



2024

catalogue

excellence & innovation in electrochemistry



ABOUT EDT directION



EDT directION have a proud tradition of developing and supplying both novel and conventional electrochemistry products. Our products are manufactured and fully supported in the UK at our Manufacturing and laboratory facilities in Dover UK.

We are world leaders in solid state ISE technology and are pioneers in the production and development of maintenance-free Combination ISE's.

EDT have manufactured pH, Conductivity and Dissolved Oxygen meters for nearly 50 years. These products are robust and reliable with an extremely low cost of ownership and are complimented by an extensive range of electrodes and consumables.

We are committed to supplying the best possible products to meet the demands of today's analyst and servicing them long after initial delivery.

We are a British Manufacturer of Electrochemistry meters and sensors.

For technical support, documentation, tutorials or product information please visit our website where products can be purchased on-line and delivered to your door from stock. We ship all over the world and support our products long after initial sale.

EDT directION are always researching and developing new electrochemistry products. Should you have an area where we may be able to collaborate or provide custom products just email us at info@edt.co.uk

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YouTube: www.edt.co.uk/tv



pH Products

Pocket pH Meters non Glass (ISFET)

The S2K series are non glass pocket pH meters providing the accuracy of a standard portable meter but with the flexibility to measure almost any sample. They are particularly useful for the measurement of semi solids such as cheese, pastes and other food and biological products.

The solid state ISFET (Ion Sensitive Field Effect Transistor) can be easily cleaned after measurement with a soft brush. The Reference electrode has a high volume reservoir for long life and is readily replaceable.

The rugged modular design provides reliable pH analysis in applications where glass electrodes are not an option. Calibration is possible using 1, 2 or 3 points with as little as 1 drop of buffer solution. Temperature compensation (ATC), Automatic buffer recognition and stability indicators make the EDT S2K series extremely simple to operate.

Features include a clear LCD display of both pH and Temperature in a Waterproof, IP67 rated case. The On Chip Sensor is placed within 5mm of the Reference junction making it possible to measure samples as small as one drop.

Response times are in seconds with built in Automatic Temperature Compensation (ATC) and Automatic Buffer Recognition for easy calibration. Product fits comfortably into the pocket with a pocket clip for security.

Battery life is an impressive 150 hours with Auto Power Off when you forget!



Replaceable Electrode





| Parameter | S2K222 | S2K333 |
|----------------|------------------------------|------------------------------|
| pH Range | 2 to 12 | 2 to 12 |
| pH Resolution | 0.1 | 0.01 |
| Accuracy | 0.1 pH | 0.02pH |
| Battery Life | 150Hrs | 150Hrs |
| Dimensions | 142 x 28 x 15mm (LWH) | 142 x 28 x 15mm (LWH) |
| Display | Clear Backlit LCD | Clear Backlit LCD |
| Power | 3V L-ion CR2032 | 3V L-ion CR2032 |
| Reference Type | Replaceable Ag/AgCl with KCl | Replaceable Ag/AgCl with KCl |
| Sensor Type | Silicon Chip pH ISFET. | Silicon Chip pH ISFET. |
| Temperature | On chip Temp. | On chip Temp. |
| Accuracy | 1 Degree C | 1 Degree C |

Portable pH meter Model QP451

The QP451 Portable pH meter is the first in a series of Quality Portable meters from EDT directION. All are state of the art instruments made in the UK.

The clear graphic display guides the user through every operation ensuring that even the most unskilled operator can perform accurate analysis without an instruction manual. Every instrument in the QP range has a mini USB output for printing or exporting sample and calibration data. If printing is not possible there is a 10,000 data point, 64 file internal memory to enable field data to be recorded.

Power is via 4 x AA batteries. Lifetime is impressive due to a highly efficient display with brightness and contrast options along with many other power saving features. Other features include 1 ,2 or 3 Point Calibration, Auto endpoint function, automatic temperature compensation (ATC), Automatic buffer recognition and correction, calibration alarms, millivolt and Relative millivolt modes, Real time clock, data logging mode and an impressive array of accessories and consumables.

The QP range are extremely tough, splash-proof, practical and carry a two year warranty.

| | |
|------------------|---------------------------|
| pH Range | -2 to 16pH |
| pH Accuracy | (+ \ -) 0.01 |
| mV Range | (+ \ -) 1999mV |
| mV Accuracy | (+ \ -) 0.1mV |
| Temp Range | 0-105 degrees C |
| Temp Resolution | 0.1 Degrees C |
| Power Supply | 4 x AA Battery |
| Battery lifetime | 250 Continuous hours |
| Environment | 0-50°C. 0-100% RH |
| Dimensions | 175 x 88 x 48mm |
| Weight | 350g |
| Connectors | BNC (pH) 3.5mm Jack (ATC) |



QP458 Combined pH & Conductivity Meter

The QP458 Portable pH meter is the third in a series of Quality Portable meters from EDT directION. All are state of the art instruments made in the UK.

The clear graphic display guides the user through every operation ensuring that even the most unskilled operation can perform accurate analysis without an instruction manual. Every instrument in the QP range has a mini USB output for printing or exporting sample and calibration data. If printing is not possible there is a 10,000 data point, 64 file internal memory to enable field data to be recorded.

Power is via 4 x AA batteries. Lifetime is impressive due to a highly efficient display with brightness and contrast options along with many other power saving features.

Other features include:

- Dual pH and Conductivity Display
- 1 ,2 or 3 Point pH Calibration
- Auto Conductivity Calibration
- Auto endpoint
- Automatic Temperature Compensation (ATC)
- Automatic Standard Recognition
- pH Buffer correction
- Calibration alarms
- Millivolt and Relative millivolt modes
- Total Dissolved Solids (TDS) Mode
- Data logging and internal Data storage.
- Micro USB Data output
- Real time clock
- BNC /DIN and 3.5mm Jack connectors
- Impressive array of accessories and consumables.

The QP range of products are extremely Tough, Splash-proof and practical and carry a two year warranty.





