

PD3129, PD3129-10

PHASE DETECTOR

Instruction Manual

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Safety Symbol

	In the manual, the symbol indicates particularly important information that the user should read before using the instrument. The symbol printed on the instrument indicates that the user should refer to a corresponding topic in the manual (marked with the symbol) before using the relevant function.
	Indicates a double-insulated device.
	Indicates AC (Alternating Current).
	Indicates DC (Direct Current).

The following symbols in this manual indicate the relative importance of cautions and warnings.

	DANGER Indicates that incorrect operation presents an extreme hazard that could result in serious injury or death to the user.
	WARNING Indicates that incorrect operation presents a significant hazard that could result in serious injury or death to the user.
	CAUTION Indicates that incorrect operation presents a possibility of injury to the user or damage to the device.

Measurement categories

This instrument complies with CAT III 600 V (Model PD3129), CAT III 1000 V, CAT IV 600 V (Model PD3129-10) safety requirements. To ensure safe operation of measurement instruments, IEC 61010 establishes safety standards for various electrical environments, categorized as CAT II to CAT IV, and called measurement categories.

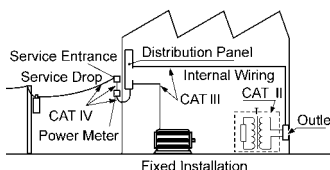
CAT II : Primary electrical circuits in equipment connected to an AC electrical outlet by a power cord (portable tools, household appliances, etc.)
CAT II covers directly measuring electrical outlet receptacles.

CAT III : Primary electrical circuits of heavy equipment (fixed installations) connected directly to the distribution panel, and feeders from the distribution panel to outlets.

CAT IV : The circuit from the service drop to the service entrance, and to the power meter and primary overcurrent protection device (distribution panel).

Using a measurement instrument in an environment designated with a higher-numbered category than that for which the instrument is rated could result in a severe accident, and must be carefully avoided.

Use of a measurement instrument that is not CATERATED in CAT II to CAT IV measurement applications could result in a severe accident, and must be carefully avoided.



Warranty

Warranty malfunctions occurring under conditions of normal use in conformity with the Instruction Manual and Product Precautionary Markings will be repaired free of charge. This warranty is valid for a period of three (3) years from the date of purchase. Please contact the distributor from which you purchased the product for further information on warranty provisions.

Introduction

Thank you for purchasing the HIOKI Model PD3129/PD3129-10 PHASE DETECTOR. To obtain maximum performance from the instrument, please read this manual first, and keep it handy for future reference.

Initial Inspection

When you receive the instrument, inspect it carefully to ensure that no damage occurred during shipping. If damage is evident, or if it fails to operate according to the specifications, contact your dealer or Hioki representative.

Maintenance and Service

- To clean the instrument, wipe it gently with a soft cloth moistened with water or mild detergent. Never use solvents such as benzene, alcohol, acetone, ether, ketones, thinners or gasoline, as they can deform and discolor the case.
- If the instrument seems to be malfunctioning, confirm that the batteries are not discharged before contacting your dealer or Hioki representative.
- Pack the instrument so that it will not sustain damage during shipping, and include a description of existing damage. We cannot accept responsibility for damage incurred during shipping.
- If the protective functions of the instrument are damaged, either remove it from service or mark it clearly so that others do not use it inadvertently.
- The magnets on the rear side can be utilized to fix the instrument on a place like a door of power distribution box.

Overview

The PD3129/PD3129-10 is a phase detector, designed to perform phase sequence checks and live line checks of a 3-phase circuit using a static induction voltage clip.

- The static induction voltage clips are used to be able to clip on a insulated wire.
- It is small with a CAT III 600 V (Model PD3129), CAT IV 600 V, CAT III 1000 V (Model PD3129-10) safety rating.
- Red LED lamps are used to make the indication visible in dimly lit areas.
- The direction of phase sequence can be checked easily using the LED lamps, which blink in order.

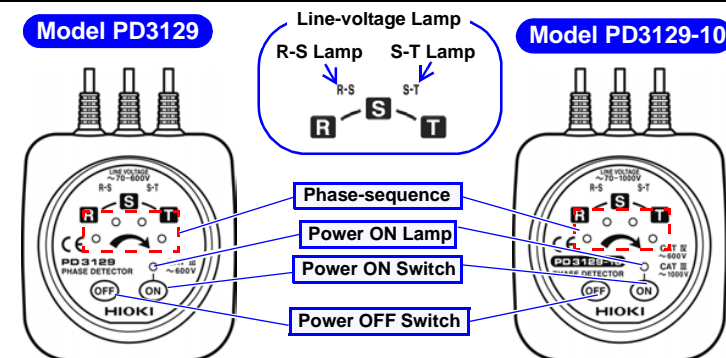
Safety

This manual contains information and warnings essential for safe operation of the instrument and for maintaining it in safe operating condition. Before using it, be sure to carefully read the following safety precautions.

DANGER

This instrument is designed to comply with IEC 61010 Safety Standards, and has been thoroughly tested for safety prior to shipment. However, mishandling during use could result in injury or death, as well as damage to the instrument. Be certain that you understand the instructions and precautions in the manual before use. We disclaim any responsibility for accidents or injuries not resulting directly from instrument defects.

Names of Parts



Usage Notes

Follow these precautions to ensure safe operation and to obtain the full benefits of the various functions.

- WARNING** Do not allow the instrument to get wet, and do not use it with wet hands. This may cause an electric shock.
- Do not fix the magnets of the rear side of the instrument on bare conductor or busbar. It may cause short circuits.

CAUTION

- Do not put magnet cards near the instrument. It may damage the stored data.
- The instrument should not be used by anyone with a pacemaker or any other medical devices installed in his/her body.
- This instrument is designed for use indoors. It can be operated at temperatures between 0 and 40°C without degrading safety.
- To avoid damage to the instrument, protect it from physical shock when transporting and handling. Be especially careful to avoid physical shock from dropping.
- Do not use the instrument near a source of strong electromagnetic radiation, or near a highly electrically charged object. These may cause a malfunction.
- To avoid breaking the cables, do not bend or pull them.
- Avoid stepping on or pinching cables, which could damage the cable insulation.
- Keep in mind that, in some cases, conductors and wires to be measured may be hot.

To avoid corrosion from battery leakage, remove the batteries from the instrument if it is to be stored for a long time.

