

FTR-K3-WG SERIES

■ SPECIFICATION

Item	FTR-K3-WG		
Contact Data	Configuration	1 form A	
	Material	Silver tin oxide	
	Resistance (initial)	≤ 100mOhm at 1A, 6VDC	
	Contact rating	25A / 250VAC (resistive)	
	Max. carrying current	25A	
	Max. switching power	6,250VA	
	Max. switching voltage	250VAC	
	Max. switching current	25A	
	Min. switching load (reference)	100mA, 5VDC	
Life	Mechanical	2 x 10 ⁶ operations minimum	
	Electrical	25A 250VAC, 100 x 10 ³ operations resistive	
		Inrush 200A / break 25A 100VAC: 30 x 10 ³ operations (inverterload)	
		Inrush 80A cosφ 0.7 / 20A cosφ 0.9 ; 250VAC 2 x 10 ⁵ operations (motorload)	
Coil Data	Rated power (at 20 °C)	Approximately 0.78W	
	Operate power (at 20 °C)	Approximately 0.38W	
	Operating temperature range	-40 °C to +60 °C (no frost)	
Timing Data	Operate (at nominal voltage)	≤ 20ms (no bounce)	
	Release *	≤ 10ms (no diode, no bounce)	
Insulation	Contact gap (initial)	Minimum 1.5 mm	
	Resistance	≥ 1,000MOhm at 500VDC	
	Dielectric strength	Open contacts	1,000VAC, 1min.
		Coil and contacts	5,000VAC, 1min.
	Surge strength	Coil to contacts	8,500V / 1.2 x 50μs standard wave
Other	Vibration resistance	Misoperation	10 to 55Hz double amplitude 1.5 mm
		Endurance	10 to 55Hz double amplitude 1.5 mm
	Shock resistance	Misoperation	Min. 200m/s ² (11 ± 1ms)
		Endurance	Min. 1,000m/s ² (6 ± 1ms)
	Weight		Approximately 25 g

* Use a varistor as a protective circuit against reverse surge in the relay coil. A varistor is connected parallel to the coil. The reverse blocking voltage should be about 3 times the value of the power surge voltage.

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■ COIL RATING

Coil Code	Rated Coil Voltage (VDC)	Coil Resistance +/- 10% (Ohm)	Must Operate Voltage (VDC) *	Must Release-Voltage (VDC) *	Rated Power +/- 10% (W)
005	5	32	3.5	0.5	Approx. 0.78
006	6	46	4.2	0.6	
009	9	105	6.3	0.9	
012	12	185	8.4	1.2	
018	18	415	12.6	1.8	
024	24	740	16.8	2.4	
048	48	2,955	33.6	4.8	

Note: All values in the table are measured at 20°C and zero contact current

* Specified values are measured with pulse wave voltage

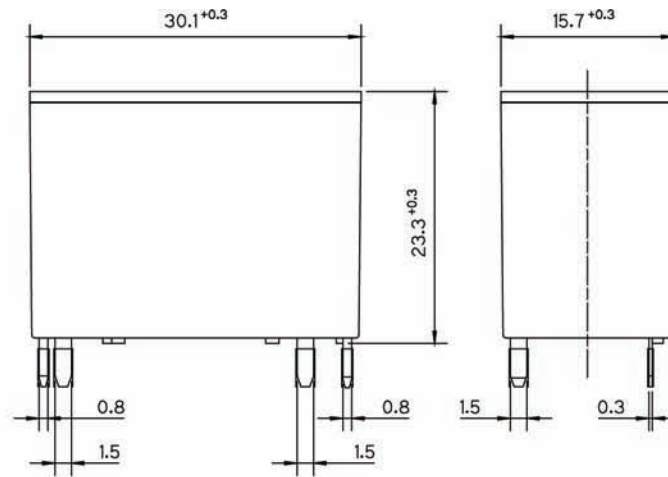
■ SAFETY STANDARDS

Type	Compliance	Contact rating
UL	UL 508	20A, 277VAC, resistive 1HP, 125VAC 1HP, 277VAC
VDE	0435	20A, 250VAC (cosφ=1) 60°C

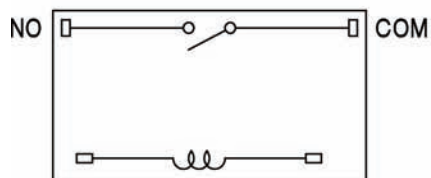
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■ DIMENSIONS

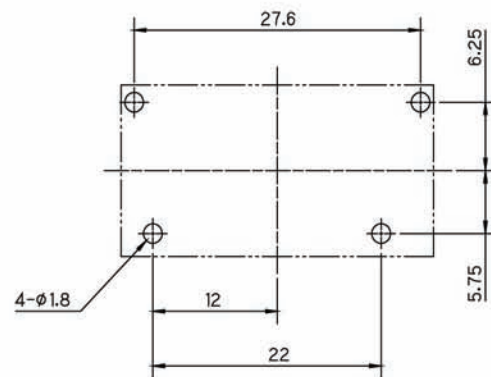
● Dimensions



● Schematics (BOTTOM VIEW)



● PC board pattern (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 2002/95/EC 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.

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