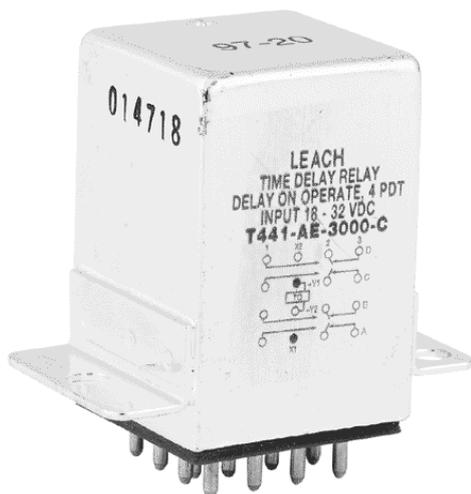


# ENGINEERING DATA SHEET

# T441

## TIME DELAY RELAY 4 PDT, 10 AMP



APPLICABLE SOCKET:  
[S402](#)

Time delay relay on operate or on release

Fixed or adjustable timing delay

Contact arrangement **4 PDT**

Power supply **28 Vdc**

### PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at **10 Amps / 28 Vdc**

Weight **< 120 grams**

Dimensions of case **44mm x 39mm x 26mm 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
100,000 cycles	on resistive load	10
20,000 cycles	on inductive load (L/R=5ms)	8
100,000 cycles	on motor load	4
100,000 cycles	on lamp load	2
50 cycles	resistive overload	40

### NUMBERING SYSTEM

	T441	-	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)								



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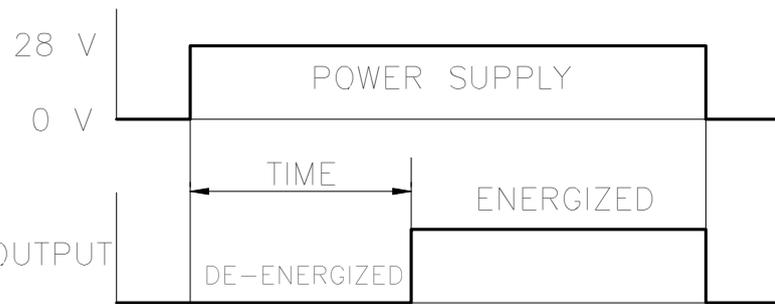
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No.8 Science Park West Avenue  
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Hong Kong

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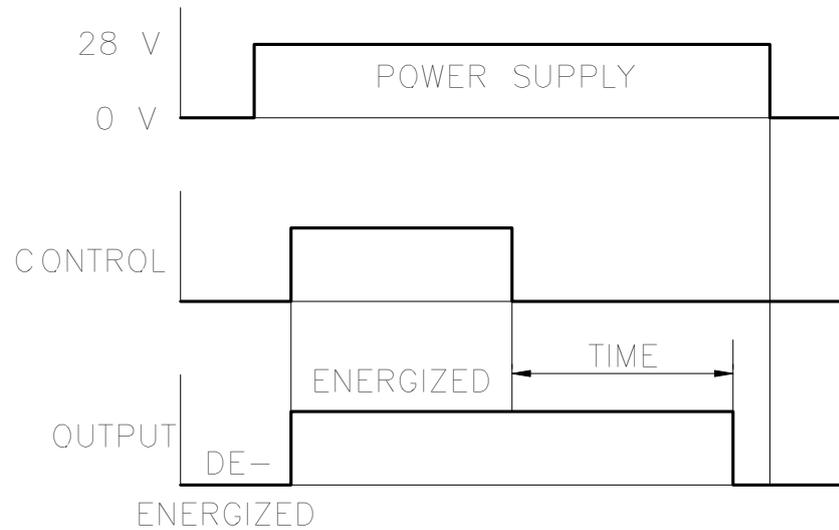
Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.

