

AZ5

SUBMINIATURE PC BOARD RELAY

FEATURES

- Subminiature size for high density packaging
- Coil sensitivity to 100 mW
- Extremely low cost
- Coils to 24 VDC
- Epoxy sealed for automatic wave soldering
- 1 Amp and 2 Amp contacts
- Life expectancy to 10 million operations
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- UL file E43203; CSA file 74120



CONTACTS

Arrangement	SPDT (1 Form C) Welded crossbar construction
Ratings	Resistive load:
Light Duty	Max. switched power: 30 W or 60 VA Max. switched current: 1 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 1 A at 30 VDC 0.5 A at 120 VAC
Heavy Duty	Max. switched power: 60 W or 120 VA Max. switched current: 2 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: 2 A at 30 VDC 1 A at 120 VAC
Material	
Light Duty	Silver palladium, gold clad
Heavy Duty	Silver nickel
Resistance	< 50 milliohms initially

COIL

Power	
At Pickup Voltage (typical)	Standard coil: 220 mW Sensitive coil: 100 mW
Max. Continuous Dissipation	1.1 W at 20°C (68°F) ambient .8 W at 40°C (104°F) ambient
Temperature Rise	Standard: 40°C (72°F) at nominal coil voltage Sensitive: 22°C (40°F) at nominal voltage
Temperature	Max. 105°C (221°F)

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Other coil resistances and sensitivities available upon request.
4. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy	Minimum operations 10 million operations
Mechanical	Standard Duty: 5×10^5 at 1 A, 30 VDC Res. 4×10^5 at 0.5 A, 120 VAC Res.
Electrical	Heavy Duty: 2×10^5 at 2 A, 30 VDC Res. 2×10^5 at 1 A, 120 VAC Res.
Operate Time (typical)	Standard: 3 ms at nominal coil voltage Sensitive: 5 ms at nominal coil voltage
Release Time (typical)	1 ms at nominal coil voltage (with no coil suppression)
Capacitance	Coil to contact: 3.0 pF Contact to contact: 3.0 pF
Bounce (typical)	At 10 mA contact current 2 ms at operate 8 ms at release
Dielectric Strength (at sea level for 1 min.)	1250 Vrms coil to contact 500 Vrms between open contacts Meets FCC Part 68.302 1500 V lightning surge Meets FCC Part 68.304 1000 V dielectric
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature	At nominal coil voltage
Operating	Standard: -25°C (-13°F) to 60°C (140°F) Sensitive: -25°C (-13°F) to 75°C (167°F)
Storage	Both: -25°C (-13°F) to 105°C (221°F)
Vibration	0.062" DA at 10–55 Hz
Shock	Standard: 10 g Sensitive: 6 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Immersion Time	30 seconds
Weight	3.5 grams



AMERICAN ZETTLER, INC.

www.azettler.com

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

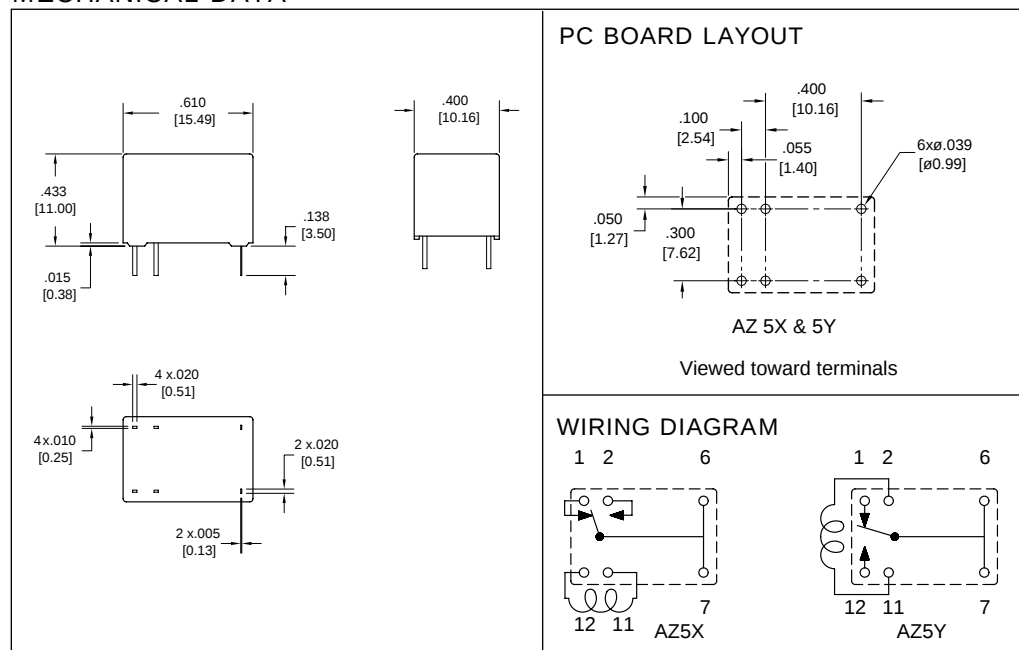
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RELAY ORDERING DATA

