



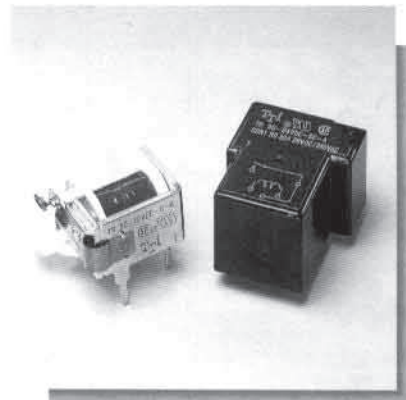
TR90

MAIN FEATURES

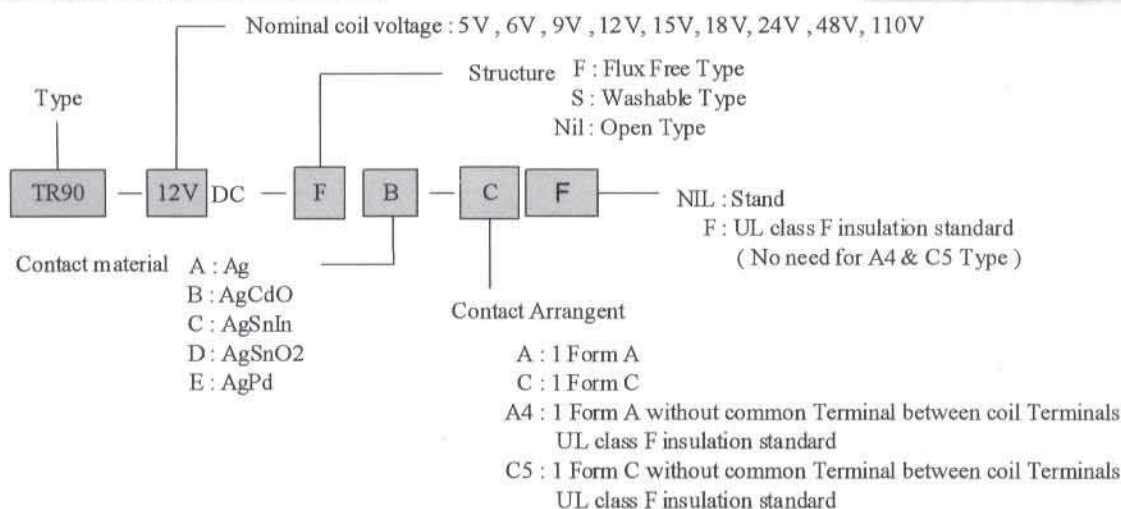
- Up to 30A switching in SPST and 20A switching in spot arrangements.
- Available as an open-frame relay, with a snap-on dust cover or with an immersion cleanable, plastic sealed case.
- Meet UL F Insulation class.

APPLICATIONS

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



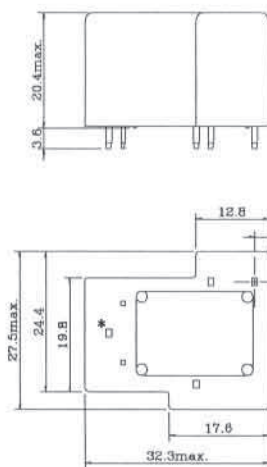
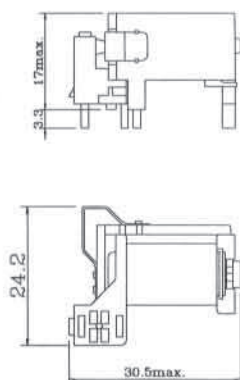
ORDERING INFORMATION



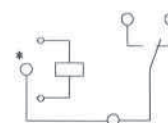
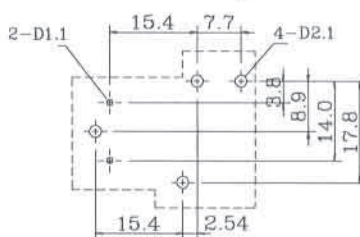
DIMENSION (unit:mm)

DRILLING (unit:mm)

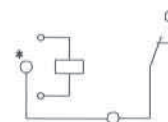
WIRING DIAGRAM



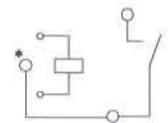
TR90-A & TR90-C (For UL 508)



(1 Form C)

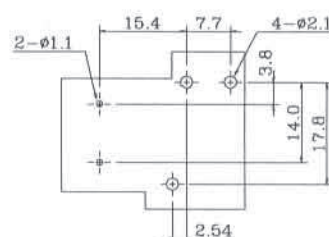


(1 Form B)



(1 Form A)

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



NOTE : " * " This Terminal not present for A4 & C5 Type (MEET ul873 Spacing).

■ COIL DATA CHART (AT20°C)

Coil Sensitivity	Coil Voltage Code	Nominal 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	05	5	185	27	abt. 0.93W	80% Max.	10% Max.	120%Max.
	06	6	150	40				
	09	9	93	97				
	12	12	77	155				
	15	15	59	256				
	18	18	47	380				
	24	24	36	660				
	48	48	19	2560				
	110	110	8	13450				

■ CONTACT RATING

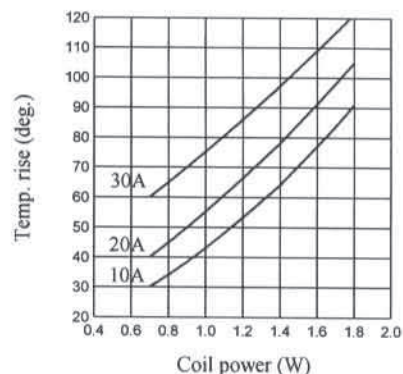
Type	TR90			
	FORM A	FORM B	FORM C	
Item			N/O	N/C
Resistive Load (cos Φ =1)	240VAC 30A	240VAC 15A	240VAC 20A	240VAC 10A
General	28VDC 30A	28VDC 10A	28VDC 20A	28VDC 10A
Motor	240VAC 2HP	240VAC 0.5HP	240VAC 2HP	240VAC 0.5HP
	120VAC 1HP	120VAC 0.25HP	120VAC 1HP	120VAC 0.25HP
Tungsten	TV-5	TV-3	TV-5	TV-3
Ballast	277VAC 10A	277VAC 3A	277VAC 10A	277VAC 3A
LRA/FLA	240VAC 80/30	240VAC 30/10	240VAC 50/20	2440VAC 20/7

■ PERFORMANCE (at initial value)

Type	TR90
Item	
Contact Resistance	100m Ω Max.
Operate Time	15msec Max.
Release Time	15msec Max.
Dielectric Strength	
Between coil & contact	1500VAC 50/60HZ (1 minute)
Between contacts	1500VAC
Insulation Resistance	10 M Ω Min. (DC500V)
Max. ON/OFF Switching	
Mechanically	300 operation/min
Electrically	30 operation/min
Operating Ambient Temperature	-55° to +85°C (operating) -55° 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	10 $\times$ 10 ⁶
Electrically	10 $\times$ 10 ⁴
Weight	abt. 22grs, 28grs(SEALED)
UL File No.	E156406
CSA File No.	700159
TUV File No.	

■ REFERENCIAL DATA

OPEN-STYCLE RELAY, NO DUST COVER



SEALED RELAY

