



## Dialysis Reference Meters

Performance comes from innovation

## HDM97<sup>Pocket</sup> Reference Meter Product Family

### HDM97<sup>BQ</sup>

- Conductivity
- Temperature
- Pressure
- Flow

### HDM97<sup>BP</sup>

- Conductivity
- Temperature
- Pressure
- pH

### HDM97<sup>BO</sup>

- Conductivity
- Temperature
- Pressure

### HDM97<sup>BN</sup>

- Conductivity
- Temperature

### HDM97<sup>BM</sup>

- Pressure

### HDM97<sup>BL</sup>

- Flow



**HDM97BP**  
4-value-edition

### Dialysis requires reliability and accuracy

Hemodialysis calls for high reliability and extreme accuracy. The HDM97<sup>Pocket</sup> Reference Meter series allows highly accurate and reliable measurement of conductivity, temperature, pressure, pH and flow. The device has been developed by specialists and integrates the know-how and experience of 30 years in the design of reference meters for dialysis. Intelligent product details along with innovative technology deliver great value.

### Advanced technology

Advanced electronic technology combined with highly developed software results in a completely new type of measuring instrument with special features on a level of accuracy not achievable with other units. To achieve the highest conductivity measurement accuracy possible the conductivity temperature coefficient is selectable by dialysis machine manufacturer. A rechargeable Li-Ion-Polymer battery in combination with intelligent power management allows the meter to run continuously for more than 200 hours.

### Details technicians are looking for

The guiding principle in the development of the HDM97<sup>Pocket</sup> was: "What are the daily needs of the busy dialysis technician?" The outcome is a collection of innovative details available only from IBP dialysis reference meters: Multifunctional Conductivity probe, long term data acquisition and pressure drop measurement mode are the features technicians are searching for.

### Quality

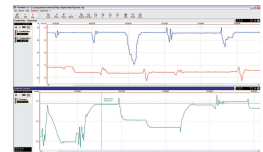
The HDM97<sup>Pocket</sup> is produced under a certified quality management system (ISO 13485:2003). We offer an annual calibration service with certification in accordance with ISO 17025.

### Key Features

- Can be used with any brand of dialysis machine
- Selectable conductivity temperature coefficient for high accuracy conductivity measurement



- Allows conductivity measurement of RO water
- With special option blood pressure meters can be calibrated
- Timer function
- Pressure drop measurement
- Allows field calibration
- USB Computer Interface for data acquisition



- Canada Medical Device license
- FDA 510(k) approval



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## Specifications

**Conductivity** *only version BN, BO, BP and BQ*  
 Range 0 ... 30 mS/cm  
 Accuracy 0 ... 200 uS/cm +/- 0.6 uS/cm  
 201 ... 2000 uS/cm +/- 6 uS/cm  
 2 ... 30.00 mS/cm  
 12 ... 16 mS/cm +/- 0.03 mS/cm  
 otherwise +/- 0.06 mS/cm  
 > 30 mS/cm +/- 1% from URV  
 Temperature coefficient selectable.

**Temperature** *only version BN, BO, BP and BQ*  
 Range 0 ... 100 °C  
 Resolution 0.01 °C  
 Accuracy 25 ... 40 °C +/- 0.05 °C  
 otherwise +/- 0.1 °C

**Pressure** *only version BO, BP and BQ*  
 Units mmHg, kPa, mbar, PSI - selectable  
 Range -700 ... 1900 mmHg (2.5 Bar)  
 Resolution 0.1 mmHg  
 Accuracy 0 ... 300 mmHg +/- 1 mmHg  
 Otherwise +/- 2 mmHg  
 Ceramic Sensor fluid resistant

*only version BM and option H for BO, BP and BQ*  
 Range -700 ... 1900 mmHg (2.5 Bar)  
 Resolution 0.01 mmHg  
 Accuracy 0 ... 300 mmHg +/- 0.5 mmHg  
 301 ... 1000 mmHg +/- 1 mmHg  
 Otherwise +/- 2 mmHg

**Flow** *only version BL and BQ*  
 Range 100 ... 2000 ml/min  
 Resolution 1 ml/min  
 Accuracy 100 ... 500 ml/min +/- 1.5 % of MBE  
 Otherwise +/- 2.5 % of MBE

**pH** *only version BP*  
 Range pH 0 ... 14  
 Resolution pH 0.01  
 Accuracy pH +/- 0.02

**Interface** USB 2.0 - electrically insulated

**Power supply**  
 Internal rechargeable Li-Ion-Polymer battery  
 External charger Input 100 ... 245 V / 50/60 Hz  
 Output 5 V DC, 500 mA  
 Or via USB-Interface from a computer

**Dimensions & Weight**  
 165 x 82 x 33 mm - 6.5" x 3.2" x 1.3"  
 0.4 Kg - 0.88 lbs including probe

GA10Doc: PHDM97EN01305

For complete details on IBP products visit:

[www.ibpmedical.com](http://www.ibpmedical.com)

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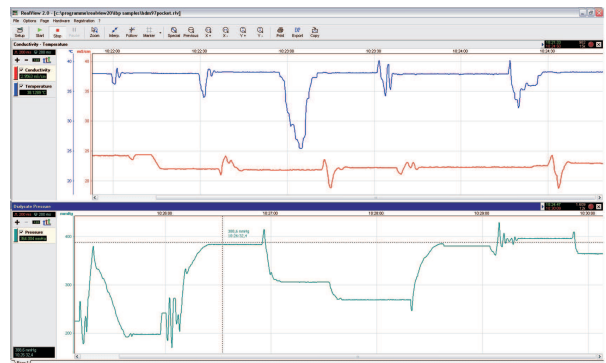
## Details technicians are looking for

- Modern 4-pole electrode in carbon plastic technology for conductivity measurement. Years of experience have proven this design and construction absolutely linear and stable. The Electrode may be used either as a flow through or dip electrode. May also be used for testing RO water and dialysate concentrate. The pressure connector has an automatic closure. This enables the measurement of dialysate pressure without any additional adapters.
- A timer mode, with start stop function, allows to measure time period with a resolution of 100 msec.



## Helpful options

- For pressure measurement optionally a higher accuracy is available which allows calibration of blood pressure measurement devices in accordance with DIN EN 1060.
- The BL and BQ version allows flow measurement to calibrate dialysate flow as well blood and infusion pumps.
- The HDM97<sup>Pocket</sup> meter has an USB interface for easy connection to a personal computer. The IBPView software allows the user to collect, store and visualize data taken from measurements with the HDM97<sup>Pocket</sup>.



- For pressure measurement on Fresenius machines an adapter is available.
- For convenient attachment of the meter to the infusion pole a fold-away holder is part of a complete set. This movable holder also allows use of the meter in a tilt position on a flat surface.