CODE A : TIME DELAY ON OPERATE,  
FIXED TIME

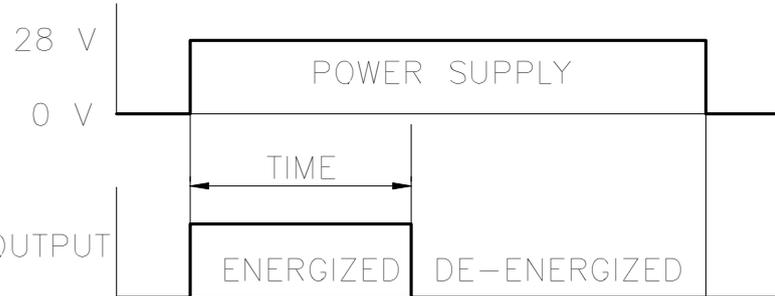


CODE B : TIME DELAY ON OPERATE,  
ADJUSTABLE WITH EXTERNAL RESISTOR

CODE D : TIME DELAY ON RELEASE,  
POSITIVE CONTROL, FIXED TIME



CODE U : TIME DELAY ON RELEASE,  
FIXED TIME



CODE W : TIME DELAY ON RELEASE,  
ADJUSTABLE WITH EXTERNAL RESISTOR

**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	-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



**GENERAL CHARACTERISTICS****T441**

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 25,000 m, all points	250 V / 50 Hz
Initial insulation resistance at 500 Vdc	greater than or equal to 500 M $\Omega$
Sinusoidal vibration	10G / 10 to 2000 Hz
Shock	50G / 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 max.

**NOTES**

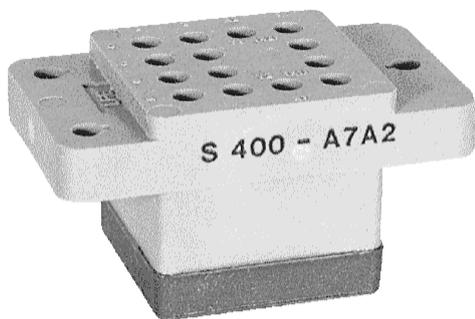
1. Relays with C mounting are compatible with socket families S 402, SF 402 ..
2. Isolation spacer pads for PCB mounting available on request.
3. For other mounting styles or terminal types, please contact the factory.
4. Codes L, M, K, and N not available for adjustable timing.

