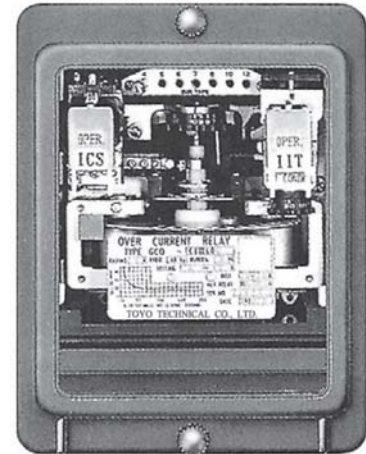


### ■ TYPE TVP

Phase open relay is used for rotary machine protection against the fault of negative phase voltage when one phase is open or under voltage. Type TVP-OC1 is for tripping and/or alarm. Type TVP-OC2 is suitable for 3-phase motor protection in 220V system and it has a magnetic switch to select automatic operation or manual operation.



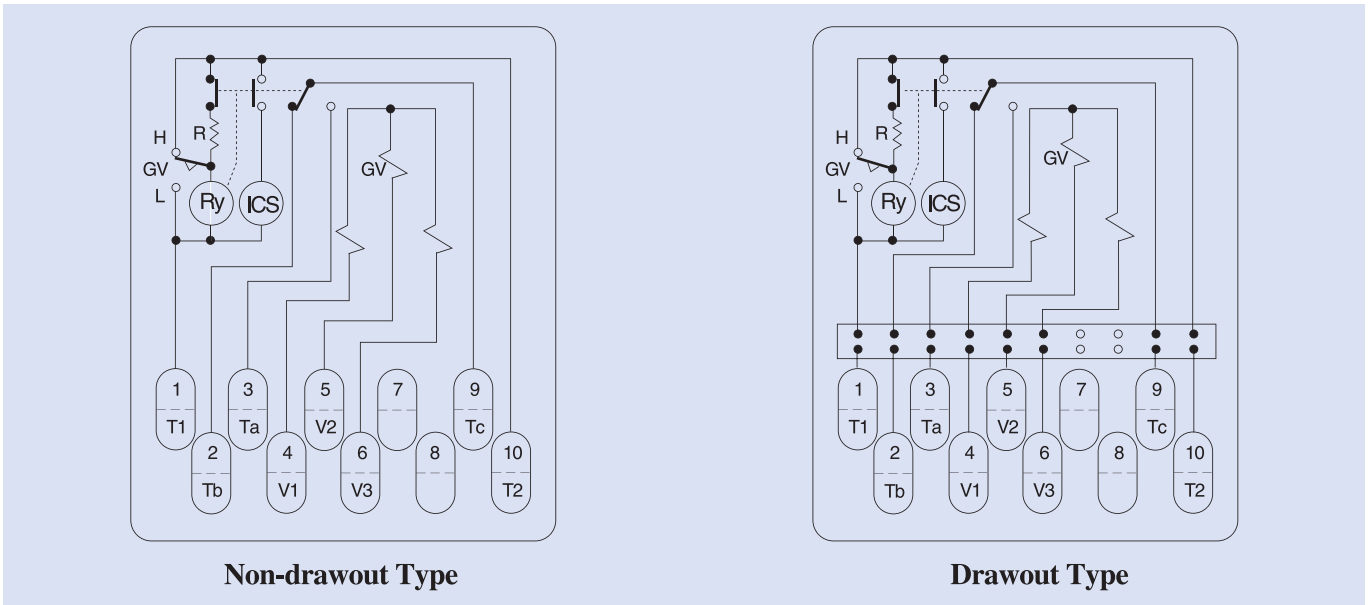
### ■ CHARACTERISTIC

- Operating time of Phase Open:  $2 \pm 0.4$  sec.
- Operating time of Reverse Phase:  $1 \pm 0.2$  sec.
- Operating value of Under Voltage:  $< 80\%$  of rated voltage.
- Operating time of No Voltage: about 4 sec.

