■ SPECIFICATION

Item			LY (C,R) A ( ) (Y,E,V)	LY (A,P) A ( ) (Y,E,V)
Contact Data	Configuration		1 form C (SPDT)	1 form A (SPST-NO)
	Construction		Single	
	Material		Y: $AgSnO_2$ / E: AgNi / V: $AgSnO_2$ + Au plating	
	Resistance (initial)		Y, E: Max. 100 mΩ at 6 VDC, 1 A V: Max. 30 mΩ at 6 VDC, 1A	
	Contact rating		6A, 250VAC / 24VDC (resistive)	
	Max. carrying current		6A	
	Max. switching voltage		250VAC	
	Max. switching power		1,500VA / 144W	
	Min. switching load *		Y, E: 100 mA 5 VDC V: 10mA 5 VDC	
Life	Mechanical		Min. 10 x 10^6 operations	
	Electrical		Min. 50 x 10^3 operations (N.O.) Min. 30 x 10^3 operations (N.C.) at 6A, 250VAC / 24VDC resistive	
Coil Data	Rated power		170 to 217 mW	
	Operate power		74 to 95 mW	
	Operating temperature range		-40 ℃ to +85 ℃ (no frost)	
Timing Data	Operate (at nominal voltage)		Max. 8ms (no diode, without bounce)	
	Release (at nominal voltage)		Max. 4ms (no diode, without bounce)	
Insulation	Resistance (initial)		Min. 1,000MΩ at 500VDC	
	Dielectric strength	Open contacts	1,000VAC (50/60Hz) 1min.,10mA detection current	
		Contacts to coil	4,000VAC (50/60Hz) 1min.,10mA detection current	
	Surge strength	Coil to contacts	6,000V / 1.2 x 50μs standard wave	
	Clearance		Min. 8 mm	
	Creepage		Min. 8 mm	
	EN61810-1, VDE0435	Voltage	250V	
		Pollution degree	3	
		Material group	III a	
		Category	C / 250V	
Other	Vibration resistance	Misoperation	10 to 55 to 10Hz single amplitude 0.5mm	
		Endurance	10 to 55 to 10hz single amplitude 0.75mm	
	Shock	Misoperation	Min. 50m/s² (11 ± 1ms)	Min. 100m/s² (11 ± 1ms)
		Endurance	Min. 1,000m/s² (6 ± 1ms)	
	Weight		Approximately 5 g	
	Sealing		Plastic sealed RTIII	

* Minimum switching loads mentioned above are reference values. Please perform the confirmation test with actual load before production since reference values may vary according to switching frequencies, environmental conditions and expected reliability levels.

■ COIL RATING

Coil Code	Rated Coil Voltage (VDC)	Coil Resistance +/- 10% (Ohm)	Must Operate Voltage (VDC) *	Must Release-Voltage (VDC) *	Rated Power (mW)
005	5	147	3.3	0.25	170
006	6	211	4	0.3	
009	9	476	5.9	0.45	
012	12	847	7.9	0.6	
018	18	1,910	11.9	0.9	
024	24	3,390	15.9	1.2	
048	48	10,600	31.7	2.4	217
060	60	20,570	39.6	3	175

* : Specified operate values are valid for pulse wave voltage
Note 1: All values given in the coil table(s) are valid at 20°C ambient temperature, at zero contactcurrent, without pre-energizing and are specified at pulse wave voltage.
Note 2: When applying a higher than rated coil voltage, please refer to the "coil temperature rise" and "operating range" reference graphs, for the effects on the relay operating behaviour.

■ SAFETY STANDARDS

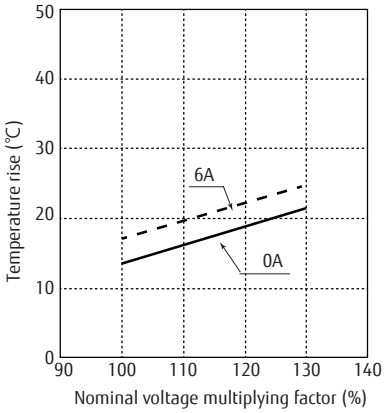
Type	Compliance	Contact rating
UL	UL 508 E63614	Flammability: UL 94-V0 (plastics) 6A, 277 VAC (resistive) 6A, 30 VDC (resistive) 1/10 hp, 277VAC/125VAC 1/8hp, 277VAC/125VAC Pilot duty: D300, C300, R300, B300
CSA	C22.2 No. 14 LR 40304	
VDE	IEC/EN61810-1	6A 250VAC (cosφ=1), 6A 30VDC (0ms) 3 (1.5)A, 250VAC
	EN 60730-1 Clause 12.2, 13.2, 20.1, 20.2, 20.3, 17.5, 17.7, 17.8	
	EN 60335-1 Clause 15.3, 16.3, 29.1, 29.2, 29.3	

