

General Purpose Relay

TA,TR Series

Part Number Description

T ① - 1a - ②

① Terminals Distance	A : 5.08mm	R : 7.62mm	
② Coil Voltage	05V : 5VDC	12V : 12VDC	24V : 24VDC

General Specification

Contact Ratings	Contact Form	1N/O	
	Contact Material	Ag alloy (24K gold plate)	
	Maximum Contact Resistance	30mΩ	
	Rated Current(Resistance Load)	5A 30VDC	5A 250VAC
	Maximum Switching Current	5A	
	Maximum Contact Capacity	DC : 150W	AC : 1,250VA
	Maximum Rated Voltage	110VDC 250VAC	
	Minimum Switching Current *	1mA 5VDC	
Coil Ratings	Coil Voltage	5VDC 12VDC 24VDC	
	Coil Consumption	120mW, 180mW	
	Minimum Pick Up Voltage	70% of Nominal Voltage	
	Maximum Drop Out Voltage	5% of Nominal Voltage	
	Insulation	Class F 155°C	
General Ratings	Operating Time	Max. 6ms at nominal Voltage	
	Drop-out Time	Min. 3ms at nominal Voltage	
	Insulation Resistance	1,000MΩ min.(at 500VDC)	
	Dielectric Strength	Between Contact Points : 1,000VAC rms 1 minute Between Contact Points and Coil : 2,000VAC rms 1 minute	
	Surge Voltage	Between Contact Points and Coil : 4,000V	
	Life Cycle	Mechanical	Min. 10,000,000
		Electrical	Min. 100,000 (Under Rated Load)
	Vibration	Malfunction	Min. 147m/s ² (15G), 10 ~ 55Hz (width of vibration : 2.5mm)
	Resistance	Destruction	Min. 205.8m/s ² (21G), 10 ~ 55Hz (width of vibration : 3.5mm)
	Shock	Malfunction	Min. 15G (147m/s ²)
	Resistance	Destruction	Min. 100G (980m/s ²)
	Ambient Temperature	-40 ~ +70°C (with no icing)	
	Ambient Humidity	5% ~ 85% RH	
	Weight	Approx. 3g	

☞ Please refer to the attention section.

☞ Specifications and materials can be changed without prior notice for the enhancement of the quality.

* The minimum switching current is indicated as a standard value. The actual minimum switching rate is variable factor according to the make and break frequency, environmental condition and anticipated credibility level. Therefore, it is recommended that tests be done to test actual load value before the production process.

Product Selection

	Terminals Distance	Socket	Rated Voltage	Part Number	Terminals Distance	Socket	Rated Voltage	Part Number
	5.08mm	 TAS	5VDC	TA-1a 5V	7.62mm	 TRS	5VDC	TR-1a 5V
			12VDC	TA-1a 12V			12VDC	TR-1a 12V
			24VDC	TA-1a 24V			24VDC	TR-1a 24V



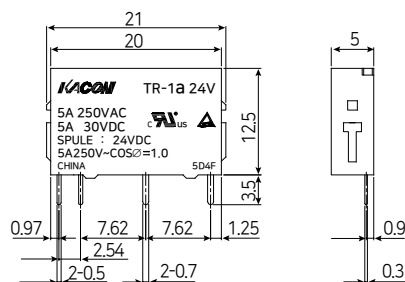
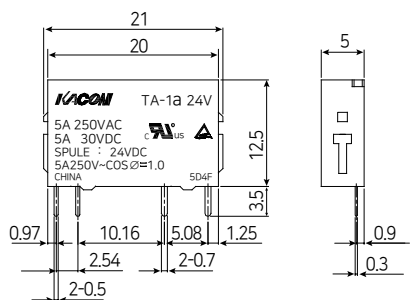
Dimension

unit : mm

Relay

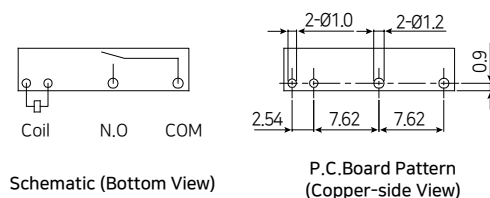
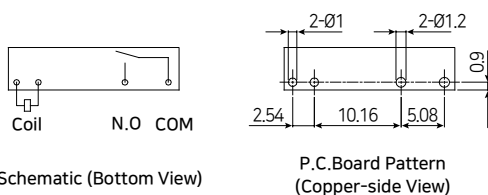
TA-1a

TR-1a



General Tolerance : ± 0.3

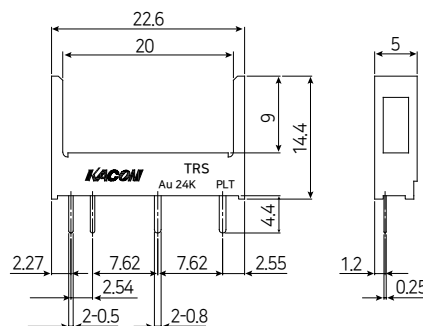
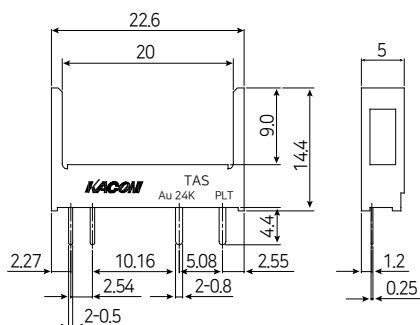
General Tolerance : ± 0.3



