## 40 AMP MINI-ISO AUTOMOTIVE RELAY

## FEATURES

- Quick connect terminals
- 40 Amp contact rating
- High operating temperature $\left(125^{\circ} \mathrm{C}\right)$
- Epoxy sealed versions available
- Plastic or steel mounting bracket available
- Resistor or diode parallel to coil available
- ISO/TS 16949, ISO14001


## GENERAL DATA

## CONTACTS

| Arrangement | SPST (1 Form A) <br> SPDT (1 Form C) <br> SPST NO DM (1 Form U) |
| :--- | :--- |
|  | SPST (1 Form A2) |

## COIL

| Power <br> At Pickup Voltage <br> (typical) | 0.68 W |
| :--- | :--- |
| Max. Continuous <br> Dissipation <br> Temperature Rise | 4.8 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| Temperature | $5^{\circ} \mathrm{C}\left(135^{\circ} \mathrm{F}\right)$ at nominal coil voltage (40A) |$|$| Max. $125^{\circ} \mathrm{C}\left(257^{\circ} \mathrm{F}\right)$ |
| :--- |


| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{7}$ <br> $1 \times 105$ at 40 A 14 VDC Res. |
| :---: | :---: |
| Operate Time (max.) | 7 ms at nominal coil voltage |
| Release Time (max.) | 5 ms at nominal coil voltage |
| Dielectric Strength (at sea level for 1 min.) | 500 Vrms coil to contact 500 Vrms contact to contact |
| Insulation Resistance | 100 megohms min. at $500 \mathrm{VDC}, 20^{\circ} \mathrm{C}$ $50 \%$ RH |
| Dropout | Greater than $15 \%$ of nominal coil voltage |
| Ambient Temperature Operating Storage | $\begin{aligned} & -40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right) \text { to } 125^{\circ} \mathrm{C}\left(257^{\circ} \mathrm{F}\right) \\ & -55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right) \text { to } 155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right) \end{aligned}$ |
| Vibration | 0.062" DA at $10-40 \mathrm{~Hz}$ |
| Shock | 15 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy 0.25 Quick Connect Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force. |
| Weight | 31 grams |

## NOTES

1. All values at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$.
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

RELAY ORDERING DATA

| COIL SPECIFICATIONS |  |  |  |
| :---: | :---: | :---: | :---: |
| Nominal Coil <br> VDC | Must Operate <br> VDC | Max. Continuous <br> VDC | Coil Resistance <br> $\pm 10 \%$ |
| 6 | 3.9 | 7.8 | 22.5 |
| 12 | 7.8 | 15.6 | 90 |
| 24 | 15.6 | 31.2 | 360 |

## RELAY ORDERING DATA

## AZ9731-1C-12DC2 R1 <br> Blank -Standard no diode, no resistor <br> R1 - 180 Ohm $1 / 2 \mathrm{w}$ resistor in parallel with 6 V coil 680 Ohm $1 / 2 \mathrm{w}$ resistor in parallel with 12 V coil 2700 Ohm $1 / 2 \mathrm{w}$ resistor in parallel with 24 V coil <br> D2 - 1N4005 diode in parallel with coil, cathode on \#86 terminal <br> Plastic dust cover with steel mounting bracket <br> C1E - Plastic dust cover with steel mounting bracket, sealed <br> C2 - Plastic dust cover with plastic mounting bracket <br> C2E - Plastic dust cover with plastic mounting bracket, sealed <br> C3 - Plastic dust cover <br> C3E - Plastic dust cover, sealed <br> C4 - Plastic dust cover, shrouded, with metal mounting bracket, sealed <br> 24D - 24 volt coil <br> 12D - 12 volt coil <br> 6D - 6 volt coil <br> 1A - SPNO Single pole normally open <br> 1C - SPDT Single pole double throw <br> 1U - SPST NO DM Single pole N.O. double make <br> 1A2- SPNO Single pole normally open (2x) <br> Basic series designation - AZ9731



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010^{\prime \prime}$

Sockets \& Hardware for AZ9731

[1] Recommended receptical connector Amp Part numbers are 5-160558-9 or 5-1605-26-9