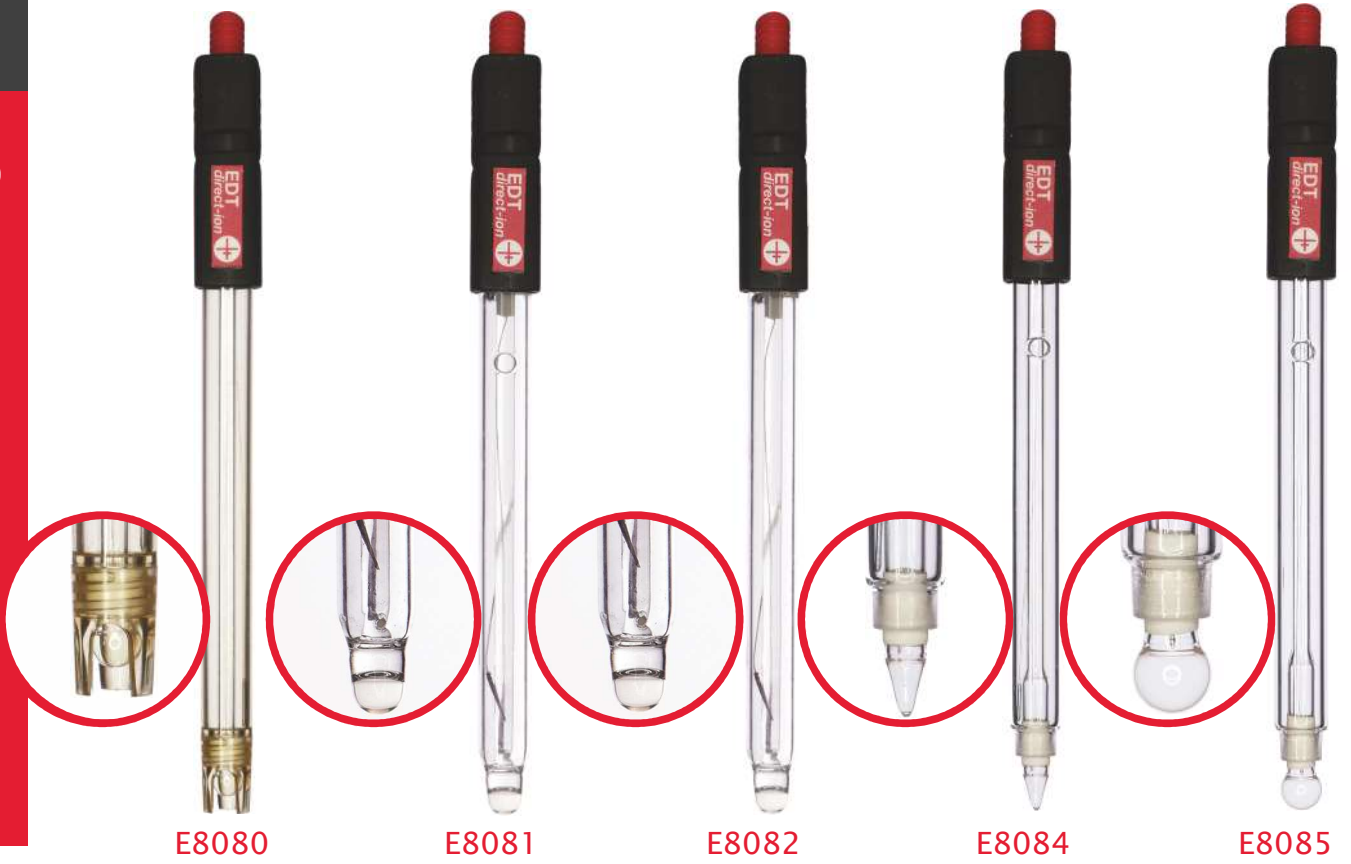
Quality pH Products Made in the UK

Series 4 Quality Portable Meters With pH Modes:

| Part No. | Description | pH Mode: |
|-----------|----------------------------------|----------|
| QP451 | Portable pH Meter | ✓ |
| QP481 | Portable Conductivity Meter | X |
| QP458 | Combined pH & Conductivity Meter | ✓ |
| QP459 | Portable Ion Meter | ✓ |
| QP999 | Boat Meter | X |
| NPK | NPK Nutrimeter | X |
| Salcon II | Portable Salt Concentraion Meter | X |



pH and Redox electrodes



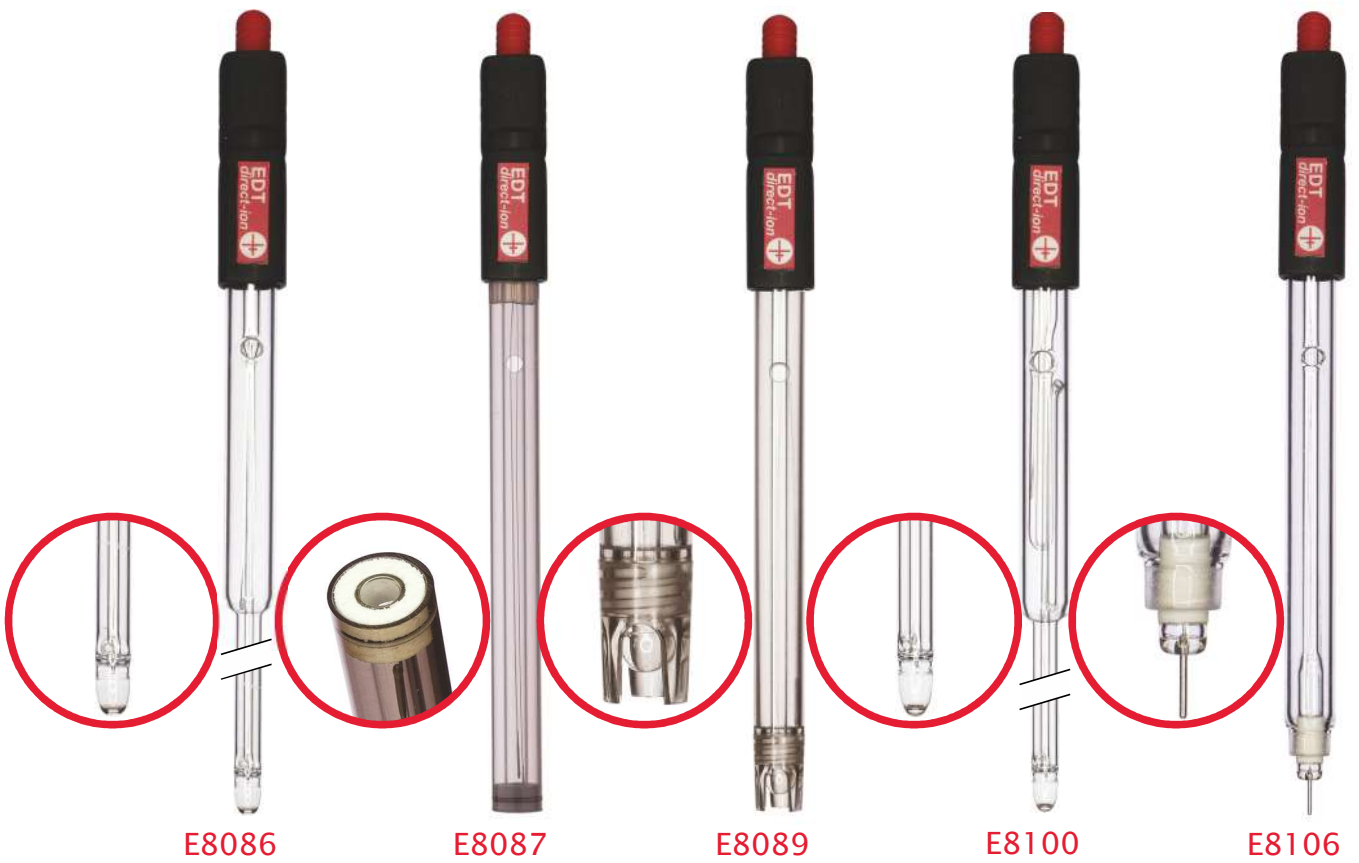
E8080

E8081

E8082

E8084

E8085



E8086

E8087

E8089

E8100

E8106



pH and Redox electrodes (Cont.)

EDT directION pH electrodes represent excellent value for money and provide the following ;

Fast response times with excellent stability.

High quality finish (Manufactured in the UK)

Compatibility with all common pH meters

Full technical support

Full application coverage through a wide selection of products.

The measurement of pH is just about the most common test performed in laboratories or out in the field. The samples vary from water to blood and from meat to concrete. As a result there are a vast array of Electrodes each one designed to suit specific applications. Selection of the correct electrode is therefore crucial to achieve the correct result. EDT directION manufacture a high quality selection of pH Electrodes to cover most applications.

pH and Redox Electrodes Specifications

| Cat No. | Length | Dia. at Tip | Junction | Body Material | Combo | Refillable |
|---------|--------|-------------|-----------------|---------------|-------|------------|
| E8080 | 120MM | 12MM | Annular Ceramic | Polymer | Yes | No |
| E8081 | 120MM | 12MM | Ceramic | Glass | Yes | Yes |
| E8082 | 120MM | 12MM | Ceramic | Glass | No | No |
| E8084 | 120MM | Point | Ceramic | Glass | Yes | Yes |
| E8085 | 120MM | 12MM | Annular Ceramic | Glass | Yes | Yes |
| E8086 | 250MM | 4.5MM | Ceramic | Glass | Yes | Yes |
| E8087 | 120MM | 12MM | Annular Teflon | Glass | Yes | Yes |
| E8089 | 120MM | 12MM | Annular Ceramic | Polymer | Yes | Yes |
| E8100 | 165MM | 4.5MM | Ceramic | Glass | Yes | Yes |
| E8106 | 120MM | 120MM | Ceramic | Glass | Yes | Yes |
| 9999 | 150MM | 25MM | Teflon | Polymer | No | No |
| 9999ORP | 150MM | 25MM | - | Polymer | No | No |

Reference Electrodes



9999



E8090



5094



A3135



E8094



E8095



E8195



Reference Electrodes (Cont.)

Fundamentally there are two types of reference electrode. The Calomel (Hg/HgCl_2) system and the Silver/Silver Chloride (Ag/AgCl) products. Both leach out a small amount of filling solution during operation which provides electrical contact with the sensing electrode and helps provide a stable unchanging potential.

Both do the same job in principle but careful consideration is needed to select the right reference for the right application. Silver Chloride references do not contain mercury and are often considered more suitable for environmental applications. They are also less effected by higher temperatures than the Calomel electrode.

The Calomel electrode is refillable with Potassium Chloride and as such is less prone to reference junction blockage. With the Ag/AgCl references the filling solution has to be saturated with Silver Chloride which is slightly soluble in KCl. In some circumstances Silver salts can be deposited in the Ceramic reference junction leading to blockage and electrode failure. Calomel reference electrodes may also be used in TRIS applications unlike the Ag/AgCl equivalent. Calomel electrodes tend to have a longer lifetime.

