



- |   |   | <b>M</b>   |                | <b>1EN329-R</b> |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
|---|---|--|----------------|-----------------|---------------|---|---|--------------------|------------------|--------------------|------------------|--------------------|------------------|---------------|---------------|---------------|---------------|------------|--------|---|---|---|----|--------------|--------|---|---|---|----|
| SPECIFICATION DETAILS:  |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| STANDARD:   |   | CONFORMS TO<br>MS24331-1 (MIL-PRF-8805/40), EXCEPT AS NOTED  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| CONSTRUCTION:   |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ENCLOSURE DESIGN  |   | WATERTIGHT SEAL PER MIL-PRF-8805, SYMBOL 3   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| CONTACT MATERIAL & CONFIGURATION  |   | SMOOTH SILVER CONTACTS & SMOOTH GOLD CONTACT   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| CIRCUIT CONFIGURATION   |   | 2 SPDT   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| TERMINATION   |   | CONNECTOR PER MS27471Y9E35PN   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| WEIGHT  |   | .46 LB MAX   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| EXPOSED METALS  |   | CORROSION RESISTANT STAINLESS STEEL  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ELECTRICAL CHARACTERISTICS:   |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ELECTRICAL RATINGS  |   | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">VOLTAGE</th> <th colspan="2" style="text-align: center;">RESISTIVE</th> <th colspan="2" style="text-align: center;">LOAD INDUCTIVE</th> <th style="text-align: center;">MOTOR</th> </tr> <tr> <th></th> <th style="text-align: center;"><math>\triangle/2</math></th> <th style="text-align: center;"><math>\triangle/1</math></th> <th style="text-align: center;"><math>\triangle/2</math></th> <th style="text-align: center;"><math>\triangle/1</math></th> <th style="text-align: center;"><math>\triangle/2</math></th> </tr> </thead> <tbody> <tr> <td>-SEA LEVEL</td> <td style="text-align: center;">28 VDC</td> <td style="text-align: center;">4</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">.5</td> </tr> <tr> <td>-50,000 FEET</td> <td style="text-align: center;">28 VDC</td> <td style="text-align: center;">4</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">.5</td> </tr> </tbody> </table> |                |                 |               | VOLTAGE   | RESISTIVE                               |                    | LOAD INDUCTIVE   |                    | MOTOR            |                    | $\triangle/2$    | $\triangle/1$ | $\triangle/2$ | $\triangle/1$ | $\triangle/2$ | -SEA LEVEL | 28 VDC | 4 | 1 | 2 | .5 | -50,000 FEET | 28 VDC | 4 | 1 | 2 | .5 |
| VOLTAGE   | RESISTIVE                               |  | LOAD INDUCTIVE |                 | MOTOR         |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
|   | $\triangle/2$                           | $\triangle/1$  | $\triangle/2$  | $\triangle/1$   | $\triangle/2$ |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| -SEA LEVEL  | 28 VDC                                  | 4  | 1              | 2               | .5            |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| -50,000 FEET  | 28 VDC                                  | 4  | 1              | 2               | .5            |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| DIELECTRIC STRENGTH & INSULATION RESISTANCE   |   | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">DIELECTRIC STRENGTH<br/>≈ 60 Hz. FOR 5 SECONDS)<br/>(MAX LEAKAGE)</th> <th style="text-align: center;">INSULATION RESISTANCE<br/>(500 VDC ±10%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1000 V Rms, 500μ A</td> <td style="text-align: center;">1000 Megohms MIN</td> </tr> <tr> <td style="text-align: center;">1000 V Rms, 500μ A</td> <td style="text-align: center;">1000 Megohms MIN</td> </tr> <tr> <td style="text-align: center;">1000 V Rms, 500μ A</td> <td style="text-align: center;">1000 Megohms MIN</td> </tr> </tbody> </table>   |                |                 |               | DIELECTRIC STRENGTH<br>≈ 60 Hz. FOR 5 SECONDS)<br>(MAX LEAKAGE) | INSULATION RESISTANCE<br>(500 VDC ±10%) | 1000 V Rms, 500μ A | 1000 Megohms MIN | 1000 V Rms, 500μ A | 1000 Megohms MIN | 1000 V Rms, 500μ A | 1000 Megohms MIN |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| DIELECTRIC STRENGTH<br>≈ 60 Hz. FOR 5 SECONDS)<br>(MAX LEAKAGE)   | INSULATION RESISTANCE<br>(500 VDC ±10%) |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| 1000 V Rms, 500μ A  | 1000 Megohms MIN                        |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| 1000 V Rms, 500μ A  | 1000 Megohms MIN                        |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| 1000 V Rms, 500μ A  | 1000 Megohms MIN                        |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| -BETWEEN TERMINALS AND EXPOSED NON-CURRENT CARRYING METAL<br>-BETWEEN TEMRINALS OF MUTUALLY INSULATED CIRCUITS<br>-BETWEEN ALL UNCONNECTED TERMINALS OF THE SAME POLE |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| SWITCH RESISTANCE   |   | CIRCUIT 1-3 $\triangle/5$ ; CIRCUIT 4-6 N/A  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| RECOMMENDATION OR USE IN APPLICATIONS LESS THAN .5 amps AND/OR 12 volts   |   | NO $\triangle/9$ CIRCUIT 4-6 YES $\triangle/9$ CIRCUIT 1-3   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| MECHANICAL CHARACTERISTICS:   |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| CHARACTERISTICS:  |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| OPERATING FORCE   |   | 6-12 LBS   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| FULL OVERTRAVEL FORCE   |   | 30 LB MAX  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| RELEASE FORCE   |   | 4 LB MIN   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| PRETRAVEL   |   | .040 MAX   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| DIFFERENTIAL TRAVEL   |   | .020 MAX   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| OVERTRAVEL  |   | .250 MIN   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| COINDICENCE OF OPERATING & RELEASE POINTS   |   | .010 OF PLUNGER TRAVEL   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| MOUNTING STRENGTH   |   | 15 IN-LBS  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ACTUATOR STRENGTH   |   | 30 LBS APPLIED IN A DIRECTION TO CAUSE SWITCH ACTUATION  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| LIFE:   |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| MECHANICAL LIFE   |   | 25,000 MIN. PER MIL-PRF-8805/40 $\triangle/6$  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ELECTRICAL LIFE AT FULL RATED LOAD  |   | 25,000 MIN. PER MIL-PRF-8805/40 $\triangle/6$  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ENVIRONMENTAL:  |   |  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| TEMPERATURE RANGE   |   | -55 C TO +85 C   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| ALTITUDE RANGE  |   | SEA LEVEL TO 50,000 FEET   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| SHOCK   |   | PER MIL-PRF-8805 SYMBOL M - 100 g  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| VIBRATION   |   | PER MIL-PRF-8805 SYMBOL I- 10-500 Hz.& 10 g peak   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| MOISTURE RESISTANCE   |   | PER MIL-PRF-8805 (10 DAY TEST)   |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| THERMAL SHOCK   |   | PER MIL-PRF-8805 (5 CYCLE TEST)  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |
| SALT SPRAY  |   | PER MIL-PRF-8805 (96 HOUR TEST)  |                |                 |               |   |   |                    |                  |                    |                  |                    |                  |               |               |               |               |            |        |   |   |   |    |              |        |   |   |   |    |

PTC/CAD 2D