

Instruction for TEIKOKU ROTARY CHECKER (TRC)

NOTE: Before using the TRC, check that battery has been set properly. The battery can be installed or replaced by opening the lid on the back of the body. The specification of the battery is shown in this instruction.

WARNING: The TRC must not be used in explosively or inflammably hazardous area.

CAUTION: Do not let TRC touch to any rotating or electrically charged part of the motor.

PRINCIPLE and HOW TO USE THE TRC:

- The primary function of this checker is to detect the rotating direction from the outside of the canned motor in operation.
- For being function –able, it is necessary for TRC that it can detect the leakage flux from the rotating magnetic field by detecting coil of the sensor when the sensor is placed close to the motor in operation.
- The detection of leakage flux from rotating magnetic field is done by two sensors which are fitted under the arrow-mark (LED) in the rotary checker.
- When TRC is placed close to and flat to the motor with its arrow marks in parallel with the rotating direction and at a position where leakage flux is easy to detect, alternating waves are induced in each coil. Those waves are same in wave-shape but different in phase. The signal is generated by processing these waves and arrow-mark (LED) lights to indicate the wave having advanced phase.
- When one of the arrow –mark is lighting stably, it means magnetic field is rotating stably too. Thus you can detect the rotating direction of a motor indirectly.
- This principle is naturally applicable to the detection of the rotating direction of the motor for general use.
- To use this rotary checker correctly, care should be taken in order to enable TRC to function with the leakage flux, which is very faint. Where and how to place TRC against the motor (place, direction, distance and angle) are most important for its right function.

OUTLOOK and SPECIFICATION:



SPECIFICATION:

Dimension: w66.5xd92xh28(cm)

Material: ABS

Dry Battery: Manganese battery
JIS 6F (UB)

Nominal voltage: 9v



OPERATION INSTRUCTION:

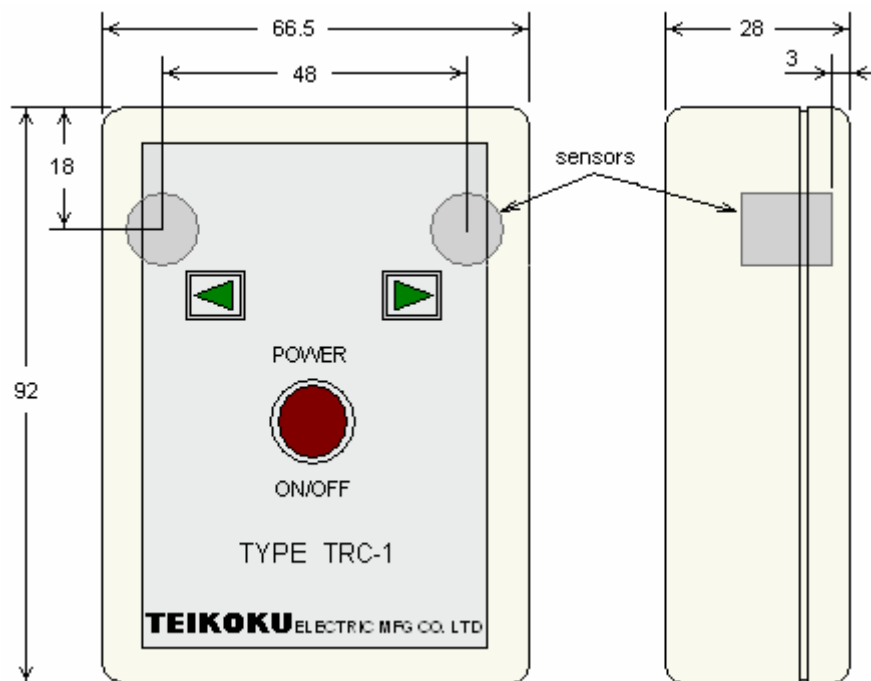
- The red circular boss in the center (power on/off) is the power source switch and whenever you push it the red LED lights/ lights out.
- While keeping the power on, search the place where on of the LEDs (right of left) lights stably.
- Lighted arrow-nark (yellow LED) shows the rotating direction or phase sequence. Move the detector off the motor then arrow-mark (yellow light) shall disappear.
- There is an area where TRC functions inaccurately between the light area and the wrong area around the motor. Check the rotation in the right area only.

CAUTION:

Do not let TRC touch to any rotating or electrically charged part of the motor.

POSITION OF DETECTOR

Following drawing shows the positions of the sensors in the rotary checker.



APPLICATION EXAMPLE for TEIKOKU Canned Motor

