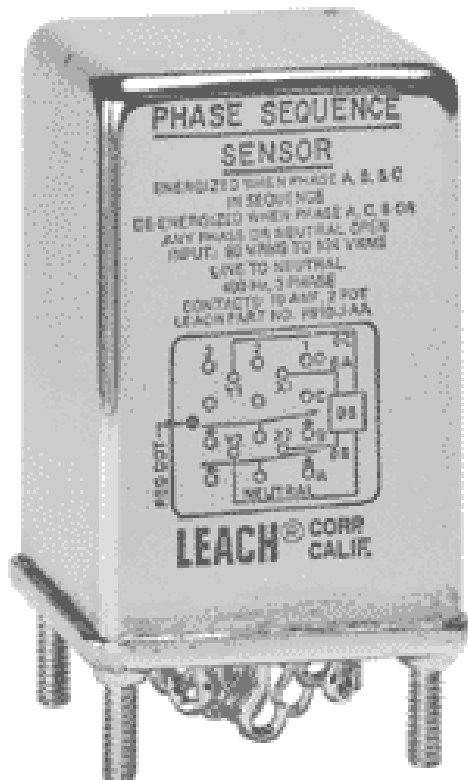


ENGINEERING DATA SHEET

SERIES P510

AC PHASE SEQUENCE SENSOR
2 PDT OR 4PDT, 10 AMP



APPLICABLE SOCKETS:
[SO-1021-7127/7126](#)

FEATURES AND CHARACTERISTICS

- Contacts: 2 PDT or 4 PDT
- Hermetically sealed
- Weight: 10 oz. max.
- Sensing range: 90 to 124 Vac
- Temperature range: -55°C to +125° C
- Custom units available

GENERAL SPECIFICATIONS

| | |
|--|---|
| Input voltage | 90 to 124 Vac, line to neutral 400 Hz \pm 20 Hz, 3 phase WYE |
| Pick-up time | 50 ms, max. |
| Drop-out time | 50 ms, max. |
| Configuration and contact rating | 2 PDT, 2 Amp or 10 Amp, 4 PDT, 10 Amp |
| Temperature range | -55° C to + 125° C |
| Maximum operating current | 75 milliamperes |
| Voltage transients | PER MIL-STD-704A, CAT.B |
| Operating cycles at rated resistive load | 100,000 cycles min. |
| Vibration | 0.06" D.A., 5 to 80 Hz, 20 g, 80 to 2000 Hz |
| Shock | 50 g, 11 \pm 1 ms, 1/2 sine, 3 axes |
| Acceleration | 20 g in any axis |
| Finish | Tin Plate PER MIL-T-10727 |
| Detailed ordering information | See next page |



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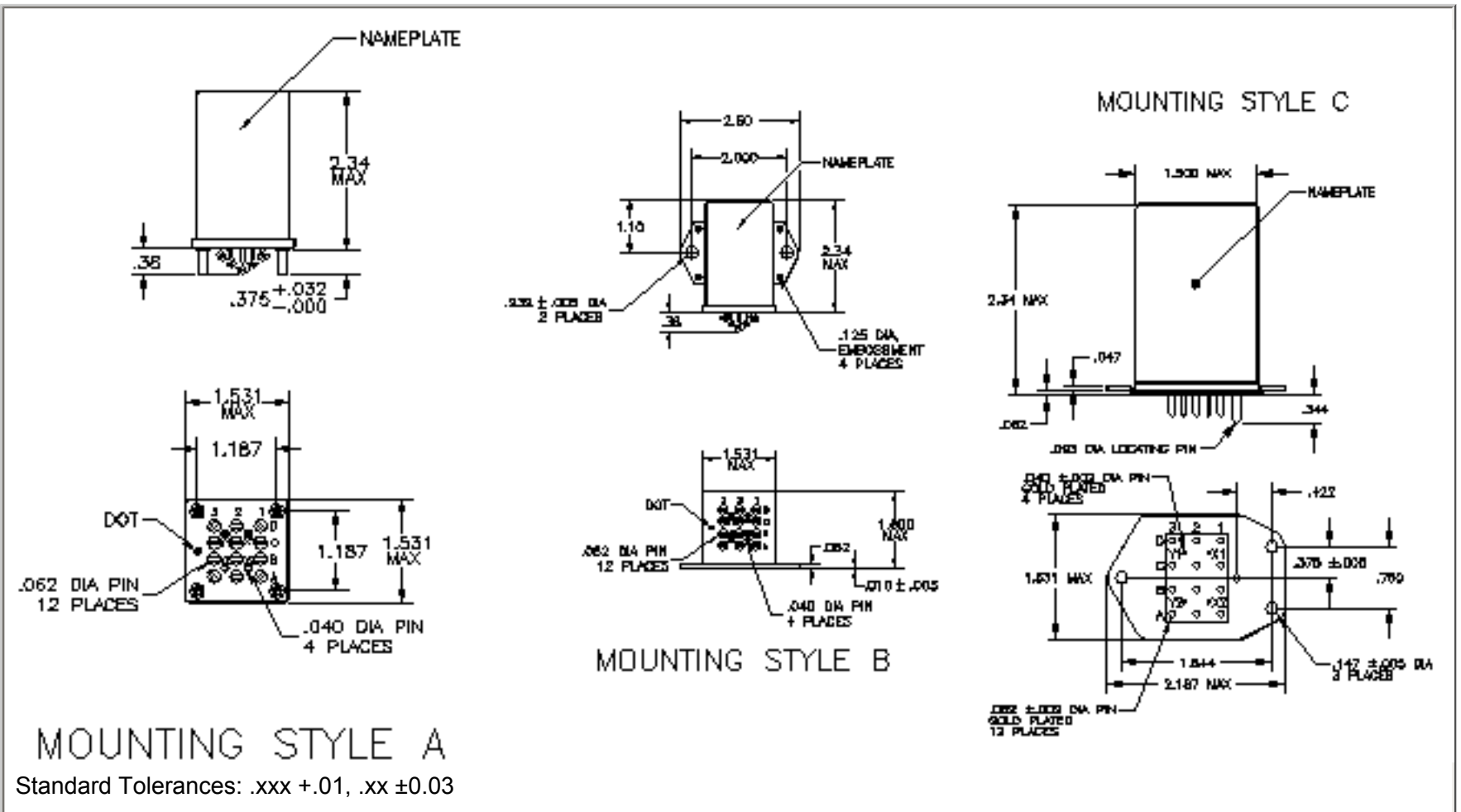
Data sheets are for initial product selection and comparison. Contact Leach International prior to choosing a component.

