

**Power Printed Circuit Board Relays**

**FTR-F1/H1K1 RELAY**

5,10, 16 Amp SPST-NO, SPDT  
 L - 1.102"  
 W - 0.504"  
 H - 0.650"



**CONTACT DATA**

**Arrangement** - F1: 2 form A, C; H1/K1:1 form A, C

**Material** -Gold plate silver alloy

**Type** - Single

**Resistance** (initial)- Maximum 100m (at 1 A 6 VDC),  
 K1:277VA/300VDC

**Ratings** (resistive) -F1: 5 A 250 VAC/24VDC/ H1:10A 250VDC/30VDC  
 Max.Carrying Current: F1:7A, H1: 14A , K1:16A  
 Max.Switching Power: F1: 1,250 VA/ 120W  
 H1:2,500 VA/ 300W, K1:4000VA/480W  
 Max.Switching Voltage:F1: 400 VAC/ 300 VDC  
 H1:380 VAC/ 300VDC, K1:400 VAC/ 300VDC  
 Max.Switching Current: F1:5 A, H1:10 A, K1:16A  
 Max.Switching Load:10 mA 5VDC

**Life Expectancy** - Mechanical:2x 10<sup>7</sup> ops. min.  
 Electrical:1x10<sup>5</sup> ops. mi.(Standard and sensitive types) 2.5 x 10<sup>4</sup> ops. min.(TV3/5 rating type)

**COIL DATA**

**Voltage** (at 20°C) - 5 to 48 VDC

**Power** (at 20°C) - 0.53 W Standard, 0.4W Sensitive

**Operate Power** (at 20°C) - 0.26W Standard, 0.23W Sensitive

**GENERAL DATA**

**Insulation Resistance** - 1000 M

**Dielectric Strength** - 1,000 VAC 1min.(between open contacts)  
 5,000 VAC 1min.(coil and contacts)

**Surge Strength** - 10,000 V (at 1.2 x 50µs)

**Temperature Range** - -40°C to +75°C

**Time Value** - Operate: F1:15 msec., H1: 10msec., K1:20msec.  
 Release:5 msec.(F1/H1 at nominal voltage), K1:10msec.

**Weight** - Approx.12 g

**Enclosure** - PBT

Standard Type \*\* Insert F1, H1, or K1

Nominal Voltage	Coil Resistance (±10%)	Must Operate Voltage (VDC at 20°C)	Must Release Voltage (VDC at 20°C)	Ordering Code	
				Standard	TV- Rating Type
5	47	3.5	0.5	FTR-** (C,A)A005V	FTR-** AA005T
6	68	4.2	0.6	FTR-** (C,A)A006V	FTR-** AA006T
9	15	66.3	0.9	FTR-** (C,A)A009V	FTR-** AA009T
12	270	8.4	1.2	FTR-** (C,A)A012V	FTR-** AA012T
24	1,100	16.8	2.4	FTR-** (C,A)A024V	FTR-** AA024T
48	4,400	33.6	4.8	FTR-** (C,A)A048V	FTR-** AA048T

Sensitive Type \*\* Insert F1, H1, or K1

5	62	3.75	0.5	FTR-** (C,A) D005V
6	90	4.5	0.6	FTR-** (C,A) D006V
9	202	6.75	0.9	FTR-** (C,A) D009V
12	360	9.0	1.2	FTR-** (C,A) D012V
24	1,440	18.0	2.4	FTR-** (C,A) D024V
48	5,760	36.0	4.8	FTR-** (C,A) D048V

**FTR-F2/H2/K2 RELAY**

5, 10, 16 Amp SPST-NO  
 L - 0.945"  
 W - 0.433"  
 H - 0.984"



**CONTACT DATA**

**Arrangement** - 1 form A (SPST-NO)

**Material** -Silver-alloy

**Type** - Single

**Resistance** (initial)- Maximum 100m (at 1 A 6 VDC)

**Ratings** (resistive) -F2: 250VAC/30VDC, 5A, H2: 250VAC/30VDC,10A  
 K2:250VAC/30VDC, 16A

Max.Carrying Current:F2:5A, H2: 10A, K2:16A  
 Max.Switching Power: F2:1250 VA/150W,  
 H2: 2500 VA/300W, K2: 4000VA/480W  
 Max.Switching Voltage:400 VAC /300 VDC  
 Max.Switching Current: F2:5A, H2:10A, K2:16A

**Life Expectancy** - Mechanical: 2 x 10<sup>6</sup> ops. min.  
 Electrical:100x10<sup>3</sup> ops. min.(contact rating)  
 25 x 10<sup>3</sup> ops. min. (lamp load)

**COIL DATA**

**Voltage** (at 20°C) - 5 to 48VDC

**Power** (at 20°C) - 0.53W

**Operate Power** (at 20°C) - 0.26W

**GENERAL DATA**

**Insulation Resistance** - Min.1,000M

**Dielectric Strength** - 1,000 VAC 1min.(between open contacts)  
 4,000 VAC 1min.(coil and contacts)

**Surge Strength** - 10,000 V (at 1.2 x 50 µs)

**Temperature Range** - -40°C to +70°C

**Time Value** - Operate: 15 msec./ Release:5 msec.(at nominal voltage)

**Weight** - Approx.12 g

**Enclosure** - PBT

Standard Type (530mW)

Nominal Voltage	Coil Resistance (±10%)	Must Operate Voltage (VDC at 20°C)	Must Release Voltage (VDC at 20°C)	Ordering Code		
				TV-3 Rating 5A Type	TV-5 Rating 10A Type	TV-8 Rating 16A Type
5	47	3.5	0.5	FTR-F2AK005T	FTR-H2AK005T	FTR-K2AK005T
6	68	4.2	0.6	FTR-F2AK006T	FTR-H2AK006T	FTR-K2AK006T
9	155	6.3	0.9	FTR-F2AK009T	FTR-H2AK009T	FTR-K2AK009T
12	270	8.4	1.2	FTR-F2AK012T	FTR-H2AK012T	FTR-K2AK012T
24	1,200	16.8	2.4	FTR-F2AK024T	FTR-H2AK024T	FTR-K2AK024T
48	4,400	33.6	4.8	FTR-F2AK048T	FTR-H2AK048T	FTR-K2AK048T

Sensitive Type (250mW)

5	100	4.0	0.25	FTR-F2AL005T	FTR-H2AL005T
6	145	4.8	0.30	FTR-F2AL006T	FTR-H2AL006T
9	325	7.2	0.45	FTR-F2AL009T	FTR-H2AL009T
12	575	9.6	0.60	FTR-F2AL012T	FTR-H2AL012T
24	2,310	19.2	1.20	FTR-F2AL024T	FTR-H2AL024T