

POWER RELAY

1 POLE - 6A (Medium Load Control)

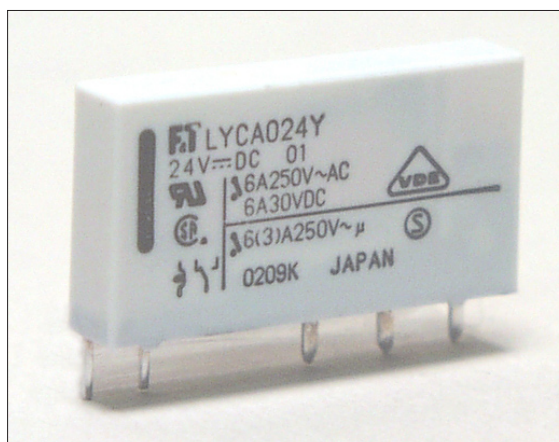
SLIM TYPE

FTR-LY Series

RoHS compliant

■ FEATURES

- Slim(15.0mm(h) x 5.0 mm(w) x 28.0mm (l))
- Mounting space: 140mm², weight: 5.0g
- High insulation in small package (between coil and contacts)
 - Insulation Distance: 8mm min.)
 - Dielectric strength: 4,000 VAC
 - Surge strength: 6,000V
- Plastic materials
 - UL94 flame class V-0
 - CTI>250 (UL CTI level class 2)
- UL, CSA, VDE, SEMKO under approval
 - UL: conforms to UL508, 1604
 - CSA: conforms to CSA22.2 No.14
 - SEMKO: conforms to EN61058-1, 61095
 - VDE: conforms to VDE 0435, 0631, 0700
- Contains no lead and features cadmium-free contacts
- Socket type available
- RoHS Compliant since production



■ ORDERING INFORMATION

[Example] FTR-LY A A 005 Y SK
 (a) (b) (c) (d) (e) (f)

(a)	Series Name	FTR-LY : FTR-LY Series
(b)	Contact Arrangement	A : 1 form A P: 1 form A (Right Angle Type) C : 1 form C R: 1 form C (Right Angle Type)
(c)	Coil Type / Enclosure	A : Standard / Plastic sealed
(d)	Nominal Voltage 012	005 : 5 VDC, 006 : 6VDC, : 12VDC, 024 : 24VDC, 048 : 48VDC
(e)	Contact Material	Y : Silver alloy V : Gold plated silver alloy
(f)	Socket Type	NIL : PCB mounting type SK : Socket mounting type (contact arrangement A&C only)

Actual marking does not carry the type name : "FTR" and "SK"

E.g.: Ordering code: FTR-LYAA012Y

Actual marking: LYAA012Y

FTR-LY SERIES

■ SPECIFICATIONS

Item			FTR-LY	
Contact	Arrangement		1 form C	1 form A
	Material		Gold plated silver alloy, silver alloy	
	Style		Single	
	Resistance (initial)		Maximum 100m ohm s	
	Rating		6A 250VAC or 6A 30VDC	
	Maximum Carrying Current		6A	
	Maximum Switching Power		1,500VA	
	Maximum Switching Voltage		250VAC	
	Minimum Switching Load*1		10mA 5VDC	
	Maximum Switching Current		6A	
Coil	Operating Temperature		-40° C to +85° C (no frost)	
	Rating Power		170m W	
	Must operate power		75mW	
	Max. allowable voltage		150% of nominal voltage (at 20 deg.)	
Time Value	Operate Time (without diode)		Maximum 8ms (at nominal voltage, no bounce)	
	Release Time (without diode)		Maximum 4m s(at nominal voltage, no bounce)	
Insulation	Resistance (at 500VDC)		Minimum 1,000 Mohm s	
	Dielectric Strength	Between open contacts	1,000 VAC 1 minute	
		Between coil and contacts	4,000 VAC 1 minute	
	Surge Strength		6,000V (at 1.2 x 50 micro sec.)	
Life	Mechanical		10 x 10 ⁶ operations minimum	
	Electrical	AC contact rating	60 x10 ³ ops. min. (N.O.) 30 x10 ³ ops. min. (N.C.) at 6A 250VAC/30VDC	
Other	Vibration Resistance	Misoperation	10 to 55 Hz, at double amplitude of 1.0mm	
		Endurance	10-55 Hz, at double amplitude of 1.5m m	
	Shock Resistance	Misoperation	Min. 50m/s ² (11±1ms)	Min. 100m/s ² (11±1ms)
		Endurance	Min. 1,000m/ s ² (6±1ms)	
	Weight		Approximately 4g	

