



TR91

MAIN FEATURES

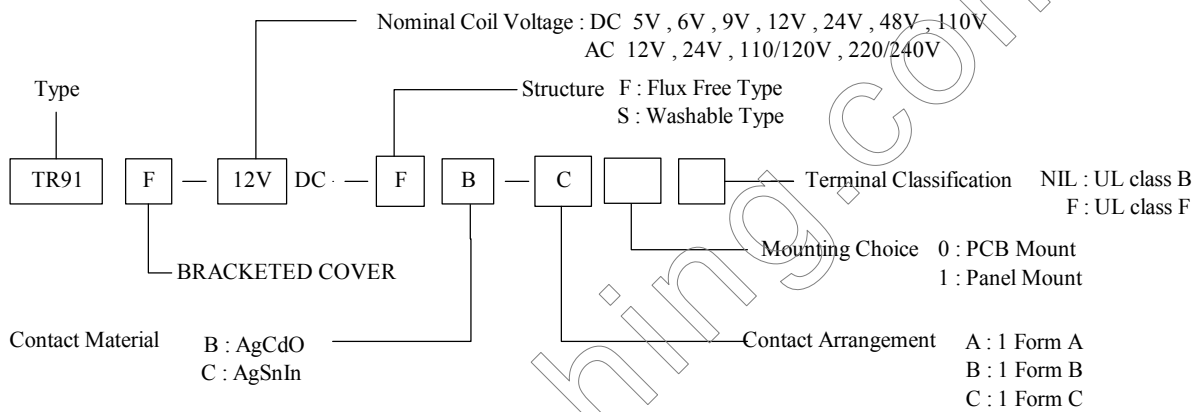
- Up to 30A switching in SPST and 20A switching in SPDT arrangements.
- Available as an open-frame relay, with a snap-on dust cover or with an immersion cleanable, plastic sealed case.
- Meets UL508 and UL873 spacing requirements.
- Available with UL class B & class Insulation materials.



APPLICATIONS

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

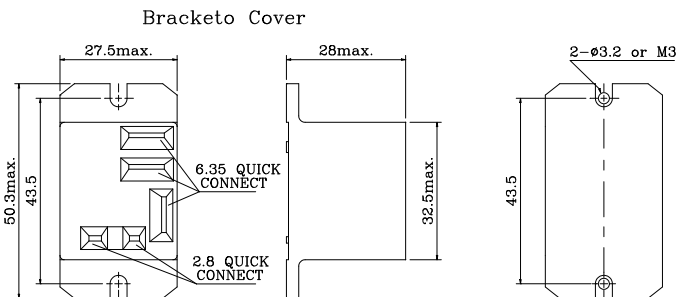
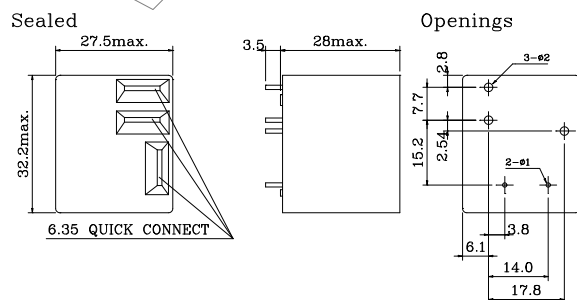
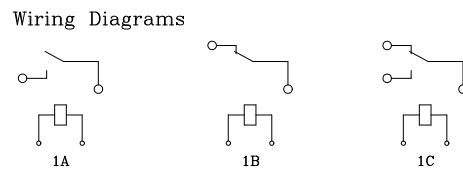
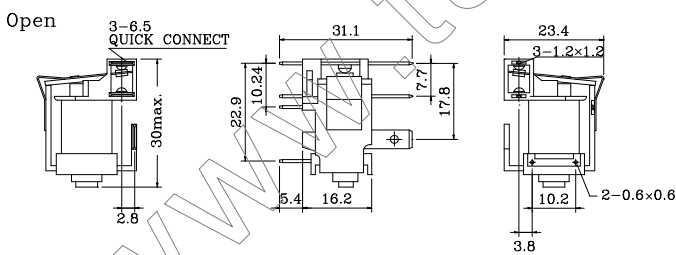
ORDERING INFORMATION



