## **Electromechanical Relays**

Hasco Component's electromechanical relays range from less than an amp to 80 amps. Hasco's relays are UL and CSA with some TUV ratings. All relays have DC coils and many have an AC coil. They come sealed for wave soldering and washing thereby allowing the relays to be put on any assemble line. There are surface mount low current relays available as well.

### KLT MINIATURE POWER RELAYS SPDT 3, 6, 12, 15 & 20 AMP

#### **FEATURES**

- Highly reliable, low cost
- Miniature size & large switch capacity up to 20A
- High dielectric strength type
- Fully Sealed
- Inexpensive





#### Also Available As Surface Mount Device. Call for Availability.

#### **ELECTRICAL RATINGS**

**3 Amp:** 3A at 120VAC or 28VDC resistive

6A at 120VAC or 28VDC; 6A at 240VAC general purpose; 1/4 hp at 120VAC

**12 & 15 Amp:** 12A at 120VAC or 28VDC; 12A at 240VAC general purpose; 7A at 277VAC general purpo

purpose; 1/4 hp at 120VAC; 15A at 120VAC resistive **Pilot duty:** 40A in-rush, 4A steady state at 125VAC

10A in-rush, 1A steady state at 240VAC

N.O. only, Single

Pole:

10A at 12VDC Tungsten; 15A at 120VAC Tungsten

1/2 hp at 120VAC; 5.4A at 277 VAC Ballast

#### **GENERAL DATA**

Contact resistance: 50mOhms Max.

**Operate Time:** 8ms Max. (at nominal voltage)

Operate Bounce Time:3 ms Max.Release Time:5 ms Max.Release Bounce Time:8 ms Max

Max. Switching Voltage: 277VAC & 125VDC

Min. Permissible Load (reference value): 3 Amp: 5VDC at 1mA

6, 12, 15 & 20 Amp: 5VDC at 100mA

Insulation Rating: Class B & Class F

**Insulation Resistance:** more than 100M at 500VDC

**Dielectric Strength:** 750VAC (50/60Hz), between open contacts

1500VAC (50/60Hz), between coil & contact

**Vibration:** 1.5mm double amplitude, 10 to 50Hz

Shock: 100 m/sec<sup>2</sup> (approx. 10G's)

Operation Frequency:

Mechanical: 18,000 operations/hour

**Electrical:** 1,800 operations/hour (under rated load)

Service Life: Mechanical: 10 million operations

**Electrical:** 100,000 operations min. at rated resistive load

Class B: - 40°C to 85°C

Class F: -40°C to 105°C

Temperature Rise: Less than 35 degrees

**Humidity:** 45% - 85% RH

Approximate Weight: 12 grams

#### **COIL RATINGS**

**Temperature Range:** 

Nominal Coil Voltage	Coil Resistance in Ohms, ±10% at 20°C 6, 12, 15 Amp	Coil Resistance in Ohms, ±10% at 20°C 20 Amp	Must Operate Voltage at 20°C	Must Release Voltage at 20°C	Maximum Voltage
3VDC	25	20			
5VDC	70	55			
6VDC	100	80			130% of nomi
9VDC	225	180	75% max. of nominal voltage	10% min.	
12VDC	400	320		of nominal voltage	voltage
18VDC	900	1100		J	
24VDC	1600	1280			
48VDC	6400	5120			

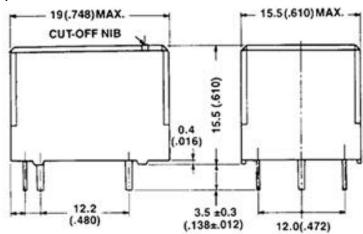
#### **REMARK**

Use alcohol, freon or water for cleaning. (water temperature not to exceed 50°C)

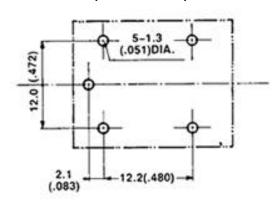
#### ORDERING INFORMATION

KLT	F	1C	12	DC12	1
Model No.	Class B Class F	Contact Arrangement:	Contact Material & Rating:	Nominal Voltage:	NIL = Sealed 1 = Unseald
		A = 1 $B = 1$ $C = 1Form A Form B Form C(SPST-NO) (SPST-NC) (SPDT)$	3 Amp = Silver, gold flash 6 Amp = Silver cadmium oxide 12 Amp = silver cadmium oxide 15 Amp = silver tin indium oxide 20 Amp = Silver tin indium oxide	3 = 3VDC; 5= 5VDC; 6 = 6VDC; 9 = 9VDC; 12 = 12VDC; 24 = 24VDC; 48 = 48VDC	

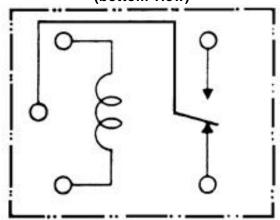
## **DIMENSIONS:** mm (inch)



# MOUNTING HOLES (bottom view)



# TERMINAL ARRANGEMENT (bottom view)



### **PART NUMBERS**

KLT1A6DC5	KLT1B12DC5	KLT1C15DC5
KLT1A6DC6	KLT1B12DC6	KLT1C15DC6
KLT1A6DC9	KLT1B12DC9	KLT1C15DC9
KLT1A6DC12	KLT1B12DC12	KLT1C15DC12

KLT1A6DC18	KLT1B12DC18	KLT1C15DC18
KLT1A6DC24	KLT1B12DC24	KLT1C15DC24
KLT1A6DC48	KLT1B12DC48	KLT1C15DC48
KLT1B6DC5	KLT1C12DC5	KLT1A20DC5
KLT1B6DC6	KLT1C12DC6	KLT1A20DC6
KLT1B6DC9	KLT1C12DC9	KLT1A20DC9
KLT1B6DC12	KLT1C12DC12	KLT1A20DC12
KLT1B6DC18	KLT1C12DC18	KLT1A20DC18
KLT1B6DC24	KLT1C12DC24	KLT1A20DC24
KLT1B6DC48	KLT1C12DC48	KLT1A20DC48
KLT1C6DC5	KLT1A15DC5	KLT1B20DC5
KLT1C6DC6	KLT1A15DC6	KLT1B20DC6
KLT1C6DC9	KLT1A15DC9	KLT1B20DC9
KLT1C6DC12	KLT1A15DC12	KLT1B20DC12
KLT1C6DC18	KLT1A15DC18	KLT1B20DC18
KLT1C6DC24	KLT1A15DC24	KLT1B20DC24
KLT1C6DC48	KLT1A15DC48	KLT1B20DC48
KLT1A12DC5	KLT1B15DC5	KLT1C20DC5
KLT1A12DC6	KLT1B15DC6	KLT1C20DC6
KLT1A12DC9	KLT1B15DC9	KLT1C20DC9
KLT1A12DC12	KLT1B15DC12	KLT1C20DC12
KLT1A12DC18	KLT1B15DC18	KLT1C20DC18
KLT1A12DC24	KLT1B15DC24	KLT1C20DC24
KLT1A12DC48	KLT1B15DC48	KLT1C20DC48

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