FTR-LY SERIES

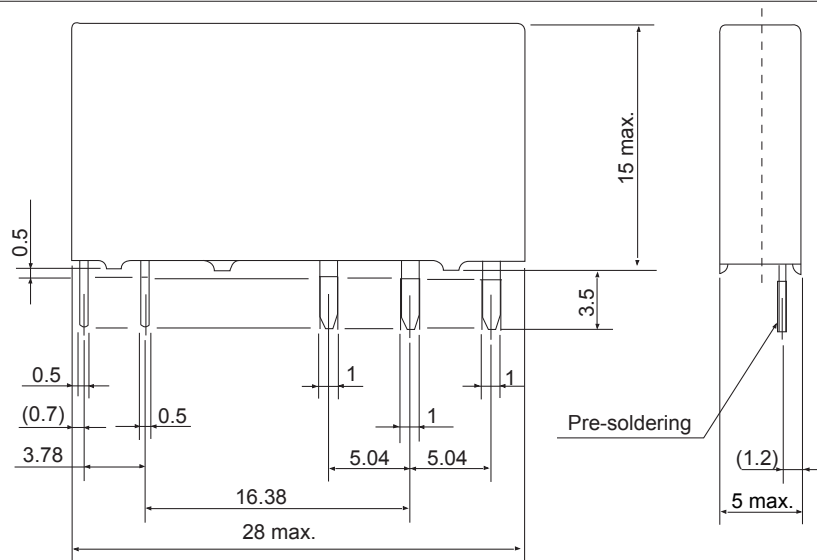
COIL DATA CHART

Model		Nominal Voltage	Coil Resistance ($\pm 10\%$)	Must Operate Voltage	Must Release Voltage	Nominal Power
1 form A type	1 form C type					
FTR-LYAA005Y(-SK)	FTR-LYCA005Y(-SK)	5VDC	147 Ω	3.3VDC	0.25VDC	170mW
FTR-LYAA006Y(-SK)	FTR-LYCA006Y(-SK)	6VDC	212 Ω	4.0VDC	0.3VDC	170mW
FTR-LYAA012Y(-SK)	FTR-LYCA012Y(-SK)	12VDC	847 Ω	8.0VDC	0.6VDC	170mW
FTR-LYAA024Y(-SK)	FTR-LYCA024Y(-SK)	24VDC	3,388 Ω	15.9VDC	1.2VDC	170mW
FTR-LYAA048Y(-SK)	FTR-LYCA048Y(-SK)	48VDC	10,600 Ω	31.7VDC	2.4VDC	217mW
FTR-LYPA005Y	FTR-LYRA005Y	5VDC	147 Ω	3.3VDC	0.25VDC	170mW
FTR-LYPA006Y	FTR-LYRA006Y	6VDC	212 Ω	4.0VDC	0.3VDC	170mW
FTR-LYPA012Y	FTR-LYRA012Y	12VDC	847 Ω	8.0VDC	0.6VDC	170mW
FTR-LYPA024Y	FTR-LYRA024Y	24VDC	3,388 Ω	15.9VDC	1.2VDC	170mW
FTR-LYPA048Y	FTR-LYRA048Y	48VDC	10,600 Ω	31.7VDC	2.4VDC	217mW

Note: All values in the table are measured at 20°C.

DIMENSIONS

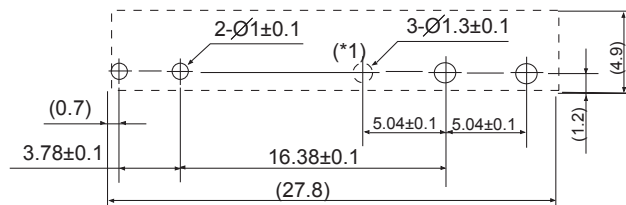
Thru hole type



Drilling Plan (BOTTOM VIEW)



Wiring Diagram (BOTTOM VIEW)

