 8-11 Temperature Probes



Built to last

With its ergonomic design, positive action key pad and magnified display, the 2000 Series is a pleasure to operate. To maximise the instruments' useful life, the series features IP65 or IP67 protection, silicone rubber key pads with protective coating and a fully isolated battery compartment.

How to Order

To place an order simply contact our Sales Office by either telephone, e-mail, fax or mail (contact details below). If you have previously ordered from us, please quote your customer account reference when placing an order. This can be found on your last delivery note or invoice.

Payments can also be made by credit card (Visa or MasterCard)

Digitron Sales Office
Sifam Instruments Limited
Woodland Road
Torquay
TQ2 7AY
England

Tel: 01803 407693
Fax: 01803 407699
Email: digitronsales@sifam.com

Visit us on the Internet at www.sifam.com



Pressure



When it comes to performance under pressure, Digitron's 2000 Series of hand-held digital manometers are in a league of their own! Easy to operate, reliable and built to last, the 2000 Series has been specifically developed in order to meet the performance and cost demands of today's industrial and HVAC professionals.


The 2000 Series of pressure instruments offers the widest range of hand-held manometers in the world. Representing a new standard in pressure measurement, the series features a number of new innovative functions designed to make the operators job easier than ever before.

With the ability to test for leaks over a wide range of applications, getting started couldn't be easier. Simply prime the instrument with the relevant pre-stress pressure level, start pressure, test time and the allowable pressure change, and you're ready to go!

- ◆ Pressure ranges from 1mbar to 10bar (0.40218 inH₂O to 4021.8 inH₂O - UK standard)
- ◆ Pressure range to 500bar with an external transducer (not supplied)
- ◆ Logging mode for storage, retrieval and output of readings
- ◆ Autoranging displays for precise readings
- ◆ Selectable auto switch-off
- ◆ 2 year warranty
- ◆ Overrange protection
- ◆ IP67 (1m depth for 30 mins) BSI Cert 229/000132

| | 20x0P | 20x1P | 20x2P | 20x3P | 20x5P | 20x6P |
|--------------------------|--|---|---|---|---|---|
| mbar | 0 to 1999 µbar + 0.00 to 25.00 mbar | 0.00 to 19.99 mbar + 0.0 to 130.0 mbar | 0.0 to 199.9 mbar + 0 to 1999 mbar | 0 to 1999 mbar + 0.00 to 7.00 bar | 0 to 199.9 mbar + 0 to 1999 mbar | 0 to 1999 mbar + 0.00 to 10.00 bar |
| Pa | 0.0 to 199.9 Pa + 0 Pa to 2500 Pa | 0.00 to 13.00 kPa | 0.00 to 19.99 kPa + 0.0 to 199.9 kPa | 0.0 to 199.9 kPa + 0 to 700 kPa | 0.00 to 19.99 kPa + 0.0 to 199.9 kPa | 0.0 to 199.9 kPa + 0 to 1000 kPa |
| in H₂O | 0.00 to 10.05" | 0.00 to 52.28" | 0.0 to 199.9" + 0 to 804" | 0.0 to 199.9" + 0 to 2815" | 0.0 to 199.9" + 0 to 804" | 0.0 to 199.9" + 0 to 4022" |
| m H₂O | 0.00 to 19.99 mm + 0.0 to 255.3 mm | 0.0 to 199.9 mm + 0 to 1320 mm | 0.00 to 20.43 m | 0.00 to 19.99 m + 0 to 71.5 m | 0.00 to 20.43 m | 0.00 to 19.99 m + 0 to 102.2 m |
| in Hg | 0.00 to 0.73" | 0.00 to 3.83" | 0.00 to 59.00" | 0.00 to 19.99" + 0.0 to 206.7" | 0.00 to 59.00" | 0.00 to 19.99" + 0.0 to 295.3" |
| m Hg | 0.00 to 18.75 mm | 0.00 to 19.99 mm + 0.0 to 97.5 mm | 0.00 to 19.99 cm + 0.0 to 150.0 cm | 0.00 to 5.25 m | 0.00 to 19.99 cm + 0.0 to 150.0 cm | 0.00 to 7.50m |
| PSI | 0.00 to 0.36 psi | 0.00 to 1.88 psi | 0.00 to 29.00 psi | 0.00 to 19.99 psi + 0.0 to 101.5 psi | 0.00 to 29.00 psi | 0.00 to 19.99 psi + 0.0 to 145.0 psi |

Common specification

| | |
|--------------------------------------|---|
| Operating Temperature: | to 10°C to +50°C/+14°F to 122°F (ambient) |
| Battery Type: | Two AA or equivalent cells (not supplied) |
| Battery Life: | Typically 200 hours |
| Low Battery Check: | "  " symbol appears on display |
| Display: | 12.7mm / 0.5" custom L.C.D. |
| Overrange/Underrange: | 'Out' shows on display |
| Environmental Specifications: | IP67 (as std) with hose connected |
| Auto Switch-Off Time: | 12 minutes |
| Dimensions: | 155 x 67 x 40mm/6.1 x 2.6 x 1.6" |
| Weight: | 180g/6.4oz |

