TR81

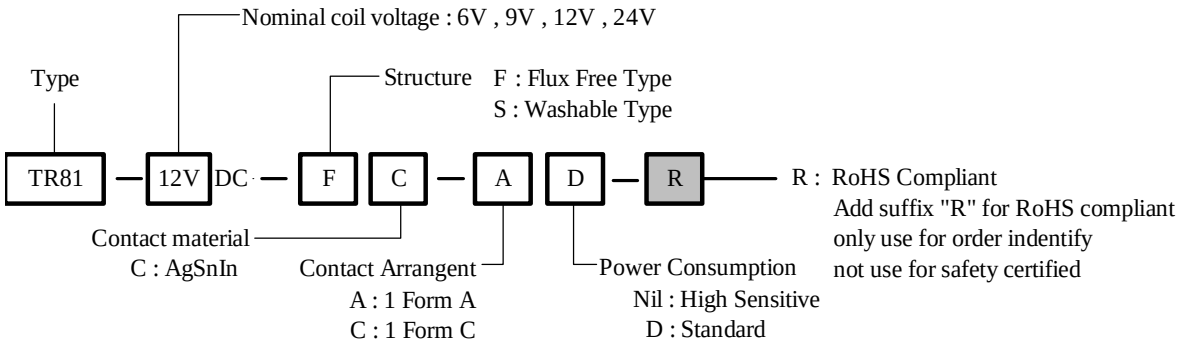
➢ MAIN FEATURES

- Subminiature, Light Weight
- Big Gap Type Available for Heavy Motor Load Switching
- Improved Resistance to Shock and Vibration
- High Contact Current Capacity
- Automotive-Oriented design

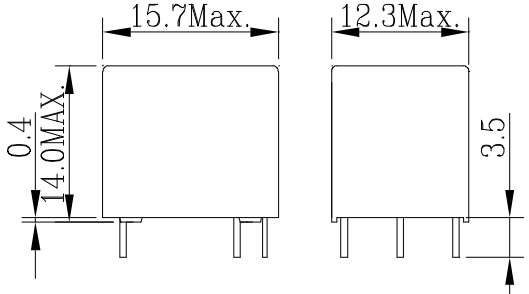
➢ APPLICATIONS

- Interval Wipers
- Door Lock
- Window Lifter
- Alarm System
- Wiper Motor Reverse
- Automatic Mirror Adjustment
- Fuel Pump Control
- Belt Tension Adjustment

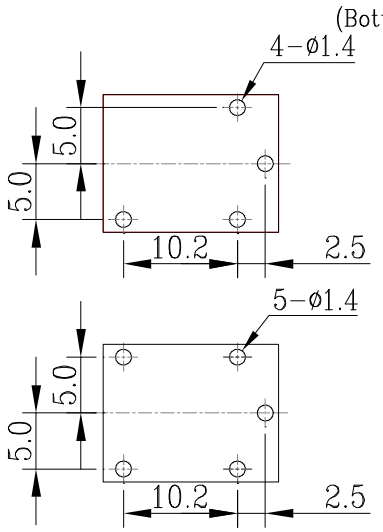
➢ ORDERING INFORMATION



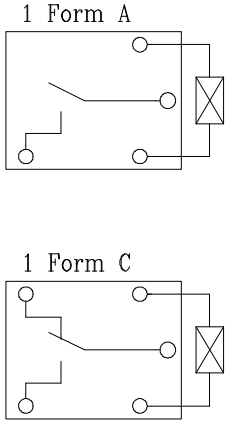
■ DIMENSION(unit:mm)



■ DRILLING(unit:mm)



■ WIRING DIAGRAM



➢ COIL DATA CHART *(at 20℃)*

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max-Allowable Voltage (VDC)
TR81 (High Sensitivity)	6	100	60	abt. 0.6	80% Max.	5% Min.	110%
	9	66.7	135				
	12	50	240				
	24	25	960				
TR81 –D (Standard)	6	133.3	45	abt. 0.8	80% Max.	5% Min.	110%
	9	90	100				
	12	66.7	180				
	24	33.3	720				

➢ CONTACT RATING

Item \ Type	TR81 (High Sensitivity)	TR81 –D (Standard)
Contact Capacity Resistive Load (cosΦ=1)	N/O : 20A 14VDC , 10A 120VAC N/C : 15A 14VDC , 10A 120VAC	20A 14VDC
Inductive Load (cosΦ=0.4 L/R=7msec)	6A 14VDC	
Rated Carrying Current	25A/hr	
Max. Allowable Voltage	250VAC 30VDC	
Max. Allowable Current	20A	
Max. Allowable Power Force	1200VA 280W	
Referenced Min. Applicable Load	10mA, 5VDC	
Contact Material	Ag Alloy	

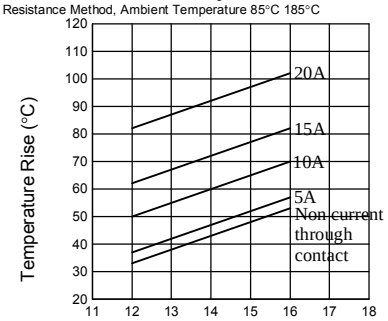
➢ PERFORMANCE *(at initial value)*

Item \ Type	TR81
Contact Resistance	100mΩ Max.
Operation Time	10msec
Release Time	5msec
Dielectric Strength Between coil & contact Between contacts	 500VAC 50/60Hz (1 minute) 500VAC 50/60Hz (1 minute)
Surge Resistance	1500V
Insulation Resistance	100 MΩ Min. (at 500VDC)
Max. ON/OFF Switching Mechanically Electrically	 300 operation/min 30 operation/min
Operating Ambient Temperature	-40°C to +85°C (No water condensation and no water drop)
Operating Humidity	45% to 85% RH
Coil Temperature Rise	40 deg. Max. (at rated coil voltage)
Vibration Endurance Error Operation	 10 to 55Hz Double Amplitude 1.5mm 10 to 55Hz Double Amplitude 1.5mm
Shock Endurance Error Operation	 100G Min. 10G Min.
Life Expectancy Mechanically Electrically	 1×10^7 ops. Min. (no load) 1×10^5 ops. Min.
Weight	abt. 6grs.

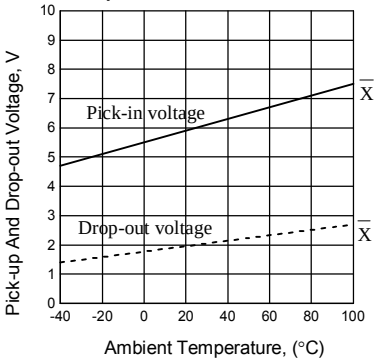
➢ REFERENCE DATA

1. Coil Temperature Rise

Point Measured : Inside The Coil
Contact Current : Now Current Through Contact. 5A,10A,15A,20A
Resistance Method, Ambient Temperature 85°C 185°C



2. Ambient Temperature Characteristics



3. Electrical Life Test (at rated load)

Quankty : n=6(NC=3, NO=3)
Load : Resistive Load (NC side 2A 14VDC
NO side 5A 14VDC)
Operating Frequency : ON 1.5sec. OFF 1sec.
Contact Welding : 0 time
Misconduct : 0 time