



# TR91

## MAIN FEATURES

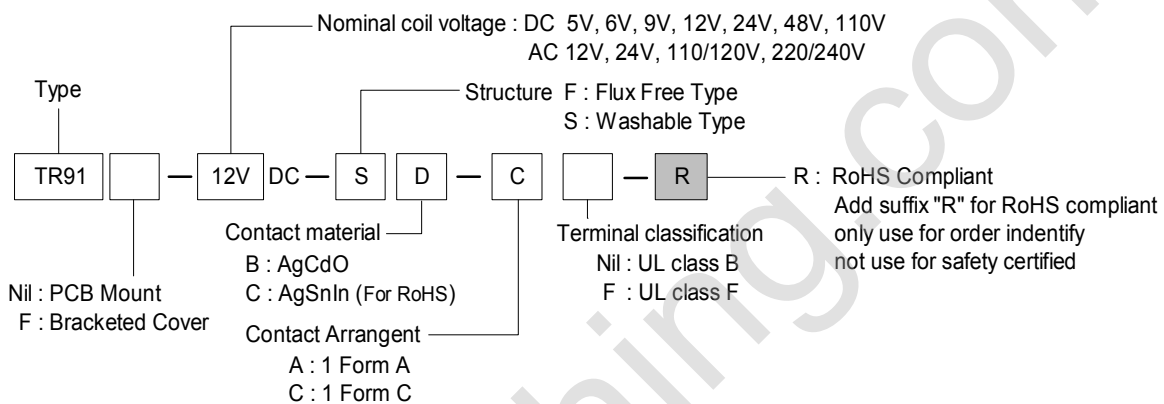
- Up to 30A switching in SPST and 20A switching in SPDT arrangements.
- Available as an open-frame relay, with a snap-on dust cover or with an immersion cleanable, plastic sealed case.
- Meets UL508 and UL873 spacing requirements.
- Available with UL class B & class F Insulation materials.
- UL & cUL recognized.



## APPLICATIONS

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

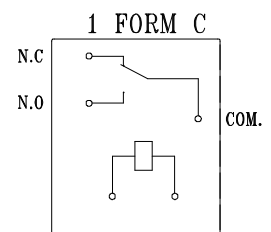
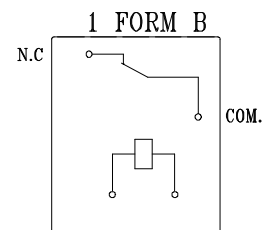
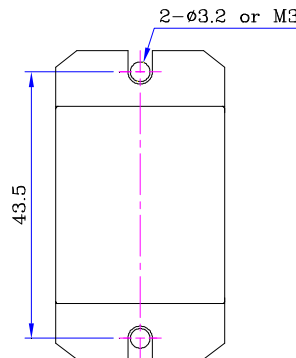
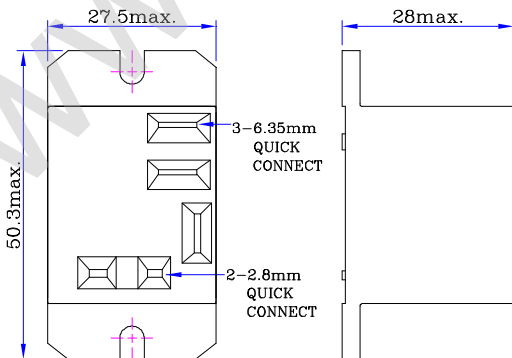
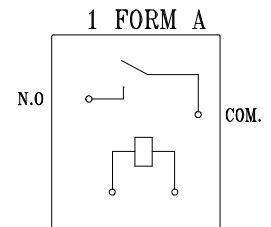
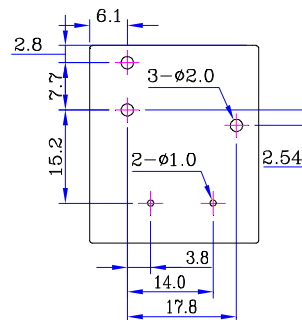
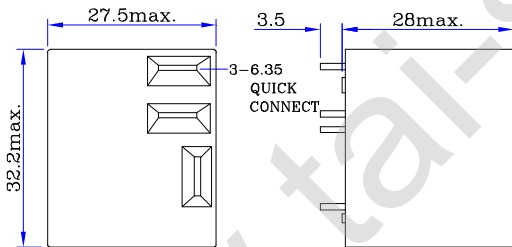
## ORDERING INFORMATION



