

POWER RELAY

1 POLE - 5A SLIM POWER RELAY

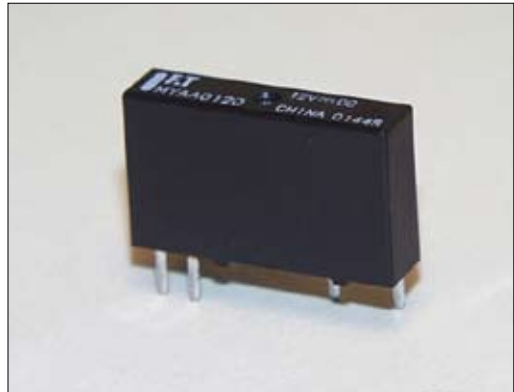
FTR-MY Series

RoHS compliant



FEATURES

- Width 5mm, height 12mm,(31% smaller than NY series) area 100 mm², super slim , low power, compact and light weight 2.5gr.
- Nominal power: 110mW (8% less than NY series), Operate power: 54mW
High sensitive
- High reliability, 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 since production
- Plastic sealed type



APPLICATIONS

- PLC, I/O module Inverter Control

ORDERING INFORMATION

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

| | | |
|-----|----------------------|---|
| (a) | Series Name | FTR-MY Series |
| (b) | Contact Arrangement | A : 1 Form A |
| (c) | Coil Type | A : 110 mW |
| (d) | Coil Nominal Voltage | 4.5 : 4.5VDC 012 : 12 VDC 005 : 5 VDC 018 : 18 VDC 006 : 6 VDC 024 : 24 VDC 009 : 9 VDC |
| (e) | Contact Material | D : Gold overlay Silver alloy |
| (f) | Custom Designation | Special Number |

Note: The designation name is stamped on the top of the relay case as follows:
Example.: Ordering code: FTR-MYAA012D Actual marking: MYAA012D

FTR-MY SERIES

■ COIL DATA CHART

| MODEL | Nominal Voltage | Coil Resistance (± 10%) | Must Operate Voltage* | Must Release Voltage* | Nominal Power |
|---------------|-----------------|-------------------------|-----------------------|-----------------------|---------------|
| FTR-MY Series | | | | | |
| FTR-MYAA4.5D | 4.5 VDC | 185 Ω | 3.15 VDC | 0.225 VDC | 110 mW |
| FTR-MYAA005D | 5 VDC | 230 Ω | 3.5 VDC | 0.25 VDC | 110 mW |
| FTR-MYAA006D | 6 VDC | 330 Ω | 4.2 VDC | 0.3 VDC | 110 mW |
| FTR-MYAA009D | 9 VDC | 740 Ω | 6.3 VDC | 0.45 VDC | 110 mW |
| FTR-MYAA012D | 12 VDC | 1,310 Ω | 8.4 VDC | 0.6 VDC | 110 mW |
| FTR-MYAA018D | 18 VDC | 2,950 Ω | 12.6 VDC | 0.9 VDC | 110 mW |
| FTR-MYAA024D | 24 VDC | 5,240 Ω | 16.8 VDC | 1.2 VDC | 110 mW |

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

*: Specified values are subject to pulse

■ SPECIFICATIONS

| Item | | FTR-MY | |
|------------|--------------------------------------|--|--|
| Contact | Arrangement | 1 form A | |
| | Material | Gold overlay silver alloy | |
| | Configuration | Bifurcated (Crossbar) | |
| | Resistance (initial) | Maximum 30 mΩ (at 1 A 6 VDC) | |
| | Rating (resistive) | 5 A 250 VAC / 5A 30 VDC | |
| | Maximum Carrying Current | 5 A | |
| | Maximum Switching Rating | 1250 VA, 150W | |
| | Maximum Switching Voltage | 277 VAC, 125 VDC | |
| | Maximum Switching Current | 5 A | |
| | Minimum Switching Load* ¹ | 5 VDC 1mA | |
| Coil | Nominal Power (at 20°C) | 110 mW | |
| | Operate Power (at 20°C) | 54 mW | |
| | Operating Temperature | -40°C to +90°C (no frost) | |
| Time Value | Operate (at nominal voltage) | Maximum 10 ms | |
| | Release (at nominal voltage) | Maximum 5 ms | |
| Life | Mechanical | 2 x 10 ⁷ operations minimum | |
| | Electrical | 1 × 10 ⁵ operations minimum (at 3A 250VAC, 30VDC resistive) 5 × 10 ⁴ operations minimum (at 5 A 250 VAC, 30 VDC resistive) (switching frequency 20 times/minute) | |
| Other | Vibration Resistance | Misoperation | 10 to 55 Hz (double amplitude of 1.5 mm) |
| | | Endurance | 10 to 55 Hz (double amplitude of 1.5 mm) |
| | Shock Resistance | Misoperation | 100 m/s ² (11 ± 1 ms) |
| | | Endurance | 1,000 m/s ² (6 ± 1 ms) |
| | Weight | Approximately 2.5 g | |

