

# KUL series

# 10 Amp Magnetic Latching Relay

**A** File E22575

(File 15734) (File 15734)

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

### **Coil Data**

	Nominal Voltage	Resis in O	C tance hms 0%†	Must Operate Voltage	0.5 W Resistor			
	Single Coil							
DC Coils	12 24 48	120 9.0   472 18.0   1,800 36.0						
	Dual Coil*							
	12 24 48	90 350 1400		9.0 18.0 36.0				
	Single Coil with Diodes**							
AC Coils 50/60 Hz.	24 120 240	176 3,700 17,900		20.4 102.0 204.0	680Ω 15,000Ω 68,000Ω			
	Dual Coil							
	24 120	Latch 100 2525	<b>Reset</b> 250 7800	20.4 102.0				

## Contact Data @ 25°C

Contact arrangements to 3PDT.

the reset winding in dual coil relays. Uses same sockets as other KU relays.

battery chargers and process controls.

#### Arrangements:

Features

DC Single Coil: 1 Form C (SPDT), 2 Form C (DPDT) and 3 Form C (3PDT).

· Single or dual-wound DC coils or single-wound AC coils.

· Reset occurs by reversing polarity in a single coil relay or by energizing

Well suited for applications such as alarm systems, machine tools,

DC Dual Coil: 1 Form C (SPDT) and 2 Form C (DPDT).

AC Single Coil: 1 Form C (SPDT), 2 Form C (DPDT) and 3 Form C (3PDT).

Materials: Siver-cadmium oxide.

Expected Life:

Mechanical: 10 million operations.

Electrical: 100,000 operations minimum at rated load.

#### **Contact Ratings**

Contact Code	Arrangement	Ratings				
5	1,2,3 poles	10A @ 28VDC or 240VAC, 80% PF; 1/4 HP @ 120VAC, 1/3 HP @ 240VAC				

### Initial Dielectric Strength

Between Open Contacts: 500V rms. Between Adjacent Contacts: 1,500V rms. Between Contacts and Coil: 1,500V rms.

## Coil Data @ 25°C

Duty Cycle: Continuous. (Latch and reset not to be energized simultaneously).

Initial Insulation Resistance: 100 megohms, minimum.

Initial Breakdown Voltage: 1500V rms, 60 Hz. between all elements.

Note: On single coil AC models one terminal is common. Latch/Reset function is accomplished by input in series with a diode to provide the correct polarity to the coil. To perform either function, the terminal not being used (Latch or Reset) must be open or isolated with no other path to common or ground.

Dimensions are shown for 908 reference purposes only. Dimensions are in inches over (millimeters) unless otherwise specified. <sup>6</sup> Dual coil available only with 1 or 2 Form C contacts. On standard dual coil relays, the latch and unlatch voltage must be the same. For unlike voltages, please contact your sales representative.

\*\* Diodes and resistors included inside relay with 1 and 2 Form C contacts. For 3 Form C relays, the customer must furnish and wire diodes and resistors externally.

t ±15% for AC coils.

## Operate Data @ 25°C

Must Operate Voltage: DC Coils: 75% of nominal voltage. AC Coils: 85% of nominal voltage. Operate Time: 25 milliseconds maximum at nominal voltage. Release or Reset Time: 25 milliseconds maximum at nominal voltage.

### **Environmenal Data**

Temperature Range: Storage: -45°C to +105°C. Operating: Single Coil AC & DC: -45°C to +70°C. Dual Coil DC: -45°C to +50°C.

## Mechanical Data

Termination: .187" (4.75mm) quick connect/solder terminals. Sockets are available.

**Enclosure:** Clear plastic polycarbonate heat and shock resistant case. **Weight:** 3.4 oz. (96g) approximately.

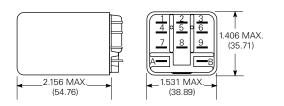
Specifications and availability subject to change.

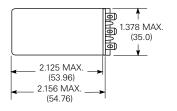
tyco Electronics	Catalog 1308242 Issued 3-03								P&B
Ordering Information		Typical Part No. ►	KUL	-11	D	1	1	D	-12
1. Basic Series: KUL magnetic latching r	elay		]						
<b>2. Contact Arrangement</b> 5 = 1 Form C (SPDT)	: 11 = 2 Form C (DPDT)	14 = 3 Form C (3PDT)							
<b>3. Coil Input:</b> $A = AC$	D = DC								
<b>4. Mounting:</b> 1 = Plain case	5 = Bracket mount case					-			
<b>5. Terminal &amp; Contact M</b> 5 = .187" (4.75mm) quid	<b>aterials:</b> k connect/solder; silver-cadm	ium oxide, 10 amps.					-		
6. Number of Coils: S = Single coil	D = Dual coil (1 & 2 pole m	nodels only)							
7. Coil Voltages: Single coil—24-240VAC 12-48VDC Dual coil—12-48VDC, 2-	4 or 120VAC (to 2 Form C)								_

## Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

KUL-5A15S-120 KUL-11A15S-24 KUL-11A15S-120 KUL-11D15D-12 KUL-11D15D-24 KUL-11D15S-12 KUL-11D15S-24

# **Outline Dimensions**

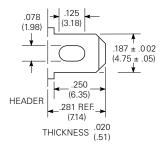


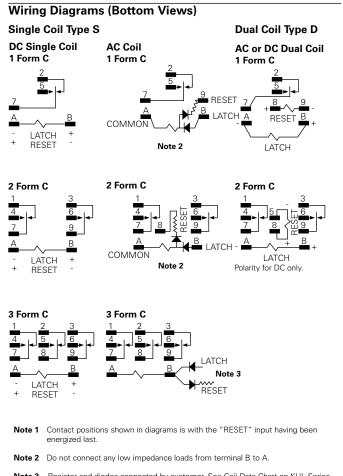


See KU series drawings for bracket mount case.

## **Terminal Dimensions**

## .187" (4.75mm) Standard





**Note 3** Resistor and diodes connected by customer. See Coil Data Chart on KUL Series engineering data page for resistor value. Recommended using 1N4007 diode.