

# POWER RELAY

## 1 POLE - 5A Slim Power Relay

### FTR-MY Series

#### ■ FEATURES

- Width 5mm, height 12mm (31% smaller than NY series)  
area 100 mm<sup>2</sup>, super slim , low power, compact and light weight 2.5gr.
- Nominal power: 110mW (8% less than NY series),  
Operate power: 54mW  
High sensitive
- High reliable contacts, bifurcated gold overlay silver alloy (cadmium free)
- Complies with IEC 61010, 61131
- Dielectric strength: 3000VAC
- Surge strength: 5080V
- Safety standards  
UL, CSA, VDE, CQC
- RoHS compliant  
Please see page 6 for more information
- Plastic sealed type, RTIII



#### ■ APPLICATIONS

- PLC, I/O module inverter control

#### ■ PARTNUMBER INFORMATION

[Example]       $\frac{\text{FTR-MY}}{\text{(a)}}$     $\frac{\text{A}}{\text{(b)}}$     $\frac{\text{A}}{\text{(c)}}$     $\frac{\text{012}}{\text{(d)}}$     $\frac{\text{D}}{\text{(e)}}$    -    $\frac{\text{VD}}{\text{(f)}}$

(a)	Relay type	FTR-MY : FTR-MY-Series
(b)	Contact configuration	A : 1 form A
(c)	Coil type	A : Standard type (110mW)
(d)	Coil rated voltage	012 : 4.5.....24 VDC Coil rating table at page 3
(e)	Contact material	D : Gold overlay AgNi
(f)	Safety standard	Nil : UL, CSA VD : UL, CSA, VDE

Actual marking does not carry the type name : "FTR"  
E.g.: Ordering code: FTR-MYAA012D    Actual marking: MYAA012D

## ■ SPECIFICATION

Item	FTR-MY		
Contact Data	Configuration	1 form A	
	Construction	Single	
	Material	Gold overlay silver alloy (Ag90 Ni10+Au)	
	Resistance (initial)	Max. 30 mΩ at 6 VDC, 1 A	
	Contact rating	5A, 250VAC / 30VDC	
	Max. carrying current	5A	
	Max. switching current	5A	
	Max. switching voltage	277VAC / 125 VDC	
	Max. switching power	1,250VA / 150W	
	Min. switching load *	1 mA, 5 VDC	
Life	Mechanical	Min. 20 x 10 <sup>6</sup> operations	
	Electrical	Min. 100 × 10 <sup>3</sup> operations (at 3A 250VAC, 30VDC resistive) Min. 50 × 10 <sup>3</sup> operations (at 5 A 250 VAC, 30 VDC resistive) (switching frequency 20 times/minute)	
Coil Data	Rated power (at 20 °C)	110 mW	
	Operate power (at 20 °C)	54 mW	
	Operating temperature range	-40 °C to +90 °C (no frost)	
Timing Data	Operate (at nominal voltage)	Max. 10 ms (without bounce)	
	Release (at nominal voltage)	Max. 5 ms (without bounce)	
Insulation	Resistance (initial)	Min. 1,000MΩ at 500VDC	
	Dielectric strength	Open contacts	750VAC (50/60Hz) 1min
		Contacts to coil	3,000VAC (50/60Hz) 1min
	Surge strength	Coil to contacts	5,080V / 1.2 x 50μs standard wave
Other	Vibration resistance	Misoperation	10 to 55Hz double amplitude 1.5mm
		Endurance	10 to 55Hz double amplitude 5.0mm
	Shock	Misoperation	Min. 100m/s <sup>2</sup> (11 ± 1ms)
		Endurance	Min. 1,000m/s <sup>2</sup> (6 ± 1ms)
	Weight	Approximately 2.5 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)
4.5	4.5	185	3.15	0.225	110
005	5	230	3.5	0.25	
006	6	330	4.2	0.3	
009	9	740	6.3	0.45	
012	12	1,310	8.4	0.6	
018	18	2,950	12.6	0.9	
024	24	5,240	16.8	1.2	