*¹ Minimum switching loads mentioned above are reference values. Please perform the confirmation test with the actual load before production since reference values may vary according to switching frequencies, environmental conditions and expected reliability levels.

FTR-MY SERIES

■ INSULATION

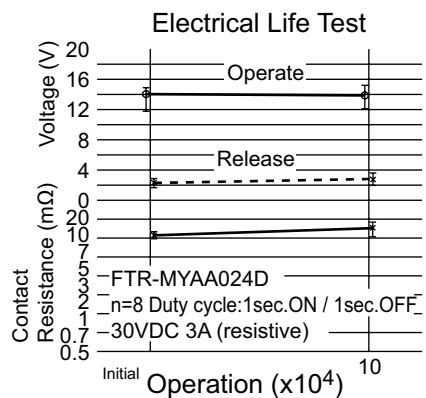
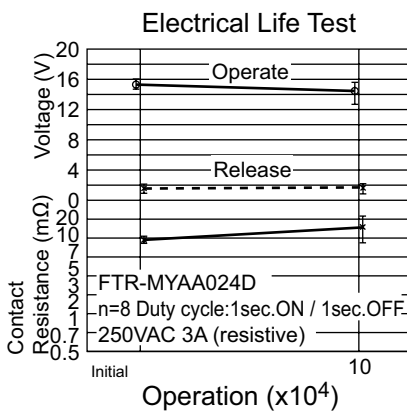
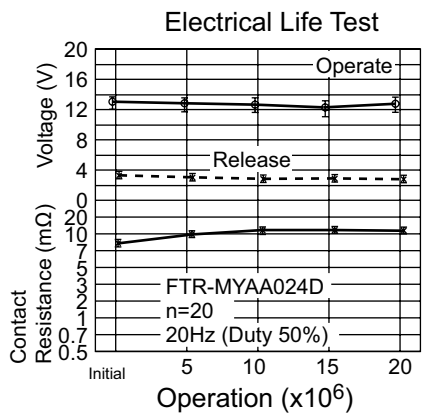
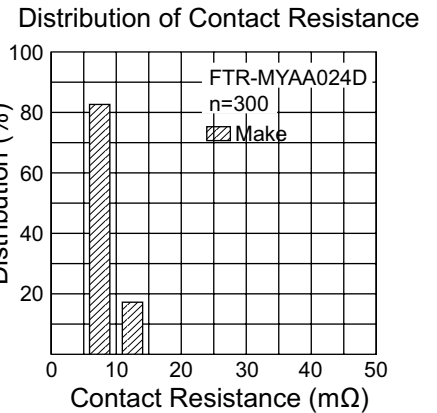
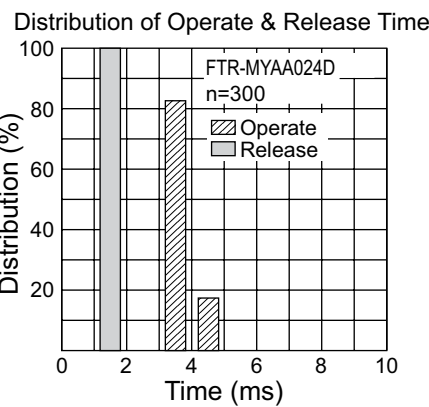
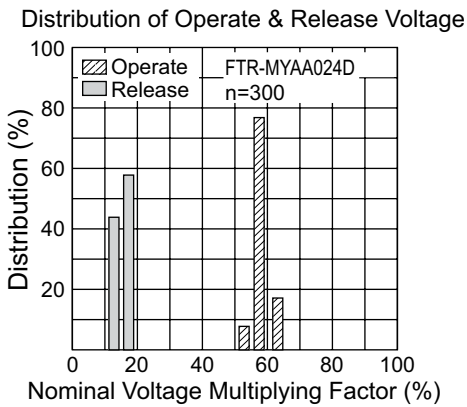
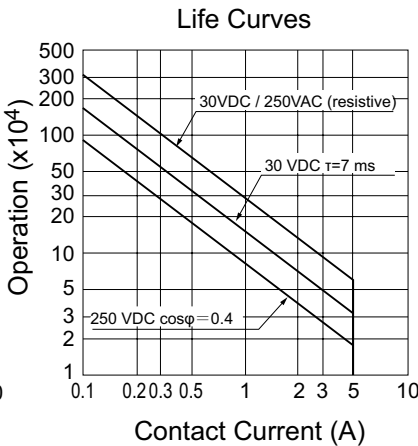
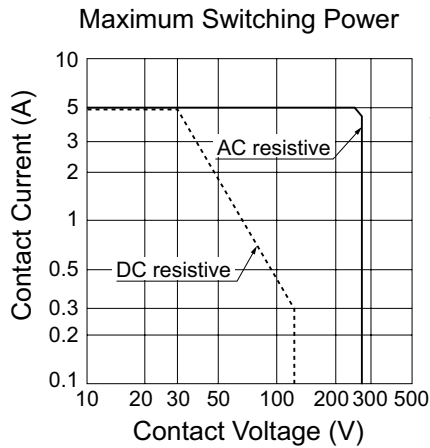
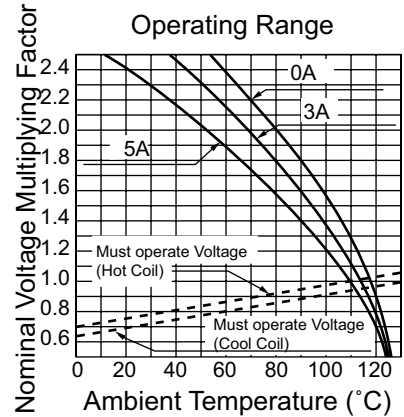
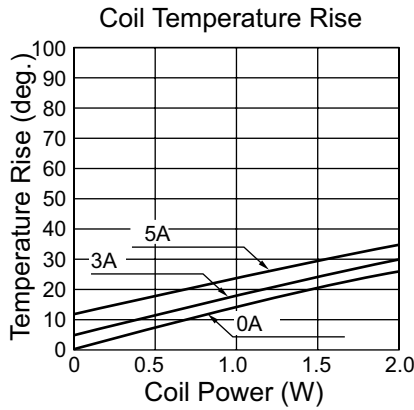
