HIGH VOLTAGE INSTRUMENTS LTD	HV Phase Comparators Model: E45 Series
Edgcumbe	<b>m</b> Metrohm <sup>®</sup>

## Introduction

The E45 Series High Voltage Phase Comparators are hand held, double pole devices used to determine the phase relationship between two energised conductors at the same nominal voltage and frequency. Two versions are available:

- Go/No Go type using audible/visual alarms for out of phase condition. Specific models are available for either 11kV or 33kV systems.
- Direct reading meter indication with clear Red/Green bands for Out/In phase conditions. Specific models are available for 11kV or combined 11/33kV systems.

All models are signal driven and do not require arming or the use of batteries.

A separate battery operated proving unit is available as an accessory.



## **Operation & Features**

The E45 Series have been designed for single person use both indoors and outdoors. Once assembled the unit should be tested using the purpose designed E4590 Proving Unit or a known high voltage source. When applied to the two high voltage sources under test the units will give clear indication of an "out of phase" condition.

- Simple to operate
- Clear indication
- No batteries required
- Separate Proving unit available
- Detachable handles for easy transport
- Designed to VDE-0681 Part 5

High Voltage Instruments Ltd	E45 Series – HV Phase Comparators
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E45 Phase Comparator	E45 Phase ComparatorsModel:E4510E4530E4540E4550Range:11kV33kV11kV11/33kVIndication:LED/AudibleAnalogueResistor Chain: $3M\Omega$ $9M\Omega$ $3M\Omega$ $9M\Omega$ Tolerance: $\pm 5\%$ $\pm 5\%$ $\pm 5\%$ $\pm 5\%$ Threshold: $3.3kV$ $9.9kV$ $3.3kV$ $9.9kV$ Response Time:Less than one secondLength:770 mm
E45 Phase Comparator	E4590 Proving UnitOutput Voltage:3.3 to 10kV switch setting3.3 to 10kV switch setting9.9kVDC $\pm 100V$ into $6M\Omega$ Load11 to $36kV$ switch setting9.9kVDC $\pm 200V$ into $18M\Omega$ LoadBatteries:Rechargeable Battery PackCharging120mA for 16 hoursBattery 'OK'Indicates battery charge is sufficient to drive the circuitsHigh Voltage 'ON'Indicates High Voltage is being generated
E4590 Proving Unit	Weight: 1.4kg

High Voltage Instruments Ltd policy is one of continuous development and hence we reserve the right to change specification / design without prior notice