The reference junction type is another option requiring consideration. Ceramic junctions are rugged and ideal for general applications. Annular junctions give a slightly higher leak rate and contact area and are therefore good for low ionic strength applications and offer greater stability. Teflon junctions are resistant to blockages and are great for harsh applications.

Finally Double junction references have the advantage of having an outer chamber which can contain an electrolyte of the users choice. This means that the electrolyte leaching into the sample during measurement can be selected to be inert and therefore not affect the result. The most common application is for use with Ion Selective Electrodes or in cases where chloride interferes with the result.

EDT reference electrodes are compatible with all other manufacturers meters and sensing electrodes. The connector type can be amended to suit the meter in question.

Reference Electrodes Specifications

| Cat No. | Length | Ref Type | Junction | Body Material | Refillable | Connector |
|---------|--------|-------------------------|----------------|---------------|------------|-----------|
| E8090 | 120MM | Calomel | Ceramic/Single | Glass | Yes E8064 | 4mm Pin |
| E8094 | 120MM | Calomel | Ceramic/Double | Glass | Yes E8064 | 4mm Pin |
| E8095 | 120MM | Ag/AgCl | Ceramic/Single | Glass | Yes E8067 | 4mm Pin |
| E8195 | 120MM | Ag/AgCl | Ceramic/Double | Glass | Yes E8067 | 4mm Pin |
| A3135 | 120MM | Ag/AgCl | Teflon/Single | Glass | No | BNC |
| 9999 | 150MM | Ag/AgCl | Teflon/Single | Polymer | No | 4mm pin |
| 5094 | 120MM | Chloride | Disc Liquid | Polymer | Yes E8064 | 4mm pin |



EDT directION have recently released two solid state reference electrodes:

- The E8197 Solid State Reference Electrode (KCl)
- The E8198 Solid State Reference Electrode (NaCl)

These are unique Solid State Reference Electrodes which require no maintenance and no filling solutions.

The probes are compatible with all pH and Ion Selective electrodes and can be used for lab and field applications including constant immersion.

This probe has a polymer outer body and a crystalline tip surface that slowly leaches KCl or NaCl to provide a stable reading with the appropriate sensing electrode.

When the electrode is not responding as sharply, the tip can be rubbed down to expose a new surface. This increases the lifetime of the probes and makes maintenance easy.

For applications where Potassium Chloride is not suitable you can use the NaCl equivalent – and for applications where Sodium Chloride is not suitable you can use the KCl Solid State Probe.

The probe can be left dry when not in use and is ideal for use with ISE half cells which are also solid state and can be left dry.



Buffer & Filling Solutions

pH Buffers Solutions

EDT pH Buffer Solutions ensure that you make accurate pH measurements. Calibration using 1, 2 or 3 buffer solutions is essential. Most are colour coded for easy identification without the need to write on glassware.

Buffer solutions should not be reused once they have been standing in an open beaker.

Never pour back into the buffer bottle.

pH buffer capsules can be useful to give the flexibility of being able to produce accurate pH standards wherever you are.



Electrode Filling solutions and accessories.

Many of the pH and reference electrodes are refillable. For combination pH electrodes or single junction references there are two different solutions to choose from. Getting this selection right is important. For pH electrodes and references with an Ag/AgCl reference the filling solution must be Saturated KCl with Ag/AgCl. For Calomel references the AgCl is not required and Saturated KCl is used.

Storage of electrodes is also important as these electrodes cannot be stored dry and should not be stored in Deionised water, tap water or pH Buffer. If you are not using our Electrode storage solution then storing the electrode in the filling solution is acceptable in the short term.

All filling solutions from EDT direction are compatible with pH and reference electrodes from other manufacturers.

Dissolved Oxygen

QP459 Portable Ion & Dissolved Oxygen Meter

The QP459 Portable ION Meter has a dedicated Dissolved Oxygen Mode. When used in conjunction with the E8020 Dissolved Oxygen Electrode, it enables quick and easy dissolved Oxygen measurements.

Features Include:

- Direct Reading in % Oxygen Saturation and ppm
- Two Point calibration – 0 and 100% Saturation
- Resolution to 0.1% Saturation
- Auto End Point for standard and sample results
- Also measures pH, mV and ION concentrations
- Data logging and internal data storage
- Micro USB data output
- The Low or High Resolution option optimises operation for field or laboratory measurement



The QP459 dissolved oxygen meter has a BNC socket and is compatible for use with any make of Galvanic DO, ISE, pH and REDOX electrode with a BNC connector.

E8020 Galvanic Dissolved Oxygen (DO) Electrode

The E8020 has maintenance free operation with a non replaceable rugged membrane.

The galvanic DO electrodes have the advantage of being compatible with all mV meters therefore negating the need to buy an expensive Dissolved Oxygen meter. We recommend using the QP459 DO Meter above.

Main Features include:

- Rugged body for field and lab use
- Range of 0–200% Saturation
- Readability to +/- 0.1% Oxygen
- Should be used with a QP459 ION/DO Meter
- Results in % Saturation or ppm Oxygen
- Standard 12mm design
- BNC connector with a 1 Metre cable



Reduction/Oxidation (REDOX) and Corrosion

Chemical reactions involving oxidation and reduction are characterised by the release or the consumption of electrons. If you measure the availability of free electrons you can understand much about the solution you are measuring.

For example you will be able to tell if the solution has the potential to be highly oxidising or reducing which may be useful in determining the effectiveness of agents such as Chlorine or Sulphur dioxide. If for example you have just sterilized your steel containers for food production it would be useful to know if any of the agent remained before you added fresh ingredients.

The same applies to washing salads. You would want to be sure all washings are not tainted before you sell them.

Likewise if you had a metallic structure exposed to salt water you would want to know if corrosion is taking place e.g. when Iron(II) is converted to Iron(III). This, and other REDOX reactions can be followed by measuring the mV potential using a Platinum sensing electrode and an appropriate reference electrode.

In some cases metal structures can be monitored by connecting them to the mV meter as the dynamic electrode and measuring its potential versus the right reference electrode.

EDT directION produce a range of meters and electrodes ideal for the measurement of REDOX reactions and corrosion potentials.

QP451 Portable REDOX/Corrosion Meter

The QP451 pH/mV meter is ideal for the measurement of REDOX potentials. All measurements are made in the mV mode to a resolution of 0.1 mV. In addition the Relative mV mode allows a baseline solution to be set at 0mV. e.g. you can set Redox standards or ideal state solution at zero and monitor deviations more easily.

The QP451 also has logging, printing and data storage to enable the tracking of the potential changes.

The QP459 pH/mV meter is also very simple to use and will allow the measurement of mV potentials in the lab environment. The meter is Battery controlled.



E8106

pH Accessories

Measuring pH is incredibly common. Anything we eat or drink gets measured. Industry and Agriculture are other common areas for analysis. Variety of samples means the need for a large variety in products and accessories required.

Electrode Stands

The E8060 Flexible Stand and Electrode Holder is perfect for laboratory work or just to ensure that electrodes are kept safe, upright and ready for use.

ATC /Temperature probes

All EDT directION Temperature probes are made from Stainless steel with embedded 10K thermistors to ensure accuracy and a fast response. ATC probes are included in all Meter kits unless the electrode itself has a built in Thermistor.

Batteries

The new Series 4 Portable instruments take 4 x AA Batteries and have an array of battery lifetime saving functions.

Field Carry Cases

All instruments have a Battery option which means they are all suitable for Field work. When ordered as a Kit the Series 4 meters will be supplied in a robust Carry Case.



Conductivity and TDS Products

Conductivity Meters

EDT directION manufacture a complete range of bench and portable Conductivity Meters for all applications. The key to successful conductivity measurement is matching the conductivity cell to the sample.

We manufacture all electrodes and instruments in the UK and impressive range of sensors from industrial dip cells to micro flow cells.

QP481 Portable Conductivity /TDS meter.

The QP481 Portable Conductivity/TDS meter is the second in a series of Quality Portable meters from EDT directION. All are state of the art instruments made in the UK.

The clear graphic display guides the user through every operation ensuring that even the most unskilled operation can perform accurate analysis without an instruction manual. Every instrument in the QP range has a mini USB output for printing or exporting sample and calibration data. If printing is not possible there is a 10,000 data point, 64 file internal memory to enable field data to be recorded.

