



TR90

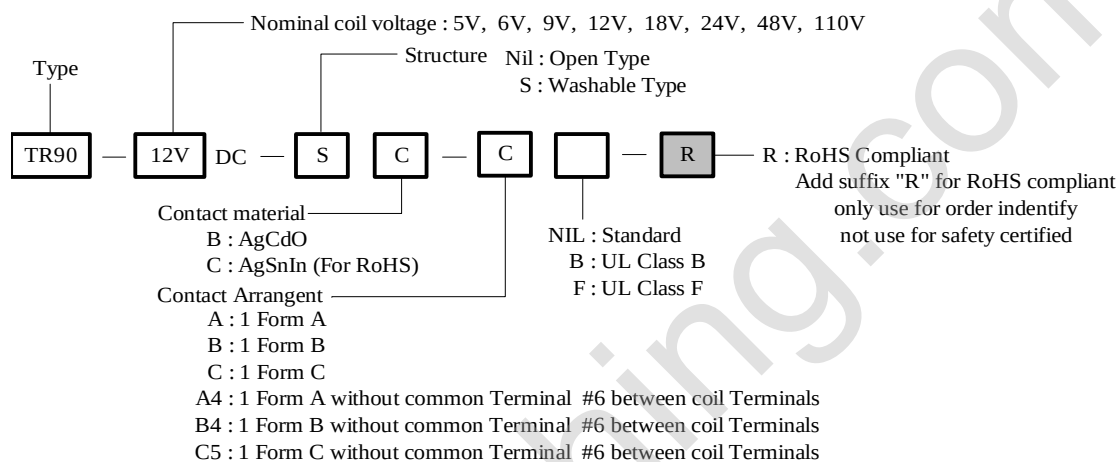
MAIN FEATURES

- Up to 30A switching in SPST and 20A switching in SPDT arrangements.
- Available as an open-frame relay, with an immersion cleanable, plastic sealed case.
- Meet UL F Insulation class.
- UL, cUL and TUV recognized.

APPLICATIONS

- Used for power switching, Electrical Heater, ventilator, Air conditioning, Refrigerating, Automobile and House-hold Appliance.

ORDERING INFORMATION



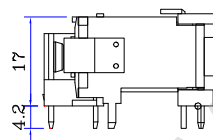
DIMENSION (unit:mm)

DRILLING (unit:mm)

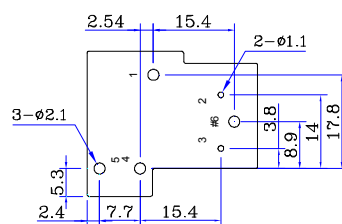
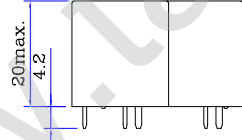
WIRING DIAGRAM

TR90 -A & -B & -C (For UL 508)

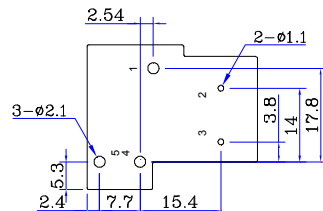
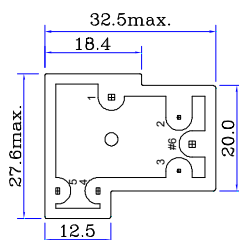
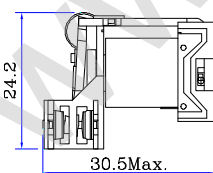
Open Type



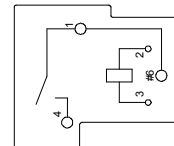
Washable Type



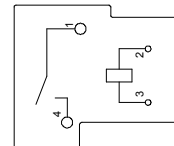
TR90 -A4 & -B4 & -C5 (For UL 873)



