

FEATURES

- Low profile and light weight
- Highly reliable performance
- DIL configuration as IC and for use with DIP socket
- Single side stable and magnetic latching version available

TYPICAL APPLICATIONS

- Telecommunications
- Office machine
- Instruments
- Computer
- Industrial process control
- Remote control

CONTACT RATING

|                        |                       |
|------------------------|-----------------------|
| Form                   | 2 Form C (2Z)         |
| Rated Load             | 2A, 30VDC; 1A, 125VAC |
| Max. Switching Current | 5A                    |
| Max. Switching Voltage | 220VDC/250VAC         |
| Max. Switching Power   | 60W/125VA             |

CONTACT DATA

|                            |                           |   |
|----------------------------|---------------------------|---|
| Material                   | Ag alloy + Au clad        |   |
| Initial Contact Resistance | 50 mΩ max. at 0.01A, 6VDC |   |
| Service Life               | Mechanical                | 10 <sup>8</sup> ops.  |
|                            | Electrical                | 10 <sup>5</sup> ops at 2A, 30VDC;<br>5 x 10 <sup>5</sup> ops at 1A, 30VDC |

COIL DATA

SINGLE SIDE STABLE

| Designation | Nominal Voltage (VDC) | Resistance (Ω) ±10% |       | Must Operate Voltage max. (VDC) | Allowable Operate Voltage Range. (VDC) | Must Release Voltage min. (VDC) |
|-------------|-----------------------|---------------------|-------|---------------------------------|--|---------------------------------|
|             |                       | Power Consumption   |       |                                 |  |                                 |
| 005-AL      | 5                     | 167                 | 0.15W | 4.0                             | 11.5                                   | 0.5                             |
| 006-AL      | 6                     | 240                 |       | 4.8                             | 13.8                                   | 0.6                             |
| 009-AL      | 9                     | 540                 |       | 7.2                             | 20.8                                   | 0.9                             |
| 012-AL      | 12                    | 960                 |       | 9.6                             | 27.7                                   | 1.2                             |
| 015-AL      | 15                    | 1500                |       | 12.0                            | 34.6                                   | 1.5                             |
| 024-AL      | 24                    | 3840                |       | 19.2                            | 55.4                                   | 2.4                             |
| 005-AH      | 5                     | 125                 | 0.2W  | 3.5                             | 10.0                                   | 0.5                             |
| 006-AH      | 6                     | 180                 |       | 4.2                             | 12.0                                   | 0.6                             |
| 009-AH      | 9                     | 405                 |       | 6.3                             | 18.0                                   | 0.9                             |
| 012-AH      | 12                    | 720                 |       | 8.4                             | 24.0                                   | 1.2                             |
| 015-AH      | 15                    | 1125                |       | 10.5                            | 30.0                                   | 1.5                             |
| 024-AH      | 24                    | 2880                |       | 16.8                            | 48.0                                   | 2.4                             |
| 048-AH      | 48                    | 11520               |       | 36.0                            | 96.0                                   | 4.8                             |

SINGLE COIL LATCHING

| Designation | Nominal Voltage (VDC) | Resistance (Ω) ±10% |        | Set and Reset Voltage max. (VDC) | Allowable Voltage (VDC) |
|-------------|-----------------------|---------------------|--------|----------------------------------|-------------------------|
|             |                       | Power Consumption   |        |                                  |                         |
| 005-BJ      | 5                     | 330                 | 0.075W | 4.00                             | 16                      |
| 006-BJ      | 6                     | 480                 |        | 4.80                             | 19                      |
| 009-BJ      | 9                     | 1080                |        | 7.20                             | 29                      |
| 012-BJ      | 12                    | 1920                |        | 9.60                             | 39                      |
| 015-BJ      | 15                    | 3000                |        | 12.00                            | 43                      |
| 024-BJ      | 24                    | 7680                |        | 19.00                            | 78                      |
| 005-BM      | 5                     | 250                 | 0.1W   | 3.75                             | 14                      |
| 006-BM      | 6                     | 360                 |        | 4.50                             | 17                      |
| 009-BM      | 9                     | 810                 |        | 6.75                             | 25                      |
| 012-BM      | 12                    | 1440                |        | 9.00                             | 34                      |
| 015-BM      | 15                    | 2220                |        | 11.25                            | 42                      |
| 024-BM      | 24                    | 4000                |        | 18.00                            | 56                      |

DUAL COIL LATCHING

| Designation | Nominal Voltage (VDC) | Resistance (Ω) ±10% |       | Set and Reset Voltage max. (VDC) | Allowable Voltage (VDC) |
|-------------|-----------------------|---------------------|-------|----------------------------------|-------------------------|
|             |                       | Power Consumption   |       |                                  |                         |
| 005-CL      | 5                     | 167                 | 0.15W | 4.00                             | 11.5                    |
| 006-CL      | 6                     | 240                 |       | 4.80                             | 13.8                    |
| 009-CL      | 9                     | 540                 |       | 7.20                             | 20.8                    |
| 012-CL      | 12                    | 960                 |       | 9.60                             | 27.7                    |
| 015-CL      | 15                    | 1500                |       | 12.00                            | 34.6                    |
| 024-CL      | 24                    | 3840                |       | 19.20                            | 55.4                    |
| 005-CH      | 5                     | 125                 | 0.2W  | 3.75                             | 10.0                    |
| 006-CH      | 6                     | 180                 |       | 4.50                             | 12.0                    |
| 009-CH      | 9                     | 405                 |       | 6.75                             | 18.0                    |
| 012-CH      | 12                    | 720                 |       | 9.00                             | 24.0                    |
| 015-CH      | 15                    | 1125                |       | 11.25                            | 30.0                    |
| 024-CH      | 24                    | 2040                |       | 18.00                            | 48.0                    |

