

TR93

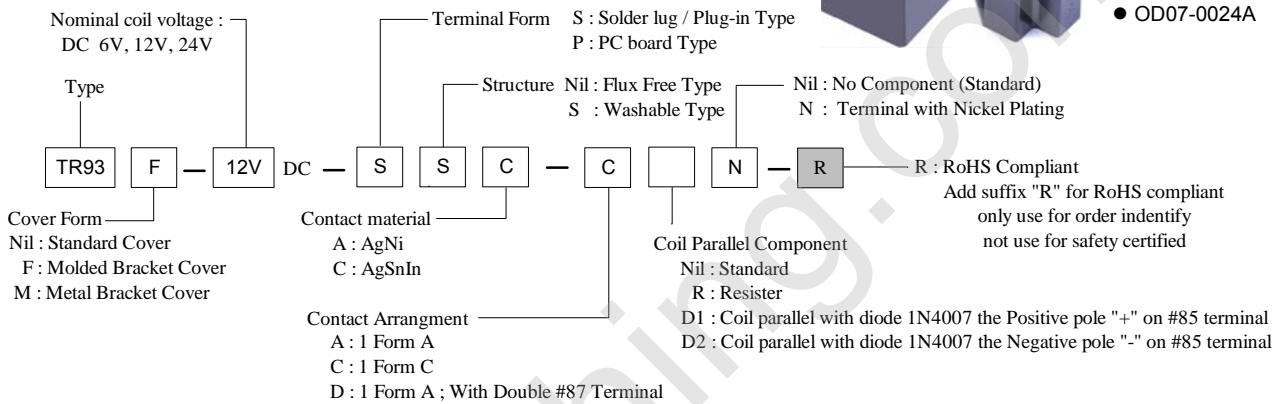
MAIN FEATURES

- Small size, heavy duty, capable of 40A.
- Low contacts voltage drop ($\leq 3\text{mV/A}$), reduce circuit consumption and contacts noise.
- Contact structure, performance reliable, with plug-in pins, bracket model available, handle with ease.

APPLICATIONS

- Car compressor, light, starter, horn. Automatic devices, communication equipment, control and switch circuit, etc.

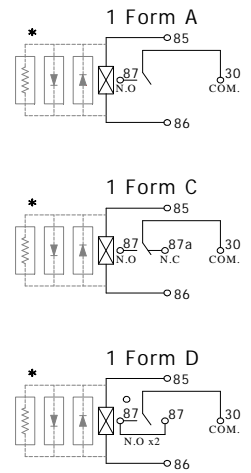
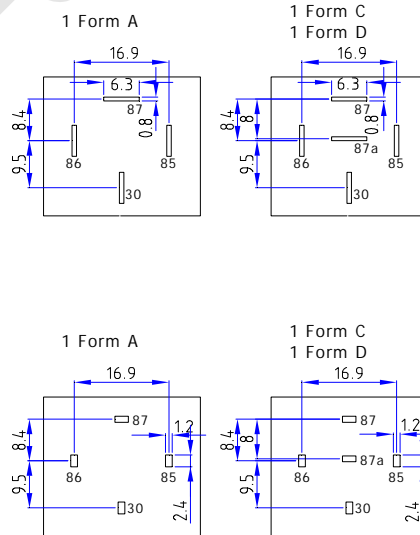
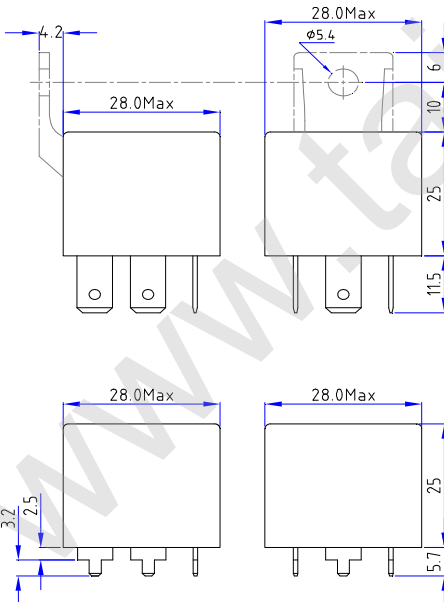
ORDERING INFORMATION