Also conform to UL61010-1, UL61010-2-201, IEC/EN61010-1, IEC/EN61010-2-201 (277VAC)

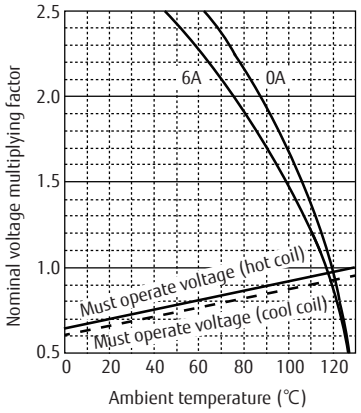
■ CHARACTERISTIC DATA (For reference only)

(Characteristic data is not guaranteed value but measured values of samples from production line.)

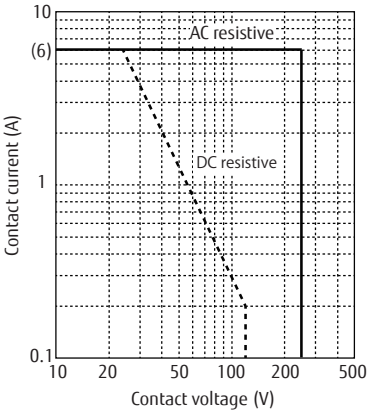
Coil Temperature rise



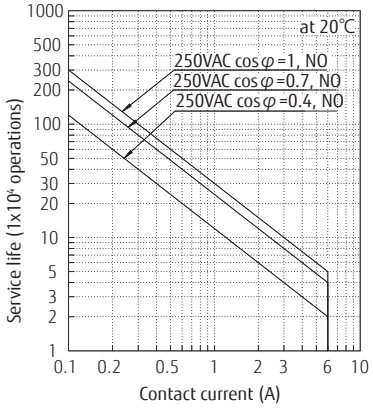
Operating range



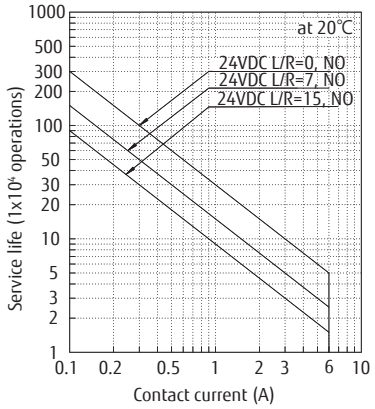
Maximum switching power



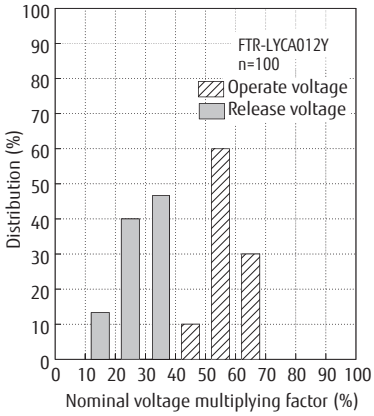
Life curve



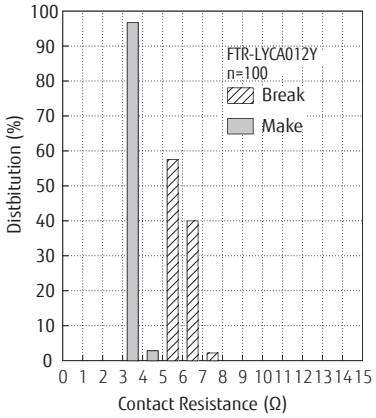
Life curve



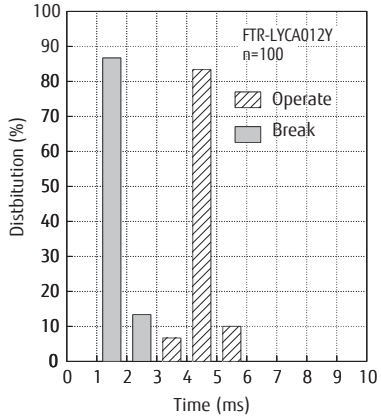
Distribution of operate/release voltage



Distribution of contact resistance