Power is via 4 x AA batteries. Lifetime is impressive due to a highly efficient display with brightness and contrast options along with many other power saving features.

Other features include:

- Automatic Calibration
- Auto endpoint
- Automatic Temperature Compensation (ATC)
- Simple Set Up Menu
- Auto Ranging
- TDS Mode with adjustable TDS Factor
- Data logging and internal Data storage.
- Micro USB Data output
- Real time clock
- Din Connector for Conductivity/Temp probe.
- Impressive array of accessories and consumables.



The QP range of products are extremely Tough, Splash-proof and practical and carry a two year warranty

| | |
|-------------------------|--|
| ATC | ATC across the entire range |
| Autoranges | Select the correct unit range Automatically. |
| Battery Life | Over 200 Hours continuous use |
| Commodity Code | 90278011 |
| Conductivity Accuracy | +/- 0.2% of Reading |
| Conductivity Range | Auto-ranging from 0- 999mS/cm. in appropriate units |
| Connection | Multi pin DIN for Conductivity/Temperature combined probe. |
| Data Output | Mini USB. Outputs csv at 38400 Baud |
| Data Storage | Internal storage of up to 64 files. Logging maximum 10,000 data points |
| Display | Backlit LCD Graphic Display |
| Power requirement | 4 X AA Batteries |
| Reference Temperature | Set at 25 degrees C. |
| Size | 175x88x48mm (LWH). Meter Only |
| Temperature Coefficient | Set at 2% Per degree. |
| Temperature Range | -30 to +130 Degrees Centigrade |
| Weight | 350g Meter Only |



Salcon II Salt Meter

The SALCON II Salt Concentration Meter is designed to measure the water soluble Chloride ion content during Marine Aggregate processing and prior to onward supply for concrete manufacturing.

Chlorides may be present in concrete from other constituent materials e.g. cement and admixtures. Field evidence shows that, provided that the Chloride levels in the hardened concrete do not exceed the limits specified in BS8500, and that the normal criteria for concrete quality and depth of cover are applied, there is no significant additional risk of reinforcement corrosion from the use of marine dredged aggregate in concrete.

British and European Standards

The guidance given for water soluble Chloride ion content can be summarised in the following European and British Standards BS EN 12620 and BS EN 206-1.

The Standard BS EN 206-1 defines the chloride class depending on the type of reinforcing to be used. The class specifies the maximum Chloride content in concrete by mass of cement from the total contribution of all the constituents.

The EDT SALCON II meter is designed to assist in the monitoring and management of the Chloride marine aggregate producers' factory control procedures as required by BS EN 12620.

The maximum chloride content in concrete ranges from 1.0% in un-reinforced structures to 0.1% in Pre-stressed steel reinforcement.

The Instrument

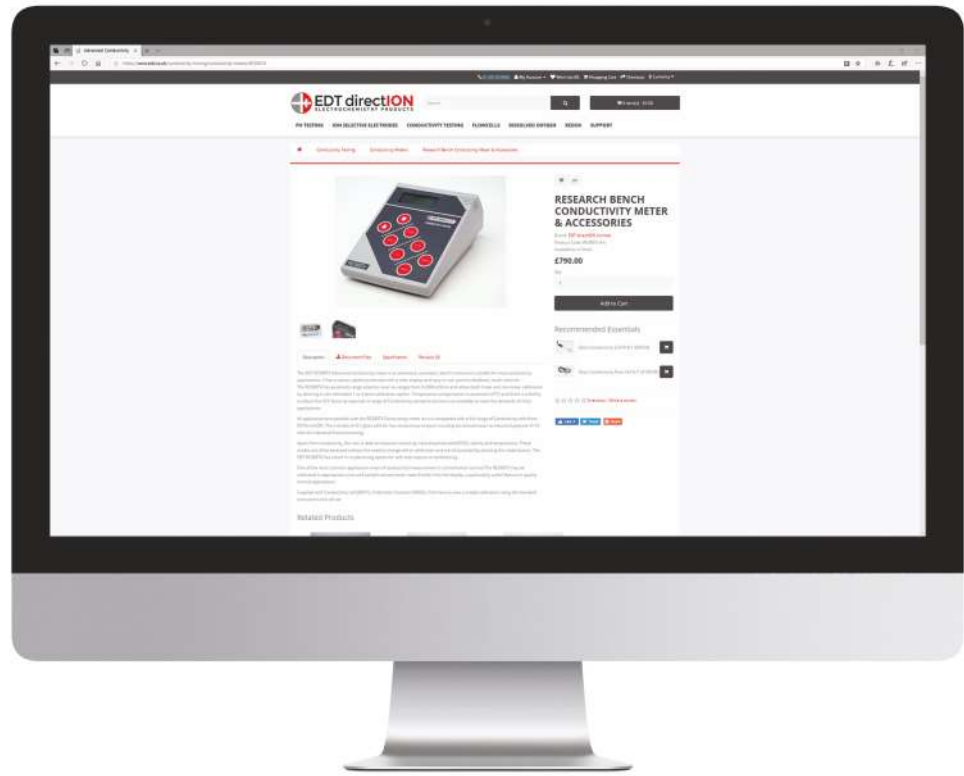
The SALCON II model is a robust direct reading instrument designed for use in the field or Workshop/Laboratory to provide a direct % Chloride content in Wash solutions. The meter has a built in correction allowing for the use of Tap water as the wash solution by correcting automatically for its inherent conductivity.

Features include:

- Direct Concentration Readout down to 0.001% Chloride
- Automatic correction for Tap Water (Blank correction)
- Auto Endpoint
- Results storage in the Internal memory
- Backlit display with Brightness and contrast control.
- Automatic Temperature Correction (ATC)
- Automatic Calibration using actual NaCl conductivity data.
- Portable with a 200 hour continuous battery life



The QP range of products are extremely Tough, Splash-proof and practical and carry a two year warranty.



For More Information on EDT DirectiON Products visit WWW.EDT.CO.UK

Series 4 Quality Portable Meters With Conductivity Modes:

| Part No. | Description | Cond Mode: |
|-----------|----------------------------------|------------|
| QP451 | Portable pH Meter | X |
| QP481 | Portable Conductivity Meter | ✓ |
| QP458 | Combined pH & Conductivity Meter | ✓ |
| QP459 | Portable Ion Meter | X |
| QP999 | Boat Meter | X |
| NPK | NPK Nutrimeter | X |
| Salcon II | Portable Salt Concentraion Meter | ✓ |



Conductivity Cells



EDT directiON manufacture a wide array of conductivity cells for all applications from pure water monitoring to industrial flow cells. From Rugged Epoxy dip cells to finely sculptured precision glass cells.

All EDT cells are compatible with the appropriate EDT conductivity meter but are not compatible with other brands of cell which may have different connectors or thermistors.

Conductivity Electrode Specifications

| Cat No. | Type | Dia. | Use | Range | Cell |
|-----------|-------------|------|-----------------------|--------------------|-----------------|
| E8071 | Glass K=1 | 12MM | General | 100µS-100mS | Platinum Plates |
| E8072 | Glass K=0.1 | 12MM | Low Conductivity | 0.01µS/cm-100µS/cm | Platinum Plates |
| E8070 | Polymer K=1 | 12MM | General/Field | 100µS-100mS | Platinum Plates |
| A5005 | Glass K=1 | 12MM | Flow through. General | 100µS-200mS | Platinum Plates |
| E5010 | Polymer K=1 | 25MM | Industrial/Field | 100µS-100mS | Graphite Plates |
| A6000 | Glass K=1 | 5MM | Micro /Chromatography | 100µS-200mS | Platinum Plates |
| A6000 ATC | Glass K=1 | 5MM | Micro /Chromatography | 100µS-200mS | Platinum Plates |
| A5019 | Polymer | 12mm | General/Field | 100µS-100mS | Graphite Plates |

Conductivity Accessories

The Measurement of Conductivity is widespread from the analysis of Salt in our Food and the quality of Pure Water to the Chloride level in aggregates in the construction industry. The variety of samples means the need for a large variety in products and accessories required.

Electrode Stands

Our series 4 Meters come complete with a full set of accessories when ordered as a Kit. Sometimes however a stand is required. The E8060 Flexible Stand and Electrode Holder is perfect for laboratory work or just to ensure that electrodes are kept safe, upright and ready for use.