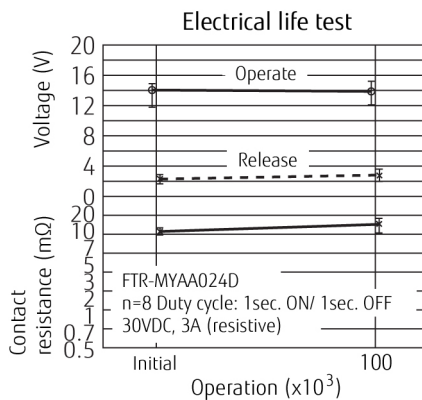
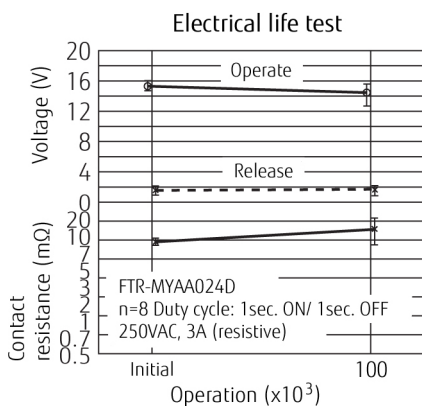
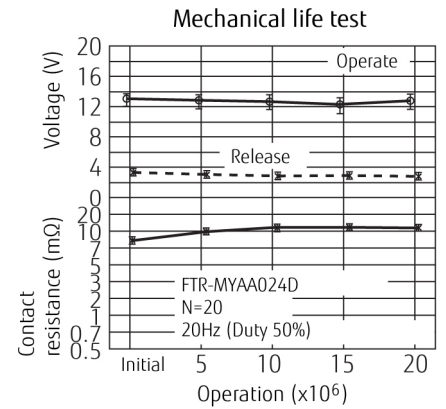
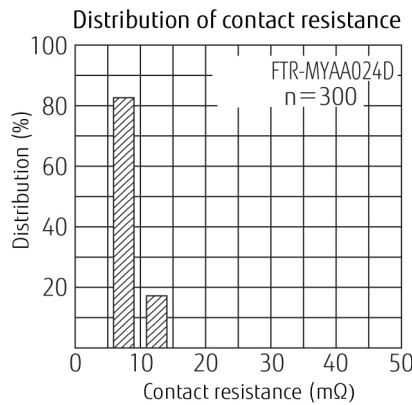
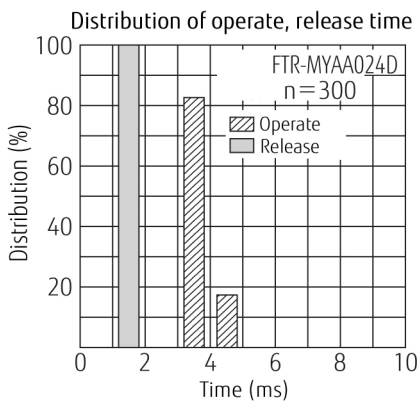
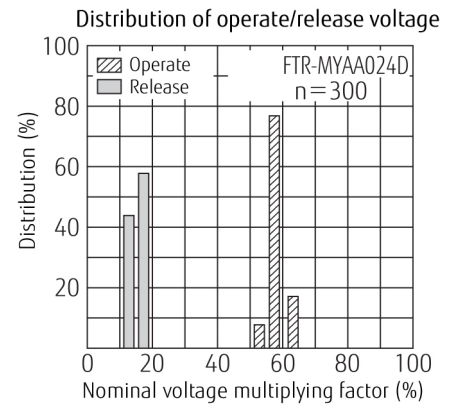
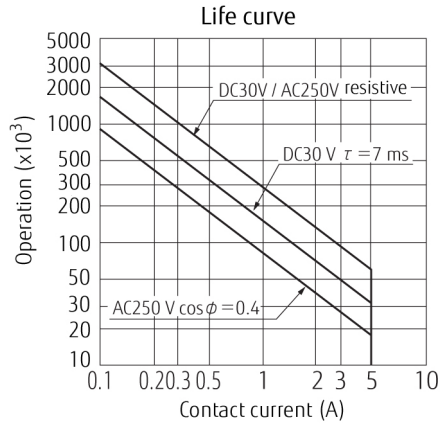
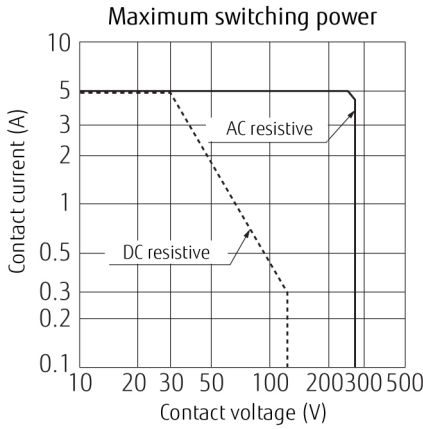
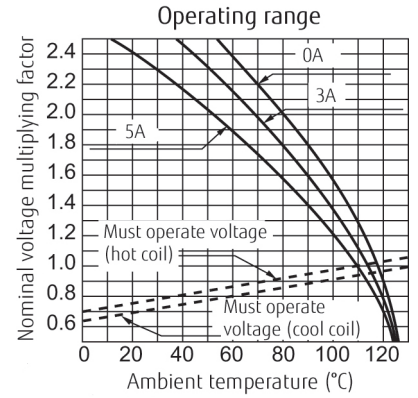
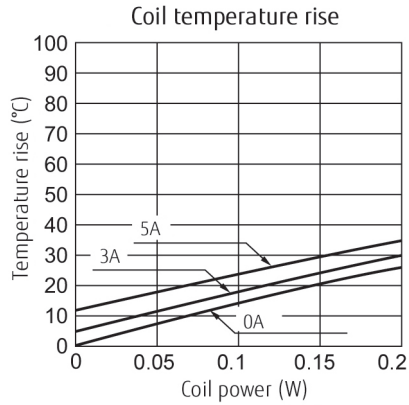
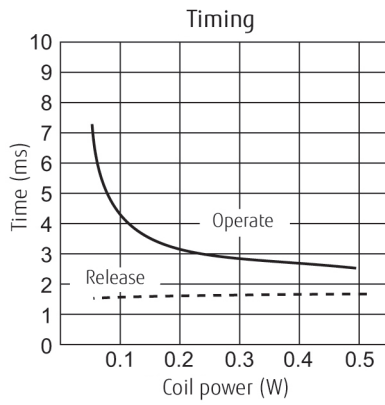
Note: All values in the table are valid for 20°C and zero contact current.