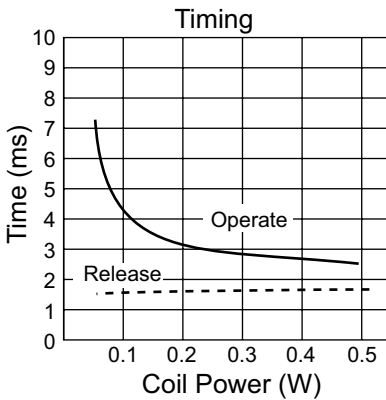
| Item | FTR-MY | Note |
|----------------------|-------------------|--------------------------|
| Resistance (initial) | Minimum 1,000 MΩ | at 500 VDC |
| Dielectric Strength | open contacts | 750 VAC 1 min. |
| | coil and contacts | 3,000 VAC 1 min. |
| Surge Voltage | 5,080 V | 1.2 x 50μs standard wave |

■ SAFETY STANDARDS

| Type | Compliance | Contact rating |
|------|--------------------------|--|
| UL | UL 508, UL 1604 | Flammability: UL 94-V0 (plastics) 5A, 277 VAC (resistive) 5A, 30 VDC (resistive) |
| | E63614, E225300 | |
| CSA | C22.2 No. 14 LR 40304 | 1/10 HP, 277VAC /125VAC Pilot duty: D300, C300, R300 |