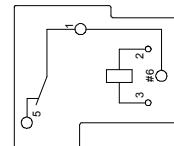
1 Form A



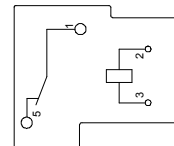
1 Form A4



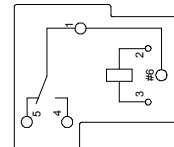
1 Form B



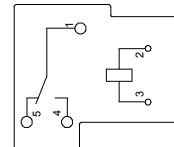
1 Form B4



1 Form C



1 Form C5



NOTE : "#6" This Terminal not present for A4 & B4 & C5 Type (MEET UL873 Spacing)

➤ COIL DATA CHART(at 20℃)

Coil Sensitivity	Nominal Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) $\pm 10\%$	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max-Allowable Voltage (VDC)
TR90	5	185	27	abt. 0.93	80% Max.	10% Max.	120%Max.
	6	150	40				
	9	93	97				
	12	77	155				
	18	47	380				
	24	36	660				
	48	19	2560				
	110	8	13450 $\pm 15\%$				

➤ CONTACT RATING

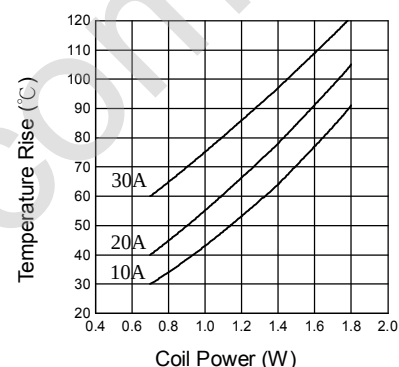
Item	Type	TR90		
		- A / - A4	- C / - C5	
Resistive Load ($\cos\phi=1$) General	UL :			
	40A 240VAC	40A 240VAC	30A 240VAC	20A 277VAC
	30A 277VAC	30A 277VAC		
Motor	TUV : (*B:AgCdO)	TUV : (*B:AgCdO)	TUV : (*B:AgCdO)	TUV : (*B:AgCdO)
	40A/240VAC 14VDC	40A/240VAC 14VDC	30A/240VAC 14VDC	30A/240VAC 14VDC
Tungsten	2HP 250VAC	2HP 250VAC	1.5HP 250VAC	-
	TV-5	TV-5		

➤ PERFORMANCE (at initial value)

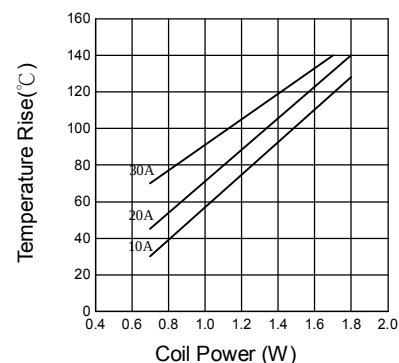
Item	Type	TR90	
		UL508	UL873
Contact Resistance		100m Ω Max.	
Operation Time		15msec Max.	
Release Time		10msec Max.	
Dielectric Strength			
Between coil & contact		1500VAC 50/60HZ (1 minute)	2500VAC
Between contacts		1500VAC	
Insulation Resistance		10 M Ω Min. (500VDC)	
Max. ON/OFF Switching			
Mechanically		300 operation/min	
Electrically		30 operation/min	
Operating Ambient Temperature		-55°C to +85°C (operating) -55°C to +155°C (storage)	
Operating Humidity		45% to 85% RH	
Coil Temperature Rise		60 deg. Max.	
Vibration			
Endurance		10 to 55Hz Double Amplitude 1.5mm	
Error Operation		10 to 55Hz Double Amplitude 1.5mm	
Shock			
Endurance		100 m/sec ² (abt. 100g's)	
Error Operation		10 m/sec ² (abt. 10g's)	
Life Expectancy			
Mechanically		1×10^7	
Electrically		1×10^5	
Weight		abt. 22grs, 28grs(SEALED)	
UL & CUL		E156406	
TUV		R50036670	

➤ REFERENCE DATA

OPEN-STYLE RELAY,
NO DUST COVER



SEALED RELAY



This datasheet for reference and subject to change without notice. Please double check final specification with Tai-Shing.
(0939AA08VOL01)