# Electromechanical Relays

Hasco Component's electromechanical relays range from less than an amp to 80 amps. Hasco's relays are UL and CSA with some TUV ratings. All relays have DC coils and many have an AC coil. They come sealed for wave soldering and washing thereby allowing the relays to be put on any assemble line. There are surface mount low current relays available as well.

## HAT-900 SERIES HEAVY DUTY
## SPDT 40A NORMALLY OPEN & 30A NORMALLY CLOSED

File E75887

File LR49291

### GENERAL SPECIFICATIONS

| | | |
|---|---|---|
| **Contact Material:** | | silver cadmium oxide with copper base |
| **Max. continuous rated voltage:** | | 110% of nominal voltage |
| **Pull-In voltage:** | | 75% of nominal voltage. Max @ 25°C |
| **Drop-Out voltage:** | | 10% of nominal voltage. Min @ 25°C |
| **Contact Resistance:** | | 20m Ohms max. (Initial value) |
| **Operating Temp:** | **Class B:** | -40°C to 85°C |
| | **Class F:** | -40°C to 105°C |
| **Insulation Resist:** | | DC 500V 10 M Ohms min. |
| **Dielectric Strength:** | | AC 2000V between contact and coil, frame and contact, coil and frame one minute. AC 150V between contacts one minute. |
| **Operate Time:** | | approx. 15 ms. |
| **Release Time:** | | approx. 10 ms. |
| **Electrical Life:** | | 10 x $10^5$ operation min. for 30A resistive load (N.O.)<br>5 x $10^5$ operations min. for 40A Resistive Load(N.O.) |
| **Mechanical Life:** | | 10 x $10^6$ operation min. |

### DC COIL SPECIFICATIONS

| Nominal Voltage (VDC) | Resistance ±10% @ 25°C (Ohms) | Coil Power @ 25°C (Watts) |
|---|---|---|
| 5 | 27 | .93 |
| 6 | 40 | .90 |
| 9 | 97 | .84 |
| 12 | 155 | .93 |
| 15 | 256 | .88 |
| 18 | 380 | .85 |
| 22 | 640 | .76 |
| 24 | 660 | .87 |
| 48 | 2560 | .88 |
| 110 | 13400 | .90 |

### AC COIL SPECIFICATIONS

| Nominal Voltage (at 20 °C) | Resistance ±10% @ 25°C (Ohms) | Coil Power @ 25°C (VA) |
|---|---|---|
| 12VAC | 27 | Approx 2VA |
| 24VAC | 130 | |
| 110VAC | 2,360 | |
| 120VAC | 3,040 | |
| 220VAC | 11,490 | |
| 240VAC | 15,735 | |
| 277VAC | 20,300 | |

### MAXIMUM LOAD SPECIFICATIONS

| Voltage | Load Type | SPNC | SPNO |
|---|---|---|---|
| AC | Resistive | 30A 277VAC | 40A 277VAC |
| | Motor | 1HP 120VAC<br>2HP 277VAC | 1HP 120 VAC<br>2HP 277VAC |
| | General Purpose | 30A 277VAC | 40A 277VAC |
| | Ballast | 10A 120VAC<br>10A 277VAC | 30A 120VAC<br>20A 277VAC |
| | Tungsten | 2A 120VAC | 15A 120VAC |
| DC | Resistive | 30A 28VDC | 30A 28VDC |

**Shock Operational** - 10g for 11ms w/no contact opening
**Shock Destructive** - 100g

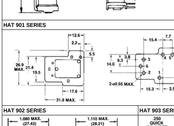
### NOTES:

1-Typical electrical load and endurance: at 30A 240,Resistive at room temperature, 100,000 OPS, for NO Contact, remove vent rib after soldering and cleaning
2-The data shown above are initial values

### ORDERING INFORMATION

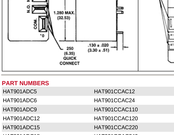
| HAT | 901 | C | 5 | DC | 12 | -1 |
|---|---|---|---|---|---|---|
| **Temp. Class**<br>Nil: Class B<br>F: Class F | **Type**<br>901: PC Pins Only<br>902: PC Pins & Quick Connect Only — 903: Quick Connects Only — Flange Mount | **Form**<br>A: SPSTNO<br>C: SPDT | **Style**<br>Nil: Open<br>C: Cover, not sealed<br>S: Cover, sealed | **Coil**<br>AC or DC | **Coil Voltage**<br>See Table | **Option**<br>Pin 6 is Omitted<br>UL 840<br>+ |

### WIRING DIAGRAMS:

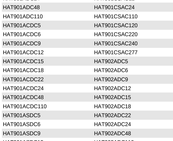



### OUTLINE DIMENSIONS:
### MECHANICAL SPECIFICATIONS

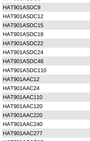
901 OPEN STYLE



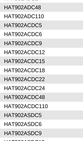

HAT 901 SERIES



HAT 902 SERIES



HAT 903 SERIES



### PART NUMBERS

| | | |
|---|---|---|
| HAT901ADC5 | HAT901CCAC12 | HAT902CSDC5 |
| HAT901ADC6 | HAT901CCAC24 | HAT902CSDC6 |
| HAT901ADC9 | HAT901CCAC110 | HAT902CSDC9 |
| HAT901ADC12 | HAT901CCAC120 | HAT902CSDC12 |
| HAT901ADC15 | HAT901CCAC220 | HAT902CSDC15 |
| HAT901ADC18 | HAT901CCAC240 | HAT902CSDC18 |
| HAT901ADC24 | HAT901CCAC277 | HAT902CSDC22 |
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| HAT901ADC48 | HAT901CSAC24 | HAT902CSDC48 |
| HAT901ADCC110 | HAT901CSAC110 | HAT902CSDC110 |
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