| | | | | | | |
|---|-------------|---|----------|---|----------|----------|
| | <u>P510</u> | - | <u>J</u> | - | <u>B</u> | <u>A</u> |
| Basic series designation: AC sequence sensor, P510 can size_____ | | | | | | |
| 1-Output Configuration: J series relay, 2 PDT, 10 Amps Res, @28 Vdc _____ | | | | | | |
| 3-Temperature range: -55° C to +125° C_____ | | | | | | |
| 4-Mounting Style And Terminals: Style A_____ | | | | | | |

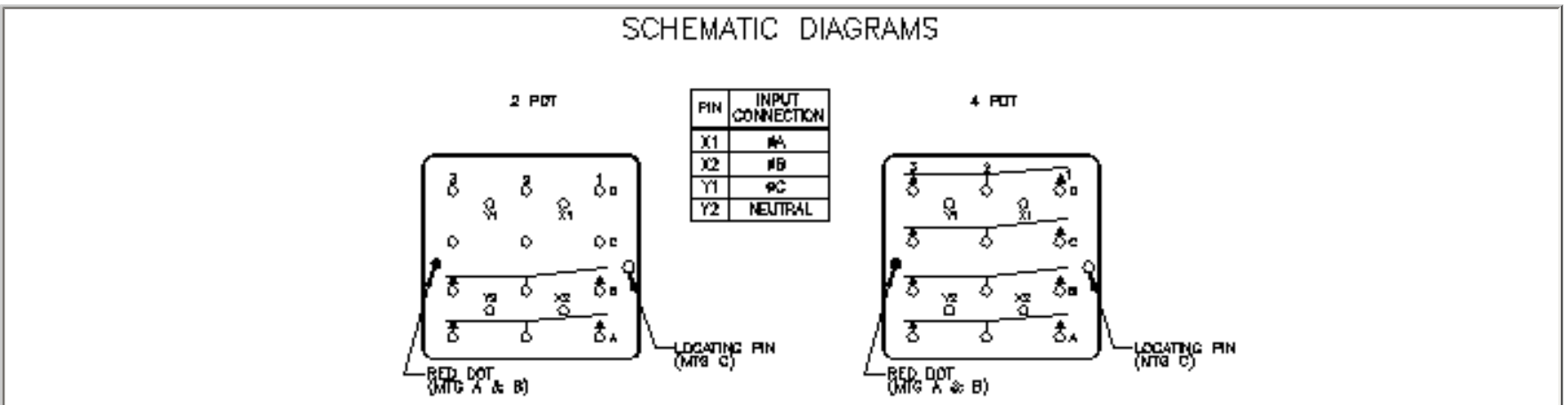
| | | | | | | | |
|---|---|-------------|-------------|---|---------------|---|----------------|
| <p>1. SERIES NUMBER Indicates physical dimensions and weight P510 1.53 x 1.53 x 2.34 wt 10 oz. max</p> | <p>3. TEMPERATURE RANGE AND ACCURACY</p> <table border="0"> <tr> <td style="text-align: center;">Code Letter</td> <td style="text-align: center;">Temp, Range</td> </tr> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">-55° To +85°C</td> </tr> <tr> <td style="text-align: center;">B</td> <td style="text-align: center;">-55° To +125°C</td> </tr> </table> | Code Letter | Temp, Range | A | -55° To +85°C | B | -55° To +125°C |
| Code Letter | Temp, Range | | | | | | |
| A | -55° To +85°C | | | | | | |
| B | -55° To +125°C | | | | | | |
| <p>2. OUTPUT CONFIGURATION, CONTACT RATINGS MIL-PRF-83536 TYPE <u>J</u> 2 PDT, Leach series J relay, 10 Amp resistive, @28 Vdc and 115 Vac, 400 Hz <u>K</u> 4 PDT, Leach series K relay, 10 Amp resistive, @28 Vdc and 115 Vac, 400 Hz</p> <p>NOTE: For additional data on contact ratings, contact the factory.</p> | <p>4. MOUNTING STYLES AND TERMINALS See next page</p> | | | | | | |