# ENGINEERING DATA SHEET

# S400, S401, S402

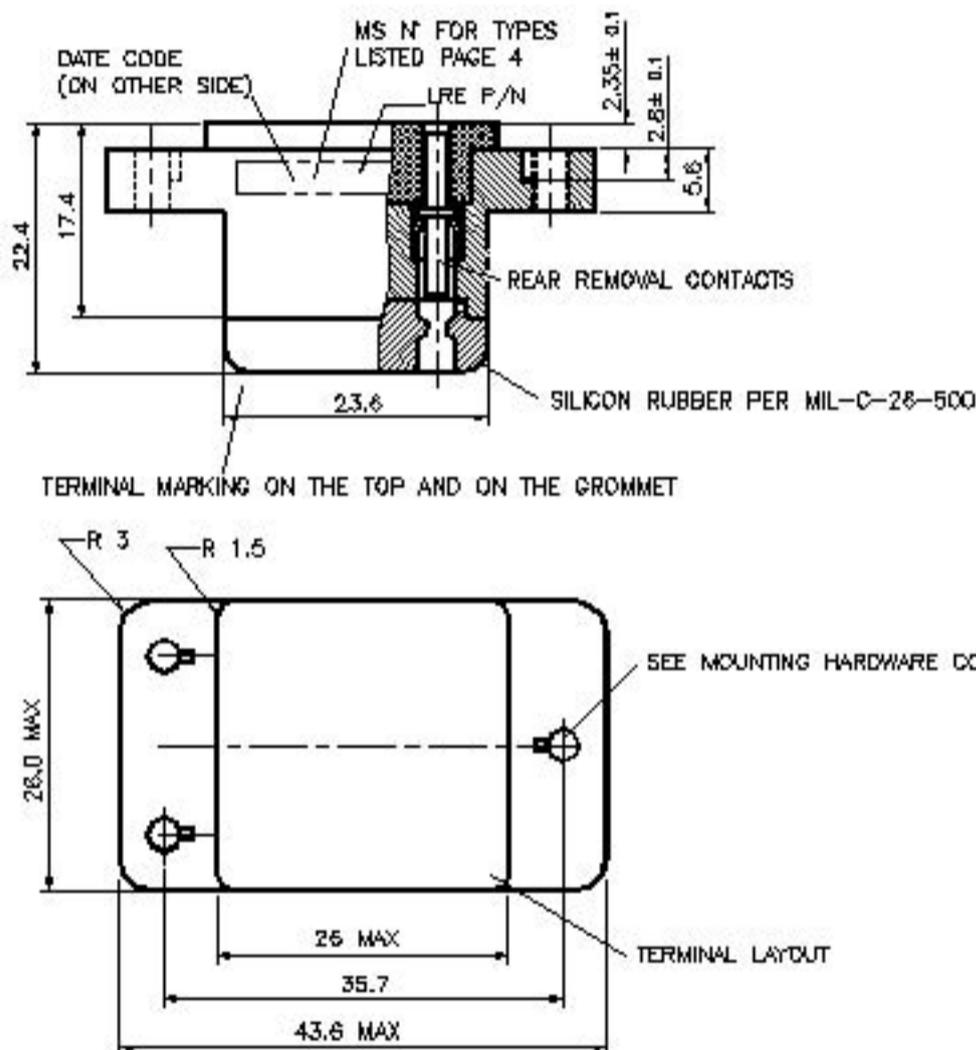
## SOCKET FOR RELAYS

### 10 AMP



BASIC SOCKET SERIES DESIGNATION FOR:

**Series M400 (DC Coil), M401 (AC Coil),  
M402 (DC Coil), FLS402, T402, T412, T441, VS400, CS400**



### GENERAL CHARACTERISTICS

Crimp tool contact	M 22520/1-01 with turret M 22520/1-02 or MS 3191-1.
Insertion and extraction tool	NAS 1664-16.
Weight	35g max.
Temperature range	-70° C to +125° C.

This connection is designed to the standards and requirements of MIL-S-12883  
Contacts and hardware to be delivered disassembled in a plastic bag.  
Tolerances, unless otherwise specified, ±0.25mm.