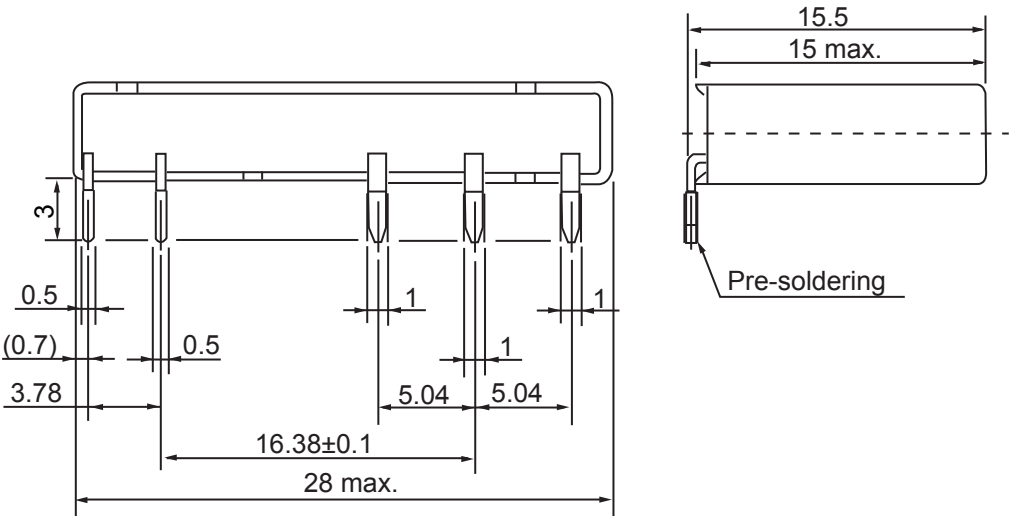


*1: This terminal is not applicable for 1 form A type

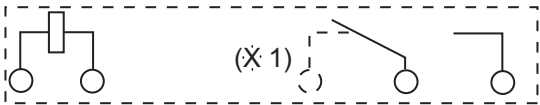
Unit: mm

■ DIMENSIONS

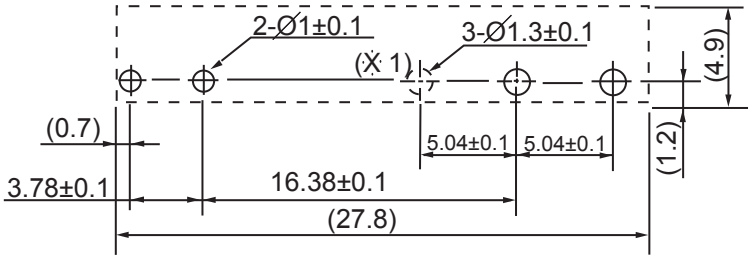
Right Angle type



Drilling Plan
(Bottom view)



Wiring Diagram
(Bottom view)



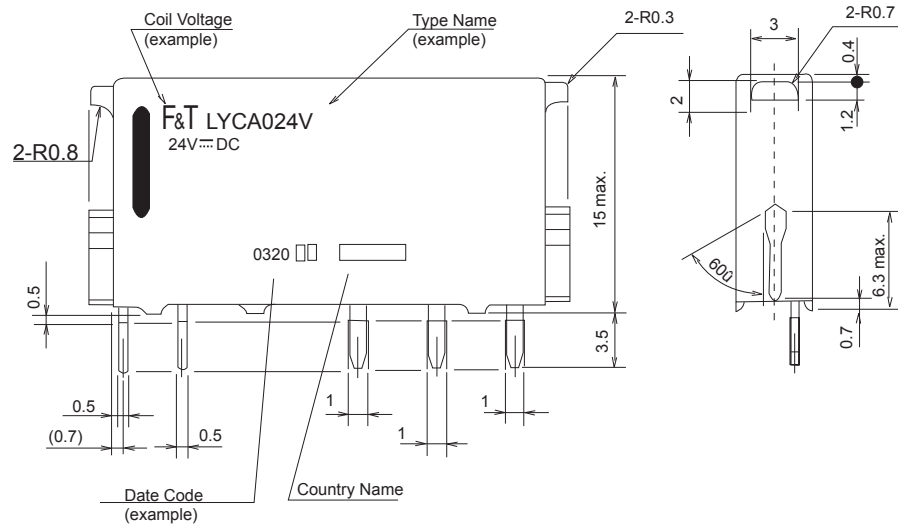
(X 1): this terminal is not applicable for 1 form A type

Unit: mm

FTR-LY SERIES

■ DIMENSIONS

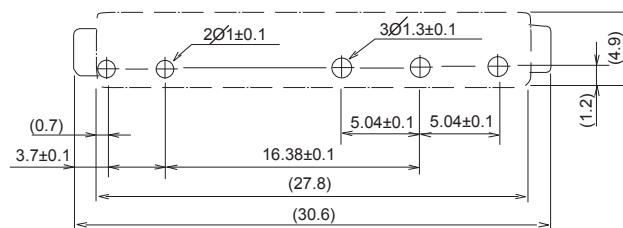
Socket type



Schematics (BOTTOM VIEW)



PC Board Mounting Hole Layout (BOTTOM VIEW)



Unit: mm

- Notes: 1. Socket ordering code
2. Standard IC socket is not recommended. Please use JM-6N

RoHS Compliance and Lead Free Relay Information

1. General Information

- Relays produced after the specific date code that is indicated on each data sheet are lead-free now. Most of our signal and power relays are lead-free. Please refer to Lead-Free Status Info. (<http://www.fujitsu.com/us/downloads/MICRO/fcai/relays/lead-free-letter.pdf>)
- Lead free solder paste currently used in relays is Sn-3.0Ag-0.5Cu.
- All signal and most power relays also comply with RoHS. Please refer to individual data sheets. Relays that are RoHS compliant do not contain the 5 hazardous materials that are restricted by RoHS directive (lead, mercury, chromium IV, PBB, PBDE).
- It has been verified that using lead-free relays in leaded assembly process will not cause any problems (compatible).
- "LF" is marked on each outer and inner carton. (No marking on individual relays).
- To avoid leaded relays (for lead-free sample, etc.) please consult with area sales office.
- We will ship leaded relays as long as the leaded relay inventory exists.

Note: Cadmium was exempted from RoHS on October 21, 2005. (Amendment to Directive 2002/95/EC)

2. Recommended Lead Free Solder Profile

- Recommended solder paste Sn-3.0Ag-0.5Cu.

Reflow Solder condition

Flow Solder condition:

Pre-heating: maximum 120°C
Soldering: dip within 5 sec. at
260°C solder bath

Solder by Soldering Iron:

Soldering Iron
Temperature: maximum 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.

4. Tin Whisker

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

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