DIMENSION (unit:mm)

DRILLING (unit:mm)

WIRING DIAGRAM



➤ **COIL DATA CHART**(at 20°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)
TR93	6	6	267	22	abt. 1.6	65% Max.	10% Min.	150% but for short time carrying current
	12	12	134	90				
	24	24	67	360				

➤ **CONTACT RATING**

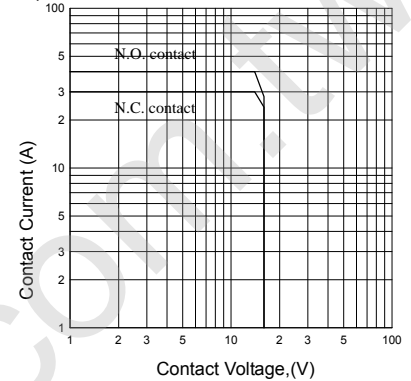
Item	Type	TR93			
		1 Form A	1 Form D	1 Form C	
				N.O.	N.C
Contact Capacity					
Resistive Load $\cos\phi=1$		40A14VDC	2x20A14VDC (N/O x 2)	40A14VDC	30A 14VDC
Max. Carrying Current		30A		40A	30A
Max. Make Current		120A		60A	40A
Max. Break Current		40A		30A	30A
Initial Voltage Drop		200mV (at 40A)		200mV (at 10A)	200mV (at 10A)
Min. Load		0.1A 12VDC			
Contact Material		Ag Alloy			

➤ **PERFORMANCE** (at initial value)

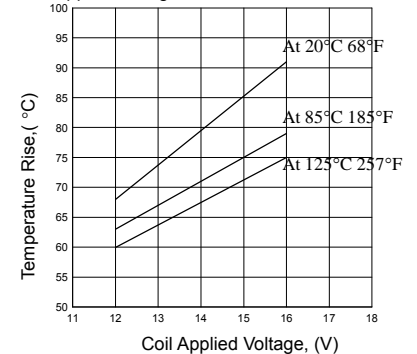
Item	Type	TR93
Contact Resistance		100m Ω Max.
Operation Time		15msec Max.
Release Time		15msec Max.(type with diode inside : 20msec Max.)
Dielectric Strength		
Between coil & contact		500VAC 50/60Hz (1 minute)
Between contacts		500VAC 50/60Hz (1 minute)
Insulation Resistance		100 M Ω Min .(500VDC)
Max. ON/OFF Switching		
Mechanically		300 operation/min
Electrically		30 operation/min
Operating Ambient Temperature		-40°C to +80°C(No water drop condensation)
Operating Humidity		45% to 85% RH
Coil Temperature Rise		60 deg. Max. (at rated coil voltage)
Vibration		
Endurance		10 to 55Hz Double Amplitude 1.5mm
Error Operation		10 to 55Hz Double Amplitude 1.5mm
Shock		
Endurance		980m/s ² .
Error Operation		98m/s ² .
Life Expectancy		
Mechanically		1×10^7
Electrically		1×10^5 for 1 Form A 3×10^4 for 1 Form C
Weight		abt. 34grs.

➤ **REFERENCE DATA**

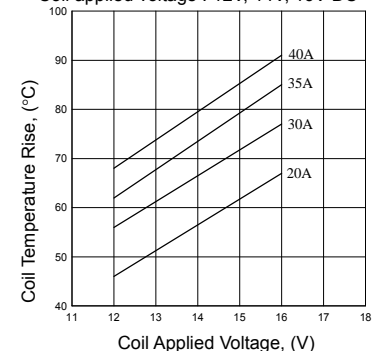
1. Maximum value for switching capacity No. of operations : 10^5



2-(1). Coil temperature rise (resistive)
Ambient temperature : 20°C, 85°C, 125°C
68°F, 185°F, 257°F
Contact carrying current : 40A
Coil applied voltage : 12V, 14V, 16V DC



2-(1). Coil temperature rise (resistive)
Ambient temperature : 20°C, 68°C
Contact carrying current : 20A,30A,35A,40A
Coil applied voltage : 12V, 14V, 16V DC



This datasheet for reference and subject to change without notice. Please double check final specification with Tai-Shing. (1010AA08VOL01)