

	HV Phase Comparators Model: E45 Series
Edgcumbe	


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"> • HV Phase Comparator • 2 off Handles • Polymer Cleaning Kit • Instruction Manual • Carry Satchel <p>Models available: E4510: 11kV audible/visual indication E4530: 33kV audible/visual indication E4540: 11kV analogue meter E4550: 11/33kV analogue meter</p> <p>Accessories Available: E4590: Proving Unit for all versions</p>
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E45 Series Typical Kit

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																														
 <p data-bbox="284 779 662 813">HV Phase Comparator Analogue Scale</p>	 <p data-bbox="944 779 1276 813">HV Phase Comparator Go/No-Go</p>																														
 <p data-bbox="359 1164 590 1200">E45 Phase Comparator</p>	<p data-bbox="790 862 1029 896">E45 Phase Comparators</p> <table border="0" data-bbox="790 896 1372 1064"> <tr> <td>Model:</td> <td>E4510</td> <td>E4530</td> <td>E4540</td> <td>E4550</td> </tr> <tr> <td>Range:</td> <td>11kV</td> <td>33kV</td> <td>11kV</td> <td>11/33kV</td> </tr> <tr> <td>Indication:</td> <td colspan="2">LED/Audible</td> <td colspan="2">Analogue</td> </tr> <tr> <td>Resistor Chain:</td> <td>3MΩ</td> <td>9MΩ</td> <td>3MΩ</td> <td>9MΩ</td> </tr> <tr> <td>Tolerance:</td> <td>±5%</td> <td>±5%</td> <td>±5%</td> <td>±5%</td> </tr> <tr> <td>Threshold:</td> <td>3.3kV</td> <td>9.9kV</td> <td>3.3kV</td> <td>3.3kV/ 9.9kV</td> </tr> </table> <p data-bbox="790 1070 1220 1131">Response Time: Less than one second Length: 770 mm</p>	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
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 <p data-bbox="375 1527 574 1563">E4590 Proving Unit</p>	<p data-bbox="790 1227 981 1261">E4590 Proving Unit</p> <table border="0" data-bbox="790 1261 1412 1552"> <tr> <td>Output Voltage:</td> <td></td> </tr> <tr> <td>3.3 to 10kV switch setting</td> <td>3.3kVDC ±100V into 6MΩ Load</td> </tr> <tr> <td>11 to 36kV switch setting</td> <td>9.9kVDC ±200V into 18MΩ Load</td> </tr> <tr> <td>Batteries:</td> <td>Rechargeable Battery Pack</td> </tr> <tr> <td>Charging</td> <td>120mA for 16 hours</td> </tr> <tr> <td>Battery 'OK'</td> <td>Indicates battery charge is sufficient to drive the circuits</td> </tr> <tr> <td>High Voltage 'ON'</td> <td>Indicates High Voltage is being generated</td> </tr> <tr> <td>Weight:</td> <td>1.4kg</td> </tr> </table>	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														
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High Voltage Instruments Ltd policy is one of continuous development and hence we reserve the right to change specification / design without prior notice