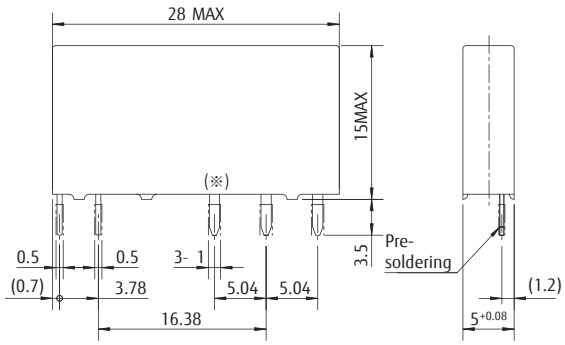


Distribution of operate/release time

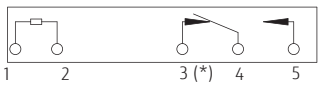


■ DIMENSIONS

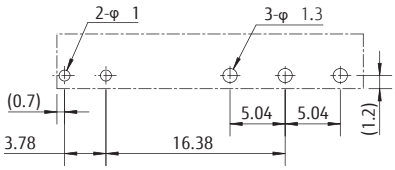
Straight type



Schematics
(BOTTOM VIEW)



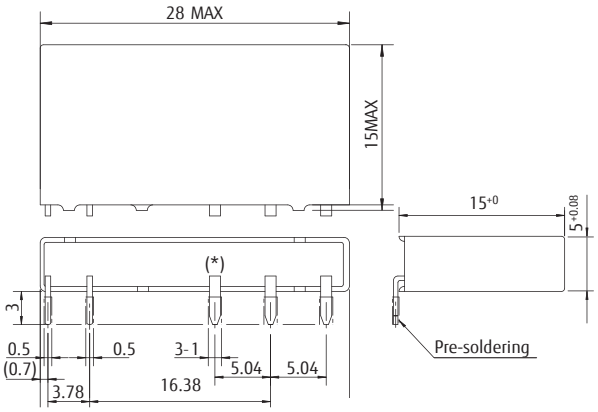
PCB Layout
(BOTTOM VIEW)



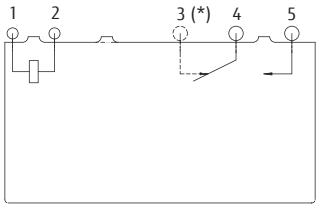
Tolerance: +/-0.1

Right angle type

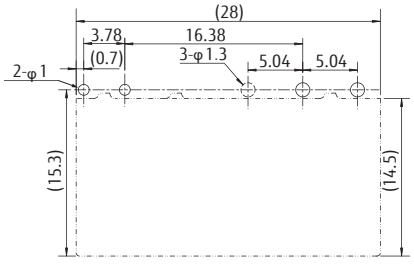
Right angle type



Schematics
(BOTTOM VIEW)



PCB Layout
(BOTTOM VIEW)

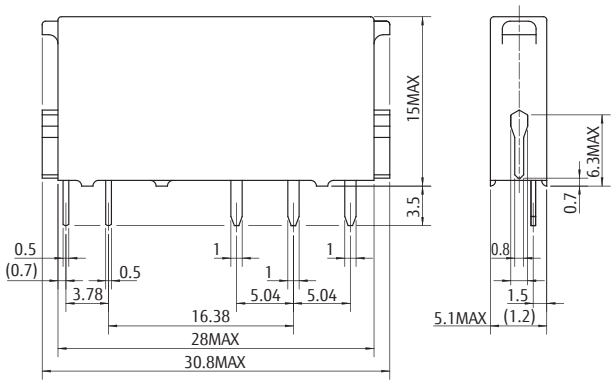


Tolerance: +/-0.1

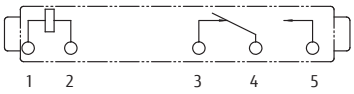
* The terminal marked (*) is not applicable for 1 form A type.
* Dimensions of the terminals do not include thickness of pre-solder.

