

	<b>HV Phase Comparators</b> <b>Model: E45 Series</b>
<b>Edgumbe</b>	


## 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.

	<p>A complete E45 kit comprises:</p> <ul style="list-style-type: none"> <li>• HV Phase Comparator</li> <li>• 2 off Handles</li> <li>• Polymer Cleaning Kit</li> <li>• Instruction Manual</li> <li>• Carry Satchel</li> </ul> <p><b>Models available:</b>  E4510: 11kV audible/visual indication  E4530: 33kV audible/visual indication  E4540: 11kV analogue meter  E4550: 11/33kV analogue meter</p> <p><b>Accessories Available:</b>  E4590: Proving Unit for all versions</p>
<p>E45 Series Typical Kit</p>	

## 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



**HV Phase Comparator Analogue Scale**



**HV Phase Comparator Go/No-Go**



**E45 Phase Comparator**

**E45 Phase Comparators**

Model:	E4510	E4530	E4540	E4550
Range:	11kV	33kV	11kV	11/33kV
Indication:	LED/Audible		Analogue	
Resistor Chain:	3MΩ	9MΩ	3MΩ	9MΩ
Tolerance:	±5%	±5%	±5%	±5%
Threshold:	3.3kV	9.9kV	3.3kV	3.3kV/ 9.9kV
Response Time:	Less than one second			
Length:	770 mm			



**E4590 Proving Unit**

**E4590 Proving Unit**

Output Voltage:	3.3 to 10kV switch setting	3.3kVDC ±100V into 6MΩ Load
	11 to 36kV switch setting	9.9kVDC ±200V into 18MΩ Load
Batteries:	Rechargeable Battery Pack	
Charging	120mA for 16 hours	
Battery 'OK'	Indicates battery charge is sufficient to drive the circuits	
High Voltage 'ON'	Indicates High Voltage is being generated	
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



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