

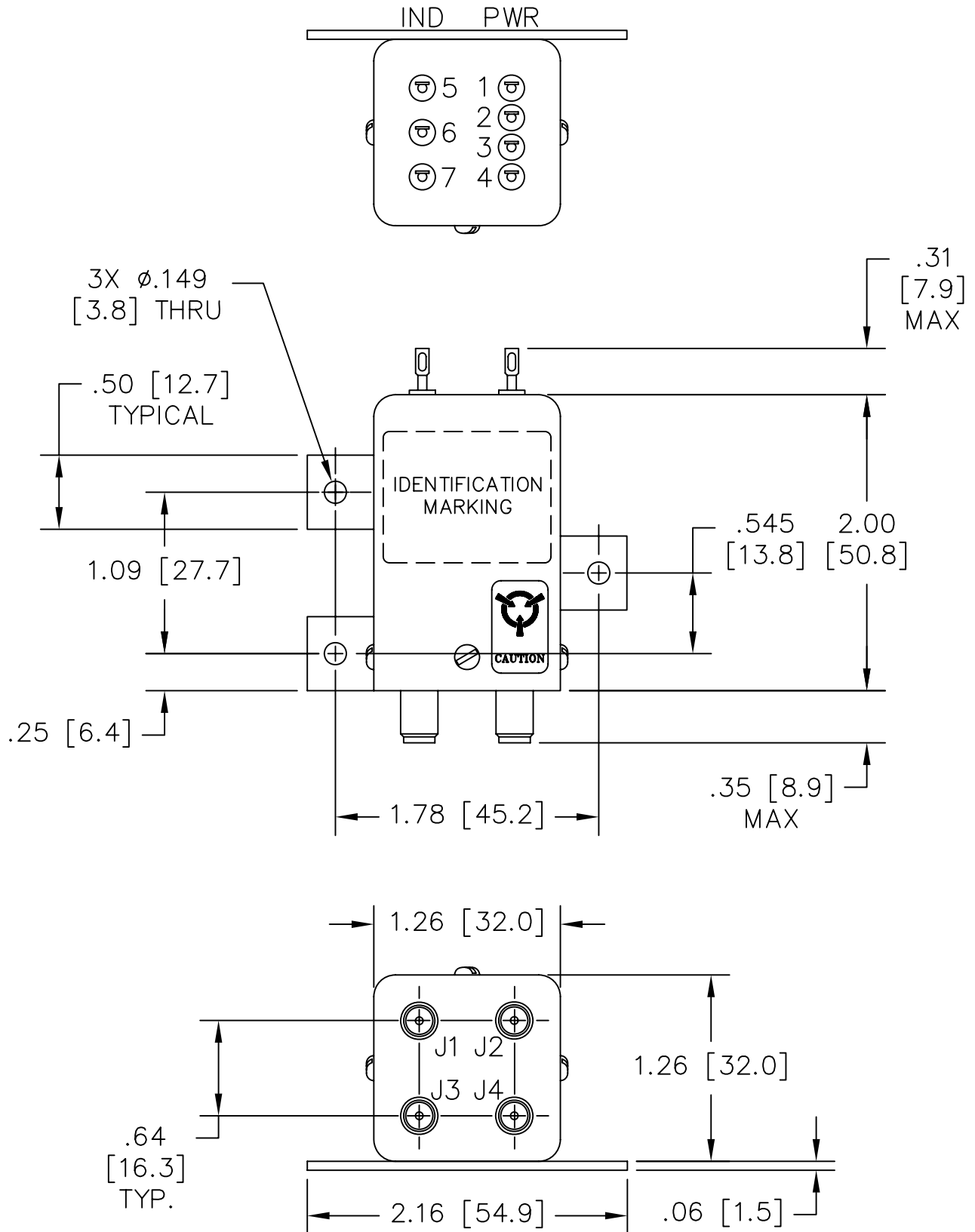


| REVISIONS |                                   |          |          |
|-----------|-----------------------------------|----------|----------|
| REV.      | DESCRIPTION                       | DATE     | APPROVED |
| A         | INITIAL RELEASE                   | 12/20/97 | J.A.     |
| B         | REVISED AND REDRAWN PER ECO #6656 | 6/27/01  | M.R.     |
| C         | REVISED PER ECO #9635             | 6/30/09  | S.L.     |

| Nominal<br>Coil Voltage | Part Number  |
|-------------------------|--------------|
| 12 Vdc                  | 411C-420832A |
| 15 Vdc                  | 411C-490832A |
| 20 Vdc                  | 411C-470832A |
| 24 Vdc                  | 411C-480832A |
| 28 Vdc                  | 411C-430832A |
| 48 Vdc                  | 411C-440832A |

