

COMBINATION pH ELECTRODES EPX-4 / EPX-4U

The combination glass electrodes **EPX-4** and **EPX-4U** are used for pH measurements in co-operation with pH meters equipped with BNC-50 connector, they may be also used for continuous measurements in flow in pipelines with use of flow heads available in our offer.

The **EPX-4** model is designed for measurements in liquids containing strong acids or alkalis (apart from hydrofluoric acid or highly concentrated NaOH).

The measuring membrane is a round glass bulb. Electrolyte is in a gel form and it is not refillable.

The **EPX-4U** model may be used for measurements in deionised, pure and ultra pure water. Teflon junction limits penetration of the measured solution into the electrode and enables good contact with the measured sample what results in accurate and stable measurements even in ultra pure water. There is no need to add KCl to the liquid before measurement.

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

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 bottle cap.

In case of using the electrode with our industrial meters of **801** or **804** series it is necessary to use pre-amplifier. In case of measurements with **CP-421** pH meter the pre-amplifier needs to be applied in case when the distance between the electrode and the meter is 10 m or greater.

TECHNICAL DATA

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| Measuring range | 0 ÷ 14 pH |
| Working temperature range | 0 ÷ 90 °C |
| 0 point | 7 ± 0.3 pH |
| Membrane | Glass, bulb |
| 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 |
| Length | 155 mm ± 5 mm |
| Body material | glass |
| Connector | Chinch, M16 |
| Maximal pressure of liquid | 3 bar |

