

MI -404 FLAT MEMBRANE MICROELECTRODES OPERATING INSTRUCTIONS

The electrode is ready to use. Carefully unwind the tape and remove the probe from the protective glass tube.

Calibration

The use of a separate Reference Electrode such as our MI-401 is required.

The MI-404 is standardized in two pH buffers. Follow the procedure recommended by the manufacturer of your pH meter for calibrating your pH meter with our MI-404.

Optimum Response Time: Optimum response time will be obtained after the probe has been exercised in two buffer solutions. Place a pH 4.01 buffer or equivalent in a beaker and a pH 6.86 buffer or equivalent in a second beaker. Hold the MI-404 and reference electrode together and touch the pH 4.01 buffer allowing 15 - 20 seconds for equilibration. Do this several times.

Handling

Always handle the electrode with the same care you would use with other glass electrodes.

Cleaning

When using the electrode in solutions containing protein, the electrode should be soaked in an enzyme cleaning solution such as Terg-a-zyme (Alconox, Inc.) or a chromic/sulfuric acid glass cleaning solution after each use for 10 - 15 seconds to remove the protein from the outer glass barrel and the reference junction. This will prolong the useful life of the electrode.

Storage

Always clean the microelectrode before storing:

Long-term (over 2 weeks): Return the electrode to its original container and prepare it in the same condition in which you received it. Usually this means simply moistening the sponge located in the bottom of the protective glass tube with distilled water.

Short-term: The electrode can be left in an acid pH buffer solution, e.g. pH 4.01.