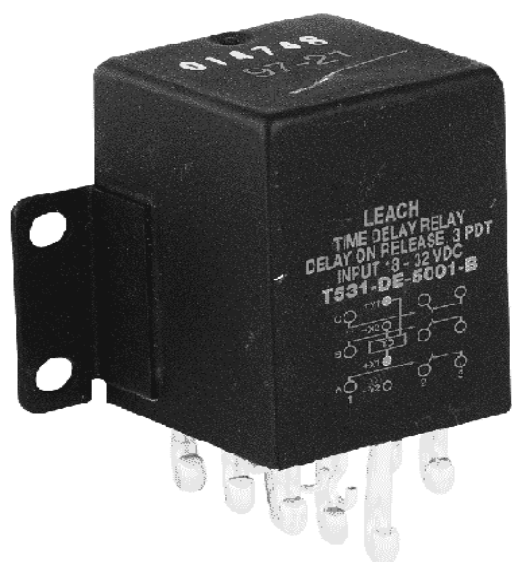


## ENGINEERING DATA SHEET

# T531

TIME DELAY RELAY  
3 PDT, 25 AMP



**APPLICABLE SOCKET:**  
[SO-1058-8913](#)

Time delay relay on operate or on release

Fixed or adjustable timing delay

Contact arrangement **3 PDT**  
Power supply **28 Vdc**

### PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **25 Amps / 28 Vdc**  
Weight **<0.265lb**  
Dimensions of case **1.73in x 1.54in x 1.02in max**

Hermetically sealed corrosion protected metal can (mounting flange tin plated)

### CONTACT ELECTRICAL CHARACTERISTICS

Minimum operating cycles	Contact rating per pole and load type	Load Current in Amps @28Vdc
50,000 cycles	on resistive load	25
10,000 cycles	on inductive load (L/R=5ms)	12
50,000 cycles	on motor load	10
50,000 cycles	on lamp load	5
50 cycles	resistive overload	50

### NUMBERING SYSTEM

T531 - A E - 1001 - B

Basic series designation \_\_\_\_\_

1-Types Of Operation (A,B,D,U,W) \_\_\_\_\_

2-Temperature range and timing accuracy (E,L,M,J,K,N) \_\_\_\_\_

3-Timing range (4 digits) \_\_\_\_\_

4-Mounting style and terminal types (B,C,D) [3] \_\_\_\_\_



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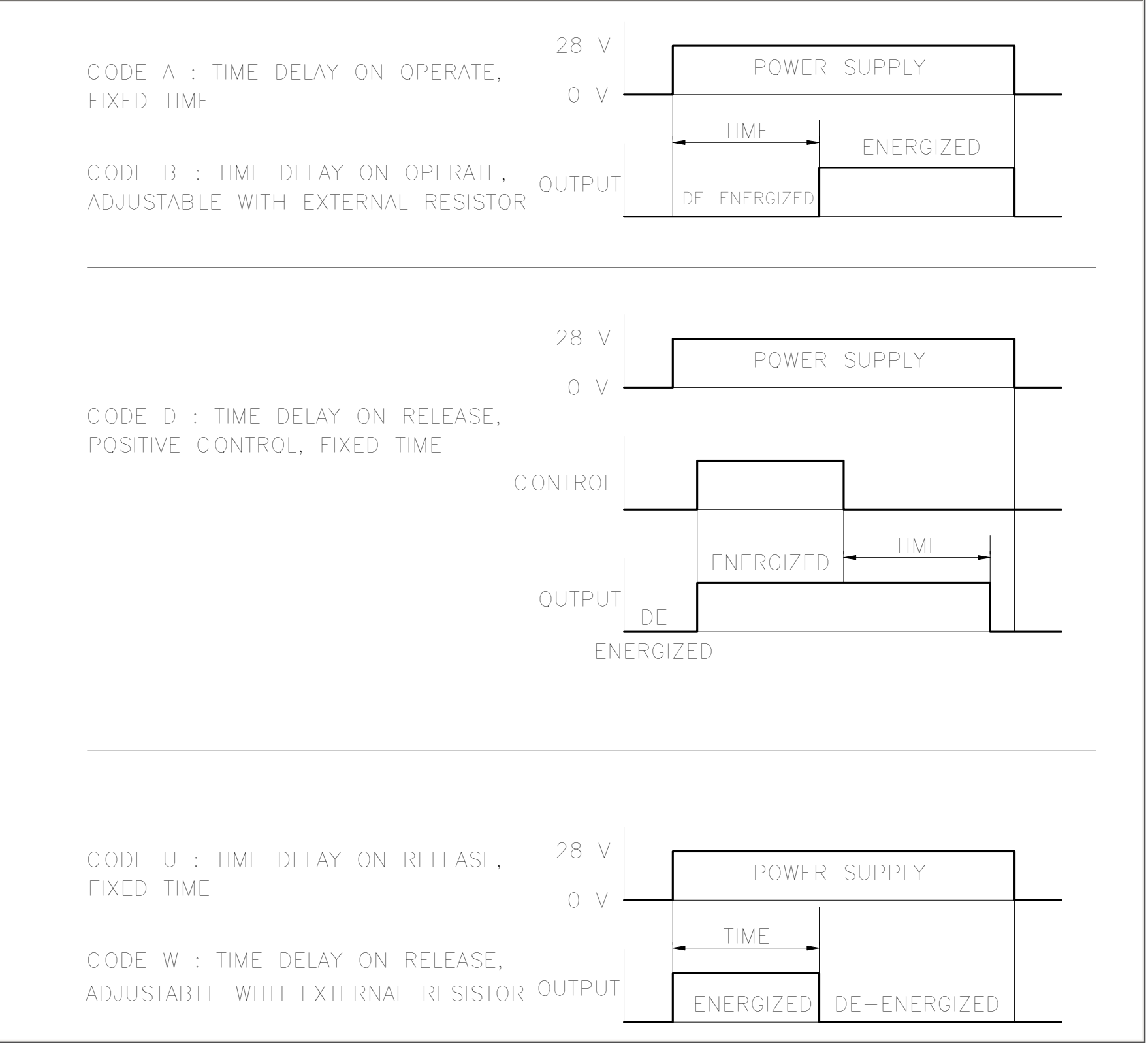
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Tel: (33) 3 87 97 98 97  
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**Asia-Pacific Ltd.**  
20/F Shing Hing Commercial Bldg.  
21-27 Wing Kut Street  
Central, Hong Kong