Instrument accuracies

| | |
|---|----------------------------|
| From +20°C to +30°C/+68°F to +86°F: | 0.1%rdg +0.1%fs +1 digit |
| From -10°C to +50°C/+14°F to +122°F: | 0.15%rdg +0.15%fs +1 digit |

The overall performance of the instrument is obtained by combining the stated accuracy and any uncertainty due to the measurement process

2000P Series option table

| | 2000P | 2001P | 2002P | 2003P | 2005P | 2020P | 2021P | 2022P | 2023P | 2024P | 2025P | 2026P | 2080P | 2081P | 2082P | 2083P | 2084P | 2085P | 2086P |
|---------------------------|---------|---------|-------|-------|---------------|---------|---------|-------|-------|-----------------------|---------------|------------|---------|---------|-------|-------|-----------------------|---------------|------------|
| Operating Range: | 25mbar | 130mbar | 2bar | 7bar | 2bar absolute | 25mbar | 130mbar | 2bar | 7bar | † External transducer | 2bar absolute | 0 to 10bar | 25mbar | 130mbar | 2bar | 7bar | † External transducer | 2bar absolute | 0 to 10bar |
| Overrange: | 350mbar | 750mbar | 4bar | 10bar | 4bar absolute | 350mbar | 750mbar | 4bar | 10bar | * | 4bar absolute | 21bar | 350mbar | 750mbar | 4bar | 10bar | * | 4bar absolute | 21bar |
| Backlight: | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Out of range: | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Zeroing: | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Hold: | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Smoothing: | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Units of Pressure: | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Range Lock: | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Max/Min: | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Zeroing Absolute: | | | | | ● | | | | | | ● | | | | | | | ● | ● |
| Averaging: | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● |
| Leak Testing: | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● |
| Logging: | | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● |

* Depends on external pressure transducer (not supplied with instrument). Power supplied: +5 Volts (±0.25 Volts equivalent to 5%) ±10.00 to 50.00 bar (in 5 bar steps) with 1 to 50mV (in 1mV steps). 55.0 to 500.0 bar (in 5 bar steps) with 10 to 50 mV (in 1mV steps). These are supplied with the translink cable assembly.

Temperature



A new range of hand-held contact thermometers

In response to today's ever increasing demand for speed, accuracy and performance, Digitron has introduced the 2000 Series of hand-held digital thermometers. Models available range from simple 'on, off and hold' versions to instruments with advanced measurement and datalogging functions.

The 2000 Series provides precise, stable readings, even in demanding environments. Furthermore, the 2000 Series features a number of new, innovative functions, specifically designed for today's industrial temperature applications.

Readings in seconds rather than minutes!

Some measurements take minutes using standard thermometers due to poor thermal conductivity in the item being measured. Often a highly accurate answer is not required and an indicative answer showing that the reading is above or below a desired threshold will suffice. Digitron's unique *SpeedRead*>> function will offer an answer in 14 seconds[†], or, if such a prediction cannot be made, revert back to a standard accuracy thermometer automatically.

[†] Please refer to accuracy statement.

- ◆ *SpeedRead*>> for quicker indicative readings
- ◆ Logging mode for storage, retrieval and output of readings
- ◆ Long battery life: typically 500 hours
- ◆ Wide temperature ranges
-250°C to +1750°C/
-418°F to +3182°F
- ◆ Accurate performance:
0.2% of reading
- ◆ For type K,T,J,N,R, and S thermocouples, PT100 and Thermistor sensors
- ◆ Robust case for long life in harsh environments
- ◆ 2 year warranty
- ◆ Selectable auto switch-off
- ◆ Automatic zero calibration for added accuracy
- ◆ Last settings memorised

Common specification

| | |
|--------------------------------------|--|
| Resolution: | 0.1° from -199.9°C to +199.9°C/-199.9°F to +392.0°F 1°C elsewhere |
| Operating Temperature: | -10°C to +50°C/+14°F to +122°F (ambient) |
| Battery Type: | Two AA or equivalent cells (not supplied) |
| Battery Life: | Typically 500 hours |
| Low Battery Check: | "" symbol appears on display |
| Display: | 12.7mm / 0.5" custom L.C.D. |
| Sensor Open Circuit: | Indicated by 'O-C' on display |
| Overrange/Underrange: | 'Out' displayed |
| Cold Junction Compensation: | Yes |
| Environmental Specifications: | IP65 (IP67 optional) |
| Auto Switch-Off Time: | 12 minutes |
| Dimensions: | 155 x 67 x 40mm/6.1 x 2.6 x 1.6" |
| Weight: | 180g/6.4oz |

Instrument accuracies

(All ±1)

Models 2000T, 2022T, 2028T, 2029T, 2038T, 2088T, 2098T:
0.1% rdg ±0.2°C/0.4°F above -100°C/-148°F } for KTJ & N
0.5% rdg ±0.2°C/0.4°F below -100°C/-148°F } R & S = 0.1% scale ±0.2°C

Models 2006T, 2086T:
±0.2°C/0.4°F over range -20°C to +70°C/-4°F to +158°F
±0.1% rdg ±0.2°C/0.4°F elsewhere.

