INSTRUCTION MANUAL

MT930

PHASE ROTATION METER

Introduction

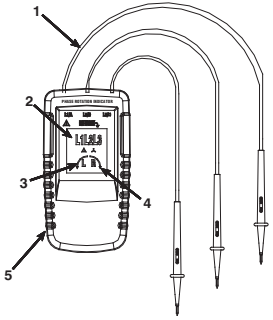
The phase rotation indicator is a handheld instrument designed to detect the rotary field of three-phase systems.

Symbols

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

⚡	Risk of electric shock	⏚	Earth
⚠	Risk of danger. Important information see manual	≂	AC or DC
⚠	Hazardous Voltage	CE	Conforms to EU directives
⧈	Equipment protected by double or reinforced insulation	CAT III	Over voltage (installation) Cat III, pollution Degree 2 per IEC1010-1 refers to the level of impulse withstand voltage protection provided. Equipment of Over voltage CAT III is equipped in fixed installations (e.g. electricity meter and primary over-current protection equipment.

Elements of the Phase Rotation Meter



1. Test lead input jack
2. L1, L2, L3 Indicators
3. Counter-clockwise rotation LCD indicator
4. Clockwise rotation LCD indicator
5. Brief instructions on instrument rear

Figure 1. 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. Green ON indicator shows that the meter 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.

Safety Information

Caution identifies conditions and actions that may damage the MT930. Warning identifies conditions and actions that pose hazard to the user.

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.
- 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.
- 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 meter with any parts removed.
- Do not use the meter around explosive gas, vapor or dust.
- Do not use the meter in a wet environment.

Specifications

AC Voltage	40 to 690V
Frequency	15 to 400Hz
Current Pickup	1mA
Nominal Test Current (per phase)	1mA
Phase Rotation	Clockwise or Anti-clock wise
Visual Indication	LCD
Operating Temperature	0°C to 40°C
Pollution Degree	2
Type of Protection	IP40
Battery	9V
Dimensions	130 x 69 x 32mm
Weight	130g
Electrical Safety	IEC 61010/EN61010, IEC 61557-7/EN 61557-7
Protection Level	CAT III 600V

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