



A TESCO COMPANY

# 4E2-1 voltage tester

*third rail voltage tester*



## description

The Knopp 4E2-1 Third Rail Voltage Tester is designed to detect electrical potential (voltage) between the third rail and ground on high voltage electrified transit systems. Two, redundant neon bulbs are used to indicate the presence of voltage.

Features of the 4E2-1 include:

- Can be used on AC or DC
- Can be used up to 1500 volts
- Can span a distance of up to four (4) feet
- Uses a dual neon lamp principle for double safety protection

The prod handle and the tester housing are both made from moisture- and oil-resistant laminated phenolic. The prod tips are made from stainless steel. The tester housing includes a rubber hand guard to guide the operator in proper placement of his or her hand. There are no exposed metal parts other than to the two prod tips. All internal connections are soldered.

The Third Rail Tester uses two independent circuits to detect the presence of voltage. This provides double safety protection for the operator. The neon indicating lamps are mounted in specially shielded cavities within the instrument so that the neon glow indication can be unmistakably seen – even under the most adverse conditions of bright, direct sunlight on the instrument during tests.

The 4E2-1 Third Rail Tester was originally developed for the BART (Bay Area Rapid Transit) System in San Francisco/Oakland, CA. It has since gained wide acceptance as a reliable instrument for use in detecting the presence of third rail voltage.



## specifications

dimensions: overall length: 48" (122 cm)  
tester housing: 20" (50.8 cm) long and 1.25" (3.20 cm) diameter  
prod handle: 8" (20.3 cm) long and 0.625" (1.60 cm) diameter

weight: 12 ounces (0.34 kg)

maximum voltage: 1500 volts

frequency: DC through 60 Hz.

maximum current draw: <4 milliamperes at 1500 volts

### Knopp, Inc.

**A TESCO COMPANY**

925 Canal Street  
Bristol, PA 19007  
Ph: 215-228-0500

[sales@knoppinc.com](mailto:sales@knoppinc.com)  
[www.knoppinc.com](http://www.knoppinc.com)