Models 2024T, 2084T:
±0.2% rdg ±0.1°C/0.2°F over range -150°C to +800°C/-238°F to +1472°F

Model 2046T (including Digitron probe)
Better than ±0.5°C/0.9°F over range -20°C to +70°C/-4°F to +158°F
±0.8°C/1.4°F elsewhere.

SpeedRead>>: This function reduces the accuracy from Class 0.5 to 2 (CEN TC141/WG12 N42E applies).

The overall performance of the instrument is obtained by combining the stated accuracy and any uncertainty due to the measurement process.

2000T Series option table

| | 2046T | 2000T | 2006T | 2022T | 2024T | 2028T | 2086T | 2084T | 2088T | 2029T | 2038T | 2098T |
|-------------------------|-------------------------------------|---|---------------------------------------|---|--|---|---------------------------------------|--|---|--|---------|---------|
| Sensor Type: | Thermistor | K | T | K | PT 100 | K | T | PT 100 | K | KT JNRS | KT JNRS | KT JNRS |
| 2-input | | | | ● | | | | | | | | |
| SpeedRead: | | | | ● | ● | ● | ● | | ● | ● | ● | ● |
| °C/°F Function*: | | | | ● | ● | ● | | ● | ● | ● | ● | ● |
| Hold: | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Range Lock: | | | | | ● | ● | | ● | ● | ● | ● | ● |
| Max/Min: | | | | ● | ● | ● | | ● | ● | ● | ● | ● |
| Averaging: | | | | | | | | ● | | | | ● |
| Logging: | | | | | | | ● | ● | ● | | | ● |
| Range: | -40°C to +120°C/ -40°F to +248°F | -200°C to +1350°C/ -328°F to +2462°F | -250°C to +400°C/ -418°F to +752°F | -200°C to +1350°C/ -328°F to +2462°F | -150°C to +800°C/ -238°F to +1472°F | -200°C to +1350°C/ -328°F to +2462°F | -250°C to +400°C/ -418°F to +752°F | -150°C to +800°C/ -238°F to +1472°F | -200°C to +1350°C/ -328°F to +2462°F | Type K -200°C to +1350°C/-328°F to +2462°F Type T -250°C to +400°C/-418°F to +752°F Type J -750°C to +750°C/-1318°F to +1382°F Type N -200°C to +1300°C/-328°F to +2372°F Type R 0°C to +1750°C/+32°F to +3182°F Type S 0°C to +1750°C/+32°F to +3182°F | | |

* Models without selectable °C/°F function can be ordered for either °C or °F use.

Relative Humidity



A new range of hand-held Relative Humidity instruments

The range has been specifically designed in response to demand for the effective and reliable measurement of controlled environments. Featuring two models 2020R and 2080R with the latter including functions: dewpoint calculation, separate thermocouple input and logging. These instruments can measure RH to an unbeatable 1.5%RH accuracy.

Performance

The 2000R meters from Digitron offers the user the highest accuracies for a budget price. The ergonomic case design with advanced technology sensors combine to give an instrument with excellent performance and long life.

The 2080R features an external temperature probe option for pinpoint temperature measurement. 250 readings can be logged, (50 on demand) replayed on the screen and output to a printer or PC using DigiLink. Each reading is user coded, time and date stamped.



Both products are also available with a probe included, please quote item no's 2020RP and 2080RP.

Dew Point

The dew point is defined as the lower temperature to which air must be cooled in order for condensation (saturation) to occur. The dew point is dependent on the concentration of water vapour present, and therefore the relative humidity.

Ice Point

The ice point is defined as the true reading for temperatures below zero.

RH Calibration



RH calibration chamber and capsules are available to generate a known RH value to verify meter accuracy, the capsules are available for 35%, 50% and 80% RH. Please call our Digitron Sales Office for further details.

- ◆ Waterproof to IP65 (with plug connected) with IP67 option
- ◆ Magnified display
- ◆ Separate battery compartment
- ◆ Accuracy: 0 to 100%RH 1.5%
- ◆ -40°C to +85°C/ -40°F to +185°F
- ◆ Back light
- ◆ Auto switch-off
- ◆ °C/°F/RH selection button
- ◆ Dew Point measurement
- ◆ Ice Point measurement (2020R only)

2080R (additional features)