## DIMENSION (unit:mm)

## DRILLING (unit:mm)

## WIRING DIAGRAM



➤ **COIL DATA CHART**(at 20°C)

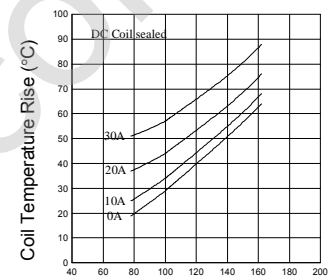
Coil Sensitivity	Coil Nominal Voltage	Nominal Current	Coil Resistance	Power Consumption	Pull-In Voltage	Drop-Out Voltage	Max-Allowable Voltage	
TR91	DC Type	<b>Vdc</b>	<b>mA</b>	<b>Ω ± 10%</b>	<b>W</b>	<b>Vdc</b>	<b>Vdc</b>	
		5	185	28	abt. 0.9	75% Max.	10% Max.	110%
		6	150	40				
		9	93	90				
		12	77	160				
		24	36	640				
		48	19	2560				
		110	8	13445				
	AC Type	<b>Vac</b>	<b>mA</b>	<b>Ω ± 10%</b>				
		12	167	27	abt. 2.0	75% Max.	30% Max.	110%
		24	83	120				
		110	19	2360				
		120	17	3040				
		220	9.5	13490				

➤ **CONTACT RATING**

Item	Type	TR91		
		1 Form A	1 Form C	
			N/O	N/C
UL/CUR		40A 240VAC 2HP 250/277VAC	40A 240VAC 2HP 250/277VAC	30A 240VAC 30A 30VDC 1.5HP 250VAC
Switching Voltage (Max.)		250VAC / 30VDC		
Switching Voltage (Max.)		40A	40A	30A
Switching Power (Max.)		7200VA / 1100W	4800VA / 720W	2400VA / 360W

➤ **USEFUL CURVES**

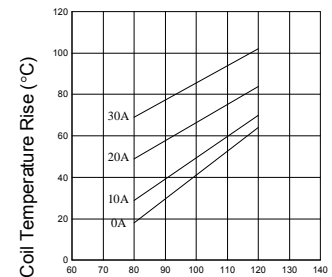
DC Coil Sealed



Coil Voltage (% of Nominal Voltage)

➤ **PERFORMANCE** (at initial value)

Item	Type	TR91
Contact Resistance		100mΩ Max.
Operation Time		DC : 15msec Max. / AC : 20msec Max.
Release Time		DC : 10msec Max. / AC : 15msec Max.
Dielectric Strength		1500VAC 50/60Hz (1 minute)
Between coil & contact		1500VAC
Between contacts		1500VAC
Insulation Resistance		1000 MΩ Min. (500VDC)
Max. ON/OFF Switching		300 operation/min
Mechanically		30 operation/min
Electrically		
Operating Ambient Temperature		-55°C to +85°C (operating) -55°C to +155°C (storage)
Operating Humidity		45% to 80% RH
Coil Temperature Rise		60 deg. Max.
Vibration		10 to 55Hz Double Amplitude 1.5mm
Endurance		10 to 55Hz Double Amplitude 1.5mm
Error Operation		
Shock		1000 m/sec (abt. 100g's)
Endurance		100 m/sec (abt. 10g's)
Error Operation		
Life Expectancy		1 × 10 <sup>7</sup>
Mechanically		1 × 10 <sup>5</sup>
Electrically		
Weight		abt. 33grs.
UL & cUL		E156406



Coil Voltage (% of Nominal Voltage)

This datasheet for reference and subject to change without notice. Please double check final specification with Tai-Shing. (0944AA08VOL01)