## CHARACTERISTICS

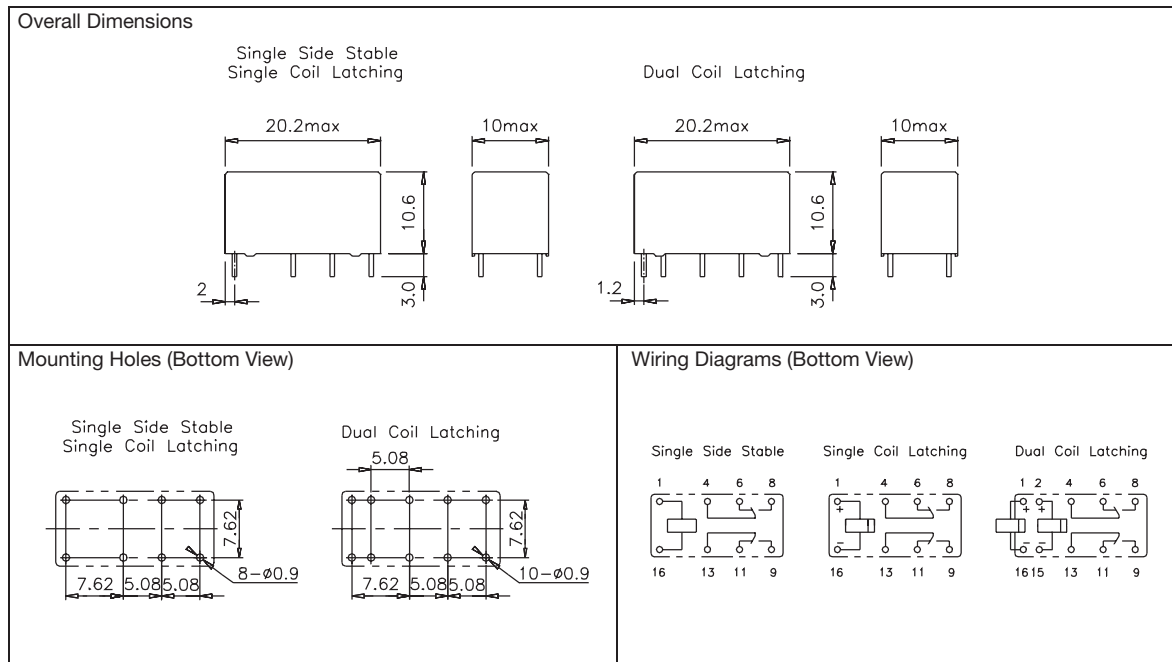
|                       |  |
|-----------------------|--|
| Operate Time          | 4 ms.  |
| Release Time          | 3 ms.  |
| Insulation Resistance | 1000 MΩ at 500VDC  |
| Dielectric Strength   | 1500 Vrms, 1 min. between coil and contacts<br>1000 Vrms, 1 min. between open contacts |
| Surge Strength        | 1500 V   |
| Shock Resistance      | 5 g, 11ms. functional; 10 g, 11ms. destructive   |
| Vibration Resistance  | 2 g  |
| Power Consumption     | Standard 0.15 - 0.2W, Sensitive 0.075 - 0.1W   |
| Ambient Temperature   | -40 - 85 C operating   |
| Weight                | 8 g, approx.   |

## ORDERING DESIGNATION

|  |          |       |   |   |   |
|--|----------|-------|---|---|---|
| Example:                                       | HG4516 / | 012 - | 1 | A | H |
| Model  |          |       |   |   |   |
| Coil Voltage Code                              |          |       |   |   |   |
| Version  |          |       |   |   |   |
| 1: Sealed                                      |          |       |   |   |   |
| A: Single Side Stable                          |          |       |   |   |   |
| B: Single Coil Latching; C: Dual Coil Latching |          |       |   |   |   |
| Coil Sensitivity                               |          |       |   |   |   |
| L: 0.15W; H: 0.2W                              |          |       |   |   |   |
| J: Sensitive 0.075W; M: Sensitive 0.1W*        |          |       |   |   |   |

\* Sensitive versions J and M are for single coil latching version only

## OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)



## NOTES

- All parameters, unless otherwise specified, are measured at ambient temperature 20°C.
- For single coil latching version the wiring diagram show reset position. Energize terminal 1 and 16 to set and reverse energize the terminal 1 and 16 to reset.
- For dual coil latching version the wiring diagram show reset position. Energize terminal 1 and 16 to set and energize the terminal 2 and 15 to reset.
- Custom-made services available with operational quantity. Please let us know your special requirements.
- Specifications subject to change without prior notice.