\* Specified operate values are valid for pulse wave voltage.

## ■ SAFETY STANDARDS

Type	Compliance	Contact rating
UL	UL 508, UL 1604	Flammability: UL 94-V0 (plastics)
	E63614, E225300	5A, 277 VAC (resistive) 5A, 30 VDC (resistive)
CSA	C22.2 No. 14 LR 40304	1/10 HP, 277VAC /125VAC Pilot duty: D300, C300, R300
VDE	0435 part 201 40014781	5A, 250VAC, cosφ1, 50K 5A, 30VDC, 0msec, 50K

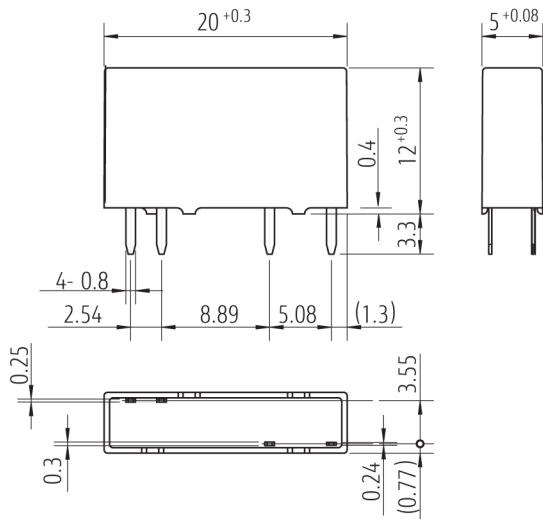
## CHARACTERISTIC DATA



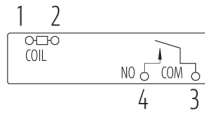
# FTR-MY SERIES

## ■ DIMENSIONS

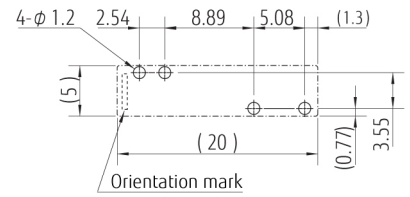
### ● Dimensions



### ● Schematics



### ● PC board mounting hole layout (BOTTOM VIEW)



Unit: mm

## RoHS Compliance and Lead Free Information

### 1. General Information

- All signal and power relays produced by Fujitsu Components are compliant with RoHS directive 2002/95EC including amendments.
- Cadmium as used in electrical contacts is exempted from the RoHS directives on October 21st, 2005. (Amendment to Directive 2002/95/EC)
- All of our signal and power relays are lead-free. Please refer to Lead-Free Status Info for older date codes at: <http://www.fujitsu.com/us/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 Profile

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

**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, 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.

## Fujitsu Components International Headquarter Offices

### Japan

Fujitsu Component Limited  
Gotanda-Chuo Building  
3-5, Higashigotanda 2-chome, Shinagawa-ku  
Tokyo 141, Japan  
Tel: (81-3) 5449-7010  
Fax: (81-3) 5449-2626  
Email: [promothq@ft.ed.fujitsu.com](mailto:promothq@ft.ed.fujitsu.com)  
Web: [www.fcl.fujitsu.com](http://www.fcl.fujitsu.com)

### North and South America

Fujitsu Components America, Inc.  
250 E. Caribbean Drive  
Sunnyvale, CA 94089 U.S.A.  
Tel: (1-408) 745-4900  
Fax: (1-408) 745-4970  
Email: [components@us.fujitsu.com](mailto:components@us.fujitsu.com)  
Web: <http://us.fujitsu.com/components>

### Europe

Fujitsu Components Europe B.V.  
Diamantlaan 25  
2132 WV Hoofddorp  
Netherlands  
Tel: (31-23) 5560910  
Fax: (31-23) 5560950  
Email: [info@fceu.fujitsu.com](mailto:info@fceu.fujitsu.com)  
Web: [emea.fujitsu.com/components/](http://emea.fujitsu.com/components/)

### Asia Pacific

Fujitsu Components Asia Ltd.  
102E Pasir Panjang Road  
#01-01 Citilink Warehouse Complex  
Singapore 118529  
Tel: (65) 6375-8560  
Fax: (65) 6273-3021  
Email: [fcal@fcal.fujitsu.com](mailto:fcal@fcal.fujitsu.com)  
Web: <http://www.fujitsu.com/sg/services/micro/components/>

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