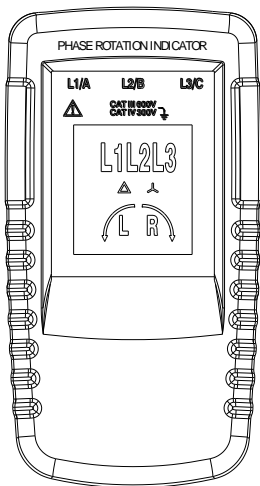




ZI-9262

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Phase rotation indicator










Introduction

The phase rotation indicator is a handheld instrument designed to detect the rotary field of three-phase systems.

Symbols

The following symbols appear on the phase Rotation indicator or in this manual.

Table 1. Symbols

	Risk of electric shock		Earth
	Risk of Danger . Important information See manual		AC or DC
	Hazardous Voltage.		Conforms to EU directives.
	Equipment protected by double or reinforced insulation	CAT III	OVERVOLTAGE(Installation) CATEGORY III, Pollution Degree 2 per IEC 1010-1 refers to the level of impulse Withstand Voltage protection provided. Equipment of OVERVOLTAGE CATEGORY III is equipment in fixed installations (e.g., electricity meter and primary over-current protection equipment.)

Elements of the phase Rotation indicator

Indicators, buttons, and jacks are shown in Figure 1.

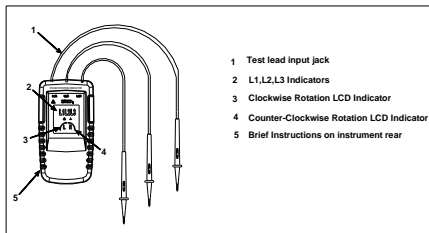


Figure 1. The phase Rotation Indicator

Determine the Rotary Field Direction

To determine the rotary field direction:

1. Connect the test probes to the end of the test leads.
2. Connect the test probes to the three mains phases.
3. The green ON indicator shows that the instrument is ready for testing.

4. Either the clockwise or counter-clockwise rotary indicator illuminates showing the type of rotary field direction present.
5. The rotary indicator lights even if the neutral conductor, N, is connected instead of the Test lead input jacks.

Unpacking the phase Rotation indicator

The phase Rotation indicator ships with the following items:

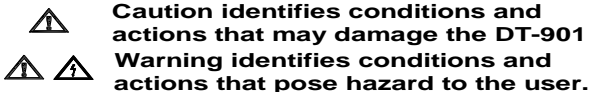
3 pieces self-retaining test probes

Alligator clip

Users Manual

If an item is damaged or missing, contact the place of purchase immediately.

Safety Information



Read First: Safety Information

To avoid possible electric shock or fire, do the following:

Read the following safety information carefully before using or servicing the instrument.

Adhere to local and national safety codes.

Individual protective equipment must be used to prevent shock and injury.

Use of instrument in a manner not specified by the manufacturer may impair safety features/protection provided by the equipment.

Avoid working alone.

Inspect the test leads for damaged insulation or exposed metal. Check test lead continuity. Damage leads must be replaced. Do not use the phase Rotation indicator if it looks damaged.

Be careful when working above 30V ac rms, 42V ac peak and 60V dc. Such voltages pose a shock hazard.

When using the probes, keep fingers away from probe contacts. Keep fingers behind the finger guards on the probes.

Measurements can be adversely affected by impedances of additional operating circuits connected in parallel or by transient currents.

Verify operation prior to measuring hazardous voltages (voltages above 30V ac rms, 42V ac peak and 60V dc).

Do not use the phase Rotation indicator with any of the parts removed.

Do not use the phase Rotation indicator around explosive gas, vapor, or dust.

Do not use the phase Rotation indicator in a wet environment.

Specifications Environmental

Operating Temperature

0°C to +40°C

Pollution Degree 2

Type of protection IP 40

Mechanical Specifications

Size (H x W x D): 130mm x 69mm x 32mm.

Weight: 130g

Safety Specifications

Electrical Safety

IEC 61010/EN61010,

IEC 61557-7/EN 61557-7

Maximum Operating Voltage (Ume) 690 V

Protection Levels

CAT III, 600V to ground

Electrical Specifications

Power Supply

From unit under test

Determine Rotary Field Direction

Nominal Voltage 40 to 690 VAC

Frequency Range (fn) 15 to 400HZ

Current pickup 1 mA

Nominal Test current (in per phase) 1 mA

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