

# 3 Phase Industrial Earth Leakage Tester and 3 Phase Presence & Rotation Indicator(OLED Display)



## 6221 EL-M

This Test Instrument is a **combined** 3 Phases Presence and Rotation Indicator combined with a 3 Phases Industrial Earth Leakage Tester.

When utilized as a 3 Phase Presence and Rotation Indicator, the instrument does not use the batteries and can still be utilized if the batteries are not present or if the batteries are too low.

The 3 phase Presence and Rotation Indicator which is inside the 6221 EL-M, takes its power from the circuit under test.

The Earth Leakage can be utilized on a Single Phase (up to 317Vac Line to Earth) or a **3 Phase Powered System** (550V Line to Line or Phase to Phase) with a protective Earth conductor.

The Earth Leakage requires batteries.

When utilized on a single phase, ensure correct connection between Line and Earth before using the tester.

When utilized on a **3 Phase Powered System**, the instrument is then utilized as a 3 Phases Presence and Rotation Indicator and a Earth leakage tester (selecting which phase to Earth will be utilized for the ELCB test).

When utilized on a 3 Phases Powered System, this instrument is a rotary field indication instrument which display all three phases by lighting up its corresponding Lamp. It display the rotation (clockwise or anti-clockwise) on a LED.

## FEATURES

- High contrast OLED display
- Designed for viewing in the dark, for mining industry.
- **Microprocessor-controlled.**
- Indicates phase rotation
- Indicates phase presence
- TEST for disconnection sensitivity
- Battery status indicator
- Measures Voltage Phase to Earth
- Select one of 3 Phase to test ELCB.
- Color-coded test leads.
- Phase presence indication from as low as 100Vac.
- Fused earth leakage tester.
- ELCB works 50Vac to 330Vac 50Hz / 60Hz.
- Phase rotation and presence does not require battery to indicate.

## SPECIFICATIONS

Nominal voltage for phase presence	100Vac to 450Vac
frequency range	10Hz to 400Hz
Rotary field direction	100 to 450Vac
phases frequency range	2Hz to 400Hz
Overload protection	550V (between all terminal)
Over voltage protection	Class III - 450V towards ground
Current settings	999mAac /50Hz-60Hz
Phase start selection	0° and 180°
Phase polarity trip Indicator	√
Operating voltage (L-E) referenced to earth	220Vac to 317Vac
Timer resolution	1ms (Max. Time=99.99s)
Timer accuracy	1ms ±4ms
Current accuracy	±3% ±4mA
Current resolution	1mA
Voltmeter accuracy (50Hz)	50-350Vac = ±3% ±2V 350-550Vac = ±7% ±3V
Voltmeter resolution	1V
Maximum current	317Vac / 50Hz
Operating temp. range	0°C to +40°C
Storage temperature	-10°C to +50°C
Dimensions	330(L) x 260(W) x 160(D)mm
Weight (battery included)	Approx. 3850g
Power source	1.5V "C" x 8 Alkaline batteries ; Bat OK LED = Vbat>9V
Safety standard	EN 61010-1 CAT III 600V EN 61326-1