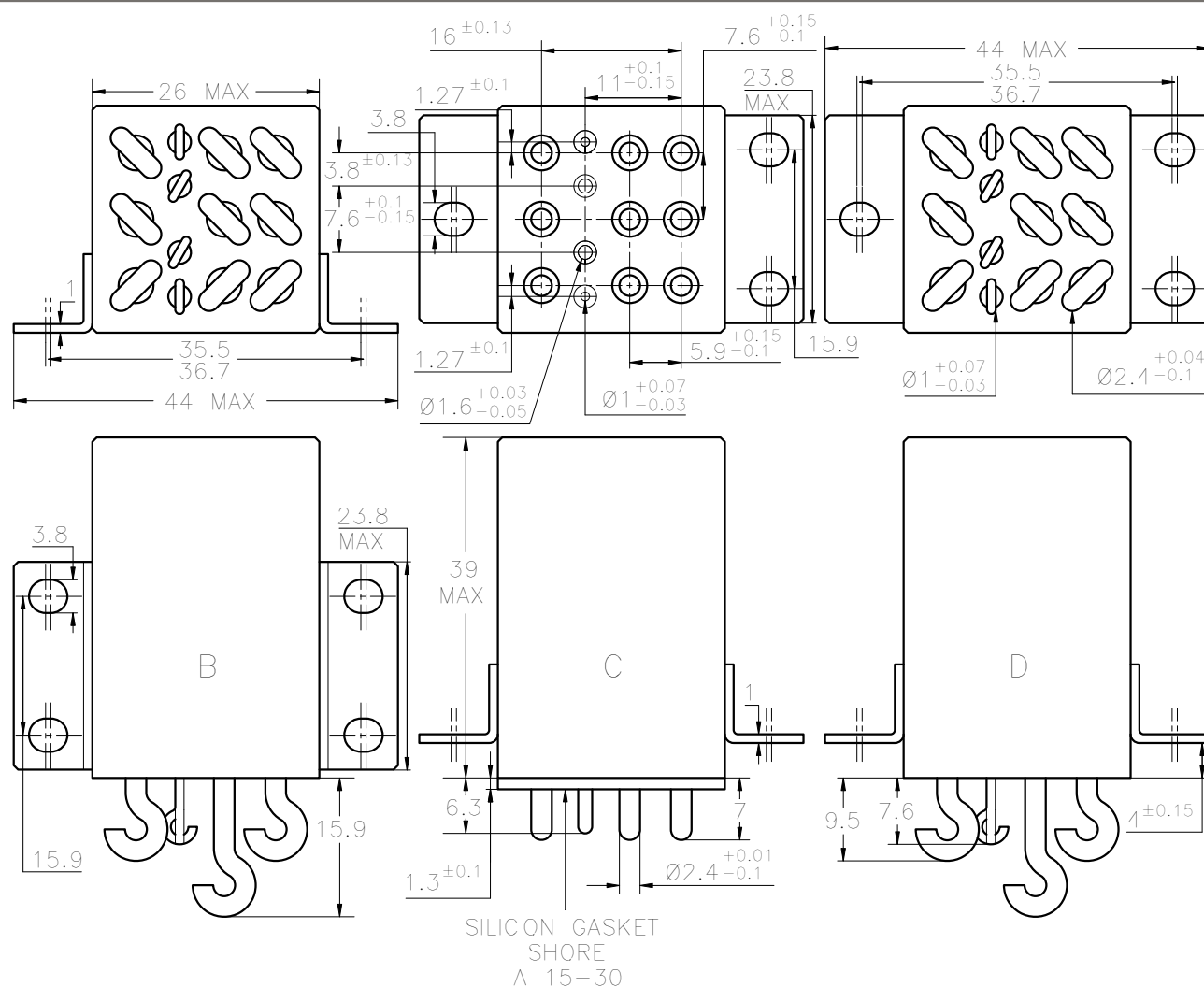
Tel: (852) 2 191 2886  
Fax: (852) 2 389 5803