ATC /Temperature probes

All EDT directIOn Temperature probes are made from Stainless steel with embedded 10K thermistors to ensure accuracy and a fast response. ATC probes are included in all Meter kits unless the electrode itself has a built in Thermistor.

Batteries

The new Series 4 Portable instruments take 4 x AA Batteries and have an array of battery lifetime saving functions.

Field Carry Cases

All Series 4 instruments have a Battery option which means they are all suitable for Field work. When ordered as a Kit the Series 4 meters will be supplied in a robust Carry Case.



Ion Selective Electrodes (ISEs)

We have been making ISEs in the UK for nearly 50 years and are proud of our continuing research and development programme into novel sensors and new constructions. This commitment ensures that we continue to provide products to suit most applications be they laboratory, field, on-line or industrial.

EDT directION have novel solid state ISE technology allowing all sensors to be solid state and flexible enough to be manufactured in any size or form.

Combination ISEs

This unique range of electrodes have built in (maintenance free) reference electrodes, solid state sensors and are ready to use out of the box.

Benefits include:

- Rugged Solid State Sensors
- No Filling solutions
- No membrane replacements
- Built in dry Reference electrode
- Waterproof and submersible
- Suitable for Laboratory and Field work
- Compatible with all pH and Ion Meters
- Stored dry for long lifetime
- Low cost
- Easy to use



EDT directION produce more solid state combinations ISEs than any other company in the world.

Half Cell ISEs

A reference electrode is required to enable a measurement to take place. Though Calomel and single junction reference electrodes are suitable for measurements that do not suffer Potassium or Chloride interference it is recommended to use a Double Junction reference electrode. Our Technical and Laboratory specialists offer free advice and application support. www.edt.co.uk/support.

Benefits include:

- Solid State Electrode
- No internal Filling solutions required
- Rugged Robust and Maintenance free
- Waterproof and Submersible
- Fixed or Detachable lead versions
- Compatible will all pH or Ion meters
- Long life and Low Cost



Our Technical and Laboratory specialists offer

Refillable Flow Plus ISEs

The EDT directION Flow plus range incorporates two solid state ISE's in one 12 mm Epoxy body. One acts as the Sensor whilst the other is incorporated into the reference system.

Flow plus combination ISE's do not require a separate reference electrode, making it convenient to use with small sample volumes. The sensor and reference are solid state which ensures a longer shelf life than any other type of ISE.

Benefits Include:

- Solid State Sensors
- Unblockable reference junctions
- Easy to dis-assemble and clean
- Long Life
- Handles dirty and awkward samples



The reference half-cell has a free-flowing liquid junction which will reduce drift and provide more stable readings than conventional ISE's. Flow plus electrodes are ideal for measuring awkward or dirty samples, which would clog conventional reference electrodes.

Flow plus ISEs require a filling solution. Approximate capacity of the reference chamber is 3ml.

The Flow plus reference system has a liquid junction provided by a conical plug which is opened or closed by rotation of the electrode cap. The wider the opening between body and plug the faster the electrolyte flows. Low ionic strength samples and samples with high viscosity or particulates are examples of media that require this increased flow.

Flow plus ISEs are ideal in situations where drift, slow response times and reduced electrode lifetimes are a problem.



Process ISEs

EDT directION produce range of ISEs designed for Process Control. These ISEs are rugged polymer and have a fixed protective skirt to improve durability. These ISEs have 3/4" Screw Threads so they can be placed in situ in a screw fitting.

EDT electrodes typically come with a 1m Cable. However the process ISEs come with a 5m cable.

The default connector for these probes is a BNC Plug which fits EDT Meters. If a different connector is required please email info@edt.co.uk and we can provide an alternative. Free Wire Ends are also available as an option.



ISEs Cont.

Miniature flowcell ISEs

ISE Flowcells from EDT directION are solid state, zero dead volume sensors that can be used independently or positioned in series to create a multi-element sensor system. A reference flow-cell is required for each set of flow cells. The ideal flow rate is around 1–10ml per minute using a peristaltic or syringe pump. Fluoride flow-cells have an ID of 1.2mm and all the others have an ID of 2.3mm.

These sensors are ideal for Flow Injection Analysis (FIA) or for situations where continuous monitoring is required. Measurements can be made in zero flow as required in stop/flow or static measurements.

The assembled sensor block (holder and flowcells) is approximately 20x50mm. Cells can be interchanged at will without disconnecting the tubing.

The ISE is in the form of a small solid state Acrylic block with a built in sensor. A flow through reference is required for operation (cat no 4001). These small ISEs have exactly the same specifications as the standard half-cell ISE but have further advantages such as:

- Zero dead Volume
- Large sample contact area
- Low sample volume (min 50 microliters)
- Easy cleaning
- Unlimited shelf life
- Compatible with all Ion/mV Meters
- Fast Response



The EDT Flowcell holders are constructed from Aluminium with Stainless steel fittings. Standard holders accept 1,2or 3 modules plus a reference Flowcell.



Make your Own ISE

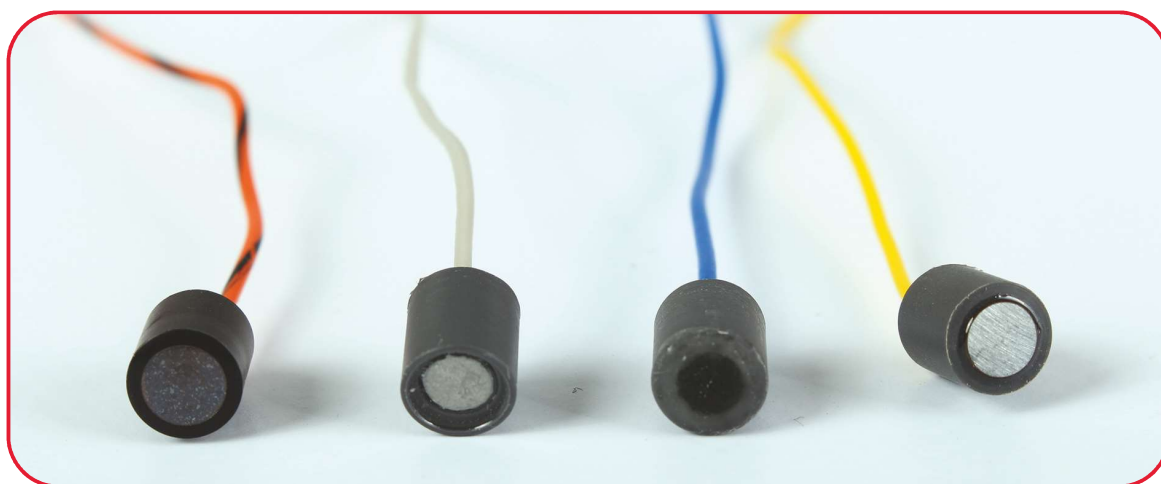
EDT directION are the world leading manufacturer of solid state ISE half cells and Mini ISE's. At the core of our ISE products are solid state sensors 7mm in diameter.

University/Research applications often require the need for specialist ISEs. Purchasing a mini ISE with cable allows the user to design and build their own ISE at a fraction of the cost of commercial custom sensors.

Benefits include:

- Solid State Electrode
- No internal Filling solutions required
- Rugged Robust and Maintenance free
- Waterproof and Submersible
- Compatible with all pH or Ion meters
- Long life and Low Cost

Mini ISE's require the use of a separate reference electrode. For ISEs that do not suffer Potassium or Chloride interference a standard Calomel reference is ideal. For all other applications a Double Junction reference electrode is required. Mini ISEs can be used as the main component of self-build ISEs where specific dimensions or physical properties are required.



Hints on building your ISE.

All of our Mini ISEs are sealed units and have a PVC housing to allow for easy gluing/sealing into a variety of body materials. You will need to ensure that the sensor surfaces are protected during handling. Contact with adhesives will damage them

There is a single contact wire in the back of the electrode with a free (open wire) end. To produce a working electrode you will need to use a reference half-cell in conjunction with the sensor.



ISEs Cont.