- ◆ 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

Specification

| | 2020R | 2080R |
|---|--|--|
| Sensor(s): Plug replaceable | Pt100 RTD plus capacitive RH sensor | Input for Type K thermocouple Pt100 RTD plus capacitive RH sensor |
| Range: | 0 to 100%RH -40°C to +85°C/ -14°F to +185°F | 0 to 100%RH -40°C to +85°C/ -14°F to +185°F |
| Resolution: | 0.1%RH, 0.1° from -199.9°C to +199.9°C/ -199°F to +392°F, 1° elsewhere | 0.1%RH, 0.1° from -199.9°C to +199.9°C/ -199°F to +392°F, 1° elsewhere |
| Accuracy: | 1.5% RH at 23°C/73°F over 0 to 100%RH window | 1.5% RH at 23°C/73°F over 0 to 100RH window |
| Accuracy: (integrated Pt100 RTD) | ±0.3°C | ±0.3°C |
| Accuracy: (additional thermocouple) | 0.1% rdg ±0.3°C/0.4°F above -100°C/-148°F, ± 2 digits 0.5% rdg ±0.3°C/0.4°F below -100°C/-148°F, ± 2 digits | 0.1% rdg ±0.3°C/0.4°F above -100°C/-148°F, ± 2 digits 0.5% rdg ±0.3°C/0.4°F below -100°C/-148°F, ± 2 digits |
| Operating Temperature: | -10°C to +50°C | -10°C to +50°C |
| Operating Humidity: | 0 to 100%RH (non-condensing) | 0 to 100%RH (non-condensing) |
| Battery Type: | Two AA or equivalent cells (not supplied) | Two AA or equivalent cells (not supplied) |
| Battery Life: | Typically 150 hours | Typically 150 hours |
| Low Battery Check: | "  " symbol appears on display | "  " symbol appears on display |
| Display: | 12.7mm / 0.5" custom L.C.D. | 12.7mm / 0.5" custom L.C.D. |
| Back light: | Yes | Yes |
| Environmental Specifications: | IP65 (IP67 optional) with plug connected | IP65 (IP67 optional) with plug connected |
| Dimensions: | 155 x 67 x 40mm/6.1 x 2.6 x 1.6" | 155 x 67 x 40mm/6.1 x 2.6 x 1.6" |
| Weight: | 180g/6.4oz | 180g/6.4oz |

The overall performance of the instrument is obtained by combining the stated accuracy and any uncertainty due to the measurement process.

DigiLink & DigiLog

Simple data collection and analysis

Some models in the 2000 Series feature special logging functions that enable readings to be taken, stored, retrieved and downloaded in the shortest possible time. This reduces the risk of clerical errors and saves writing and keying-in time when analysis is needed.



Logging on Demand

Logging On Demand allows readings to be stored when required (up to 50), with the ability to add a four digit reference number (including decimal point) to each reading, and record the date and time each reading is taken. This function is excellent for helping you cut down on paperwork and clerical errors. It is ideally suited to tasks where you wish to maintain a record of the time and date when a temperature was taken.

Preset Interval Logging

Preset Interval Logging lets you determine the frequency at which readings are taken. Once the instrument has been set, readings are taken automatically at the interval you decide (from once every minute, to once every 24

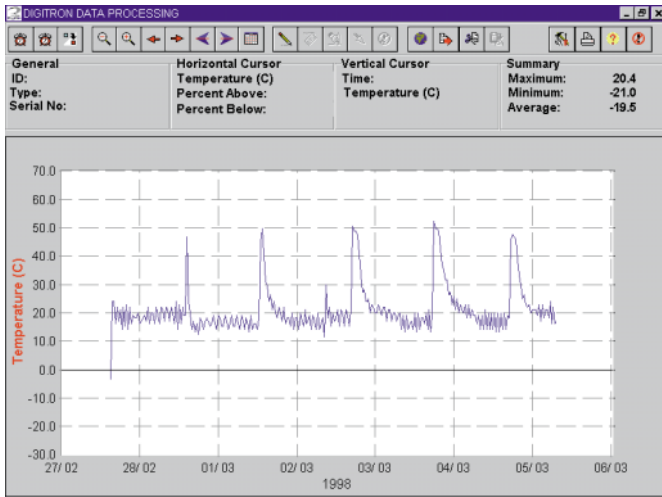
hours), providing an excellent means of troubleshooting and examining trends over a given period of time.

With Preset Interval Logging, you really can "set it, forget it", as the instrument will continue logging until a maximum of 250 readings are taken or your data is downloaded.

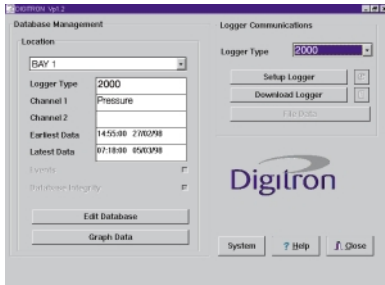
Data Analysis

Data can be viewed and analysed direct from the magnified display. By simply pressing a few keys you can scroll through your readings with ease.

You may then download the data to a PC or Epson compatible printer via Digitron's DigiLink (see over for further details). Data can then be analysed using our DigiLog Windows™ software.



DigiLink



Data download with DigiLink

Access to stored information is gained via Digitron's infrared DigiLink, which is designed to give users of the 2000 Series a quick and simple means of retrieving and downloading data,

Information can be output direct to either an Epson compatible printer for immediate study, or downloaded to a PC for more detailed analysis.

