

# DATASHEET

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## ELECTRODE, POTASSIUM (K) TIP

**669117 BI**

**Use:** This electrode cartridge is for *in vitro* use only. It is used for the quantitative determination of Potassium on Beckman Coulter, LX, CX, ALX, E4, and E2 chemistry analyzers.

**Type:** Solid State - Neutral carrier (Valinomycin) in PVC matrix  
**Life Span:** 12000 tests or 6 months from installation.\*

**Storage:** Store a room temperature in provided packaging.  **Shelf Life:** 18 month minimum shelf life.  51 C  
-6 C

### PERFORMANCE CHARACTERISTICS (TYPICAL):

**Span:** >or= 550 (new) or Slope =  $50 \pm 15$  mv per decade  
**Within-run SD:** 0.1  
**Within-run CV:** 2.0%  
**Total SD:** 0.15  
**Total CV:** 3.0%  
**Analytical Range:** 1-200 mmol/L (Serum/Urine)  
**Notes:** The above values are based on a Beckman CX analyzer (values <5 mmol/L).

### INTERFERENCES:

Please refer to references listed below for a thorough discussion on interferences of valinomycin in PVC membrane type electrodes.

### CLEANING/MAINTENANCE

Follow OEM recommended procedure(s) in instrument operators manual. Procedure will vary depending on the specific analyzer model.

### PRECAUTIONS:

This electrode has been tested for control recoveries using Beckman Decision, BioRad Lypocheck serum/urine, Roche Precinorm/Precipath, N.I.S.T. SRM 909b and Hi Chem Align linearity standards/controls. PVI recommends that an independent correlation study be performed to confirm the appropriate operational parameters for your laboratory before utilizing this product in compliance with good laboratory practices.

### THEORY:

When the sample in buffer mixture contacts the Valinomycin impregnated membrane, potassium ions are selectively transported to and from the sample in solution. As this ion exchange takes place, a potential is developed at the face of the electrodes membrane. This potential is measured by a silver/silver bilet. The potential follows the Nernst equation.

### REFERENCES:

Friedman, Clin. Chem. 1980, **26**, 4  
Young, Clin. Chem. 1975, **21**, 5  
Synchron CX chemistry information man. 1996, Potassium (K) Interferences

\*Warranty expires when either use condition is reached or expiration date is past. Warranty on tests and use periods expire at 6 months from shipment if not already consumed.