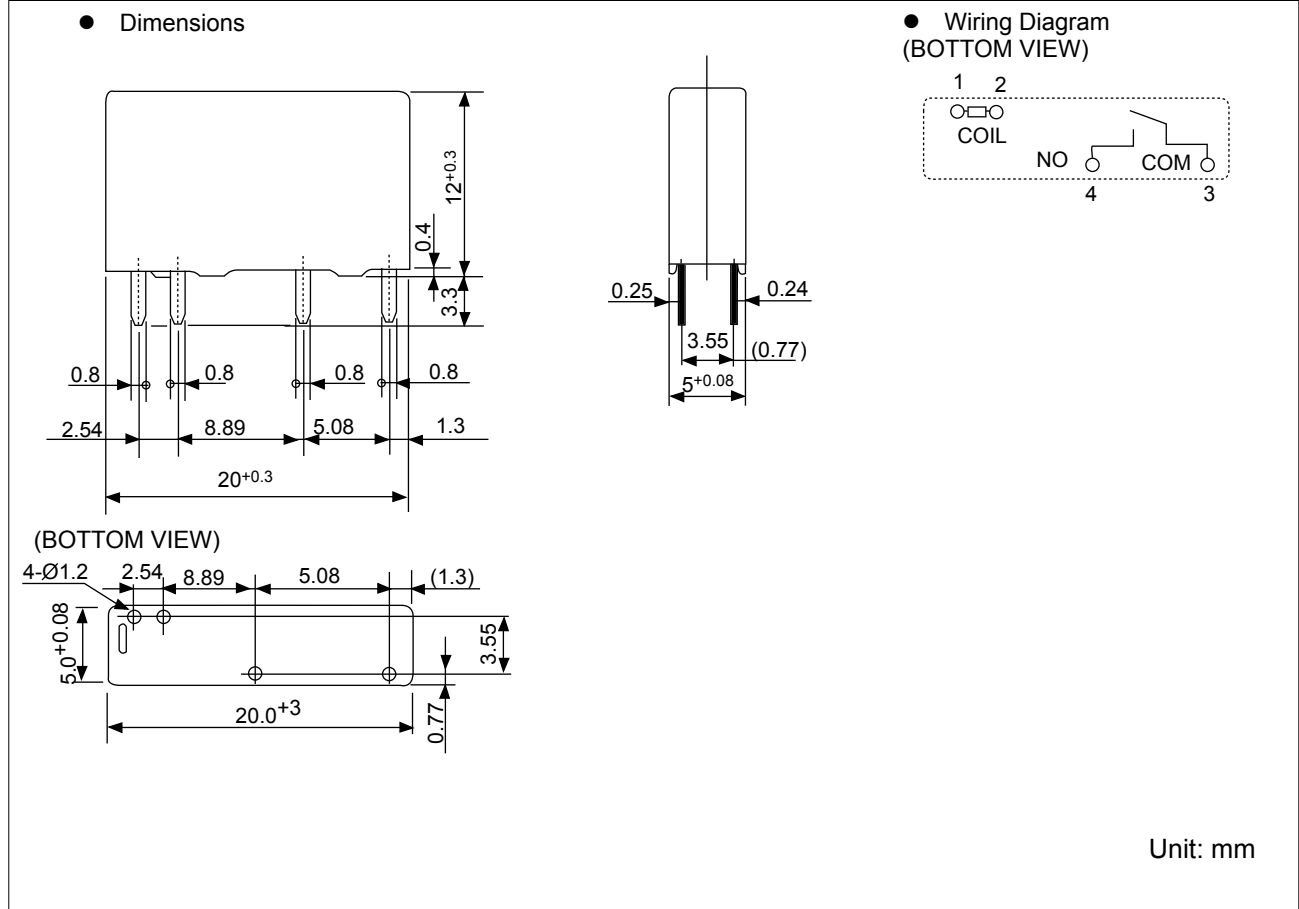
FTR-MY SERIES

REFERENCE DATA



FTR-MY SERIES

■ DIMENSIONS



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. All 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 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 lead 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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