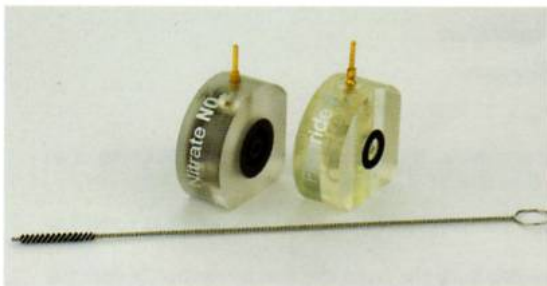


# Flow Cell ISE's

**directION**

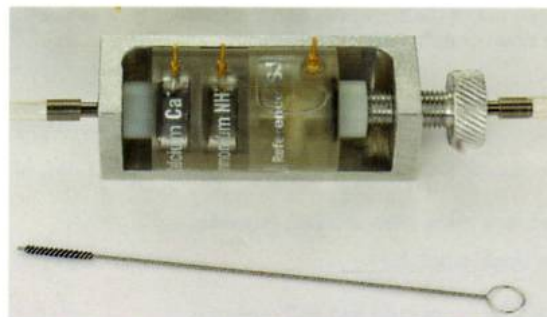
Sensors that make sense

## Zero dead volume Flow Cell ISE's

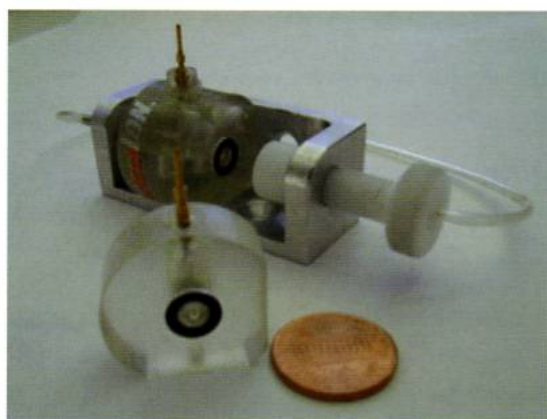


4021 Nitrate & 4221 Fluoride directION Flow Cell ISE Complete with cleaning tool

## Multiple Ion Analysis



4444 Three Position Flow Cell Holder with Calcium, Ammonium and Reference Cells



4443 Two Position Flow Cell Holder allows simultaneous multiple ion analysis

**directION** flow cells are solid state sensors. The sensor itself is in the form of a "bore-through block" which offers the following advantages:

**directION** flow cells are ideal for placement into flow injection analysers or for simple ion measurements where there is a very small volume available. The solid state technology and the ability to assemble an array of sensors in series in a small space is revolutionary in the world of Ion Selective Electrodes. The **directION** flow cells are also ideal for process applications and on-line monitoring, and for use as detectors in Ion Chromatography systems.

- Zero dead volume
- Large sample contact area
- Low sample volume (15 microlitres)
- Rapid flushing/cleaning
- Long lifetime
- Easy sensor replacement
- Unlimited shelf life
- Multi sensor array operated with ease
- Compact size
- Connectors to operate with any meter
- Available for a wide range of ions
- Suitable for process applications

### Specifications for directION modules

Bore diameter	2.3mm as standard. 1.2mm also available
Sensor width	ISE: 9mm Reference: 18mm
Sample volume	15 microlitres (using the 1.2mm bore modules)
Dead volume	Zero
Module material	Acrylic
Connections	2mm pin from module. Cable with BNC fitting supplied

For a working system you will need a reference flow cell (part number 4001), a **directION** flow ISE (see list below), flow cell holder and one cable for each flow cell including the reference electrode.

### Ordering Information

Flow cells can be custom made to your specification. Please contact your distributor for details. ISE Flowcells are solid state and non glass.

Part No.	Description	Price(UK £)
4444	Flowcell holder for up to 3 flow cells. Complete with tubing and fittings.	£ 95.00
4443	Flowcell holder for up to 2 flow cells. Complete with tubing and fittings.	£ 95.00
4001	Reference electrode flow cell	£145.00
4222	Flowcell cable. One mtr. with BNC connector	£ 25.00
4021	Nitrate <b>directION</b> Flow Cell Range 0.4 to 62000 ppm	£295.00
4031	Potassium <b>directION</b> Flow Cell Range 0.04 to 39000 ppm	£295.00
4041	Calcium <b>directION</b> Flow Cell Range 0.02 to 4010 ppm	£295.00
4051	Ammonium <b>directION</b> Flow Cell Range 0.9 to 9000 ppm	£295.00
4221	Fluoride <b>directION</b> Flow Cell Range 0.02 to 1900 ppm	£295.00
4261	Chloride <b>directION</b> Flow Cell Range 1 to 35500 ppm	£295.00

The **directION** range also includes two glass capillary flow cells for pH and sodium analysis housed in the same acrylic body as the ISE flow cells. These can be placed in the same holders and are compatible for tandem use with any **directION** flow cell ISE. These ISE's are liquid filled and require a reference flow cell.

4000	pH <b>directION</b> flow cell. Range 0 to 14pH	£295.00
4301	Sodium <b>directION</b> flow cell. Range 0.002 to 69000 ppm	£295.00

Sensors come supplied with O rings  
Holders are constructed in aluminium with stainless steel tubing.  
Standard holders accept 1, 2 or 3 modules.

### Other ISE's available from **directION**

Submersibles



• Applications

Flow Cells



• Methods

Flow Plus



• Support

Micro 3mm



Solid State



• Custom Design

Find your local **directION** distributor listed on [www.direct-ion.com](http://www.direct-ion.com)