NOTES

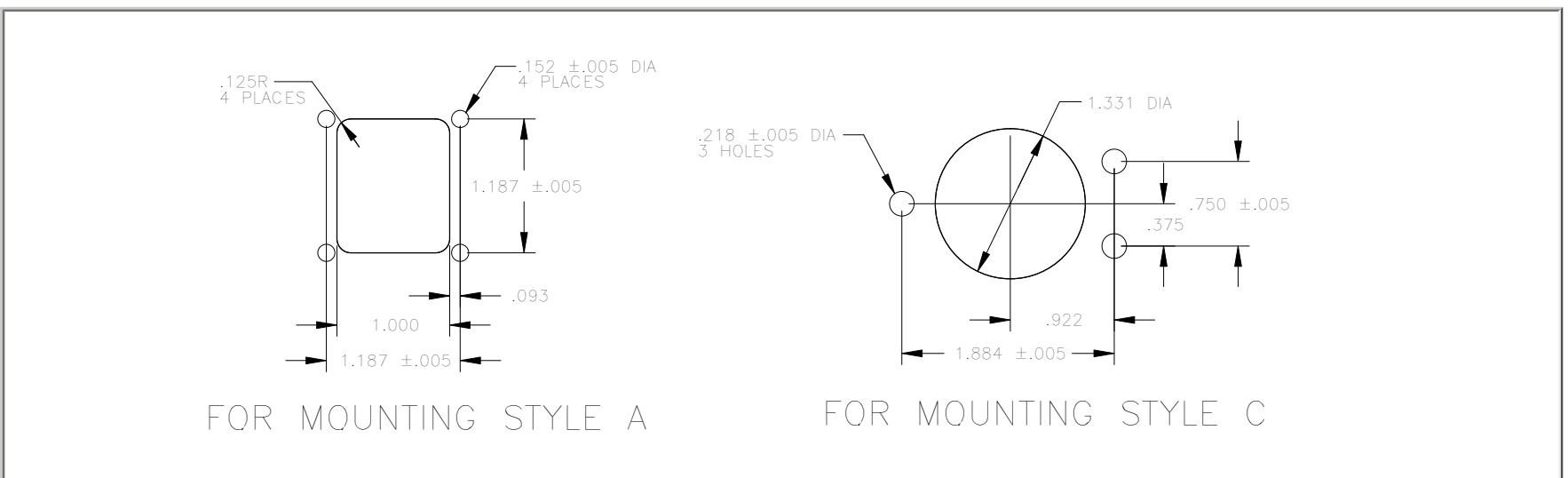
| | | | | | | | | | | | | | | |
|---|---------------|------------|----------------|--|------------------|------------|----------------------|----------|-----------------|--|------------------|------------|----------------------|------------|
| <p>1. Operating Mode The output relay energizes when the phase sequence is ABC and De-energizes for all other phase sequences; Open neutral or loss of voltage of any phase.</p> | | | | | | | | | | | | | | |
| <p>2. Dielectric Strength</p> <table border="0"> <tr> <td>Input to case</td> <td style="text-align: right;">1,000 Vrms</td> </tr> <tr> <td>2 Amp contacts</td> <td></td> </tr> <tr> <td>contacts to case</td> <td style="text-align: right;">1,000 Vrms</td> </tr> <tr> <td>Across open contacts</td> <td style="text-align: right;">500 Vrms</td> </tr> <tr> <td>10 Amp contacts</td> <td></td> </tr> <tr> <td>contacts to case</td> <td style="text-align: right;">1,250 Vrms</td> </tr> <tr> <td>Across open contacts</td> <td style="text-align: right;">1,250 Vrms</td> </tr> </table> | Input to case | 1,000 Vrms | 2 Amp contacts | | contacts to case | 1,000 Vrms | Across open contacts | 500 Vrms | 10 Amp contacts | | contacts to case | 1,250 Vrms | Across open contacts | 1,250 Vrms |
| Input to case | 1,000 Vrms | | | | | | | | | | | | | |
| 2 Amp contacts | | | | | | | | | | | | | | |
| contacts to case | 1,000 Vrms | | | | | | | | | | | | | |
| Across open contacts | 500 Vrms | | | | | | | | | | | | | |
| 10 Amp contacts | | | | | | | | | | | | | | |
| contacts to case | 1,250 Vrms | | | | | | | | | | | | | |
| Across open contacts | 1,250 Vrms | | | | | | | | | | | | | |
| <p>3. Contact factory for phase sensor requirements not covered in this publication.</p> | | | | | | | | | | | | | | |



