

AZ2501L

60 AMP LATCHING POWER RELAY

FEATURES

- 60 Amp switching
- Heavy loads to 15000 VA
- Inrush current 500A/2ms max.
- 4 kV dielectric
- Manual switch standard
- UL, CUR file E44211



CONTACTS

| | |
|--------------------|---|
| Arrangement | SPST (1 Form A) (1 Form B) |
| Ratings | Resistive load: Max. switched power: 15000 VA Max. switched current: 60 A Max. switched voltage: 440 VAC Max. continuous current: 20 A |
| UL/CUR | 20 A at 277 VAC, Resistive, 85°C, 100k cycles 20 A at 30 VDC, Resistive, 85°C, 100k cycles 60 A at 250 VAC, General use, 85°C 30k cycles 5000 W at 250 VAC, Tungsten, 30k cycles 24 FLA/ 144 LRA at 120 VAC Definite Purpose, 30K 20 A at 277 VAC, Standard Ballast, 30k cycles 16 A at 277 VAC, Electronic Ballast, 30k cycles |
| Material | Silver tin oxide |
| Resistance | < 50 milliohms initially (24 V, 1 A voltage drop method) |

COIL

| | |
|--|--------------------------------------|
| Power At Pickup Voltage (typical) | .92 W single coil 1.8 W dual coil |
| Temperature | |

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

GENERAL DATA

| | |
|--|--|
| Life Expectancy Mechanical Electrical | Minimum operations 1 x 10 ⁶ 3 x 10 ⁴ at rated load |
| Set and Reset | |
| Pulse Duration | 50 ms minimum |
| Set Time (typical) | 15 ms at nominal coil voltage |
| Reset Time (typical) | 15 ms at nominal coil voltage |
| Dielectric Strength (at sea level for 1 min.) | 4000 Vrms coil to contact 1500 Vrms between open contacts |
| Insulation Resistance | 1000 megohms min. at 20°C, 500 VDC, 50% RH |
| Creepage Distance | 8 mm |
| Ambient Temperature Operating | At nominal coil voltage -40°C (-40°F) to 85°C (158°F) |
| Vibration | 0.059" DA at 10–55 Hz |
| Shock Operating Non-Operating | 10 g 100 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy |
| Max. Solder Temp. | 270°C (518°F) |
| Max. Solder Time | 5 seconds |
| Weight | 32 grams |

AZ2501L

RELAY ORDERING DATA

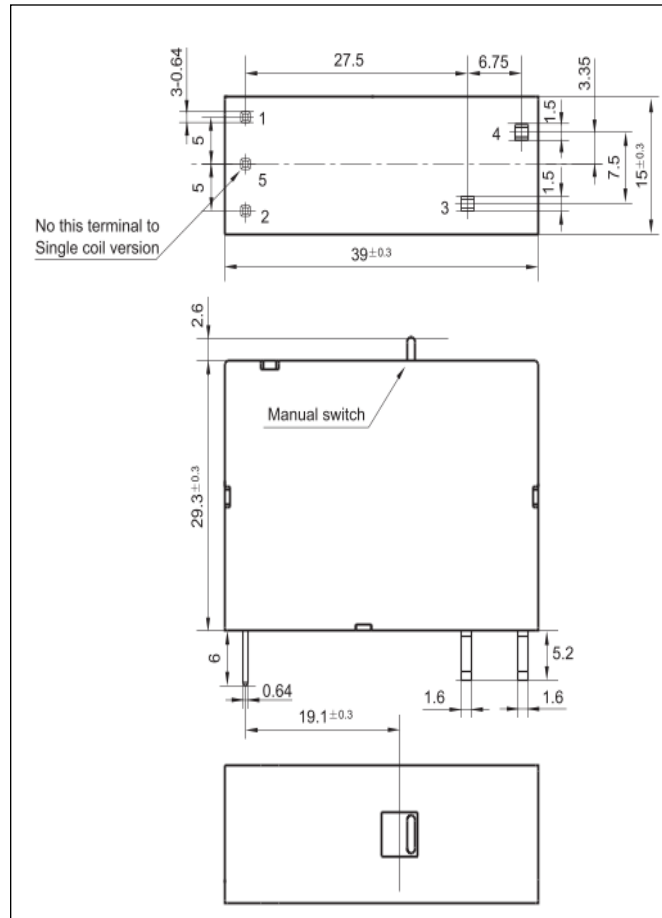
| COIL SPECIFICATIONS -Standard Single Coil | | | | ORDER NUMBER* | |
|---|------------------|-------------------------|----------------------------|------------------|------------------|
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC [1] | Coil Resistance $\pm 10\%$ | 1 Form A | 1 Form B |
| 6 | 4.8 | 7.8 | 22 | AZ2501LP1-1A-6D | AZ2501LP1-1B-6D |
| 12 | 9.6 | 15.6 | 100 | AZ2501LP1-1A-12D | AZ2501LP1-1B-12D |
| 24 | 19.2 | 31.2 | 360 | AZ2501LP1-1A-24D | AZ2501LP1-1B-24D |
| 48 | 38.4 | 62.4 | 1600 | AZ2501LP1-1A-48D | AZ2501LP1-1B-48D |