ISE Specification Table: For all ISE Types:

| Cat No. | Species | Limits (ppm) | Temp Range | Interferences | pH Range |
|---------|-------------|----------------|------------|---|----------|
| 3302 | Ammonia | 0.02 - 17,000 | 0-50°C | Hydrazine | 11-13 |
| 3051 | Ammonium | 0.9 - 9,000 | 0-50°C | K ⁺ Na ⁺ | 0-8.5 |
| 3081 | Barium | Discontinued | 0-50°C | K ⁺ Na ⁺ Sr ⁺⁺ | 3-10 |
| 3271 | Bromide | 0.4 - 81,000 | 5-50°C | I ⁻ S ⁻⁻⁻ CN ⁻ | 1-12 |
| 3241 | Cadmium | 0.1 - 11,200 | 5-50°C | Cu ⁺⁺ Hg ⁺⁺ Ag ⁺ | 3-7 |
| 3041 | Calcium | 0.02 - 4,010 | 0-50°C | Ba ⁺⁺ Al ⁺⁺⁺ Sr ⁺⁺ | 3.5-11 |
| 3091 | Carbonate | Discontinued | 0-50°C | OAc ⁻ SCN ⁻ | 6.6-9.6 |
| 3261 | Chloride | 1-35,500 | 5-50°C | I ⁻ Br ⁻ CN ⁻ S ⁻⁻⁻ | 1-12 |
| 3227 | Copper | 0.006 - 64,000 | 5-50°C | Hg ⁺⁺ Ag ⁺ S ⁻⁻⁻ | 2-7 |
| 3291 | Cyanide | 0.03 - 260 | 5-50°C | Br ⁻ I ⁻ S ⁻⁻⁻ | 11-13 |
| 3221 | Fluoride | 0.02 - -1,900 | 5-50°C | OH ⁻ | 4-8 |
| 3281 | Iodide | 0.06 - 127,000 | 5-50°C | S ⁻⁻⁻ CN ⁻ | 2-12 |
| 3231 | Lead | 0.2 - 20,800 | 5-50°C | Hg ⁺⁺ Ag ⁺ Cu ⁺⁺ | 3-7 |
| 3251 | Mercury | 0.2 - 201,000 | 5-50°C | Ag ⁺ S ⁻⁻⁻ | 0-2 |
| 3921 | Nitrate | 0.4 - 62,000 | 0-50°C | Cl ⁻ NO ⁻⁻⁻ | 2-11 |
| 3271 | Nitrite | 0.5 - 460 | 0-50°C | CN ⁻ | 4.6-8 |
| 3061 | Perchlorate | Discontinued | 0-50°C | I ⁻ SCN ⁻ NO ₃ ⁻ | 0-11 |
| 3292 | Phosphate | 0-100 | 0-50°C | OH ⁻ | 4-8 |
| 3031 | Potassium | 0.04 - 39,000 | 0-50°C | Cs ⁺ NH ₄ ⁺ | 1-9 |
| 3211 | Silver | 0.01 - 107,900 | 5-50°C | Hg ⁺⁺ S ⁻⁻⁻ | 1-9 |
| 3301G | Sodium | 0.002 - 69,000 | 0-50°C | Li ⁺ K ⁺ Ba ⁺⁺ | 9-12 |
| 3301 | Sodium | 1-35,000 | 0-50°C | | 1-12 |
| 3225 | Sulphide | 0.003 - 32,000 | 0-50°C | Hg ⁺⁺ Ag ⁺ | 13-14 |
| 3229 | Thiocyanate | 1 - 5,800 | 5-50°C | Cl ⁻ Br ⁻ I ⁻ S ⁻⁻⁻ | 2-12 |

QP459 Portable Ion Meter

The QP459 Portable Ion Meter is the sixth in a series of Quality Portable meters from EDT directION. All are state of the art instruments made in the UK.

The clear graphic display guides the user through every operation ensuring that even the most unskilled operator can perform accurate analysis without an instruction manual. Every instrument in the QP range has a mini USB output for printing or exporting sample and calibration data. If printing is not possible there is a 10,000 data point, 64 file internal memory to enable field data to be recorded.

Power is via 4 x AA batteries. Lifetime is impressive due to a highly efficient display with brightness and contrast options along with many other power saving features.

Other features include:

- 1, 2 or 3 Point Calibration
- Auto endpoint
- Automatic Temperature Compensation (ATC)
- Automatic Buffer Recognition
- Buffer correction
- Calibration alarms
- Chloride Mode
- Dissolved Oxygen Mode
- Ion Mode
- Known Addition Mode
- Millivolt and Relative millivolt modes
- pH Mode
- Data logging and internal Data storage.
- Micro USB Data output
- Real time clock
- REDOX Mode
- BNC connector for pH Electrodes & ISEs
- Impressive array of accessories and consumables.
- BNC connector for pH Electrodes & ISEs
- Impressive array of accessories and consumables.



Standard Solutions and ISABs

ISE analysis requires the use of calibration standards and specifically formulated ISAB (Ionic Strength Adjustment Buffer) solutions. EDT directION offer technical and applications support to guide the operator through the method options to get the result you require. All standards and samples should have the same Ionic strength therefore it is important to add a small volume of ISAB to each standard and sample.



NPK Nutrient Meter Kit



The NPK Meter allows growers to measure Nitrate, Phosphate and Potassium (NPK) in minutes with one probe and just 50ml of sample solution.

This accurate, instant test means is simple to operate and avoids the need to send samples to the test laboratory with all of the cost and delay that causes so much frustration.

The meter is calibrated with one Multi-Cal Standard solution and displays all three parameter results in ppm on the screen. This result can be stored in the internal memory and downloaded to Excel for storage and manipulation.

Features include:

- Direct Readout of NPK ppm in Minutes
- Very low cost per test
- Easy to use
- One single probe with replaceable low-cost sensors
- Maintenance free dry storage probe
- Rugged Kit contains everything needed for the test
- Portable Kit can be used anywhere
- Can be used directly on diluted Nutrient feed
- Made in the UK

The NPK meter kit can also be used for monitoring Run-off from Coir bags in Polytunnels, River water and other environmental applications.

QP999 Boat Corrosion and REDOX Meter

The QP999 Boat Corrosion and REDOX Meter has both Boat Hull and Water REDOX modes and displays results clearly on a backlit display.

Monitoring your Hull potential lets you know the condition of your sacrificial anodes and the rate of corrosion of your hull. The Water REDOX readings will enable you to locate the source of corrosive conditions including Stray DC.

The purpose-built Meter has an automatic stability indicator which freezes the result when ready. This normally takes around 30 seconds. Simply store the result in the Boat Meters memory so that you can track the condition of your Hull or the local water conditions.

Reviewing this data may help to decide when to replace your sacrificial anodes or to find the source of corrosion. The Micro USB output will allow you to dump the results directly into excel for easy reference and plotting the progress of the corrosion.

Features of the meter include:

- Long Battery life of over 200 hours continuous use.
- Easy to use
- Clear display of the Accurate Hull Potential in mV
- Automatic stability indicator which freezes the reading
- Internal storage of your results.
- Rugged splashproof construction
- Powered by 4 x AA Batteries
- Auto - off Battery life saver
- Micro USB output to download data to Excel.
- Boat Hull and Water REDOX Modes



The Boat meter also has a WATER REDOX mode which allows for the subsequent addition of the Platinum REDOX Electrode. This will allow the measurement of the Corrosion potential of the water in Marinas or any waterway to locate areas of corrosive water. This includes the ability to locate the source or proximity of stray DC.

Water potential can also be tested to help detect if there is any extra activity in the water that could accelerate hull corrosion such as stray DC current.



Cathodic Protection Reference Electrode – Model 9999

The Cathodic Protection Reference Electrode from EDT directION is a Silver/Silver Chloride Reference electrode designed to enable the measurement of the condition of boats and submerged metal structures in Water (Typically sea water)

The electrode is waterproof and submersible.

Common uses include the measurement of the effectiveness of Sacrificial Anodes (Zinc) bolted to boat hulls and drive components. Each material has a standard potential and deviations can illustrate the progress of corrosion.

The electrode is connected to the negative terminal of the Multi-meter or model QP999/mV meter and the positive terminal is connected to the structure in question e.g. Boat Hull, Drive, etc. This electrode can also be used as a standard reference electrode for pH analysis.

The electrode comes complete with a 5 Metre cable.

The Model 9999 can also be used as a standard applications where low maintenance is required. The large electrolyte volume ensures a longer lifetime with greater stability than laboratory electrodes. The rugged housing enables the electrode to be used in a wider variety of environments for pH and REDOX applications.

The EDT Silver/Silver Chloride reference electrode has several advantages over a standard Calomel electrode. Firstly it does not contain Mercury and can therefore be used in a wider variety of applications. Secondly Ag/AgCl references have greater stability at higher temperatures.