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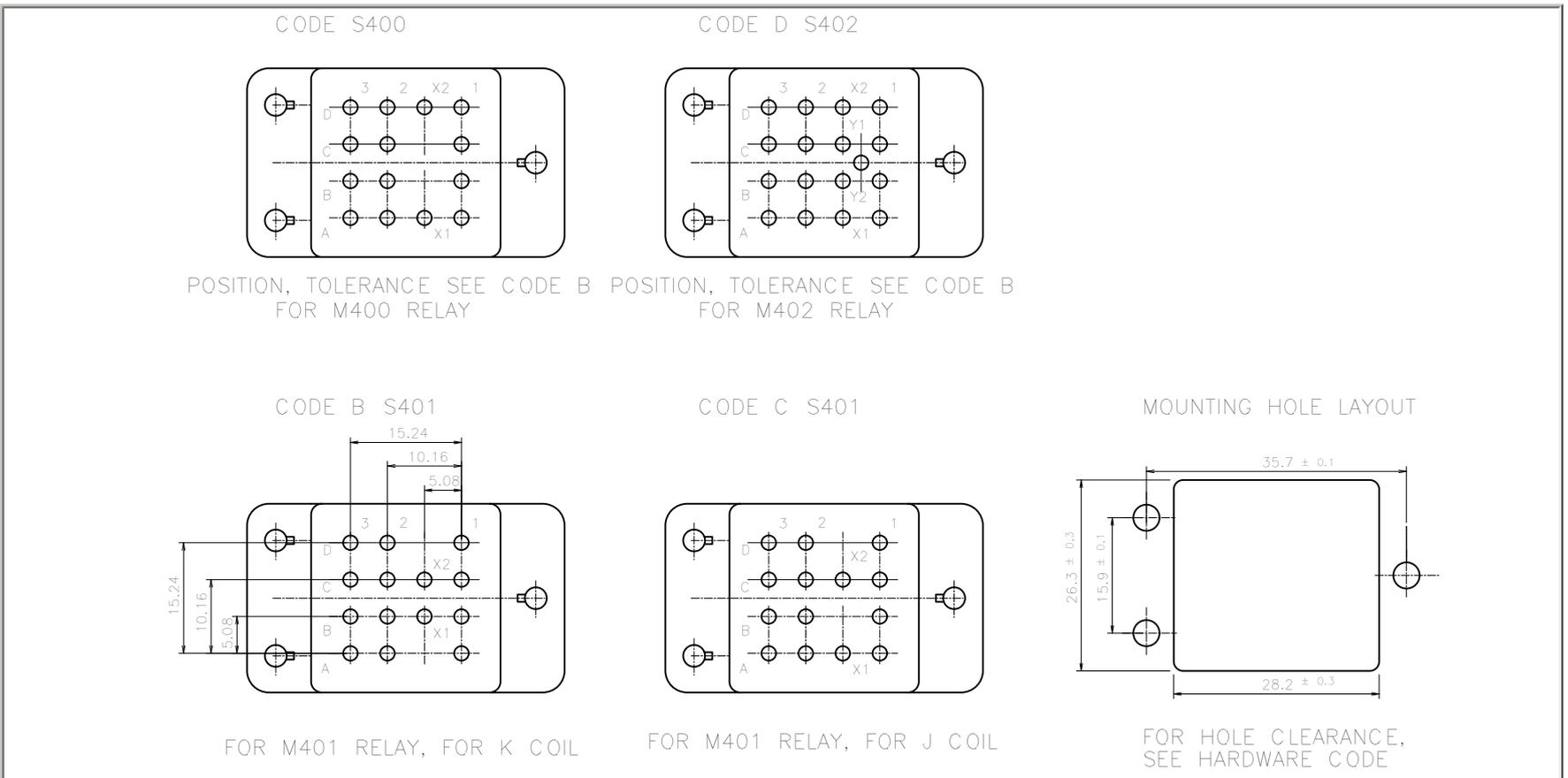
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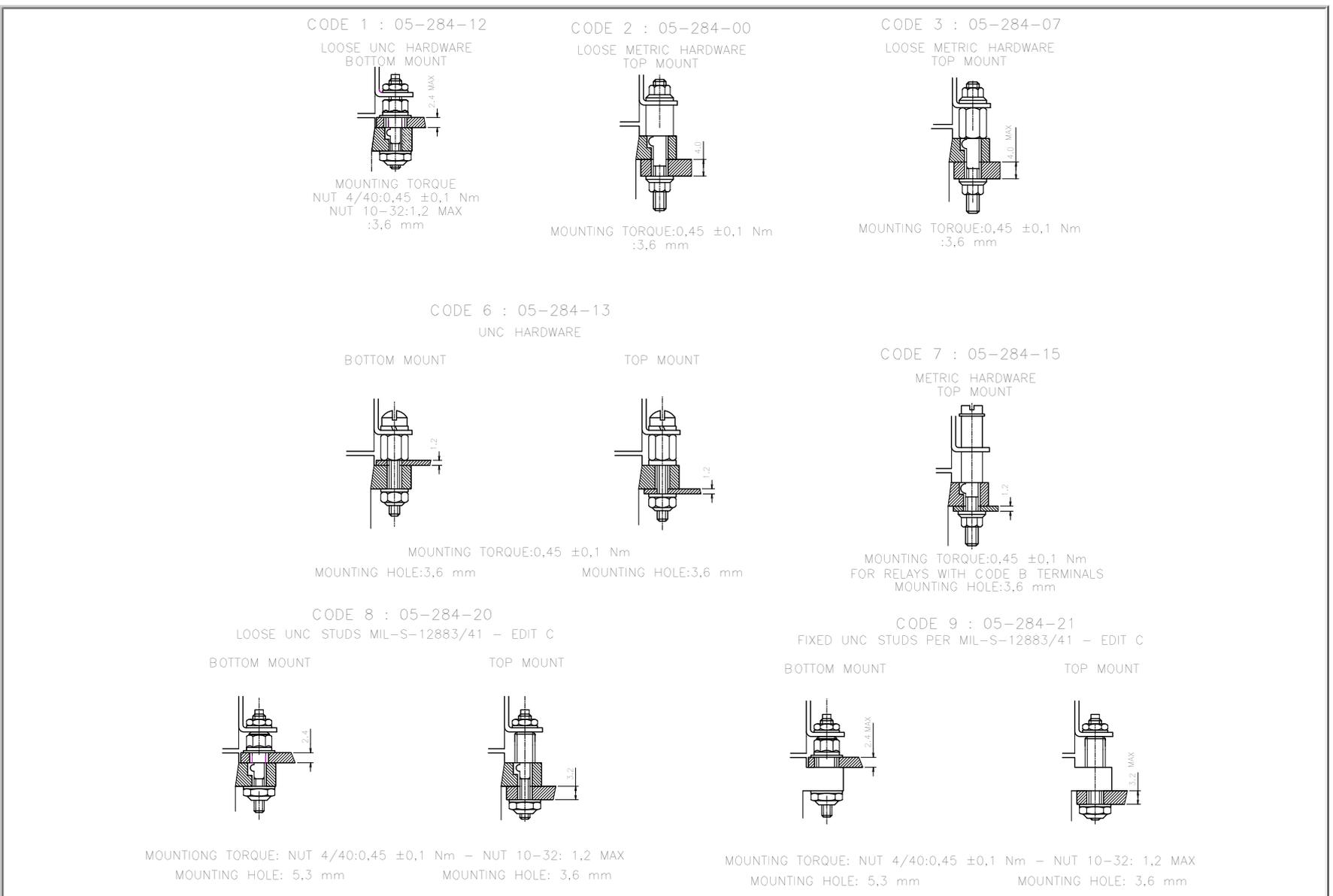
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# TERMINAL LAYOUT