DIMENSION (unit:mm)

DRILLING (unit:mm)

WIRING DIAGRAM



■ COIL DATA CHART (AT20°C)

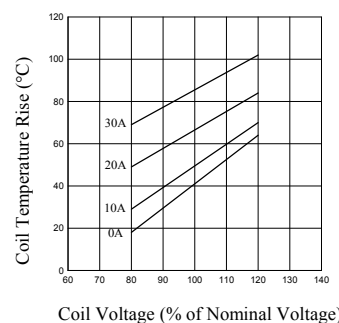
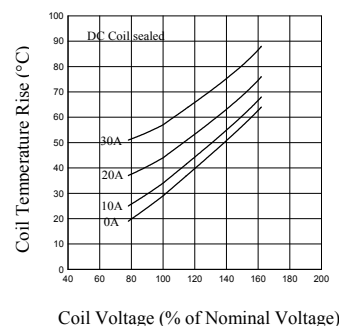
Coil Sensitivity	Coil Voltage Code	Nominal Voltage	Nominal Current (mA)	Coil Resistance	Power Consumption	Pull-In Voltage	Drop-Out Voltage	Max-Allowable Voltage
TR91	DC Type (at 20°C)							
	VDC	VDC	mA	$\Omega \pm 10\%$	VA	VDC	VDC	VDC
	05	5	185	27	abt. 0.93	75%Max.	10%Max.	110%
	06	6	150	40				
	09	9	93	97				
	12	12	77	155				
	24	24	36	660				
	48	48	19	2560				
	110	110	8	10330				
	AC Type (at 20°C)							
	VAC	VAC	mA	$\Omega \pm 10\%$	VA	VAC	VAC	VAC
	12	12	167	26	abt. 2.0	85%Max.	15%Max.	110%
	24	24	83	106				
	110/120	110/120	19/17	2300/2950				
220/240	220/240	9.5/8.3	8950/13110					

■ CONTACT RATING

Item	Type	TR91			
		FORM A	FORM B	FORM C	
				N/O	N/C
Resistive Load (cosΦ=1)		30A 240VAC 30A 28VDC	15A 240VAC 10A 28VDC	20A 240VAC 20A 28VDC	10A 240VAC 10A 28VDC
General Motor		240VAC 2HP 120VAC 1HP	240VAC 0.5HP 120VAC 0.25HP	240VAC 2HP 120VAC 1HP	240VAC 0.5HP 120VAC 0.25HP
Tungsten		TV-5	TV-3	TV-5	TV-3
Ballast		10A 277VAC	3A 277VAC	10A 277VAC	3A 277VAC
LRA/FLA		240VAC 80/30	240VAC 30/10	240VAC 50/20	2440VAC 20/7

■ USEFUL CURVES

DC Coil Sealed



■ 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	Between coil & contact Between contacts	2500VAC 50/60HZ (1 minute) 1500VAC
Insulation Resistance		1000 MΩ Min. (500VDC)
Max. ON/OFF Switching	Mechanically Electrically	300 operation/min 30 operation/min
Operating Ambient Temperature		-55° to +85°C (operating) -55° to +155°C (storage)
Operating Humidity		45 to 80% RH
Coil Temperature Rise		60 deg. Max.
Vibration	Endurance Error Operation	10 to 55HZ Double Amplitude 1.5mm 10 to 55HZ Double Amplitude 1.5mm
Shock	Endurance Error Operation	1000 m/sec (abt. 100g's) 100 m/sec (abt. 10g's)
Life Expectancy	Mechanically Electrically	10×10^6 10×10^4
Weight		abt. 33grs.
UL File No.		E156521
CSA File No.		LR700159