Socket

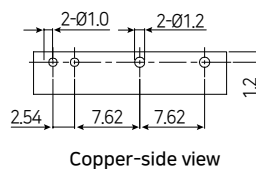
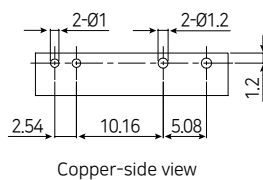
TAS (Socket for TA Relay)

TRS (Socket for TR Relay)



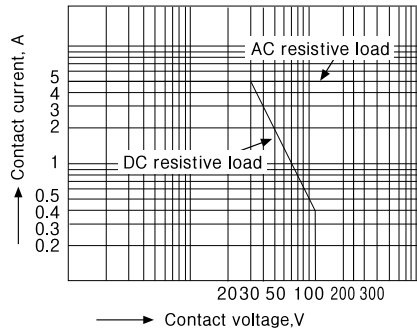
General Tolerance : ± 0.3

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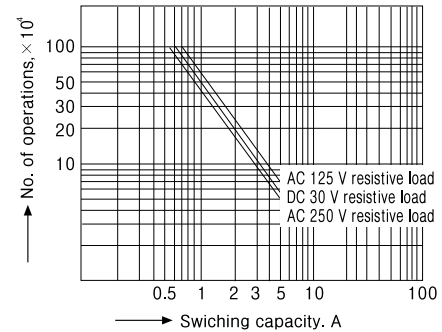


Technical Data

1. Maximum Contact Capacity

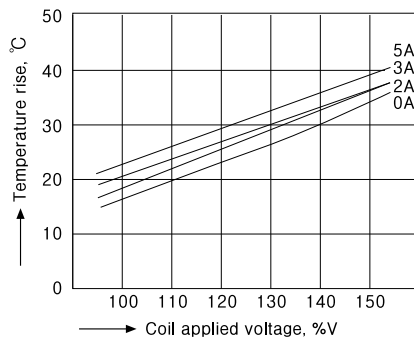


2. Life Cycle Curve



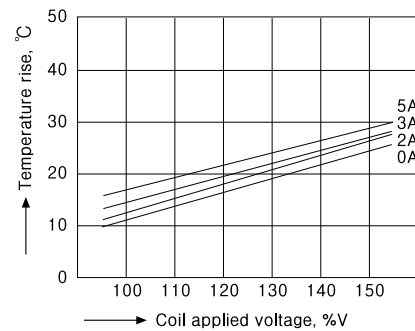
3. (1) Coil Temperature Rise (120mW)

Model : TA-1a 12V
Ambient temperatures : 20°C
Measured area : inner coil



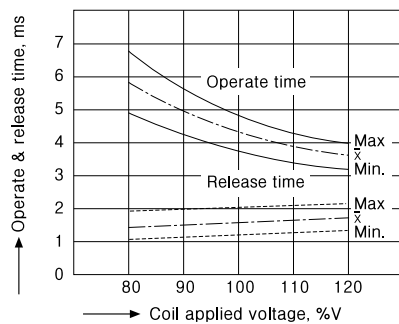
3. (2) Coil Temperature Rise(180mW)

Model : TA-1a 24V
Ambient temperatures : 20°C
Measured area : inner coil



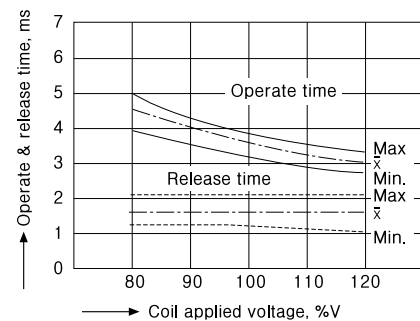
4. (1) Operating Time and cut-off (120mW)

Model : TA-1a 12V



4. (2) Operating Time and cut-off (180mW)

Model : TA-1a 24V



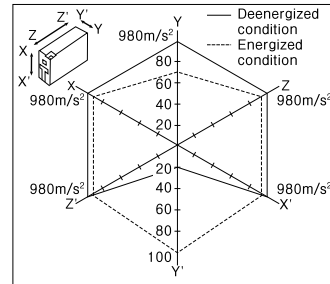
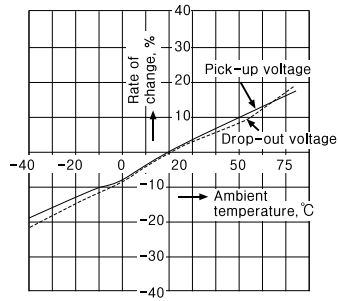
1) Relay installation must be towards same direction

2) Coil terminal polarity must be towards same direction

Technical Data

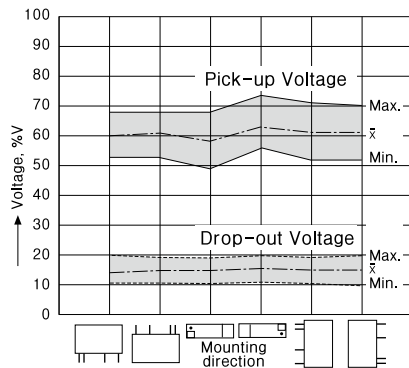
5. Specifications of
the ambient temperature
Model : TA-1a 12V

6. Failure shock

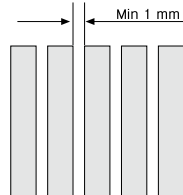


Caution

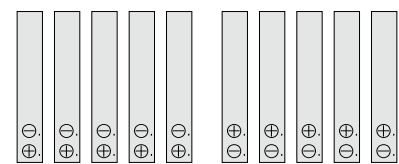
1. The operating voltage specification of Relay
according to method of relay attachment is as follows



2. When installing relay within 1mm close range,
please pay attention to the followings.



1) Relay installation
must be
towards same
direction



2) Coil terminal polarity must be
towards same direction