Data sheets are for initial product selection and comparison. Contact Leach International prior to choosing a component.



**TEMPERATURE RANGE AND TIMING ACCURACY**

Code	Temperature	Accuracy	Limitations
E	-55° C to +85° C	±10%	±10 ms below 200 ms
L [4]	-55° C to +85° C	±5%	not below 500 ms
M [4]	-55° C to +85° C	±3%	not below 1 s
J [4]	-55° C to +125° C	±10%	±10 ms below 200ms
K [4]	-55° C to +100° C	±5%	not below 500 ms
N [4]	-55° C to +100° C	±3%	not below 1 s



Dimensions in mm

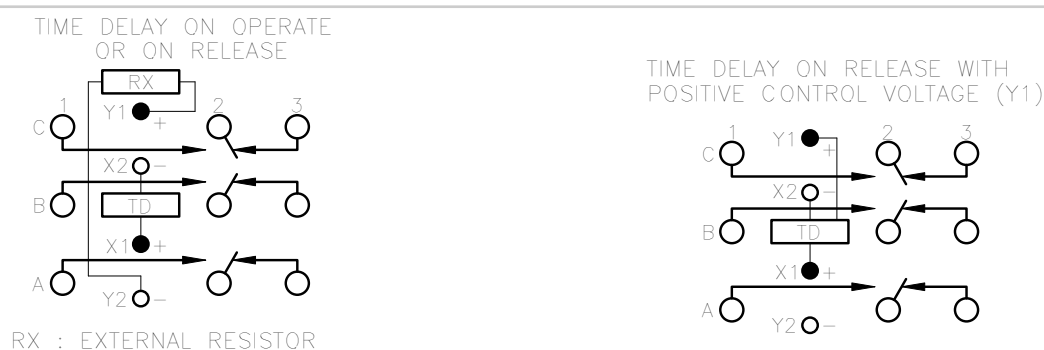
## SOLDER HOOKS

GOLD PLATED PINS

## SOLDER HOOKS

Tolerances unless otherwise specified  $\pm 0.25$  mm

## SCHEMATIC DIAGRAM/TERMINAL LAYOUT



## TIMING RANGE

**ADJUSTABLE**

(For operation code B, F and W)

Code 1001: 0.1 to 1 second

$$R_x = (T / t_o - 1) \times 100 \text{ kohm}$$

Code 1002: 1 to 10 seconds

Code 1003: 10 to 100 seconds

Code 1004: 100 to 1000 seconds

where  $R_x$  in kohms     $T$ : desired time in seconds,  
                                   $t_o$ : time measured with  $R_x = 0$ .

Example to determine Rx value for a T time of 5 seconds: Choose code 1002; measure time with Rx = 0 (for example : to = 1 s); calculate  $Rx = (5/1 - 1) \times 100000$

Theoretical resistance:  $R_x = 400 \text{ kohms}$

**FIXED**

The timing code consists of 4 digits. To determine this code, convert the value to milliseconds value. Use the first 3 digits of this value and add a fourth digit to indicate the number of zeros which must follow the three digits to show complete milliseconds value.