( ) : Reference value
Unit: mm

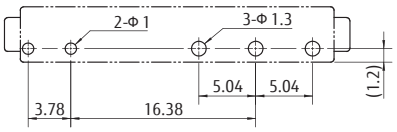
Socket type



Schematics
(BOTTOM VIEW)



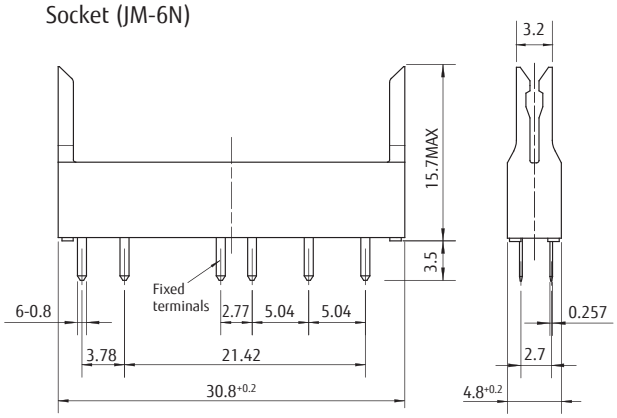
PCB layout
(BOTTOM VIEW)



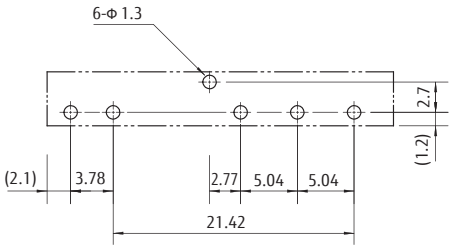
Tolerance: +/-0.1

JM-6N

Socket (JM-6N)



PCB layout
(BOTTOM VIEW)



Tolerance: +/-0.1

* Dimensions of the terminals of JM-6N do not include thickness of pre-solder.

( ): Reference value
Unit: mm

Note: Tolerance of PC board mounting hole layout : ±0.1 unless otherwise specified.
Note: Dimensions of the terminals do not include thickness of pre-solder.
Note: This datasheet provide only + tolerance for outer dimensions.
Please ask for specification in case you need other tolerances.

Cautions

- All values mentioned in this datasheet are provided under ideal conditions. Please perform the confirmation test before actual use.
- Reflow soldering is prohibited.
- Do not use relays in the atmosphere with sulfide gas, chloride gas or nitric oxide. Contact resistance may increase.
- Do not use silicon or silicon-containing product or materials near relays. It may cause contact failure.

RoHS Compliance and Lead Free Information

1. General Information

- All relays produced by Fujitsu Components are compliant with RoHS directive 2011/65/EU including amendments.
- Cadmium as used in electrical contacts is exempted from the RoHS directives. As per Annex III of directive 2011/65/EU.
- All relays are lead-free. Please refer to Lead-Free Status Info for older date codes at: http://www.fujitsu.com/downloads/MICRO/fcai/relays/lead-free-letter.pdf
- Lead free solder plating on relay terminals is Sn-3.0Ag-0.5Cu, unless otherwise specified. This material has been verified to be compatible with PbSn assembly process.

2. Recommended Lead Free Solder Condition

- Recommended solder Sn-3.0Ag-0.5Cu.

Flow Solder Condition:

Pre-heating:	maximum 120˚C within 90 sec
Soldering:	dip within 5 sec. at 255˚C ± 5˚C solder bath

Relay must be cooled by air immediately after soldering

Solder by Soldering Iron:

Soldering Iron:	30-60W
Temperature:	maximum 350-360˚C
Duration:	maximum 3 sec.

We highly recommend that you confirm your actual solder conditions

3. Moisture Sensitivity

- Moisture Sensitivity Level standard is not applicable to electromechanical relays, unless otherwise indicated.

4. Tin Whiskers

- Dipped SnAgCu solder is known as presenting a low risk to tin whisker development. No considerable length whisker was found by our in house test.

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