

# Hermetic Switch Reed Switches

## MICRO-MINIATURE

| <i>Parameters</i>                               |       |                       | Type | HSR-0025         | HSR-0025SM      | HSR-003          | HSR-004          | HSR-023          | HSR-067          | HSR-069          | HSR-080          | HSR-370          | HSR-502          |
|---|-------|-----------------------|------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Configuration                                   |       |                       |      | SPST             | SPST            | SPST             | SPST             | SPST             | SPST             | SPST             | SPST             | SPDT             | SPDT             |
| Contact Material <sup>1</sup>                   |       |                       |      | D                | D               | D                | R-D              | R                | R-D              | R-D              | R                | R-D              | R                |
| Figure  |       |                       |      | A-2              | A-0             | A-2              | A-1              | A-1              | A-1              | A-1              | A-2              | C-1              | C-2              |
| Switching Voltage                               | Max   | Volts DC              |      | 30               | 30              | 30               | 30               | 100              | 30               | 30               | 100              | 30               | 30               |
|   |       | Volts AC <sup>5</sup> |      |                  |                 |                  |                  |                  |                  |                  | 120              |                  |                  |
| Switching Current                               | Max   | A                     |      | 0.01             | 0.01            | 0.05             | 0.05             | 0.25             | 0.20             | 0.20             | 0.25             | 0.10             | 0.10             |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Switching Power                                 | Max   | W/VA                  |      | 0.25             | 0.25            | 1                | 1                | 3                | 4                | 4                | 10               | 3                | 2                |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Voltage Breakdown <sup>2</sup>                  | Min   | Volts DC              |      | 80               | 80              | 200              | 350              | 175              | 350              | 300              | 500              | 300              | 175              |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Initial Contact Resistance                      | Max   | Ohms                  |      | 0.50             | 0.50            | 0.50             | 0.50             | 0.15             | 0.20             | 0.20             | 0.10             | 0.20             | 0.30             |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Insulation Resistance <sup>3</sup>              | Min   | Ohms                  |      | 10 <sup>11</sup> | 10 <sup>9</sup> | 10 <sup>11</sup> | 10 <sup>11</sup> | 10 <sup>12</sup> | 10 <sup>11</sup> | 10 <sup>10</sup> | 10 <sup>11</sup> | 10 <sup>10</sup> | 10 <sup>10</sup> |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Operate Sensitivity <sup>6</sup>                | Range | AT                    |      | 2/15             | 2/15*           | 4/20             | 4/20             | 5/30             | 10/35            | 10/35            | 15/40            | 15/35            | 15/35            |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Standard Test Coil<br>NARM RS-421-A             |       |                       |      | I                | I               | I                | I                | I                | I                | I                | II               | I                | I                |
| Operating Time <sup>4</sup><br>Including Bounce | Max   | ms                    |      | 0.30             | 0.30            | 0.20             | 0.20             | 0.30             | 0.40             | 0.50             | 1                | 0.90             | 0.30             |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |
| Operating Temperature                           | Range | °C                    |      | -40<br>+125      | -40<br>+125     | -40<br>+125      | -40<br>+125      | -40<br>+125      | -40<br>+125      | -40<br>+125      | -40<br>+125      | -40<br>+125      | -40<br>+125      |
|   |       |                       |      |                  |                 |                  |                  |                  |                  |                  |                  |                  |                  |

## Dimensions

|                |       |      |           |           |       |       |       |       |       |       |       |       |
|----------------|-------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Overall Length | A     | Inch | 1.049     | 0.240     | 1.050 | 0.995 | 1.252 | 1.240 | 1.240 | 1.988 | 1.485 | 1.495 |
| Glass Length   | B max | Inch | 0.170     | 0.170     | 0.200 | 0.245 | 0.275 | 0.460 | 0.515 | 0.555 | 0.490 | 0.315 |
| Glass Diameter | C max | Inch | .037x.050 | .037x.050 | 0.055 | 0.055 | 0.070 | 0.070 | 0.101 | 0.125 | 0.072 | 0.095 |
| Lead Diameter  | D     | Inch | 0.010     | 0.010     | 0.010 | 0.010 | 0.015 | 0.016 | 0.016 | 0.023 | 0.016 | 0.016 |
| Gap Location   | G     | Inch | 0.550     | 0.094     | 0.550 | 0.500 | 0.625 | 0.620 | 0.620 | 0.850 | 0.830 | 0.650 |

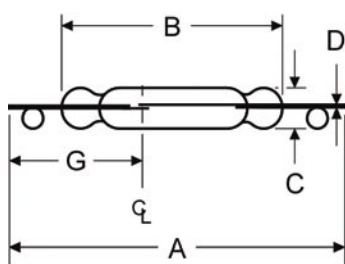


FIGURE A-0

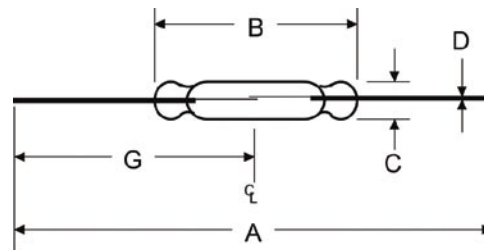


FIGURE A-1

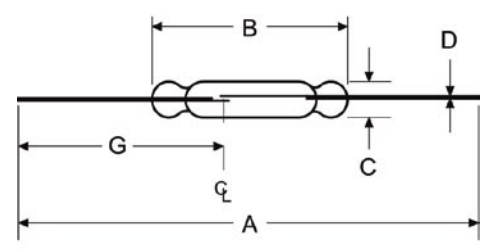


FIGURE A-2