APPLICATION NOTES:

102
007

APPLICABLE SOCKET:
SO-1061-8916

PRINCIPLE TECHNICAL CHARACTERISTICS

Contacts rated at 28 Vdc and 115/200 Vac, 400 Hz, 3Ø
Weight 0.188lb max
Dimensions 1.01in x 1.01in x 1.00in

Hermetically sealed, corrosion resistant metal can.
Detail specifications and ordering data appear on the following pages.
Contact factory for information on MIL-qualified part numbers.

CONTACT ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Contact rating per pole and load type [1]</th>
<th>Load current in Amp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>@28 Vdc @115 Vac 400 Hz @115/200 Vac 400 Hz, 3Ø @115/200 Vac 60 Hz, 3Ø [9] @230/400 Vac 400 Hz [11]</td>
</tr>
<tr>
<td>Inductive [3]</td>
<td>12</td>
</tr>
<tr>
<td>Motor</td>
<td>10</td>
</tr>
<tr>
<td>Lamp</td>
<td>5</td>
</tr>
<tr>
<td>Overload</td>
<td>50</td>
</tr>
<tr>
<td>Rupture</td>
<td>60</td>
</tr>
</tbody>
</table>

Contact rating of auxiliary contacts at 28 Vdc or 115 Vac 400 Hz

<table>
<thead>
<tr>
<th></th>
<th>Resistive</th>
<th>Inductive</th>
<th>Lamp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 Amp</td>
<td>1 Amp</td>
<td>0.5 Amp</td>
</tr>
</tbody>
</table>

Featuring LEACH® power and control solutions
www.esterline.com

Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.
COIL CHARACTERISTICS (Vac)  

<table>
<thead>
<tr>
<th>CODE</th>
<th>Vac 400 Hz</th>
<th>Vac 50-400 Hz</th>
<th>Vac 400 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal operating voltage</td>
<td>28</td>
<td>115</td>
<td>28</td>
</tr>
<tr>
<td>Maximum operating voltage</td>
<td>30</td>
<td>122</td>
<td>30</td>
</tr>
<tr>
<td>Maximum pickup voltage</td>
<td>- Cold coil at +125° C</td>
<td>22</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>- During high temp test at +125° C</td>
<td>24.4</td>
<td>95.4</td>
</tr>
<tr>
<td></td>
<td>- During continuous current test at +125° C</td>
<td>25.6</td>
<td>103.5</td>
</tr>
<tr>
<td>Maximum drop-out voltage</td>
<td>10</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Coil current maximum milliAmperes at +25° C</td>
<td>225</td>
<td>40</td>
<td>120</td>
</tr>
</tbody>
</table>

GENERAL CHARACTERISTICS

Temperature range  
-70°C to +125°C

Minimum operating cycles (life) at rated load  
50,000 [3]

Minimum operating cycles (life) at 25% rated load  
200,000

Dielectric strength at sea level  
- All circuits to ground and circuit to circuit  
1250 Vrms

- Coil to ground and coil auxiliary contact gap  
1000 Vrms [4]

Dielectric strength at altitude 80,000 ft  
500 Vrms [5]

Insulation resistance  
- Initial (500 Vdc)  
100 MΩ min

- After environmental tests (500 Vdc)  
50 MΩ min

Sinusoidal vibration (A, D and E mounting)  
0.12DA / 10 to 70 Hz  
30G / 70 to 3000 Hz

Sinusoidal vibration (J mounting)  
0.12DA / 10 to 57 Hz  
20G / 57 to 3000 Hz

Random vibration  
- Applicable specification  
MIL-STD-202

- Method  
214

- Test condition - A, D and E mounting  
1G (0.4G²/Hz, 50 to 2000 Hz)

- Test condition - J mounting  
1E (0.2G²/Hz, 50 to 2000 Hz)

- Duration  
15 minutes each plane

Shock (A, D, E and W mounting)  
200G / 6 ms

Shock (J mounting)  
100G / 6 ms

Maximum contact opening time under vibration and shock  
10 µs

Operate time at nominal voltage@25°C  
20 ms max

Release time at nominal voltage@25°C  
50 ms max

Contact make bounce at nominal voltage  
- power contacts@25°C  
1 ms max

- auxiliary contacts@25°C  
4 ms max

Contact release break bounce at nominal voltage  
0.1 ms max [8]

Weight maximum  
0.188lb
NOTES

[2] For full rated load, max. temp. and altitude use no. 12 wire or larger.
  Relays to be mounted to limit mounting bracket temp. to 135°C.
[3] DC inductive load 10,000 cycles. AC inductive load 20,000 cycles.
[5] 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
7. Special models available: dry circuit, established reliability testing, etc.
[8] Applicable to power contacts only.
[9] 60 Hz load life, 10,000 cycles.
[11] Temperature range:
  Non-operating -62°C to +95°C
  Operating -54°C to +71°C

NUMBERING SYSTEM

Basic series designation__________________________|   |   |   |
1-Mounting Style (A,D,E,J)____________________________|   |   |
2-Terminal Types (1,2,4) [1]______________________________|   |
3-Coil Voltage see coil characteristics (E,F,J,K or T)________|

MOUNTING STYLES

MOUNTING STYLE A

MOUNTING STYLE D

MOUNTING STYLE E

MOUNTING STYLE J

Date of issue: 07/10
TERMINAL TYPES

TERMINAL TYPE 1
FINISH:
CASE: PAINTED LEACH BLUE
TERMINALS: TIN/LEAD PLATE

TERMINAL TYPE 2
FINISH:
CASE: PAINTED LEACH BLUE
TERMINALS: TIN/LEAD PLATE

TERMINAL TYPE 4
TYPE 4 TERMINALS AVAILABLE
ONLY WITH MOUNTING "A" OR "E"
FINISH:
BODY: LEACH BLUE
TERMINALS: GOLDS PLATE
POLARIZING PIN: TIN/LEAD PLATE

STANDARD TOLERANCE: .XX ± .03; .XXX ± .010