

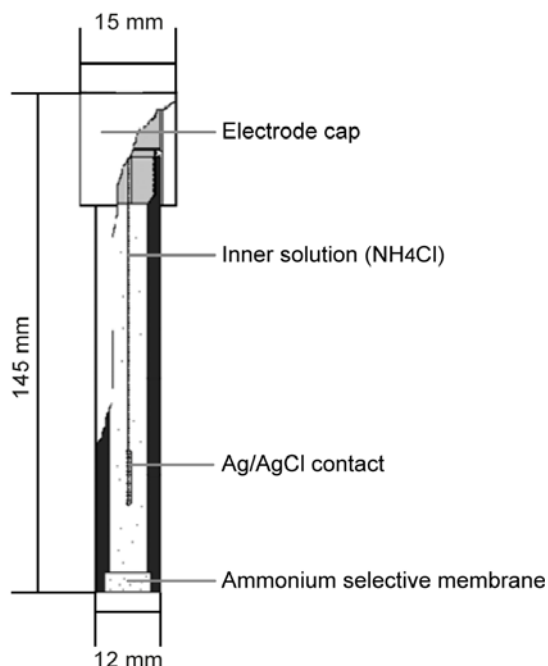
Sensor Data Sheet

Ion-Selective Electrode (ISE) Ammonium

Matrix membrane electrode with fluid contact

DOC 461 7410-E-1.0-DS

Article-No. 461 7410



Properties

- Plastic shaft
- Slope $57 \pm 2 \text{ mV/p NH}_4^+$
- Flexible ammonium selective membrane
- Organic ion exchanger in a special solvent, homogeneously distributed in PVC

Applications

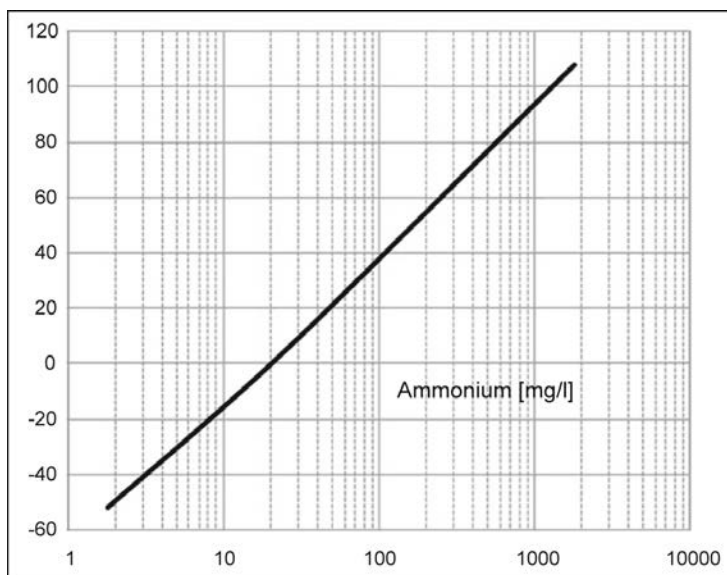
- Water management
- Fertilizer detection

Technical Data

Measuring principle	Ion-Selective Electrode (ISE)
Measuring range	$10^{-5} - 1 \text{ mol/l}$ $0.14 - 14\,000 \text{ ppm}$
Response time	< 30 s (in 180 mg/l NH_4^+ solution)
Stability	$\pm 0.3 \text{ mV (20 min)}$; $\pm 1 \text{ mV (24 h)}$
Temperature range	0°C to 40°C
Pressure range	max. 1 bar
pH range	3 pH – 7 pH
Interfering ions	$\text{Ca}^{2+}/\text{NH}_4^+ = 10\,000$ $\text{Mg}^{2+}/\text{NH}_4^+ = 10\,000$ $\text{Na}^+/\text{NH}_4^+ = 1000$ $\text{H}^+/\text{NH}_4^+ = 100$ $\text{K}^+/\text{NH}_4^+ = 10$ ion/ NH_4^+ relation between interfering and measure ions at 10 % error
Slope	$57 \pm 2 \text{ mV/p NH}_4^+$
Internal resistance	approx. $1 \text{ M}\Omega$
Cable connection	S7 lab connector
Shaft material	plastic
Dimensions	see drawing

Sensor Data Sheet

Slope



Calibration and Measurement

It is recommended to calibrate the electrode with defined solutions. Whether a single-point calibration or a multi-point calibration is required, depends on the type of measurement.

Storage of the Electrode

Store the electrode in a dry environment.