### ■ SPECIFICATION

Type	Rated Voltage	ICS Unit	Rated Burden	Figure	Weight
TVP-OC1	110V	AC	3.0 VA	Fixed	3.6 kg
TVP-OC9	190V		6.0 VA		
TVP-OC2	220V		6.0 VA		
TVP-OCD1	110V	DC	3.0 VA	Drawout	4.4 kg
TVP-OCD9	190V	110V	6.0 VA		
TVP-OCD2	220V		6.0 VA		

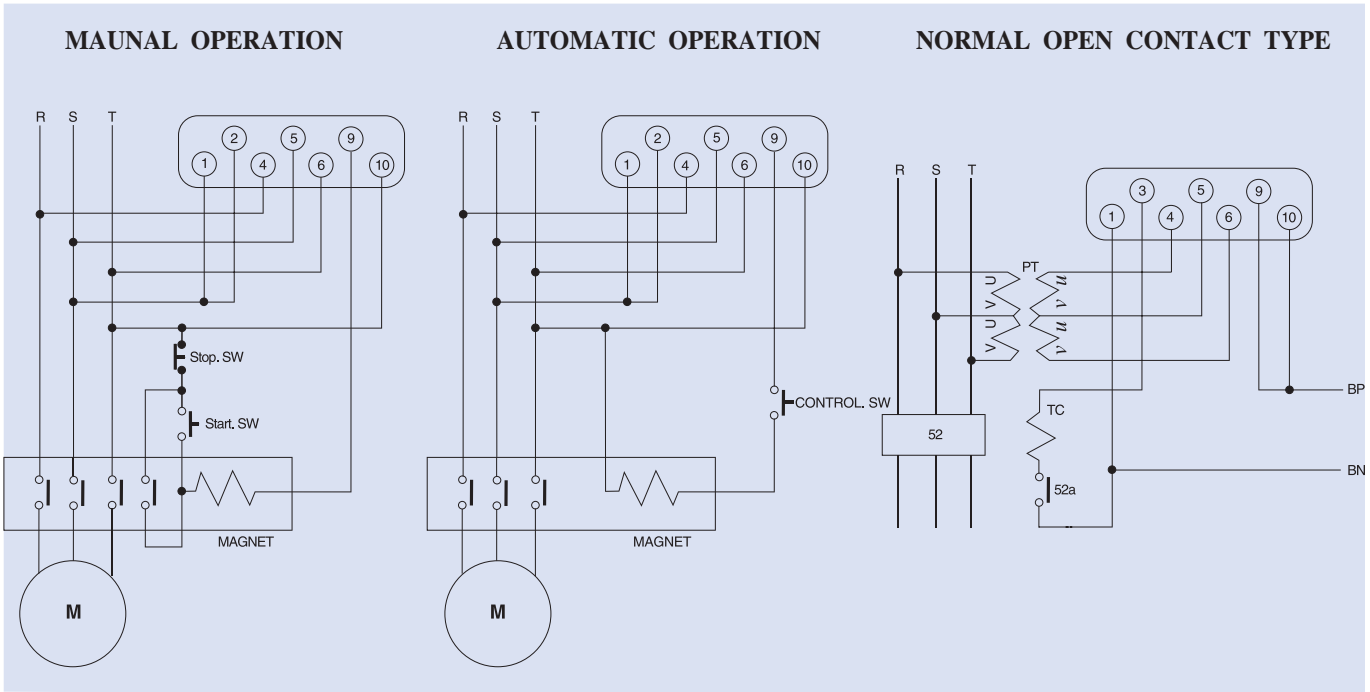
## INTERNAL CIRCUIT DIAGRAM



### CAUTION!

When the relay is energized with 3-phase voltages, “H” contact in the relay is closed by rotating the disk. But in case of misconnection of 3-phase rotation, “H” contact remains open because of the torque produced by negative phase voltage, and you have to check the connection of any two phases of the relay.

## EXTERNAL WIRING DIAGRAM



## 普得企業股份有限公司

總公司：台北市內湖區行愛路 68 號 6 樓  
 電話：(02)8791-8588 傳真：(02)8791-9588  
 電子郵件：toyotech@ms37.hinet.net  
 網址：www.toyotech.com.tw

台中辦事處：台中市文心路四段 200 號 10 樓之 2  
 電話：(04)2296-9388 傳真：(04)2296-9386  
 高雄辦事處：高雄市民生一路 56 號 15 樓之 6  
 電話：(07)227-2133 傳真：(07)227-2173