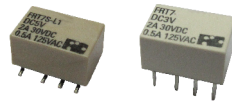


Signal Relays

El.italia serie FW-FRT7

Features

Ultra miniature size 10 x 6.5 x 5.4mm
 Conform to FCC Part 68 and Teledcordia 2,500V surge dielectric
 Meet EN60950/EN41003
 Single side stable and latching type is available
 Wash tight type



Ordering information

FRT7 - L1 DC12V R XXX

1 2 3 4 5

1 Relay model: FRT7 : DIP type; FRT7S : Standard SMT (pin to pin 7.5mm); FRT7S1: Short SMT (pin to pin 6.6mm)	4 Packing: NIL: Plastic tube; R : Reel & tape (only SMT type)
2 Sort: NIL: Single side stable; L1: 1 coil latching	5 Special code Note: RoHS : RoHS compliant relay RoHS-1 : AgNi contact
3 Rated voltage	

Coil rating

Single side stable

Rated voltage (V DC)	Coil resistance Ω +/-10%	Must operate voltage (V DC) Max.	Must release voltage (V DC) Min.	Maximum voltage (V DC) Max.	Power consumption (W) Approx.	Operate time (ms)	Release time (ms)
1.5	16	1.13	0.15	2.2	0.14	<3	<3
3	64.3	2.25	0.30	4.5			
4.5	145	3.38	0.45	6.7			
5	178	3.75	0.50	7.5			
6	257	4.5	0.60	9.0			
9	579	6.75	0.90	13.5			
12	1028	9.0	1.2	18.0			
24	2880	18.0	2.4	36.0			

1 coil latching

Rated voltage (V DC)	Coil resistance Ω +/-10%	Set voltage (V DC) Max.	Reset voltage (V DC) Max.	Maximum voltage (V DC) Max.	Power consumption (W) Approx.	Set time (ms)	Reset time (ms)
1.5	22.5	1.13	1.13	2	0.10	<3	<3
3	90	2.25	2.25	6			
4.5	203	3.38	3.38	9			
5	250	3.75	3.75	10			
6	360	4.5	4.5	12			
9	810	6.75	6.75	18			
12	1440	9.0	9.0	24			
24	2880	18.0	18.0	36			

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Characteristics

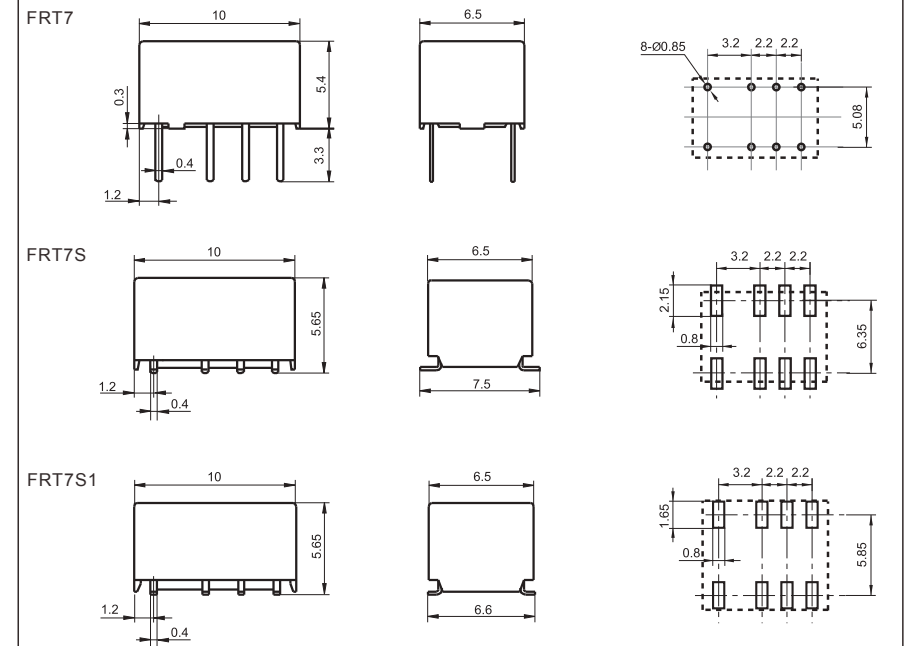
Contact arrangement	DPDT (2 Form C)
Contact material	Silver alloy (gold clad)
Contact resistance (initial)	70m Ω Max.
Contact rating (resistive)	0.5A 125VAC / 2A 30VDC
Switching current	2A Max.
Switching power	62.5VA / 60W Max.

Switching voltage	AC 250V / DC 220V Max.
Switching load (min.)	0.01mA / 10mV
Insulation resistance	1,000M Ω Min. (500VDC)
Dielectric strength	1,000VAC (50Hz/min) Between open contacts 1,800VAC (50Hz/min) Between coil and contact 1,800VAC (50Hz/min) Between contact sets
Surge voltage (FCC)	1,500V (FCC Part 68) Between open contacts (10 x 160 μ s) 2,500V (Teledcordia) Between coil and contact (2 x 10 μ s)
Shock resistance	Functional : 775m/s ² (75g) Destructive: 980m/s ² (100g)
Vibration resistance	Functional : 3.3mm Double amplitude 10-55Hz Destructive: 5.0mm Double amplitude 10-55Hz
Ambient temperature	-40°C to +85°C
Temperature rise	50K Max.
Humidity	98% RH, 40°C
Construction	Wash tight
Operation life	Mechanical 10 ⁸ Electrical 5 x 10 ⁵
Weight	0.8g Approx.

(Specifications are subject to change without notices.)

Dimensions

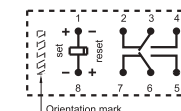
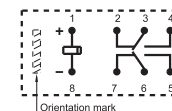
mm



Wiring diagram (Bottom view)

Single side stable

1 coil latching

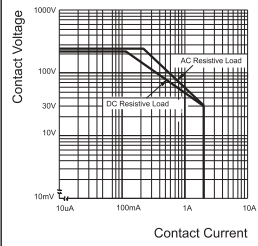


No energized condition

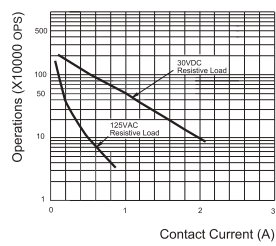
Reset condition

Reference data

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



REFLOW WELDING, TEMPERATURE ON PCB BOARD
RECOMMENDED WELDING TEMPERATURE