Data analysis with DigiLog for Windows™

Digitron have created a Windows™ software package, DigiLog, (suitable for all Digitron logging instruments) enabling information to be put into spreadsheets and charts for incorporating into reports and other documents. Even separate reports from different units can be merged to produce one report.

PC analysis really couldn't be any simpler. By following the software's simple menu instructions, you will find it easy to view and manipulate

information to your individual requirements. For example, once a logging session is complete, all you need do in order to gain access to information stored within the instrument is position the PC's cursor over the "Download logger" button, then click once and then click on the "Download" button. Information is then automatically transferred, via the infrared link and stored within the computer.

You may display the retrieved information in graph format by positioning the cursor over

the "Graph data" button and click again. You can access the graph produced to highlight certain areas or key data points, prior to printing or exporting the graph into other software packages.

Furthermore, all graphs show the identification number of the instrument used, enabling data to be cross-checked against calibration records helping to ensure full traceability.



Accessories

Why not order one of our high impact rubber boots, with or without sling, to protect and further enhance the durability of your instrument. Available in dark grey and fluorescent green.

Our temperature, pressure and RH instruments are also available in a variety of kits. These are supplied in a neat protective carry case and are available in several combinations made up of instruments with probes or DigiLink interface.



For checking the calibration of your entire temperature system, (instruments and probes), order the TBS1 system calibration checker, this could save you money on potential future calibration costs.



Test Caps are also available for checking the calibration of your 2046T only, these come in -18°C, 0°C, 5°C and 65°C.

Call our Digitron Sales Office to ask for further details on any of the accessories mentioned above.

Probes



Versatile temperature probes designed for accuracy and strength

The Digitron range of probes is certain to set new standards in temperature measurement and ensure trouble-free usage, time and time again. Available in a traditional hand-held format or for those cost sensitive applications, a finger grip. These are detailed on the opposite page.

Born out of extensive research, destructive testing and analysis of similar products, these new probes are better designed than anything else available today. Furthermore, as the handled versions are the first probes to come with detailed specifications as to their mechanical strength, you can buy with confidence, knowing that they are capable of withstanding the demands of today's industrial applications.

Made for a tough life!
These are probably the strongest hand-held probes available and have been built to withstand considerable push, pull and twist forces. The probe's cable restraints are also extremely durable.

Ergonomic winner
The probe has been especially designed to fit comfortably into the hand and features a unique "thumb-stop" for ease of use as well as protection against slipping. Furthermore, for penetration applications, the angle of the general purpose probe's point has been set to provide less resistance at the insertion point.

Clean styling
The probe's handle parts are ultrasonically welded and sealed to IP67, so that it may be scrubbed clean without affecting the internal wiring. With sealed tip probes, the complete unit is protected to IP67. To prevent cross-

contamination, we recommend that probes are cleaned with anti-bacterial wipes.

Colour coding on the handles

A pack of colour coded tabs (ideal for the food industry) are available in a range of colours and can be fitted to the "thumb-stop" with ease.

Easy ordering procedure
Finally, to make re-ordering as easy as possible, simply quote the reference number printed onto the probe to your supplier. For standard models place a 'D' at the end of the item number eg: K0234D. For colour coded models place a 'C' at the end of the item number eg: K0234C.

- ◆ Attractive, ergonomic, functional design
- ◆ Rugged construction for a tough life
- ◆ EMC compliance
- ◆ Fast response
- ◆ Comprehensive range
- ◆ Colour coded tagging system (except finger probes)
- ◆ Easy ordering procedure
- ◆ Cables in accordance with the international Electro-Technical Commission-Brown - T type thermocouple Green - K type thermocouple (Thermistor cables remain black whilst Platinum Resistance cables are grey).



Specifications table

| Code | Description | Application | Time Const. (secs) | Max. Tip Temp. | Tip Dimensions |
|-----------|--|-------------|--------------------|----------------|----------------|
| LCK0234 | General Purpose Finger Probe. K type sensor. For a wide range of applications - liquids, semi-solids, air and granular. Can be used for general food penetration. | F | 0.5 | 250°C 482°F | |
| LCT0234 | General Purpose Finger Probe. T type sensor. For a wide range of applications - liquids, semi-solids, air and granular. Can be used for general food penetration. | F | 0.5 | 250°C 482°F | |
| LCK0112 | Needle Finger Probe. K type sensor. For a wide range of applications include food, pharmaceutical, shellfish measurements. | F | 0.25 | 250°C 482°F | |
| LCT0112 | Needle Finger Probe. T type sensor. For a wide range of applications include food, pharmaceutical, shellfish measurements. | F | 0.2 | 250°C 482°F | |
| LCK0334 | Air Finger Probe. K type sensor. For taking air temperatures such as in storerooms or cold rooms. Also used to take 'air on' and 'air off' temperatures of a refrigeration unit as recommended by the Department of Health. | F | 0.3 | 250°C 482°F | |
| LCT0334 | Air Finger Probe. T type sensor. For taking air temperatures such as in storerooms or cold rooms. Also used to take 'air on' and 'air off' temperatures of a refrigeration unit as recommended by the Department of Health. | F | 0.25 | 250°C 482°F | |
| LCK0454 | Surface Finger Probe. K type sensor. For measuring surface temperatures. | F | 0.04 | 250°C 482°F | |
| LCT0454 | Surface Finger Probe. T type sensor. For measuring surface temperatures. | F | 0.04 | 250°C 482°F | |
| LCKRA0454 | Right Angle Surface Finger Probe. K type sensor. For measuring surface temperatures. | F | 0.04 | 250°C 482°F | |
| LCTRA0454 | Right Angle Surface Finger Probe. T type sensor. For measuring surface temperatures. | F | 0.1 | 250°C 482°F | |

