### NOTES:
1. **HE LEAK TEST @ 1 ATM 1x10^-5 CC/SEC OR LESS. A GREEN PAINT DOT INDICATES THE PART HAS PASSED THE TEST.**
2. **HYPOT 630 VDC, 500 MEGOHMS MINIMUM 0.01 SECOND MINIMUM WIRE TO WIRE.**
3. **ALL TESTS ARE PERFORMED AT ROOM TEMPERATURE.**
4. **ALL PARTS MUST PASS ALL TESTS.**
5. **WIRE POSITIONING IS APPROXIMATE & VARIABLE.**
6. **CLEARANCE BETWEEN VACUUM SURFACE & ADJACENT SURFACE SHALL BE NO LESS THAN 0.90 [22.9].**
7. **NO COSMETIC SURFACE Voids ARE ACCEPTABLE ON O-RING SEALING SURFACES. COSMETIC SURFACE Voids SMALLER THAN 0.035 [0.89] ARE ACCEPTABLE ON ALL OTHER SURFACES.**
8. **DIMENSION IS OVER-ALL-LENGTH EXCLUDING OVERFILL ON VACUUM SIDE OF HOUSING.**
9. **REF-OPERATING TEMPERATURE -20°C TO 105°C.**
10. **REF-PARTS ARE DEFLASHED ON PARTING LINE +0.005 [0.13].**
11. **PAVE-SEAL CAN BE A BI-DIRECTIONAL HERMETIC SEAL FOR VACUUM AND MOST PRESSURES. FOR PRESSURES ABOVE 150 PSI (10 BAR), CHECK WITH SALES ENGINEERING.**

### TABLE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>4603</td>
<td>HOUSING SP12-E</td>
</tr>
<tr>
<td>2</td>
<td>A/R</td>
<td>PAVE-Seal 150</td>
<td>EPOXY BLACK</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>6712 BLACK</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>6712 BROWN</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>6712 RED</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>6712 ORANGE</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>6712 BLUE</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>6712 GREEN</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>6712 SLATE</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>6712 VIOLET</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>6712 WHITE</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>6712 YELLOW</td>
<td>WIRE 24MPPE UL11028 7#32</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>-016 VITON</td>
<td>O-RING -016 VITON 75</td>
</tr>
<tr>
<td>14</td>
<td>A/R</td>
<td>FOMBLIN YVAC 3</td>
<td>LUBRICANT O-RING FOMBLIN GREASE</td>
</tr>
</tbody>
</table>

### Diagram

- **ATMOSPHERE**
- **VACUUM**
- **SP12 INSTALLATION PORT**

**Dimensions and Tolerances:**
- All dimensions and tolerances are in inches.
- **Angles:** Noted
- **Projections:** Noted
- **Material:** Noted
- **Revision:** Noted

**Allowable Tolerances:**
- Angle: X.X DECIMAL
- Diameter: 0.1 X.XX DECIMAL
- Width: 0.02 X.XXX DECIMAL
- Length: 0.005

**Clearance:**
- Atmospheric: ±.01
- Vacuum: ±0.3

**Green Paint:**
- Dot shall be applied on the atmosphere side face.
- Dot shall be 0.62 [15.7] this side.

**Wires to Exit:**
- To be within ±.01

**Vacuum Side:**
- Clearance between vacuum surface & adjacent surface shall be no less than 0.90 [22.9].
- No cosmetic surface voids are acceptable on vacuum sealing surfaces.
- Cosmetic surface voids smaller than 0.035 [0.89] are acceptable on all other surfaces.

**Overfill:**
- Maximum over/underfill, not including meniscus on wires, shall be within ±0.13 [3.33] both sides.
- Overfill to be within ±0.005 [0.13] on wires.

**Tolerances:**
- All dimensions and tolerances apply to finished part in inches.
- Allowable tolerances unless specified otherwise: None

**Part List:**
- **SP12-E-150-24-MPPE24-72-18**
- 4700 A
- 32 DEGREE SURFACE FINISH 128 microinch RMS

**Contact:**
- 2752 Thunderhawk Court
- Dayton, OH 45414-3445
- Tel (937) 890-1100
- Fax (937) 890-5165
- www.pavetechnology.com

---

**Level:**
- Atmosphere
- Vacuum

**Pressure:**
- Minimum: 1829 MIN 72 MIN
- Maximum: 13.2 ±0.3 [.52±.01 SEE NOTE 8]