

Corrosion Measuring Cells

KMZ 3 / KMZ 5

Operating Instructions

Introduction

The Corrosion Measuring Cells KMZ3 and KMZ5 are triple electrode cells for potentiostatic or galvanostatic measurements. The cell KMZ5 is a water-jacketed version with cell container suitable for connection to constant temperature circulators. The measuring cells have different cell tops with standard taper joints (NS) for the pick-up of the electrodes. The cells feature user-friendly handling and a wide range of application.

Construction

Figure 2 shows the construction with all included parts. The material to be examined should be contacted by the specimen holder. A sample of a specimen is in the box. You can build the specimen for example yourself using the silicon-forms and the other parts in the box.

All parts of the cell are to be put in the cell-top as shown in fig. 3

The intermediate vessel includes the reference electrode and the liquid junction tube with the Haber-Luggin capillary connected with a silicon-hose. Please fill the intermediate vessel and the liquid junction tube with your special electrolyte for example 3mol/l KCl solution.

Steps for preparation of a specimen:

1. Your examined material must have a shape $\varnothing 8 \text{ mm} \times 10 \text{ mm}$ (area about 50 mm^2)
2. Connect the examined material with a wire on the back-side (length about 200 mm)
3. Put the screw in the silicon-forms and the wire connected to the sample through the screw
4. Fill the silicon-form free of air-bubbles with an isolating material (for example resin or epoxy), but do not forget to grease the screw with silicon previously.
5. Take the specimen out of the silicon-form if it is solid and connect the prepared specimen with the specimen-holder and the electrical connection AE.