Application Key: I = Industrial, H = HVAC, F = Food.

Accuracy Guide

| Type | Thermistor | Temperature Range | Tolerances to BS4937 Class 1 |
|---------------------------|--|--|---|
| K | Nickel Chromium/Nickel Aluminium (Ni-Cr/Ni-Al) | -200°C to +1250°C -328°F to +2280°F | -40°C to +1000°C: ±1.5°C or ±0.4% whichever is the greater -40°F to +1830°F ±2.5°F whichever is the greater |
| T | Copper/Copper Nickel (Cu/Cu-Ni) | -200°C to +400°C -328°F to +752°F | -40°C to +350°C: ±0.5°C or ±0.4% whichever is the greater -40°F to +660°F ±1.0°F whichever is the greater Thermocouple Type T material is selected for ±0.2°C over the range -20°C to +70°C |
| Platinum Resistance | | Temperature Range | Tolerances to BS1904 Grade A |
| Pt100 Platinum Resistance | | -200°C to +800°C -328°F to +1470°F | -200°C to +600°C: ±0.15°C ±0.2% -328°F to +1110°F ±0.3°F ±0.2% |

Note:

For probes and instruments full NAMAS and NAMAS traceable calibration certificates are available on request, please ask for details. For measurements below -40°C/-40°F, please contact the Digitron Sales Office.

Sensor Time Constant

The time constant is the time taken for the sensor to reach 63% of the final reading and is the industry standard means of measuring probe response time. Five times this figure is normally required to obtain a steady reading. The results given in this brochure were obtained in an

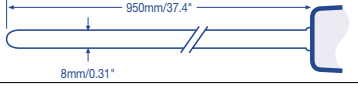
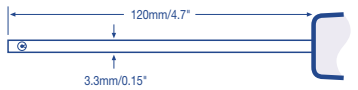
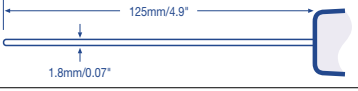
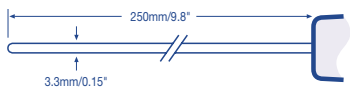

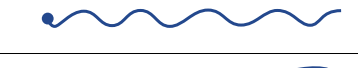


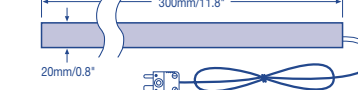
agitated water/glycol bath and may differ from those obtained under other conditions, but can be used as a general guide when selecting probes for your requirements.

