

# 檢相計

# PHASE AND MOTOR ROTATION TESTER

### ●用途

4156 PR是設計來判別馬達的相序,交流電壓 系統三相電壓的相序,以及變壓器的極性和作 導通測試的一種量測儀器,是變壓器製造人員 、電工人員和實驗室人員的得力助手。

## ●安規

符合IEC/EN 61010-1

EN 61326-1+A1

EN 55011

EN 61000-3-2+A1+A2+A14

EN 61000-3-3 EN 61000-4-2+A1

EN 61000-3-5

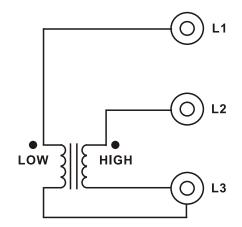
EN 61000-4-3 EN 61000-4-4 EN 61000-4-6 EN 61000-4-11 標準電機有限公司 220台北縣板橋市四維路106號 TEL: (02)2256-3125 FAX: (02)2255-6352 E-mail: sales@sew.com.tw



●使用方法

一. 判別馬達相序 將功能旋鈕轉到MOTOR檔,連接馬達三個電源到黃色極插座,指針正中歸零。用 手順時針方向轉動馬達旋軸,注視刻度板指針方向,指針偏右,表示相序正常 (L1L2L3);指針偏左,相序不正常,只要更動三條線中之任兩條線,即能符合正常 相序。

- 二. 判別交流電壓系統三相電源相序 將功能轉到PHASE ROTATION檔,連妥測試線紅色極插座與電源系統。指針右偏 ,相序為R.S.T.; 左偏時更動三條線中之任二條線,相序即可獲得正。
- 三. 判別變壓器極性 將旋鈕先轉至OFF檔,參考右圖,測試線連接變 壓器的低電壓端(LOW)至L1,高電壓端(HIGH)連 接到L2,其它兩端短路後接到L3。旋鈕再轉至 TRANSFORMER檔,按下測試鍵再放開:若指 針右偏為極性遞減,指針左偏為極性累加。
- 四. 導通測試 將旋鈕轉至CONT檔,測試線接上L1、L2然後將 測試線短路,操作歸零鈕至右方位置,然後進行 導通測試。



# http://www.51082245.com/sew.htm





### **APPLICATIONS**

The **4156 PR** is used to identify the leads of a disconnected motor so that when the motor is in true phase sequence, it will run in the desired direction. The identification process is necessary before a motor can be connected. The tester is also used to identify true phase sequence of energized AC power lines up to 600 AC volts. The other functions of the **4156 PR** include the determination of transformer polarity and testing of circuit continuity.

**OPERATION**: The 4156 PR has three individual ranges for different applications.

- 1. In the PHASE ROTATION range, the meter is connected in the phase sequence circuit and the red terminals for phase rotation may be used to make a phase sequence measurement. The batteries are disconnected for the testing.
- 2. In the MOTOR range, the meter is disconnected from the phase sequence circuit and connected in the motor rotation circuit. The batteries are connected for the testing. The yellow terminals may now be used for a motor rotation test.
- 3. In the TRANSFORMER range, the meter and batteries are connected so that the yellow terminals can be used for a transformer polarity test. It is also designed for circuit continuity tests. Users can connect test leads to L1 and L2 terminals for continuity checking.

#### DESCRIPTION

The three red terminals on the right side (R,S,T) are used to connected to **energized ac** power systems up to **600 volts**. The other three yellow terminals on the left side (L1, L2, L3) are for connection to **de-energized** equipment. **Do not connect to Live Voltage** ! The *Momentary Test* push-button is used to identify transformer polarity. Deflection of the rotation pointer indicates transformer polarity. Read either *Subtractive* on the right, or *Additive* to the left. The *Zero Adjustment knob* is used to check continuity.

Three 50cm-long test leads are supplied with the **4156 PR**. Each comes with a wide grip crocodile clip. The enclosure of the **4156 PR** is made with high impact ABS. The dimension of the tester is approx.  $25 \times 19 \times 11$  cm with the cover closed. The tester weight approximately 1.28 kg.

• Safety Standard : IEC/EN 61010-1 CAT III 600V

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