Model 9999 Reference Electrode to be connected to the negative terminal.



CL/5m/4mm/croc 5 metre cable to be connected to the positive terminal.

EDT directION produce solid state ISEs which lend themselves to industrial and process applications as there are no internal filling solutions and require minimal maintenance.

We provide a variety of fixtures and fittings that allow our electrodes to be used in-situ for continuous monitoring in pipes and tanks etc. with many fitting options including ¾" and PG13.5 fittings.

We are pleased to offer advice regarding installation, calibration and use of our industrial electrodes. Where possible Flow through electrodes are preferable to in situ however applications are limited usually to Laboratory analysis of "clean" solutions.

Our pH Redox and Fluoride electrodes are designed for the Harshest Industrial Process Control conditions as well as hand held field use .

pH and ORP Process Electrodes

Industry proven pH and ORP sensors and electrodes based on Patented Technology pioneered in the late 1970s and early 1980s and perfected on a continuous basis. Threaded bodies are PPS R4 FDA approved thermoplastic.

We also provide all common fitting options including Process Pipeline entry Fixed Housings

Reference Electrodes

Inadequate Reference Electrodes are often the cause of process measurement problems. Our durable reference electrodes feature the following:

- Porous Teflon junction delivers high performance and low maintenance
- Double chamber reference system prevents fouling in harsh industrial conditions

The Teflon junction material is uniform in porosity which allows for precise electrolyte flow into measuring sample. This material also resists clogging by dirt and organic deposits that can lead to electrode failure.

Temperature Measurement & Correction

Our Automatic Temperature Compensation system has many innovative features and benefits including

- Innovative Capillary TC Design
- TC is placed inside of pH bulb for rapid response.
- T95% is less than 2 minutes

Please contact info@edt.co.uk or call +44 (0) 1304 600960 for your Process requirements.





Multiple Fittings Available



Cutaway to show housing for 12mm Sensor



For industrial & process enquiries email edtdirection@gmail.com

pH Meters

| Model | Description |
|-----------|---|
| S2K222 | Pocket pH meter non Glass (Isfet) |
| S2K333 | Pocket pH meter non Glass (Isfet) |
| QP451 | Series 4 Portable pH/mV Meter |
| QP451/Kit | Series 4 Portable pH Meter and Accessories |
| QP458 | Series 4 Combined pH/mV/Conductivity/TDS/Temp Meter |
| QP458/Kit | Series 4 Combined pH/Conductivity Meter and Accessories |
| QP459 | Series 4 Portable Ion Meter |

pH and REDOX ELECTRODES

| | |
|---------|--|
| E8080 | Polymer Combination Electrode (EDT cap) |
| E8080NS | Polymer Bodied pH Combination Electrode With Fixed Skirt |
| E8081 | Glass Combination Electrode (EDT cap) |
| E8082 | pH Half Cell (For use with E8090 or E8094) |
| E8084 | Penetration Combination Electrode |
| E8085 | Low Conductivity pH Combination Electrode |
| E8086 | Long Reach pH Combination Electrode |
| E8087 | Flat Surface pH Combination Electrode |
| E8089 | Combination, Refillable Polymer pH Electrode |
| E8100 | Semi Micro pH Electrode |
| E8106 | Glass Redox Combination Electrode |
| 9999ORP | Platinum REDOX Sensor For Cathodic Protection Applications |

REFERENCE ELECTRODES

| | |
|------------|--|
| E8090 | Single Junction Calomel Reference Electrode |
| E8094 | Double Junction Calomel Reference Electrode |
| E8095 | Single Junction Ag/AgCl Reference Electrode |
| E8195 | Double Junction Ag/AgCl Reference Electrode |
| E8197 | Solid State Reference Electrode (KCl) |
| E8198 | Solid State Reference Electrode (NaCl) |
| A3135 | Single Junction Gel filled Ag/AgCl Reference Electrode with BNC plug |
| 5094 | Flow Plus Reference Electrode |
| 222/333REF | Replacement Reference Electrode for S2K222 and S2K333 |

CATHODIC PROTECTION

| | |
|----------------|---|
| 9999 | Cathodic Protection Reference Electrode |
| 9999ORP | Platinum REDOX Probe |
| QP999 | Boat Corrosion/REDOX Meter |
| CL/5m/4mm/croc | Cathodic Protection Reference Electrode |

Solutions and Accessories

Filling and Storage Solutions

| | |
|-------|--|
| E8064 | KCl Reference Electrode Fill Solution For Calomel References. 100ml. |
| E8122 | KCl sat. Reference Electrode Fill Solution .500ml. |
| E8067 | KCl sat. with Ag-AgCl, Reference Electrode Fill Solution .100ml. |
| A3136 | pH Electrode Storage Solution. 500ml |

Buffer Solutions

| | |
|-------|--|
| A3007 | 50 pH 4 Capsules (makes up to 5 Litres) |
| A3018 | 50 pH 7 Capsules (makes up to 5 Litres) |
| A3094 | 50 pH 10 Capsules (makes up to 5 Litres) |

| | |
|-------|---|
| A3096 | 10 pH 4 Capsules (makes up to 1 Litre) |
| A3097 | 10 pH 7 Capsules (makes up to 1 Litre) |
| A3099 | 10 pH 10 Capsules (makes up to 1 Litre) |
| A3144 | Buffer Solution pH 4 Colour Coded Red. 500ml. |
| A3147 | Buffer Solution pH7 Colour Coded Yellow. 500ml. |
| A3140 | Buffer Solution pH10 Colour Coded Blue. 500ml. |

Accessories

| | |
|----------|--|
| E8050 | Temperature Probe with DIN Connector |
| E8051 | Temperature Probe for use with Series 4 Meters |
| E8052 | Temperature Probe with Jack Connector |
| E8060 | Flexible Arm Stand for EDT Electrodes/Probes |
| E8061 | Electrode Stand |
| A3054 | Carry Case for Portable Meters |
| DK400 | Data Kit for Series 4 Meters |
| RB400 | Rubber Boot for Series 4 Meters |
| E8401 | Field Carry Case (Small) |
| E8402 | Field Carry Case (Large) |
| QPBNCREF | Half Cell Adapter for Series 4 Instruments |

Ion Concentration Measurement

| | |
|---------|-----------------------------|
| QP459 | Series 4 Portable Ion Meter |
| NPK-Kit | NPK Nutrient Meter Kit |

Ion Selective Electrodes

Mono Electrodes (1/2 Cells) require a Ref. Electrode

| | |
|--------|---|
| 1021 | Nitrate Half Cell Ion Selective Electrode |
| 1031 | Potassium Half Cell Ion Selective Electrode |
| 1041 | Calcium Half Cell Ion Selective Electrode |
| 1051 | Ammonium Half Cell Ion Selective Electrode |
| 1071 | Nitrite Half Cell Ion Selective Electrode |
| 1211 | Silver Half Cell Ion Selective Electrode |
| 1221 | Fluoride Half Cell Ion Selective Electrode |
| 1231 | Lead Half Cell Ion Selective Electrode |
| 1241 | Cadmium Half Cell Ion Selective Electrode |
| 1261 | Chloride Half Cell Ion Selective Electrode |
| 1271 | Bromide Half Cell Ion Selective Electrode |
| 1281 | Iodide Half Cell Ion Selective Electrode |
| 1291 | Cyanide Half Cell Ion Selective Electrode |
| 1225 | Sulphide Half Cell Ion Selective Electrode |
| 1227 | Cupric Half Cell Ion Selective Electrode |
| 1229 | Thiocyanate Half Cell Ion Selective Electrode |
| 1301 | Sodium Half Cell Ion Selective Electrode |
| 1301/G | Sodium Half Cell Ion Selective Electrode |
| 2301/G | pH Mini Half Cell Electrode |

Mini solid state half cell ISEs 7x8mm.