Specifications table

| Code | Description | Application | Time Const. (secs) | Max. Tip Temp. | Tip Dimensions |
|---------|--|-------------|--------------------|------------------|----------------|
| K0234 | General Purpose Probe. K type sensor. Strong, fast responding and suitable for a wide range of applications - liquids, semisolids, air and granular penetration. Can be used for general food penetration. | I, H, F | 0.6 | 1000°C 1832°F | |
| T0234 | General Purpose Probe. T type sensor version of K0234. | I, F | 0.6 | 250°C 482°F | |
| H0234 | General Purpose Probe. Thermistor sensor version of K0234, with a straight cable and dedicated connection to the 2046T. | F | 1.9 | 120°C 248°F | |
| H0235 | General Purpose Probe. Thermistor sensor version of K0234, with a coiled cable and dedicated connection to the 2046T. | F | 1.9 | 120°C 248°F | |
| P0234 | General Purpose Probe. Pt 100 sensor version of the K0234, ideal for laboratory use. | I | 2.0 | 600°C 1112°F | |
| KMT0234 | General Purpose Probe. T type sensor version of K0234, with a Lumberg connection. | I | 0.5 | 1000°C 1832°F | |
| CMT0234 | General Purpose Probe. T type sensor version of K0234, with a dedicated metal screw connection to the 2006TCM or 2086TCM | I, H, F | 0.5 | 1000°C 1832°F | |
| K0236 | Flue Probe. K type sensor. Strong, fast response probes, complete with adjustable securing cone and screw for flue gas measurements. Particularly aimed at the heating and ventilating industries. | I, H | 0.6 | 1000°C 1832°F | |
| K0254 | Heavy Duty General Purpose Probe. K type sensor, suitable for a wide range of applications in harsh environments. | I, F | 1.3 | 1000°C 1832°F | |
| K0112 | Hypodermic Needle Probe. K type sensor, for rapid temperature measurements of items such as food, pharmaceuticals, shellfish, rubber (e.g. car tyres). | I, F | 0.5 | 400°C 752°F | |
| T0112 | Hypodermic Needle Probe. T type sensor version of K0112. | I, F | 0.5 | 375°C 707°F | |
| CMT0112 | Hypodermic Needle Probe. T type sensor version of K0112, with a dedicated metal screw connection to the 2006TCM or 2086TCM. | I, F | 0.5 | 1000°C 1832°F | |
| K0454 | Surface Probe. K type sensor. Providing a fast response and comprising of a 3.5mm diameter spring loaded copper disc to allow uniform pressure on surface to be measured. | I, F | 0.4 | 500°C 932°F | |
| K0584 | Rugged Surface Probe. K type sensor. Fitted with heavy-duty retractile cable, providing a fast response for all types of industrial applications, including bearing temperatures. | I | 0.5 | 750°C 1382°F | |
| K0684 | Band Surface Probe. K type sensor, will provide a rapid response for air and surface temperature measurements. Industrial applications include sheet metal, photocopier rollers, and electronic component testing. Other applications include the temperature measurement of food packs and hot plates. | I, H, F | 0.4 | 250°C 482°F | |
| T0684 | Band Surface Probe. T type sensor version of K0684. | I, F | 0.4 | 250°C 482°F | |
| CMT0684 | Band Surface Probe. T type sensor version of K0684, with a dedicated metal screw connection to the 2006TCM or 2086TCM. | I, H, F | 0.4 | 250°C 482°F | |
| T0834 | Air/Between Pack Probe. T type sensor, as recommended by Health Authorities. The sensor is encased at the end of a long flat probe, which is designed to slide between food packs without causing damage. | F | 0.5 | 100°C 212°F | |
| CMT0834 | Air/Between Pack Probe. T type sensor version of T0834, with a dedicated metal screw connection to the 2006TCM or 2086TCM. | F | 0.5 | 100°C 212°F | |
| K0258 | Frozen Food Probe. K type sensor, with a sharpened tip and shorter shaft has been designed to be used with frozen foods. Before readings are taken, it is recommended that a hole should be drilled and then the probe inserted. | F | 1.3 | 1000°C 1832°F | |
| T0258 | Frozen Food Probe. T type sensor version of K0258. | F | 1.3 | 375°C 707°F | |
| CMT0258 | Frozen Food Probe. T type sensor version of K0258, with a dedicated metal screw connection to the 2006TCM or 2086TCM. | F | 1.3 | 375°C 707°F | |
| K0256 | Bitumen Probe. K type sensor, for taking tar temperature measurements in the construction industry. | I | 1.3 | 1000°C 1832°F | |

Application Key: I = Industrial, H = HVAC, F = Food.

