

INCH-POUND

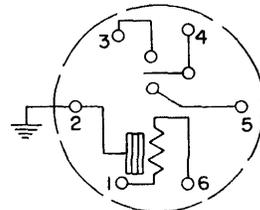
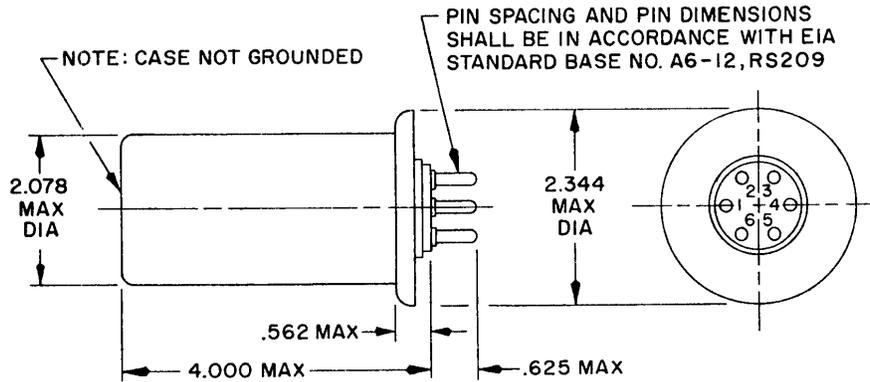
MIL-DTL-83729/2C
14 June 2002
SUPERSEDING
MIL-C-83729/2B
15 July 1983

DETAIL SPECIFICATION SHEET

CHOPPERS, ELECTROMECHANICAL,
DUST TIGHT, SINGLE POLE, DOUBLE THROW,
MAKE BEFORE BREAK

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist
of this specification sheet and the latest issue of MIL-DTL-83729.



| Inches | mm |
|--------|--------|
| .562 | 14.27 |
| .625 | 15.88 |
| 2.078 | 52.78 |
| 2.344 | 59.54 |
| 4.000 | 101.60 |

SCHEMATIC DIAGRAM TO
APPEAR ON SIDE OF CAN

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .005$ (.13mm).
4. When the coil is de-energized the center reed may be in any of 3 positions.

FIGURE 1. Outline drawing, terminal arrangement and schematic diagram.

REQUIREMENTS:

Contact data:

Single pole, double throw, make before break.

Polarity: When pin 1 is positive, pin 4 is connected to pin 5 and disconnected from pin 3. When pin 6 is positive, pin 4 is connected to pin 3 and disconnected from pin 5.

Voltage and current: 1 microvolt to 6.0 volts, maximum. .001 ampere maximum.

Coil data:

Voltage rated: 6.3 volts maximum.

Frequency range: 50 to 65 Hz.

Resistance: 131 ohms ± 10 percent.

Impedance: 132 ohms ± 10 percent.

Waveform characteristics (at 25°C):

Dwell time: Each contact closed $198^\circ \pm 7^\circ$ of each cycle. Contacts closed simultaneously for $18^\circ \pm 10$ percent twice in each cycle.

Dissymmetry: Within $\pm 7^\circ$.

Transfer time: Not applicable.

Phase angle: $17^\circ \pm 5^\circ$.

Noise level: Stray pick up.

Electrostatic: 2×10^{-10} V/ohm of input circuit impedance.

Electromagnetic: Less than 2×10^{-6} volts constant to within 2×10^{-7} volts.

Environmental conditions:

Dielectric withstanding voltage: Applicable.

Insulation resistance: Applicable.

Vibration II: Method 204, test condition A, MIL-STD-202.

(a) Qualification and quality conformance inspection: 1 1/2 hours in each of three mutually perpendicular directions, including the most critical axis.

Output voltage: Vary less than 2 percent from 0 to 10g's during vibration.

Shock: 30g's for 11 milliseconds in three directions.

Temperature range: $25^\circ\text{C} \pm 10^\circ\text{C}$.

Life:

Duration of test: 2,500 hours continuous.

Temperature: $25^\circ \pm 2^\circ\text{C}$.

Coil voltage and frequency: Nominal.

Operating conditions: See table I.

Output voltage: Vary not more than 2 percent during life.

Contact resistance: Shall not exceed .100 ohm during and at conclusion of life.

MIL-DTL-83729/2C

TABLE I. Life operating conditions.

| Contact voltage (volt) | Contact current (ampere) | Hours |
|---------------------------|-----------------------------|-------|
| .010 | .001 | 1,000 |
| 1.0 | .0001 | 1,500 |

Mechanical:

Weight: .68 pound, maximum.

Dimensions: See figure 1.

Enclosure: Dust-tight case.

Terminals: Plug in, see figure 1.

Mounting position: Vertical for optimum performance.

Part number: M83729/2-001.

Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:

DLA - CC

(Project 5945-1152-02)

Review activities:

Army - AT, AV, CR4, MI
Navy - AS, MC, OS
Air Force - 19