

COMBINATION pH ELECTRODES EPX-4B, EPX-4UB

The combination glass electrodes **EPX-4B** and **EPX-4UB** are used for continuous pH measurements in liquid containers with use of immersion heads: **GXZ-1t**, **GXZ-2t** and **GXZ3t** which cooperate with controllers for continuous measurements and **GXZ-3tk** multifunction head for portable meters. Special connector and M16 thread placed in the upper part of the electrode enables to screw it in into the measuring head.

The **EPX-4B** model is designed for measurements in liquids containing strong acids or alkalis (excluding hydrogen fluoride).

The **EPX-4UB** model may be used for measurements in deionised, pure and ultra pure water.

Teflon junction limits the penetration of the measured solution into the electrode and ensures good contact with solution what results in accurate and stable measurements even in ultra pure water. There is no need to add salt to the liquid before making measurement.

The electrodes may work in liquids with temperature up to 90°C.

The measuring membrane is a round glass bulb. The gel electrolyte is not refillable.

The reference half cell is separated by an internal electrolytical diaphragm, what creates the ionic barrier. It prevents the silver ions from diffusion to the reference half cell, what in turn limits the chance of clogging of the ceramic diaphragm and interference of the sulfide and cyanide ions from the measured solution. It also limits the interference of the reducing agents such as amines, buffers containing TRIS, sulfites, etc. To keep the electrode permanently activated, it is equipped with a bottle filled with saturated KCl put on its end, which should be taken off before the measurement. Such solution prolongs the electrode's life time. A special sealing ring protects from the electrolyte leakage from the bottle. The ring is tightened by screwing the cap.

In case of using the electrode with controllers of **801** or **804** series it is necessary to use a preamplifier. In case of using CP-**421** pH meter the preamplifier is necessary only if a distance between the head and the meter is greater than 10 meters.

TECHNICAL DATA

Measuring range	0 ÷ 14 pH
Working temperature range	0 ÷ 90 °C
0 point	7 ± 0.3 pH
Membrane	Glass, spherical
Type of junction	Teflon
Electrolyte	Gel – 3,3 M KCl Ag / AgCl
Impedance	< 120 MΩ (25 °C)
Body diameter	12.0 mm ± 0,5 mm
Lenght	155 mm ± 5 mm
Body material	glass
Connector	Chinch with M16 thread
Maximal pressure of liquid	3 bar

