

# ELECTRICAL CONDUCTIVITY MEASUREMENT CLAMP FOR ION EXCHANGE MEMBRANES

Reliable electrical conductivity measurement clamp for characterization of hydrophilic films as ion exchange membranes, either in lab or on site.

From invention to innovation

## APPLICATIONS

- Water desalination
- Water treatment for drinking water
- Agribusiness (milk, fruit juices etc.)
- Industrial wastewater

## INTELLECTUAL PROPERTY

Priority patent application

## CONTACT

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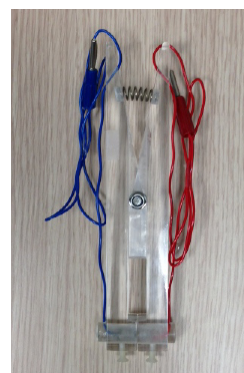
Clamp ■ Electrical conductivity ■ Ion-exchange membranes (IEM) ■  
Hydrophilic films ■ NF X45-200 norm

## PRESENTATION

Existing techniques for measuring electrical conductivity of hydrophilic films, as ion exchange membranes (IEM), either work with solutions at low concentrations, or provide hard-to-reproduce measures, or require to take the membrane out of its equilibrating solution, thus inducing a bias in the measurement.

Our technology is a clamp with two articulated arms that characterizes the IEM with no bias in measurement thanks to a contactless technology enabling on-site measurement with no contact resistance induced. It is compatible with a wide range of concentrations of equilibrating solutions (from 0.01 M to 1 M) and is compatible for membranes or hydrophilic films with a thickness between 50µm and 1 millimeter, making on-site measures convenient and reliable.

Measure precision is 1% for solutions with a concentration inferior to 0.1 M and 3% for 1 M concentrations.



*Electrical conductivity measurement clamp © IDF Innov*

## COMPETITIVE ADVANTAGES

- Compatible with a wide range of equilibrating solutions concentrations
- Highly accurate & reliable & reproducible measurements
- Portable
- On-site measures (with the membrane in electrolyte)
- No-use of mercure
- Wide range of concentrations
- Non-destructive testing of supports
- Measurement of alternating current at different frequencies, or direct current