

# Containing Solvents and Proteins

### Introduction

Using a conventional pH electrode for measurements in complex sample matrices containing organic solvents or proteins can prove to be challenging due to risks of junction blockage or immiscibility of reference electrolyte.

This can lead to unstable signals during measurements and long response times. InLab Science Pro-ISM with its sleeve junction facilitates easy cleaning of the junction and its double electrolyte system eliminates problems associated with immiscibility of the potassium chloride reference electrolyte in the sample, by provision of an interchangeable outer (bridge) electrolyte.

### Highlights



Sleeve junction enabling high electrolyte outflow; movable and easy to clean, preventing junction clogging.



Cylindrical membrane shape, pH sensitive membrane with resistance to harsh chemicals, and thermally stable.



Double electrolyte system; the outer electrolyte can be changed to LiCl solution (51350088) for example.



Ensures data security and easy handling. The last 5 calibrations, and the factory calibration are saved on the chip.

- ✓ pH
- ✓ Ref
- ✓ °C
- ✓ ISM



## Typical applications and samples



### Chemical Industry

Ideal sensor for pH measurements in Organic Solvents and Solvent Recovery Systems, owing to the double electrolyte system and chemically resistant A41 glass.



### Biochemical Industry

High electrolyte outflow from the sleeve junction prevents clogging and thus allows for accurate measurements in proteinaceous microbiological media samples.



### Pharmaceutical Industry

Interchangeable outer electrolyte system allows for better miscibility with both aqueous and non-aqueous samples, thus ensuring better measurement precision and response time.

## Tips and tricks for optimal use and care



### Ensure accurate measurement with regular calibrations

Calibrate the sensor before use with fresh and non-expired buffers bracketing the pH of the sample. Our sachets guarantee fresh solution for every calibration.



### Keep your sensor up to speed

Clean the sensor with DI water after each measurement. In case of water-immiscible samples, clean with a water-miscible solvent first and then rinse with DI water. Periodically recondition the sensor in 0.1M HCl to ensure optimum performance.



### Prolong the life of your sensor

The pH range for this sensor is 0 to 12 pH units and hence do not use the sensor outside the specified measuring range. Never store the sensor in an ion-poor solution like pure water. Store it in the wetting cap or InLab Storage solution.

## Specifications

<b>Order number</b>	<b>51344072</b>
<b>Dimensions</b>	Please see the drawing on the first page
pH range	0 - 12
Temperature range	0 - 100°C
Shaft material	Glass
Membrane glass	A41 - Highly robust glass particularly resistant to harsh chemicals and suitable for high temperatures.
Reference system	ARGENTHAL™ with Ag+ trap to prevent contamination of the junction when using sulfides and proteins.
Reference junction	Movable sleeve junction that can be easily and thoroughly cleaned. Provides fast results and works best for dirty samples.
Inner reference electrolyte	3M KCl
Outer reference electrolyte	3M KCl (interchangeable to LiCl solution)
Connection	MultiPin™ allowing connections of various cables
Recommended cable	30281896 - InLab cable MultiPin-BNC/RCA 1.2m

### Mettler-Toledo GmbH, Analytical

Heuwinkelstrasse 3  
8606 Nänikon, Switzerland  
Tel. +41 44 944 47 47

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Distributed and Supported in the UK by:



24 Norman Way Industrial Estate, Over, Cambridge, CB24 5WE  
Tel: +44(0)1954 233 100 Fax: +44(0)1954 233 101  
Email: [sales@camlab.co.uk](mailto:sales@camlab.co.uk) Web: [www.camlab.co.uk](http://www.camlab.co.uk)