|            |             |         |   |             |  |  |   |   |
|------------|-------------|---------|---|-------------|--|--|---|---|
| REVISIONS  | C           | C       | C |             |  |  |  <b>DowKey<sup>®</sup><br/>Microwave<br/>CORPORATION</b> | 4822 McGrath Street<br>Ventura, CA. 93003-5641<br>PH: (805) 650-0260<br>FAX: (805) 650-1734 |
| SHEET NO.  | 1           | 2       | 3 |             |  |  |   |   |
| APPROVALS  |             | DATE    |   |             |  |  |  <b>A DOVER TECHNOLOGIES COMPANY</b>                    |   |
| DRAWN      | S. LEE      | 4/20/01 |   |             |  |  |   |   |
| ENG        | S. LEE      | 6/05/01 |   |             |  |  | <b>SWITCH, TRANSFER, LATCHING SELF CUT-OFF,<br/>SMA-FEMALE CONNECTORS, MECHANICAL<br/>INDICATORS, TTL-HI, MTG BRACKET</b>                   |   |
| ENG. MGR.  | R. SZNUK    | 6/05/01 |   |             |  |  |   |   |
| SALES MGR. | D. COLLETTA | 6/06/01 |   |             |  |  |   |   |
| Q.A. MGR.  | S. EVERETT  | 6/06/01 |   |             |  |  |   |   |
| MFG. MGR.  | M. MARTINEZ | 6/06/01 |   |             |  |  | CODE IDENT. NO.<br><b>00471</b>   | DWG. NO.<br><b>411C-4X0832A</b>   |
| SCALE      |             | NONE    |   | FINAL ASSY: |  |  | SHEET 1 OF 3  |   |

**OUTLINE DRAWING:**



[ ] MILLIMETERS

|   |                          |                          |           |
|---|--------------------------|--------------------------|-----------|
| UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:<br>.XXX ±.010 ANGLES: ±3°<br>.XX ±.030 | CODE IDENT. NO.<br>00471 | DWG. NO.<br>411C-4X0832A | REV.<br>C |
|   | SCALE NONE               | SHEET 2 OF 3             |           |

**SPECIFICATIONS:**

**1. RF CHARACTERISTICS:**

|                              |        |        |        |        |        |
|------------------------------|--------|--------|--------|--------|--------|
| 1.1 FREQUENCY (GHz):         | DC-1   | 1-4    | 4-8    | 8-12   | 12-18  |
| 1.2 VSWR (RATIO MAX):        | 1.10:1 | 1.20:1 | 1.30:1 | 1.40:1 | 1.50:1 |
| 1.3 INSERTION LOSS (dB MAX): | 0.10   | 0.20   | 0.30   | 0.40   | 0.50   |
| 1.4 ISOLATION (dB MIN):      | 85     | 80     | 70     | 65     | 60     |
| 1.5 RF POWER (WATTS CW MAX): | 200    | 125    | 90     | 75     | 60     |

**2. ACTUATION DATA:**

| 2.1 | NOMINAL VOLTAGE | OPERATING VOLTAGE | CURRENT (TYP)<br>@ NOMINAL VOLTAGE & 25°C |
|-----|-----------------|-------------------|---|
|     | 12Vdc           | 11-14             | 300mA                                     |
|     | 15Vdc           | 13-17             | 270mA                                     |
|     | 20Vdc           | 17-23             | 190mA                                     |
|     | 24Vdc           | 20-28             | 165mA                                     |
|     | 28Vdc           | 24-32             | 130mA                                     |
|     | 48Vdc           | 46-52             | 175mA                                     |

2.2 SWITCHING TIME: 20mS MAX.  
 2.3 OPERATING MODE: LATCHING SELF CUT-OFF, TTL-HI

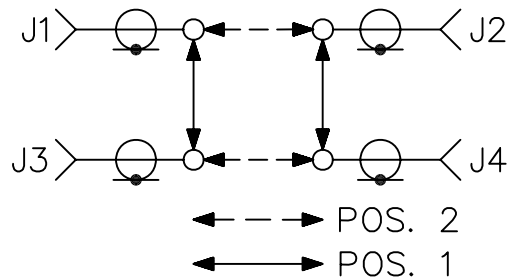
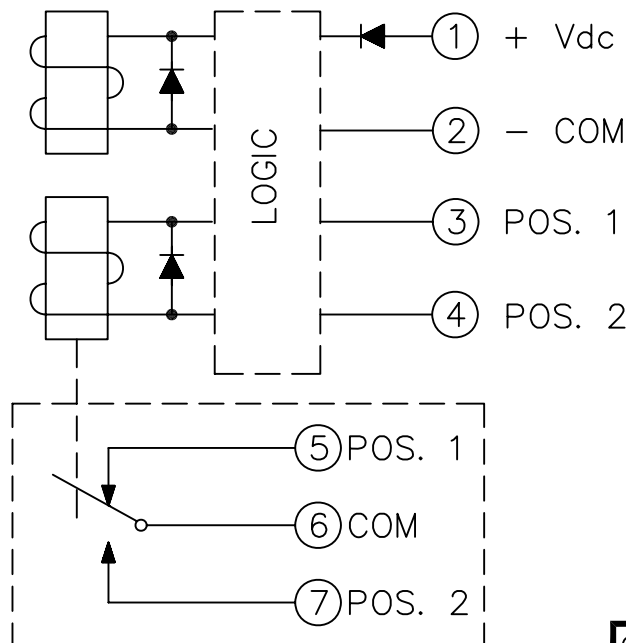
**3. MECHANICAL:**

3.1 RF CONTACTS: BREAK BEFORE MAKE  
 3.2 WEIGHT: 4.0oz. (113g.) NOMINAL  
 3.3 DESIGN LIFE: 1,000,000 CYCLES MIN

**4. ENVIRONMENTAL:**

4.1 OPERATING TEMPERATURE: -25°C TO +65°C  
 4.2 STORAGE TEMPERATURE: -55°C TO +85°C  
 4.3 SEAL: SAND AND DUST

**SCHEMATIC:**



|                          |                          |           |
|--------------------------|--------------------------|-----------|
| CODE IDENT. NO.<br>00471 | DWG. NO.<br>411C-4X0832A | REV.<br>C |
| SCALE NONE               | SHEET 3 OF 3             |           |