## 20W Series

## PCB Mount



## PRODUCT DESCRIPTIONS

The 20W Series consists of our 20 Series mercury switch, and has been on the market for more than 25 years. This series is available with different electrical performances tuned to your specific requirements.

If you are looking for a product not listed in our catalog, please contact our sales engineers for more details.

## SPECIFICATIONS

| 20 N Series |  | 20W-1A 2 $^{\text {a }}$ |  |  | Wetted Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Parameters | Units | 1 Form A |  |  | Test Conditions |
| Coil Specifications |  |  |  |  |  |
| Nominal Coil Voltage | VDC | 5.0 | 12.0 | 24.0 |  |
| Coil Resistance | $\Omega$ | 70 | 330 | 1200 | $\pm 10 \%$ @ $20^{\circ} \mathrm{C}$ |
| Operate Voltage | VDC Max | 3.6 | 8.8 | 17.6 | $15^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$ |
| Release Voltage | VDC Min | 0.7 | 1.2 | 2.4 | $15^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$ |
| Contact Ratings |  |  |  |  |  |
| Switching Voltage | Volts |  | 500 |  | Max DC/Peak AC resistance |
| Switching Current | Amps |  | 1.0 |  | Max DC/Peak AC resistance |
| Carry Current | Amps |  | 2.0 |  | Max DC/Peak AC resistance |
| Contact Rating | Watts |  | 50 |  | Max DC/Peak AC resistance |
| Life Expectancy | $\times 10^{6}$ Cycle |  | 1000 |  | @ 1V 10mA |
| Contact Resistance | $\mathrm{m} \Omega$ |  | 80 |  | Max initial @ operate voltage |
| Contact Resistance Stability | $\mathrm{m} \Omega$ |  | 2.0 |  | Max initial @ operate voltage |
| Relay Specifications |  |  |  |  |  |
| Insulation Resistance | $\Omega$ Min | $10^{10}$ |  |  | Between all isolated pins <br> @ $500 \mathrm{~V} 20^{\circ} \mathrm{C} 40 \% \mathrm{RH}$ |
| Dielectric Strength | VDC Min | 1000 |  |  | Between contacts |
|  | VDC Min | 1000 |  |  |  |
|  | VDC Min | 1000 |  |  | Contacts/Shield to coil |
| Operate Time <br> (No Bounce) | msec Max | 2.5 |  |  | @ nominal coil voltage 50 Hz square wave |
| Release Time | msec Max | 2.5 |  |  | Diode suppression |
| Environmental Ratings |  |  |  |  |  |
| Measurement Reference Conditions |  |  |  |  |  |
|  |  | Storage temp: $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |  |
| Temp: $15{ }^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$ |  | Operate temp: $-10^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ |  |  |  |
| Humidity: $25 \%$ to $75 \%$ RH |  | Vibration: 20G's to 2000 Hz |  |  |  |
| Atmospheric Pressure: 860 to 1060hpa |  | Shock: 50G's |  |  |  |

## Ordering Code:

```
20W-1A\square1)2\square2)0
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$\square 1)=1$ (5.0VDC), 2 (12.0VDC), 3 (24.0VDC)
$\square 2$ ) $=\mathrm{D}$ (Diode), E (LED), N (No diode)

## Dimensions All Dimensions are inches（mm）

## Schematic＜Top View＞

## 20W－1Aロ2D0／20W－1Aロ2NO



20W－1Aロ2E0