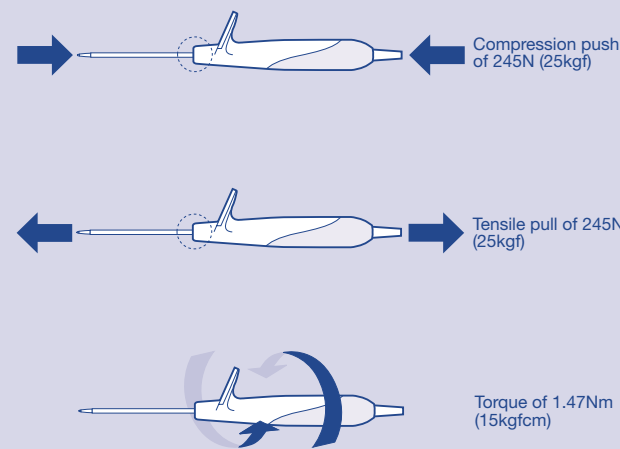
Specifications table

| Code | Description | Application | Time Const. (secs) | Max. Tip Temp. | Tip Dimensions |
|---------|---|-------------|--------------------|------------------|---|
| K0642 | Heavy Duty Bitumen Probe. K type sensor, with metal handle and metal armoured cable for taking tar temperature measurements in the construction industry. | I | 1.3 | 1000°C 1832°F |  |
| K0334 | Air Probe. K type sensor. Extremely fast response ideal for the refrigeration, heating and ventilation industries; including the measurement of air temperatures of storerooms and cold rooms. Also 'air on' and 'air off' temperatures of refrigeration units as recommended by the Department of Health. | I, H, F | 0.3 | 500°C 932°F |  |
| T0334 | Air Probe. T type sensor version of K0334. | I, F | 0.3 | 375°C 707°F | |
| H0334 | Air Probe. Thermistor sensor version of K0334, with a straight cable and dedicated connection to the 2046T. | F | 1.1 | 120°C 248°F | |
| CMT0334 | Air Probe. T type sensor version of K0334, with a dedicated metal screw connection to the 2006TCM or 2086TCM. | I, H, F | 0.3 | 500°C 932°F | |
| K0714 | Semi-Flexible General Purpose Probe. K type sensor. Versatile probe with mineral insulated sensor and inconel sheath for measurements of substances where access is restricted. | I | 1.0 | 1000°C 1832°F |  |
| K0736 | Heavy Duty Semi-Flexible General Purpose Probe. K type sensor. Versatile probe with mineral insulated sensor and inconel sheath for measurements of substances where access is restricted. | I | 2.6 | 1000°C 1832°F |  |
| K0000 | Exposed Junction Thermocouple PTFE Insulated. K type sensor, for general purpose use in heating and refrigeration industries, including radiators, water, air temperatures. | I, H, F | 0.5 | 250°C 482°F |  |
| H0000 | Fridge Probe. Thermistor sensor, for the non-destructive checking of food temperatures with a dedicated connection to the 2046T. | F | 3.5 | 120°C 248°F |  |
| T0000 | Fridge Probe. T type sensor, used to monitor temperatures by placing the wire probe inside the fridge/freezer and shutting the door to give a true reading | I, F | 0.5 | 250°C 482°F |  |
| CMT0000 | Fridge Probe. T type sensor, used to monitor temperatures by placing the wire probe inside the fridge/freezer and shutting the door to give a true reading | I, F | 0.5 | 250°C 482°F |  |
| H0800 | Between Pack Probe. Thermistor sensor, for checking still air temperatures in the refrigerators or freezers with a dedicated connection to the 2046T. | I | 3.5 | 100°C 212°F | |
| K0900 | Pipe (Velcro®) Probe. K type sensor, for taking surface temperature measurements of pipes. Designed for the heating, refrigeration and milking industries; this probe consists of a sensor embedded in a 300 mm length of Velcro®, which enables the user to wrap the probe securely around pipes. | I, H | 2.6 | 100°C 212°F |  |

Application Key: I = Industrial, H = HVAC, F = Food.

Please note that Type T and Type K probes can be used with other manufacturer's instruments. Please call us to confirm compatibility.

Strength you can trust (Shaft/handle)

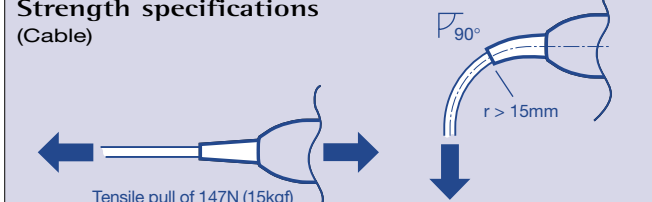


Compression push of 245N (25kgf)

Tensile pull of 245N (25kgf)

Torque of 1.47Nm (15kgfcm)

Strength specifications (Cable)



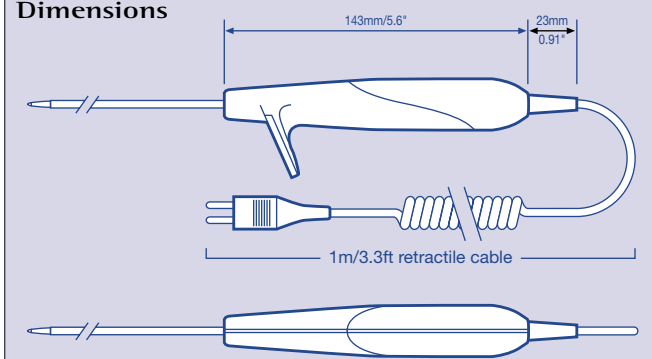
Tensile pull of 147N (15kgf) (except Pt 100/Pt 1000)

90°

$r > 15\text{mm}$

29.4N (3kgf)

Dimensions



143mm/5.6"

23mm/0.91"

1m/3.3ft retractable cable

Calibration Service

Instruments can be calibrated to manufacturer's specification using test equipment traceable to NAMAS certified references. We recommend an annual calibration check and adjustment (not included in warranty).

Service and Repair

An efficient after sales, repair and spares service is available for Digitron products. Instruments for repair should be sent to the Service Dept., carriage paid, and labelled with the sender's name and address. A brief description of the work required should also be enclosed with a purchase order or estimate request.

Warranty and Guarantee

All Digitron 2000 Series instruments are covered by a 2 year guarantee, with a discretionary 3 month guarantee on temperature probes. This warranty covers against component failure or manufacturing defect.

All Digitron branded products are manufactured by Sifam Instruments Limited to the highest standards. Our quality Management System is assessed to ISO 9001. As part of our policy of continuous product development and improvement we reserve the right to change specifications at any time.



Worldwide distribution

We have a comprehensive distribution network throughout the world. For details of a distributor in your country contact the Digitron Sales Office.



Digitron



SIFAM INSTRUMENTS LIMITED

WOODLAND ROAD TORQUAY DEVON TQ2 7AY ENGLAND

TEL: +44 (0) 1803 407693 FAX: +44 (0) 1803 407699

digitronsales@sifam.com www.sifam.com



As part of our policy of continuous product improvement we reserve the right to change specifications at any time.