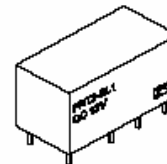


# FRT3 RELAY



## FEATURES

- Subminiature & Latching Dip Relay
- 2 Form C Contact
- High Switching capacity 60W 125VA
- High Sensitivity - 150mw (single side stable) & 75mw (latching)
- Sealed type construction
- Pending



## SPECIFICATIONS

**COIL RATING** (See Figure 1)

### CHARACTERISTICS

Contact Arrangement	DPDT (2 FORM C)		
Contact Material	Silver Alloy, Gold Clad		
Contact Resistance	50mΩ Max.		
Contact Rating (Resistive Load)	2A 30VDC 1A 125VAC		
Switching Voltage	DC 220V AC 250V Max.		
Switching Power	60W 125VA Max.		
Switching Current	2A Max.		
Carrying Current	5A Max.		
Coil Nominal Power	<b>Standard</b>	<b>Single Side Stable</b>	<b>Latching 2 Coils</b>
	<b>Sensitive</b>		<b>Latching 1 Coil</b>
		200mw	200mw
		150mw	100mw
		150mw	75mw
Operate Time (Initial)	4ms Max.		
Release Time (Initial)	3ms Max.		
Bounce Time	1.5ms		
Set Time (Latching)	3ms		
Reset Time (Latching)	3ms		
Insulation Resistance	1000MΩ (500VDC)		
Dielectric Strength	<b>Between Contacts</b> : 1000Vrms/1 minute <b>Between Contact and Coil</b> : For Single Side Stable : 1500Vrms/1 minute For Latching Type (Single coil or Double coils) : 1000Vrms/1 minute		
Shock Resistance	490m/s <sup>2</sup> (50g) Functional 980m/s <sup>2</sup> (100g) Destructive		
Vibration	20g 10-55Hz		
Ambient Temperature	-40°C to +85°C		
Humidity	98% +40°C		
Operation Life	Mechanical : 10 <sup>8</sup>		
	Electrical : 10 <sup>5</sup> (2A 30VDC) or 5x10 <sup>5</sup> (1A 30VDC)		
Weight	5g Approx.		

[Specifications are subject to change without notice.]

# FRT3 RELAY



FIGURE 1

## FRT3-S

SINGLE SIDE STABLE (Standard 200mW)

COIL VOLTAGE (V DC)	PICK-UP VOLTAGE (V DC) (MAX.)	DROP-OUT VOLTAGE (V DC) (MIN.)	COIL RESISTANCE (Ω) +/- 10%	MAX. ALLOW VOLTAGE (V DC)
5	3.5	0.5	125	10
6	4.2	0.6	180	12
9	6.3	0.9	405	18
12	8.4	1.2	720	24
15	10.5	1.5	1125	30
24	16.8	2.4	2880	48
48	36.0	4.8	11520	96

## FRT3H-S

SINGLE SIDE STABLE (Sensitive 150mW)

COIL VOLTAGE (V DC)	PICK-UP VOLTAGE (V DC) (MAX.)	DROP-OUT VOLTAGE (V DC) (MIN.)	COIL RESISTANCE (Ω) +/- 10%	MAX. ALLOW VOLTAGE (V DC)
5	4	0.5	167	11
6	4.8	0.6	240	13
9	7.2	0.9	540	20
12	9.6	1.2	960	27
15	12.0	1.5	1500	34
24	19.2	2.4	3840	55

## FRT3-SL2

LATCHING 2 COILS (Standard 200mW)

COIL VOLTAGE (V DC)	Set, Reset Voltage V DC (MAX.)	COIL RESISTANCE (Ω) +/- 10%	MAX. ALLOW VOLTAGE (V DC)
5	3.75	125	10
6	4.5	180	12
9	6.75	405	18
12	9.0	720	24
15	11.25	1125	30
24	18.0	2040	48

## FRT3H-SL2

LATCHING 2 COILS (Sensitive 150mW)

COIL VOLTAGE (V DC)	Set, Reset Voltage V DC (MAX.)	COIL RESISTANCE (Ω) +/- 10%	MAX. ALLOW VOLTAGE (V DC)
5	4.0	167	11.5
6	4.8	240	13.8
9	7.2	540	20.8
12	9.6	960	27.7
15	12.0	1500	34.6
24	19.2	3840	55.4

## FRT3-SL1

LATCHING 1 COIL (Standard 100mW)