Figure 1

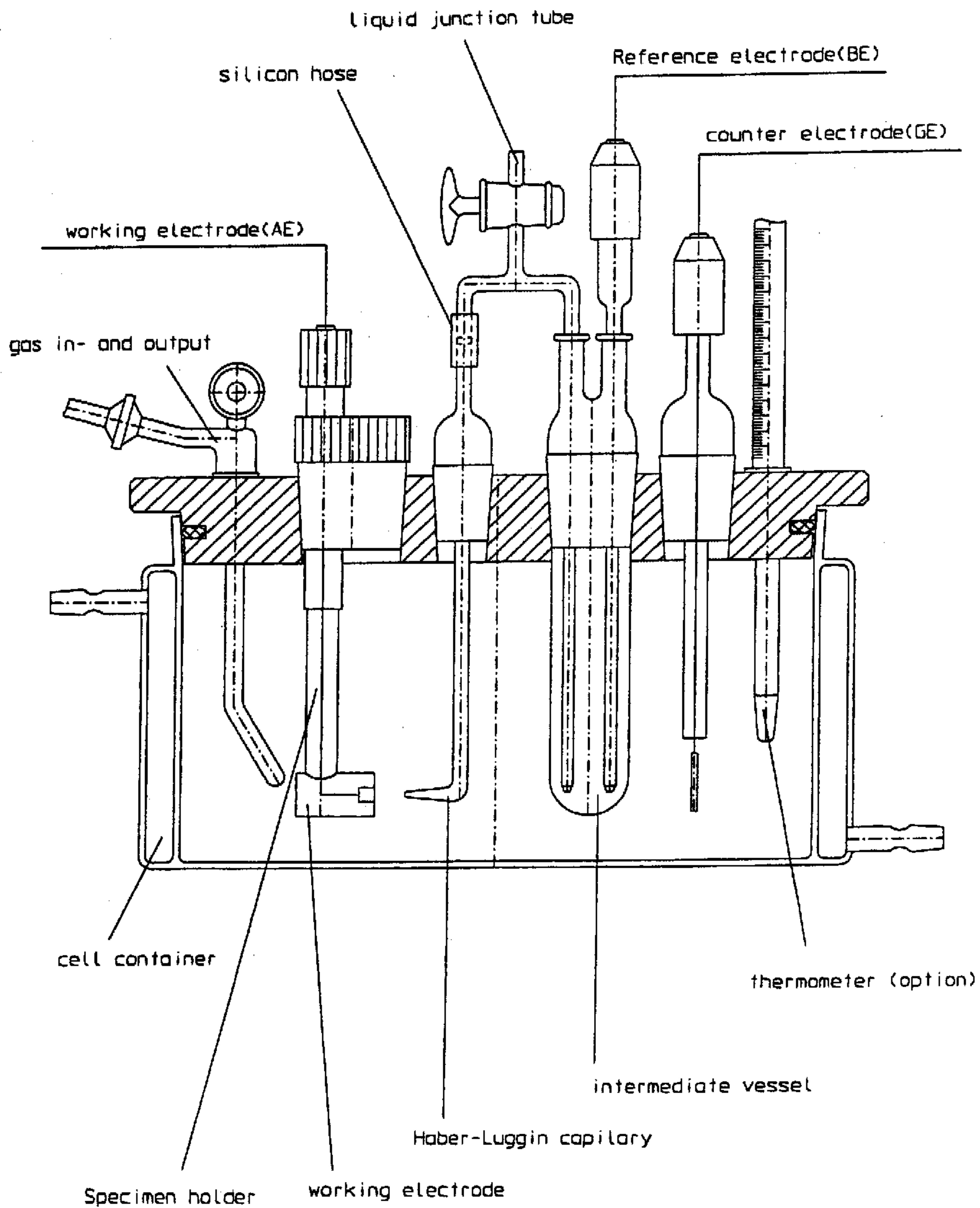
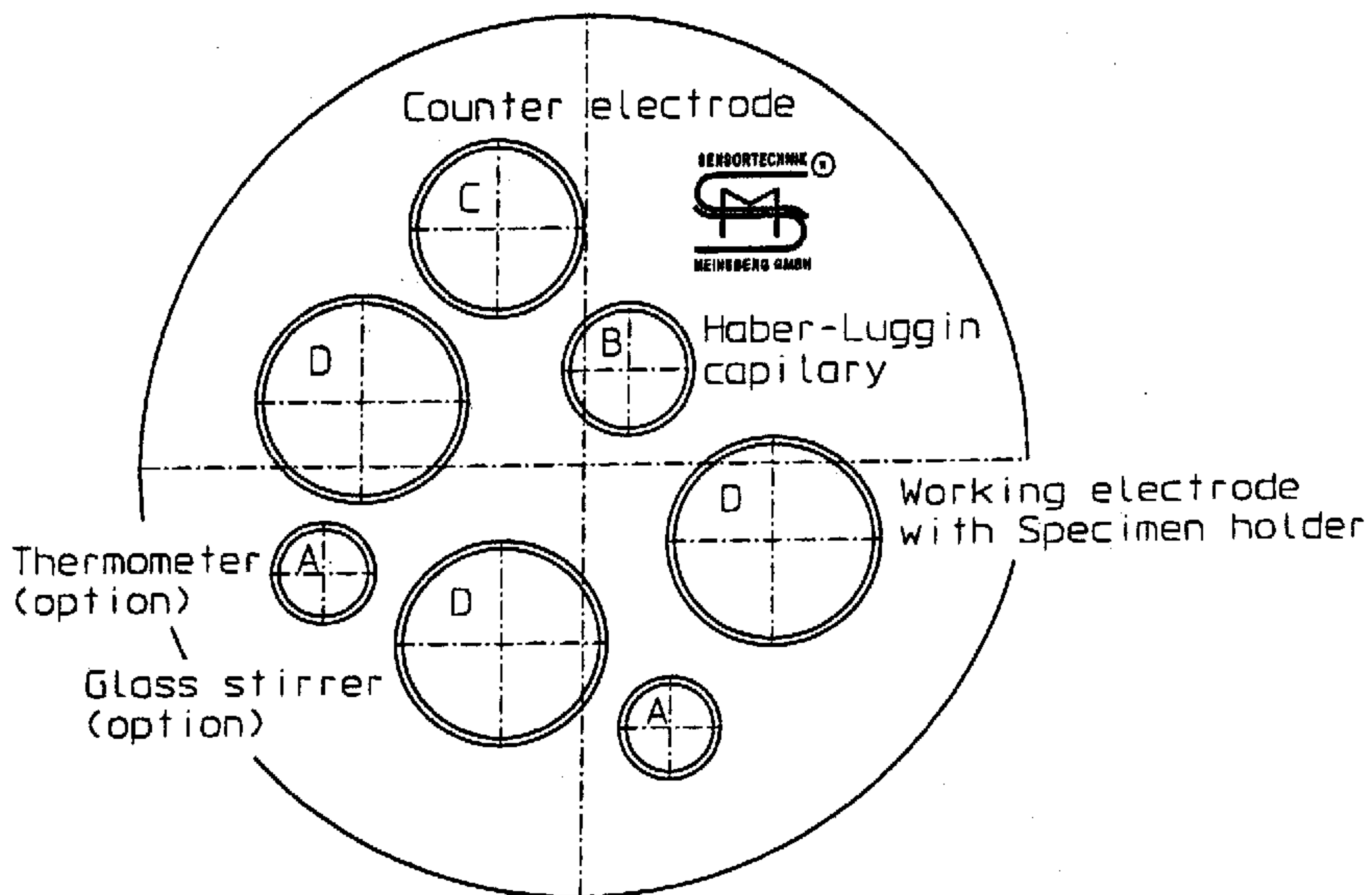


fig.2



No.	taper joints
1	14.5
2	19
3	24
4	29

fig.3