



## INDUSTRIAL RELAYS

UL & CUL File #E223388

### FEATURES

- 2 transfer contact configuration.
- Small size and light weight for high density PCB mounting.
- 150mW type available.

### TYPICAL APPLICATIONS

Telecommunications Equipment, Office Equipment, Medical Equipment, Computer Peripherals, Security Alarm System.

### ORDERING INFORMATION

**TY** -S -2 12 D -F -XX

(1) (2) (3) (4) (5) (6) (7)

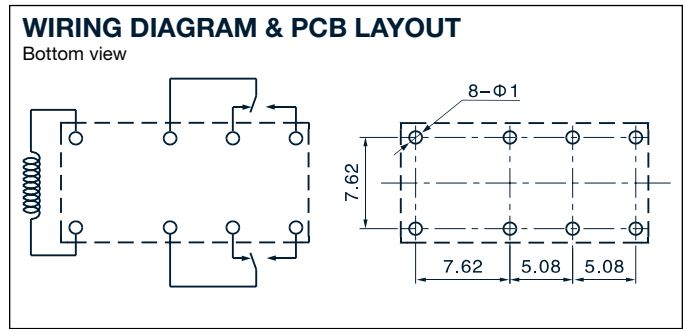
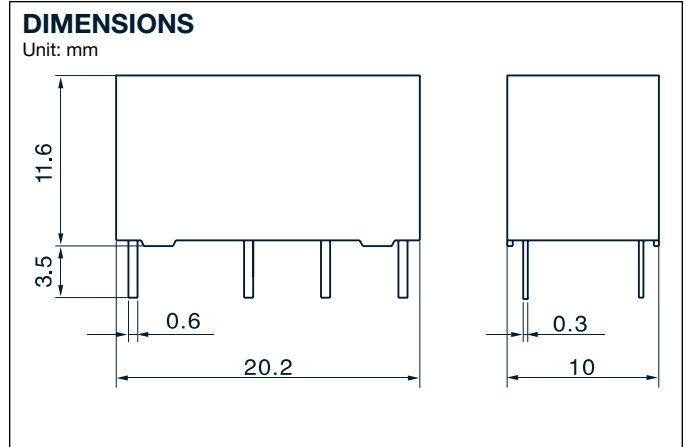
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|---|---|
| <p>(1) <b>Type Designation</b><br/>TY = TY Series</p> <p>(2) <b>Protective Construction</b><br/>S = Flux proofed<br/>SH = Sealed type washable</p> <p>(3) <b>Number of Poles</b><br/>2 = 2 pole</p> <p>(4) <b>Coil Voltage (VDC)</b><br/>03, 05, 06, 09, 12, 15, 24, 48</p> | <p>(5) <b>Coil Power</b><br/>Nil = 0.58W<br/>D = 0.36W<br/>L = 0.20W<br/>H = 0.15W</p> <p>(6) <b>Insulation System</b><br/>Nil = Standard<br/>B = Class B <sup>(1)</sup><br/>F = Class F <sup>(2)</sup></p> <p>(7) <b>Special Parameter</b><br/>Nil = Standard type<br/><b>Letter or Number</b> = Special Requirement</p> |
|---|---|

**Note 1:** Heat resistivity = -40°C to +130°C.

**Note 2:** Heat resistivity = -40°C to +155°C.

### SAFETY APPROVAL RATINGS

Approval File Number	UL/CUL
TY	E223388 1A 120VAC 2A 30VDC



Unless otherwise specified:

If dimension < 1mm, tolerance: ± 0.2mm;

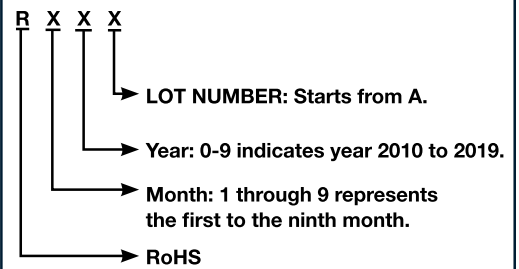
If dimension 1~5mm, tolerance: ± 0.3mm;

If dimension > 5mm, tolerance: ± 0.4mm.

Note: 1. Extended terminal dimension is dimension before soldering.

2. Tolerance of P.C.B. layout: ± 0.1mm.

### DATE CODE DEFINITION





**CHARACTERISTIC DATA**

<b>Contact Material</b>	Silver Alloy	
<b>Initial contact resistance (@ 6VDC 1A)</b>	100mΩ Max.	
<b>Operate time (@ nominal voltage)</b>	6msec. Max.	
<b>Release Time (@ nominal voltage)</b>	4msec. Max.	
<b>Initial insulation resistance</b>	1000M Ω Min. (DC500V)	
<b>Initial dielectric strength</b>	Between open contacts: AC750V, 50/60Hz 1 Min.	
	Between coil and contact: AC1000V, 50/60Hz 1Min.	
<b>Vibration Resistance</b>	<b>Functional</b>	10 ~ 55Hz @ double amplitude of 1.5mm
	<b>Destructive</b>	10 ~ 55Hz @ double amplitude of 1.5mm
<b>Shock Resistance</b>	<b>Functional</b>	20G Min.
	<b>Destructive</b>	100G Min.
<b>Endurance (operations)</b>	<b>Mechanical (@10,800 ops./h)</b>	100,000,000
	<b>Electrical (@1,800 ops./h)</b>	100,000
<b>Ambient Temperature</b>	-40°C to +85°C (no condensation)	
<b>Unit Weight</b>	Approximately 4.6g	

**CONTACT CAPACITY**

Model	Nominal Switching Capacity (res. load)	Max. Switching Current	Max. Switching Voltage	Max. Switching Power
TY	1A 120VAC	2A	125VAC	120VA

**COIL DATA (AT 20°C)**

Nominal Voltage (VDC)	Nominal Operating Current ± 10% (mA)	Coil Resistance ± 10% (Ω)	Max. Allowable Voltage	Pick-up Voltage (Max.)	Drop-Out Voltage (VDC)	Nominal Operating Power
3	50.0	60	7	75% of Nominal Voltage	5% of Nominal Voltage	Approx. 0.15W
5	30.0	167	11.5			
6	25.0	240	13.8			
9	16.6	540	20.8			
12	12.5	960	27.7			
15	10.0	1500	34.6			
24	6.25	3840	55.2			

**COIL DATA (AT 20°C)**

Nominal Voltage (VDC)	Nominal Operating Current ± 10% (mA)	Coil Resistance ± 10% (Ω)	Max. Allowable Voltage	Pick-up Voltage (Max.)	Drop-Out Voltage (VDC)	Nominal Operating Power		
3	66.6	45	6	75% of Nominal Voltage	5% of Nominal Voltage	0.2W		
5	40.0	125	10					
6	33.3	180	12					
9	22.2	405	18					
12	16.6	720	24					
15	13.3	1125	30					
24	8.3	2880	48					
3	120.0	25	4.5					Approx. 0.36W
5	72.0	69	8					
6	60.0	100	10					
9	40.0	225	14.5					
12	30.0	400	18.5					
15	24.0	625	22					
24	15.0	1600	35.5					
48	12.0	4000	56			Approx. 0.58W		

**CHARACTERISTIC CURVES**