S400, S401, S402



# MOUNTING HARDWARE



**WIRE INSULATION DIAMETER FOR SEAL TO GROMMET**

**S400, S401, S402**

<p><b>Code A</b></p> <p>Recommended for contact code 2 contact code 8 <b>Diameter: 1.2 .....2.4mm</b></p>	<p><b>Code B</b></p> <p>Recommended for contact code 3 contact code 9 <b>Diameter: 0.8 .....1.6mm</b></p>
---	---

**CONTACT SIZE AND STYLE**

	<p>Code 2 05 911 00</p> <p>Crimpend to accommodate AWG16-18-20</p> <p><u>Contact mating end #16</u></p>	<p>Code 3 05 911 10</p> <p>Crimpend to accommodate AWG20-22-24</p> <p><u>Contact mating end #16</u></p>
Code 0 Without contacts	<p>Code 8 30 315 00</p> <p>Crimpend to accommodate AWG16-18-20</p> <p>MIL-C-39029/92-533 Bin Code colour bands or Bin Code numbering on crimp side</p> <p><u>Contact mating end #16</u></p>	<p>Code 9 30 315 10</p> <p>Crimpend to accommodate AWG20-22-24</p> <p>MIL-C-39029/92-534 Bin Code colour bands or Bin Code numbering on crimp side</p> <p><u>Contact mating end #16</u></p>

**SOCKET NUMBERING SYSTEM**

	S400	A	1	A	2
1-Basic socket designation_____					
2-Terminal Layout_____					
3-Mounting Hardware_____					
4-Grommet to seal on wire insulation_____					
5-Contact size and style_____					

**MS/LRE CROSS PART NO. AND MATING RELAYS**

**S400, S401, S402**

	<b>MS - Number</b>	<b>LEACH P/N</b>	<b>Contacts to accomodate wire #</b>		<b>Applicable for relays</b>
<b>MIL-S-12883/40</b>	-01	S400-A6A2	16-18-20	Loose terminals Above/below panel mounting	M400-D4A /-L/-N/-B/-C
	-05	S400-A6B3	20-22-24		M 401-D4F/-K
	-02	S401-B6A2	16-18-20		N/A
	-03	N/A	N/A		M 401-D4E/-J
	-04	S401-C6A2	16-18-20		
	<b>MS - Number</b>	<b>LEACH P/N</b>	<b>Contacts to accomodate wire #</b>		<b>Applicable for relays</b>
<b>MIL-S-12883/40B</b>	-13	S400-A1A2	16-18-20	Loose terminals below panel mounting	M400-D4A /-L/-N/-B/-C
	-17	S400-A1B3	20-22-24		M 401-D4F/-K
	-14	S401-B1A2	16-18-20		M 401-D4E/-J
	-16	S401-C1A2	16-18-20		
	<b>MS - Number</b>	<b>LEACH P/N</b>	<b>Contacts to accomodate wire #</b>		<b>Applicable for relays</b>
<b>MIL-S-12883/40C</b>	-13S	S400-A8A8	16-18-20	Loose terminals Above/below panel mounting	M400-D4A /-L/-N/-B/-C
	-17S	S400-A8B9	20-22-24		M401-D4F/-K
	-14S	S401-B8A8	16-18-20		M401-D4E/-J
	to be determined	S401-C8A8	16-18-20		M402-D4A/ -L/-N/-B/-C
	-18S	S402-D8A8	16-18-20		
<b>MIL-S-12883/40C</b>	-19S	S400-A9A8	16-18-20	Fixed terminals Above/below panel mounting	M400-D4A /-L/-N/-B/-C
	-23S	S400-A9B9	20-22-24		M 401-D4F/-K
	-20S	S401-B9A8	16-18-20		M 401-D4E/-J
	to be determined	S401-C9A8	16-18-20		M 402-D4A/ -L/-N/-B/-C
	-24S	S402-D9A8	16-18-20		