SCHEMATIC DIAGRAM



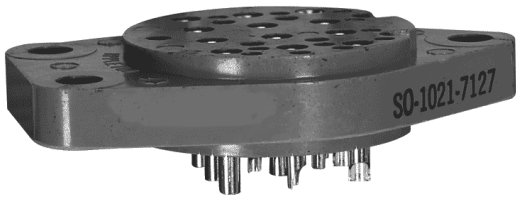
MOUNTING DIMENSIONS



SO-1021-7127/7126

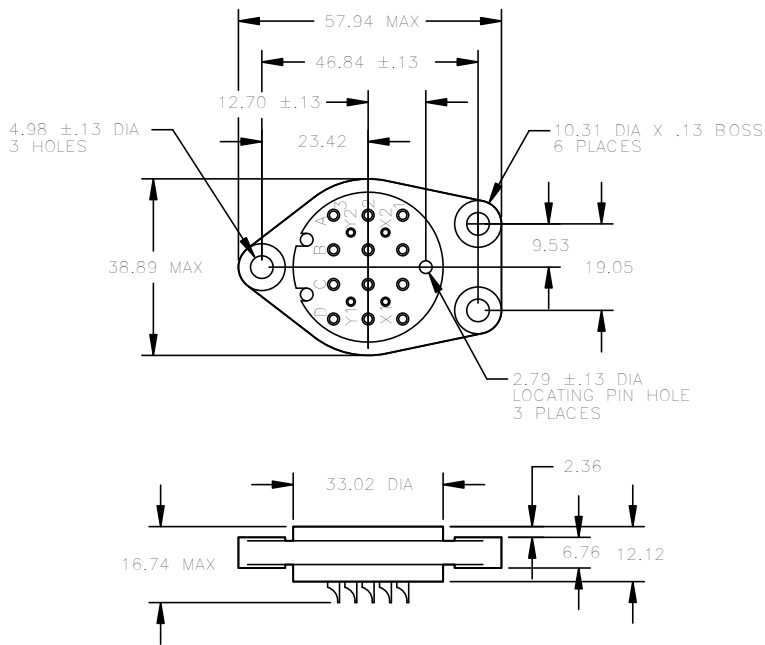
ENGINEERING DATA SHEET

RELAY SOCKET
10 AMP

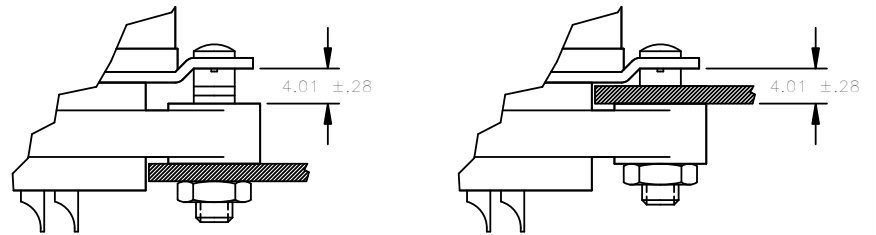


BASIC SOCKET SERIES DESIGNATION FOR:
Series V110, V210, V310, V710, F410, P510
DESIGNED TO THE STANDARDS AND REQUIREMENTS OF:
MS 25462-1

SOCKET DRAWING



HARDWARE MOUNTING



TOP MOUNTED

BOTTOM MOUNTED

GENERAL CHARACTERISTICS

| | |
|--|----------------------|
| 1. Supplied with mounting hardware (SO-1021-7127) or without mounting hardware (SO-1021-7126). | |
| 2. Standard tolerances | .xx ±.01; xxx ±.005. |
| 3. Weight | .080 lb. max. |
| 4. Temperature range | -55° C to +125° C |



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