| COIL SPECIFICATIONS -Standard Dual Coil | | | | ORDER NUMBER* | |
|---|------------------|-------------------------|----------------------------|------------------|------------------|
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC [1] | Coil Resistance $\pm 10\%$ | 1 Form A | 1 Form B |
| 6 | 4.8 | 7.8 | 11 + 11 | AZ2501LP2-1A-6D | AZ2501LP2-1B-6D |
| 12 | 9.6 | 15.6 | 50 + 50 | AZ2501LP2-1A-12D | AZ2501LP2-1B-12D |
| 24 | 19.2 | 31.2 | 180 + 180 | AZ2501LP2-1A-24D | AZ2501LP2-1B-24D |
| 48 | 38.4 | 62.4 | 800 + 800 | AZ2501LP2-1A-48D | AZ2501LP2-1B-48D |

* For reverse polarity coil add suffix "R". **NOTE:** [1] Max. continuous voltage should not be applied for more than 30 seconds

(Bottom View)

MECHANICAL DATA



If no tolerance is shown: outline dimension ≤ 1 mm, tolerance is ± 0.2 mm; outline dimension > 1 mm and ≤ 5 mm, tolerance is ± 0.3 mm; outline dimension > 5 mm, tolerance is ± 0.4 mm.

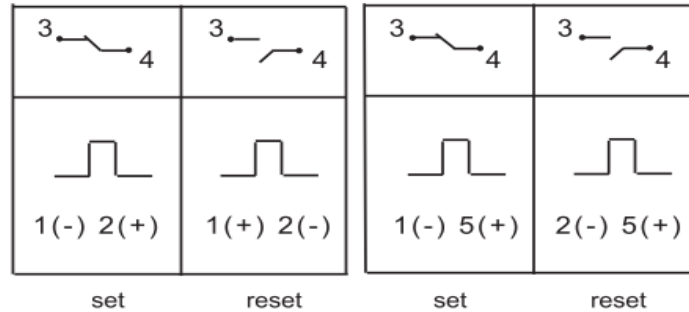
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AZ2501L

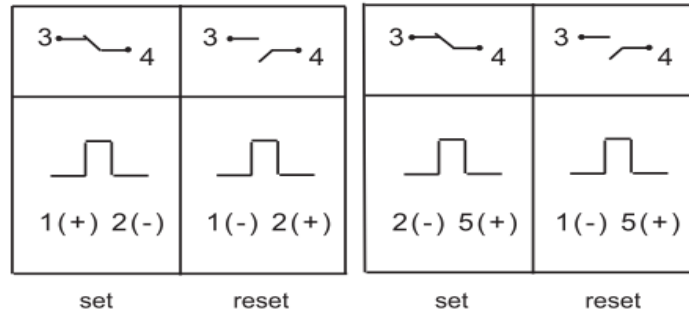
Positive polarity

Single coil latching, 1 Form A Double coils latching, 1 Form A



Negative polarity

Single coil latching, 1 Form A Double coils latching, 1 Form A



NOTE:

Regarding Standard Polarity type:

1. "Single Coil Latching Version"

- (1) After energizing 1 (-) and 2 (+), 50ms pulse, terminal 3 and 4 is connected.
- (2) After energizing 2 (-) and 1 (+), 50ms pulse, terminal 3 and 4 is disconnected.

2. "Double Coil Latching Version"

- (1) After energizing 5 (+) and 1 (-), 50ms pulse, terminal 3 and 4 is connected.
- (2) After energizing 5 (+) and 2 (-), 50ms pulse, terminal 3 and 4 is disconnected.

Regarding Reverse Polarity type:

1. "Single Coil Latching Version"

- (1) After energizing 1 (+) and 2 (-), 50ms pulse, terminal 3 and 4 is connected.
- (2) After energizing 2 (+) and 1 (-), 50ms pulse, terminal 3 and 4 is disconnected.

2. "Double Coil Latching Version"

- (1) After energizing 5 (+) and 2 (-), 50ms pulse, terminal 3 and 4 is connected.
- (2) After energizing 5 (+) and 1 (-), 50ms pulse, terminal 3 and 4 is disconnected.

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