



# precision multirange voltage transformers

## TYPE WP-14000



## introduction

This Type WP-14000 Transformer is primarily a laboratory standard. Its excellent accuracy and the Knopp one-to-one calibrating feature make it well-suited as a standard for precision calibrating work. This transformer makes possible very accurate determination of the ratio and phase angle characteristics of voltage instrument transformers having ratings from 120 to 14,400 volts. This transformer also makes it possible to accurately extend the range of a 120 volt voltmeter or wattmeter to cover all voltage values up to 14,400 volts.

Several versions of the WP-14000 Transformer exist. These versions are differentiated by affixing a suffix to the Type designation (e.g. WP-14000-4). The differences among the versions generally lie in the number and value of the intermediate voltage ranges. As an example, the WP-14000-4 transformer includes 288 and 300 volt ranges not found on the WP-14000-1 transformers.

## primary ranges

The primary ranges for the WP-14000-4 are:

120, 240, 288, 300, 480, 600, 2400, 4800, 7200, 8400, 12,000 and 14,400 volts. The secondary is 120 volts.

## burden and accuracy

The WP-1400 Transformer, like other Knopp Precision Multirange Transformers, has excellent ratio and phase angle characteristics with respect to both inter-range accuracy and overall accuracy. This is made possible through a properly engineered design and through exclusive, highly perfected compensating and winding methods.

The transformer is furnished compensated for the highest possible accuracy at the burden specified by the purchaser, but it may be used with excellent results with other burdens up to 25 volt-amperes. When used with the burden for which compensated, the ratio of this transformer standard is well within 0.02% and the phase angle is well within 2 minutes on all ranges.

## calibration

A Report of Calibration, traceable to the National Institute of Standards and Technology (NIST) is included with the transformer.

We recommend that the accuracy of the transformer be checked by a certified laboratory every five (5) years. Additionally, the one-to-one accuracy of the transformer can be checked when desired by comparing the 120 volt primary tap to the 120 volt secondary. Any reliable error-measuring instrument can be used for this purpose.

## construction

For long, dependable service, the coil is cast in epoxy, and the core and coil assembly is housed in a beige steel case with engraved aluminum panel fitted with porcelain high-voltage bushings.

## specifications

dimensions:	The approximate overall dimensions of the Type WP-14000 are 20" (50.8 cm) wide (not including the handles, 15" (38.1 cm) deep, and 18" (45.7 cm) high including the bushings.
weight:	The net weight of the Type WP-14000 is approximately 175 pounds (79.4 kg) and the shipping weight is approximately 250 pounds (113.4 kg). The dolly's net weight is 17 pounds (7.7 kg), and its shipping weight is approximately 30 pounds (13.6 kg).

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