

Introduction

The High Voltage Wireless Phase Comparator WP2000 uses a Transmitter module and a Receiver module to determine the Phase Relationship between two energized conductors at the same nominal voltage and frequency, without the need for connecting cables

Designed to comply with the requirements of IEC 61481 for use on system voltages up to 132kV



WPC2000 Operation

Each WPC2000 standard kit comprises the following components housed within a purpose designed ABS heavy duty carry case;

- WPC Transmitter (TX – Yellow)
- WPC Receiver (RX - Blue)
- 2x 40mm Hook Contact Electrodes
- 2x Bowthorpe Rod adaptors / or
- 2x Universal Star Wheel Adaptors
- Accessories Bag attaches to case lid
- Polymer cleaning kit
- Instruction Manual

A Switchgear Kit is available to enable Phase Comparison in Switchgear, (shown overleaf)



Operation & Features

The WPC2000 Transmitter (TX) and Receiver (RX) are battery operated electronic contact devices that give clear visible indication of the status of the line under test, and are able to determine the phase relationship between two points at the same nominal voltage and frequency, by means of super bright LED's and a high intensity buzzer. This ensures clear indication even in conditions of bright sunlight and high background noise.

Features

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| <ul style="list-style-type: none"> • Transmitter – coloured Yellow • Receiver - coloured Blue • Easy to use and Lightweight each (0.6kg) • Fast response time • High Impact ABS body • Indoor/Outdoor use all weathers • -25°C to +55°C operating temp range • Shock & drop resistant • Various rod adaptors available to suit different operating rods • Wide range of accessories • Easy access for battery replacement • Battery type one per module 9v PP3 IEC6LF22 | <ul style="list-style-type: none"> • Self Proving facility
Each module has a built in self check facility and the Receivers Buzzer will sound when a signal is received from the Transmitter. This is achieved by holding both Proving Buttons at the same time • Operating Frequency – 433.9mHz • Range – 50m in air • Automatic alarming above threshold voltage as default • Voltage Range – 66kV / 132kV • Positive Indication of phase relationship |
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Each module must be used in conjunction with suitable insulating operating rods, to ensure a safe working distance from the HV source

High Voltage Instruments Ltd	WPC2000 – Wireless Phase Comparator
 <p>WPC2000 Transmitter showing Line Live, Phase Condition being transmitted to Receiver</p>	<p>WPC2000 - Transmitter Visual Indication Two RED LED's Functions Voltage checking when the unit touches the live conductor, if the voltage on the conductor is above the voltage threshold setting of the Transmitter, it automatically starts the voltage checking sequence, after 5 secs if the line is live, both RED LED's will light solid and the Line Phase Angle is transmitted to the Receiver</p>
 <p>WPC2000 Receiver showing Line Live In-Phase Condition with Transmitter</p>	<p>WPC2000 - Receiver Visual Indication - One RED LED and One GREEN LED Audible Indication - Buzzer Functions Voltage Checking when the unit touches the live conductor, if the voltage on the conductor is above the voltage threshold setting of the Receiver. it automatically starts the voltage checking sequence, after 5 secs if the line is live, the RED LED will light solid In-Phase indication When the phase angle shift between the Transmitter and Receiver is nominally $\leq \pm 10^\circ$, the IN PHASE condition is indicated by RED LED lighting solid, GREEN LED lighting solid and the Buzzer sounding continuously Out-of-Phase indication When the phase angle shift between the Transmitter and Receiver is nominally $> \pm 20^\circ$, the OUT OF PHASE condition is indicated by solid RED LED lighting only</p>

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

**UK
CA**



High Voltage Instruments Ltd

15-16 Woodbridge Meadows,
Guildford, Surrey
GU1 1BJ
United Kingdom

Tel: +44(0)141 440 5800 / +44(0)1483 207428
Fax: +44(0)141 404 2561

web: www.hvil.com e-mail: sales@hvil.com