Examples: 250 ms --> Code 2500

300 s --> Code 3003

**GENERAL CHARACTERISTICS****T531**

Operating Voltage	18 to 32 Vdc (AIR norm 2021 E)
Recycle Time	less than or equal to 50 ms
Dielectric strength at sea level	
- all pins connected together and can	500 V / 50 Hz
- between open contacts	500 V / 50 Hz
Dielectric strength at altitude 80,000 ft, all points	250 V / 50 Hz
Initial insulation resistance at 500 Vdc	greater than or equal to 500 M $\Omega$
Sinusoidal vibration	20G / 10 to 2000 Hz
Shock	100G / 6 ms
Power loss protection	0.5 ms max
Undamaged against positive transients	+ 80 Vdc
Spike susceptibility	$\pm$ 600 Vdc
Self generated spikes	$\pm$ 50 Vdc

**NOTES**

1. Relays with C mounting are compatible with socket families S 502, SF 502 ..
2. Isolation spacer pads for PCB mounting available on request.
3. For other mounting styles or terminal types, please contact the factory.
4. Codes L, M, K and N not available for adjustable timing.

# ENGINEERING DATA SHEET

# SO-1058-8913

RELAY SOCKET  
25 AMP



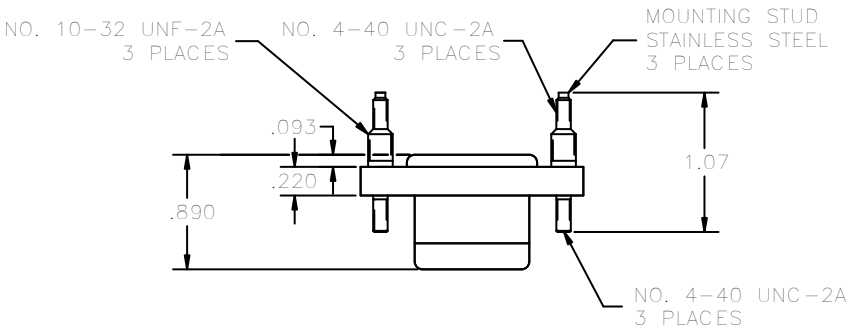
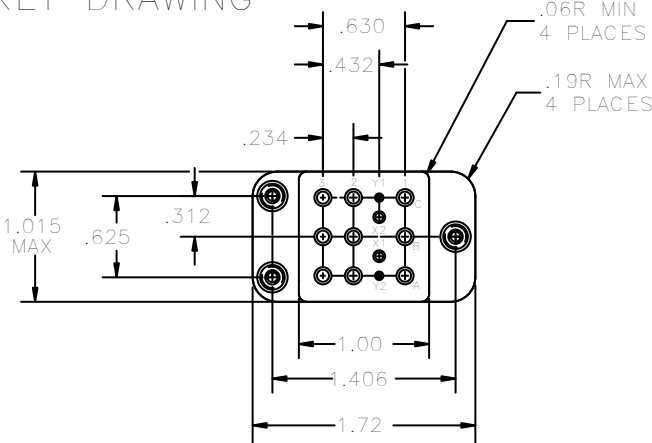
BASIC SOCKET SERIES DESIGNATION FOR:

**Series KCL and T531**

DESIGNED TO THE STANDARDS AND REQUIREMENTS OF:

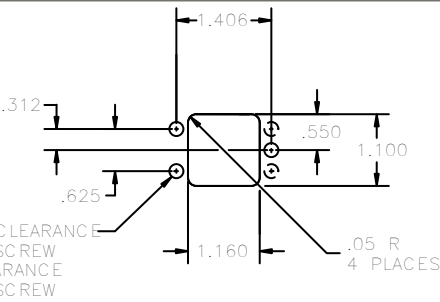
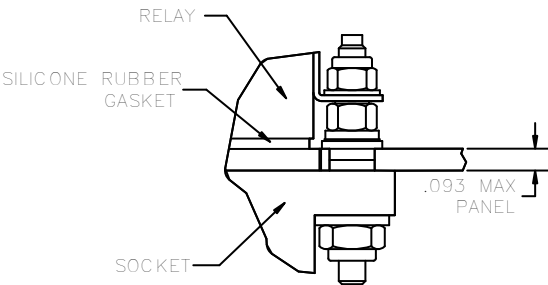
**MIL-S-12883/54**

## SOCKET DRAWING



## HARDWARE MOUNTING

MOUNTING DETAIL 3 PLACES



MOUNTING DIMENSIONS  
SUGGESTED MOUNTING  
HOLE LAYOUT

## GENERAL CHARACTERISTICS

1. Supplied with mounting hardware No. 12, 16 and 20 contacts, No. 12, 16 and 20 crimps.	
2. Standard tolerances	.xx ±.01; xxx ±.005
3. Weight	.120 lb. max
4. Temperature range	-70° C to +125° C



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