COIL VOLTAGE (V DC)	Set, Reset Voltage V DC (MAX.)	COIL RESISTANCE (Ω) +/- 10%	MAX. ALLOW VOLTAGE (V DC)
5	3.75	250	14
6	4.5	360	17
9	6.75	810	25
12	9.0	1440	34
15	11.25	2220	42
24	18.0	4000	56

## FRT3H-SL1

LATCHING 1 COIL (Sensitive 75mW)

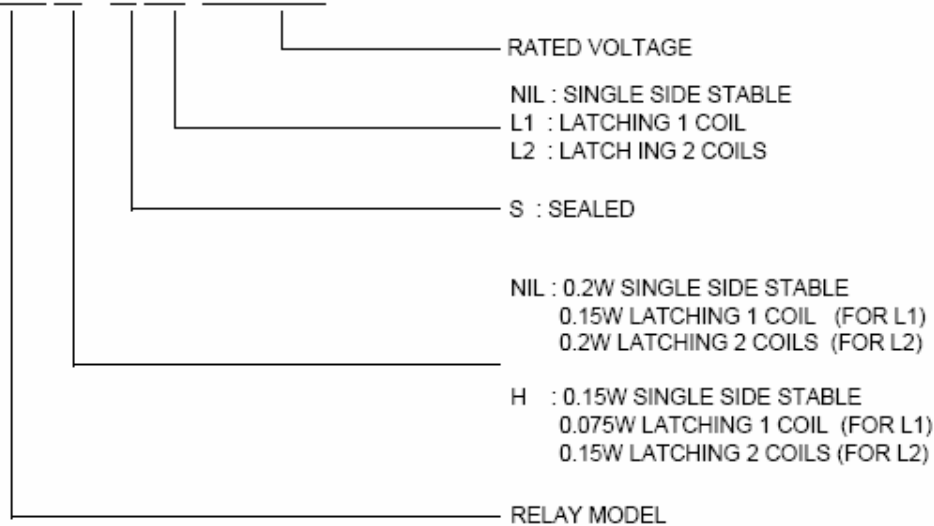
COIL VOLTAGE (V DC)	Set, Reset Voltage V DC (MAX.)	COIL RESISTANCE (Ω) +/- 10%	MAX. ALLOW VOLTAGE (V DC)
5	4.0	330	16
6	4.8	480	19
9	7.2	1080	29
12	9.6	1920	39
15	12.0	3000	43
24	19.2	7680	78

# FRT3 RELAY



## ORDERING INFORMATION

### FRT3 H - S L1 DC 12V

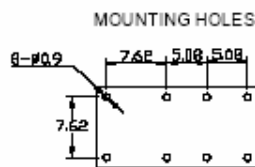
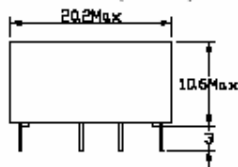


Note : Pb-Free and RoHS compliant relays are available.  
 For ordering, please add suffix "Pb-Free" or "RoHS" to standard relay part numbers.

For example : FRT3-S DC 12V "Pb-Free" for Pb-Free Relay  
 For example : FRT3-S DC 12V "RoHS" for RoHS Compliant Relay

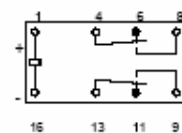
## DIMENSIONS (UNIT : MM)

SINGLE SIDE STABLE OR LATCHING (1 COIL)



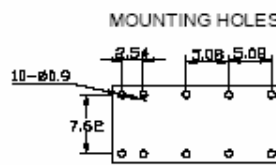
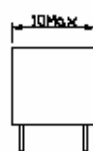
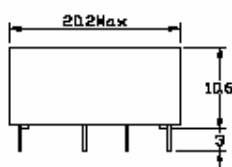
Matching 16 Pin IC Socket

TERMINAL ARRANGEMENT (BOTTOM VIEW)



For latching, diagram shows the "Reset" Position  
 Energize terminals 1 and 16 to "Set"  
 Reverse energize terminals 1 and 16 to "Reset"

Latching (2 Coils)



Matching 16 Pin IC Socket

TERMINAL ARRANGEMENT (BOTTOM VIEW)

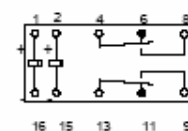


Diagram shows the "reset" position  
 Energize terminals 1 and 16 to "set"  
 Energize terminals 2 and 15 to "reset"