| | |
|------|--|
| 2021 | Nitrate Mini Ion Selective Electrode |
| 2031 | Potassium Mini Ion Selective Electrode |
| 2041 | Calcium Mini Ion Selective Electrode |
| 2051 | Ammonium Mini Ion Selective Electrode |
| 2071 | Nitrite Mini Ion Selective Electrode |

| | |
|------|--|
| 2211 | Silver Mini Ion Selective Electrode |
| 2221 | Fluoride Mini Ion Selective Electrode |
| 2231 | Lead Mini Ion Selective Electrode |
| 2241 | Cadmium Mini Ion Selective Electrode |
| 2261 | Chloride Mini Ion Selective Electrode |
| 2271 | Bromide Mini Ion Selective Electrode |
| 2281 | Iodide Mini Ion Selective Electrode |
| 2291 | Cyanide Mini Ion Selective Electrode |
| 2225 | Sulphide Mini Ion Selective Electrode |
| 2227 | Cupric Mini Ion Selective Electrode |
| 2229 | Thiocyanate Mini Ion Selective Electrode |
| 2301 | Sodium Mini Ion Selective Electrode |

Combination Ion Selective Electrodes

| | |
|----------|--|
| 3021 | Nitrate Combination Ion Selective Electrode |
| 3031 | Potassium Combination Ion Selective Electrode |
| 3041 | Calcium Combination Ion Selective Electrode |
| 3051 | Ammonium Combination Ion Selective Electrode |
| 3071 | Nitrite Combination Ion Selective Electrode |
| 3211 | Silver Combination Ion Selective Electrode |
| 3221 | Fluoride Combination Ion Selective Electrode |
| 3231 | Lead Combination Ion Selective Electrode |
| 3241 | Cadmium Combination Ion Selective Electrode |
| 3261 | Chloride Combination Ion Selective Electrode |
| 3271 | Bromide Combination Ion Selective Electrode |
| 3281 | Iodide Combination Ion Selective Electrode |
| 3291 | Cyanide Combination Ion Selective Electrode |
| 3225 | Sulphide Combination Ion Selective Electrode |
| 3227 | Cupric Combination Ion Selective Electrode |
| 3229 | Thiocyanate Combination Ion Selective Electrode |
| 3292/Kit | Phosphate Combination Ion Selective Electrode Kit |
| 3301 | Sodium Combination Ion Selective Electrode |
| 3301/G | Sodium (Glass) Combination ISE |
| 3302 | Ammonia (NH ₃) Gas Sensing Ion Selective Electrode |
| 8302 | Ammonia (NH ₃) Gas Sensing ISE (S8 Connector) |

Flow Plus Combination Electrodes

| | |
|------|---|
| 5021 | Nitrate Flow Plus Ion Selective Electrode |
| 5031 | Potassium Flow Plus Ion Selective Electrode |
| 5041 | Calcium Flow Plus Ion Selective Electrode |
| 5051 | Ammonium Flow Plus Ion Selective Electrode |
| 5221 | Fluoride Flow Plus Ion Selective Electrode |
| 5261 | Chloride Flow Plus Ion Selective Electrode |

Flowcell Electrode Half cells & Accessories

| | |
|------|--|
| 4021 | Nitrate Flowcell Ion Selective Electrode |
| 4031 | Potassium Flowcell Ion Selective Electrode |
| 4041 | Calcium Flowcell Ion Selective Electrode |
| 4051 | Ammonium Flowcell Ion Selective Electrode |
| 4221 | Fluoride Flowcell Ion Selective Electrode |
| 4261 | Chloride Flowcell Ion Selective Electrode |
| 4081 | pH. Glass Flow Through Half Cell |



| | |
|------|--|
| 4301 | Sodium Flowcell Ion Selective Electrode |
| 4001 | Reference electrode flowcell |
| 4444 | Flowcell holder for up to 3 flowcells. With tubing and fittings. |
| 4222 | Flowcell cable / 1 m with BNC connector |

Standard Solutions (500mL)

| | |
|-----------|----------------------|
| 21321 | Ammonia 1000ppm |
| 21334 | Ammonium 1000ppm |
| 21312 | Barium 1000ppm |
| 21302 | Bromide 1000ppm |
| 21309 | Cadmium 1000ppm |
| 21310 | Calcium 1000ppm |
| 21091 | Carbonate 1000ppm |
| 21301 | Chloride 1000ppm |
| 21306 | Copper 1000ppm |
| 21333 | Fluoride 1000ppm |
| 21303 | Iodide 1000ppm |
| 21307 | Lead 1000ppm |
| 21311 | Nitrate 1000ppm |
| 21371 | Nitrite 1000ppm |
| 21336/10 | Phosphate Kit 10ppm |
| 21336/100 | Phosphate Kit 100ppm |
| 21314 | Potassium 1000ppm |
| 21308 | Silver 1000ppm |
| 21315 | Sodium 1000ppm |
| 21332 | Thiocyanate 1000ppm |

Ionic Strength Adjustment Buffers (ISAB).500mL

| | |
|-------|-------------|
| 30321 | Ammonia |
| 30334 | Ammonium |
| 30312 | Barium |
| 30302 | Bromide |
| 30309 | Cadmium |
| 30310 | Calcium |
| 30301 | Chloride |
| 30306 | Copper |
| 30304 | Cyanide |
| 30333 | Fluoride |
| 30303 | Iodide |
| 30307 | Lead |
| 30311 | Nitrate |
| 30371 | Nitrite |
| 30314 | Potassium |
| 30308 | Silver |
| 30315 | Sodium |
| 30305 | Sulphide |
| 30332 | Thiocyanate |

Conductivity Measurement

| | |
|-----------|--|
| QP481 | Series 4 Portable Conductivity/TDS Meter |
| QP481-Kit | Series 4 Portable Conductivity Meter and Accessories |
| QP458 | Series 4 Portable Combined pH & Conductivity Meter |
| Salcon II | Portable Salt Concentration Meter & Kit |

| Conductivity Cells | |
|--------------------|---|
| E8070 | Polymer Dip Cell K=1/cm |
| E8071 | Glass Dip Cell K=1/cm |
| E8072 | Glass Dip Cell K=0.1/cm |
| E8074 | Glass Dip Cell K=1/cm (Mini DIN) |
| E8075 | Glass Dip Cell K=0.1/cm (Mini DIN) |
| E5010 | Epoxy Dip Cell K=1/cm |
| E5019 | Polymer Dip Cell K=1/cm (Mini DIN) |
| A5005 | Glass Flow Cell K=1/cm |
| A5010 | Epoxy Dip Cell K=1/cm |
| A5019 | Epoxy Dip Cell K=1/cm (12mm body) |
| A6000 | Conductivity low Volume (200µL) Flow Cell |
| A6000/ATC | Conductivity low Volume (200µL) Flow Cell with ATC |
| Ext. Cable | Extra Cable/Per Metre up to 10 Metres Maximum Contact us for longer lengths. |

| Solutions and Accessories | |
|---------------------------|---|
| A3052 | 1413 µS/cm Calibration Solution. 100ml |
| A3053 | 1413 µS/cm Calibration Solution. 500ml. |
| A3055 | 12,880 µS/cm Calibration Solution. 100ml |
| A3056 | 12,880 µS/cm Calibration Solution. 500ml |
| SALCON.STANDARD | 0.1% NaCl Calibration Solution for use with Salcon II |
| DK400 | Data Kit for Series 4 Portable Meters |
| RB400 | Rubber Boot/Stand for Series 4 Meters |
| E8060 | Flexible Arm Stand for EDT Electrodes/Probes |
| E8061 | Electrode Stand |
| A3054 | Carry Case for Portable Meters |
| E8401 | Field Carry Case (Small) |
| E8402 | Field Carry Case (Large) |

| Dissolved Oxygen Measurement | |
|------------------------------|--|
| QP459 | Series 4 Portable Dissolved Oxygen & Ion Meter |
| E8020 | Galvanic Dissolved Oxygen Probe |
| 21338 | Zero Oxygen Standard Solution |



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Green manufacturing

EDT directION are making strenuous efforts to reduce the environmental impact of our production activities at our Dover Technical centre. Though by no means complete we are proud of our Green Credentials.

Keeping it Local

EDT directION Ltd are based on the picturesque St. Radigund's Abbey in a rural part of Kent. Though not known as a Manufacturing Hub all of our pH, Conductivity, Ion and Dissolved Oxygen meters are made on site. Components are all sourced locally. The new Series 4 Portable instruments were designed, developed and produced in Kent. Shipping, flying and transporting components around the globe has an environmental impact and this is one aspect of manufacturing that is within our control and we aim to minimise it wherever possible.

Recyclable Packaging

EDT directION use only paper and recyclable packing materials including Paper Tape on all of our parcels and boxes. We are also looking at eliminating plastic document wallets and single use plastic in general. Our Electrode boxes are folded cardboard and do not contain Polystyrene, foam, tape or other non-recyclable materials.





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