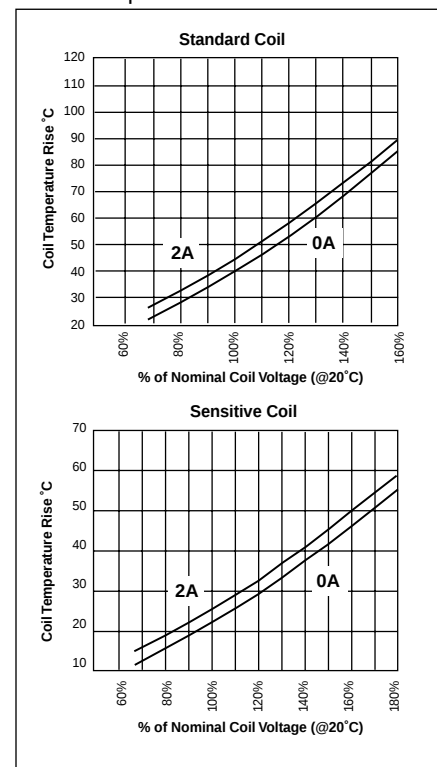
STANDARD RELAYS: Light Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	AZ5X Footprint	AZ5Y Footprint
5	6.8	56	3.5	AZ5X-1C-5DE	AZ5Y-1C-5DE
6	8.1	80	4.2	AZ5X-1C-6DE	AZ5Y-1C-6DE
9	12.2	180	6.3	AZ5X-1C-9DE	AZ5Y-1C-9DE
12	16.2	320	8.4	AZ5X-1C-12DE	AZ5Y-1C-12DE
24	32.4	1,280	16.8	AZ5X-1C-24DE	AZ5Y-1C-24DE
SENSITIVE RELAYS: Light Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	AZ5X Footprint	AZ5Y Footprint
5	10.0	120	3.5	AZ5X-1C-5DSE	AZ5Y-1C-5DSE
6	12.0	180	4.2	AZ5X-1C-6DSE	AZ5Y-1C-6DSE
9	18.0	405	6.3	AZ5X-1C-9DSE	AZ5Y-1C-9DSE
12	24.0	700	8.4	AZ5X-1C-12DSE	AZ5Y-1C-12DSE
24	48.0	2,800	16.8	AZ5X-1C-24DSE	AZ5Y-1C-24DSE
STANDARD RELAYS: Heavy Duty Type					
COIL SPECIFICATIONS				ORDER NUMBER	
Nominal Coil VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Must Operate VDC	AZ5X Footprint	AZ5Y Footprint
5	6.8	56	3.5	AZ5X-1CH-5DE	AZ5Y-1CH-5DE
6	8.1	80	4.2	AZ5X-1CH-6DE	AZ5Y-1CH-6DE
9	12.2	180	6.3	AZ5X-1CH-9DE	AZ5Y-1CH-9DE
12	16.2	320	8.4	AZ5X-1CH-12DE	AZ5Y-1CH-12DE
24	32.4	1,280	16.8	AZ5X-1CH-24DE	AZ5Y-1CH-24DE

MECHANICAL DATA

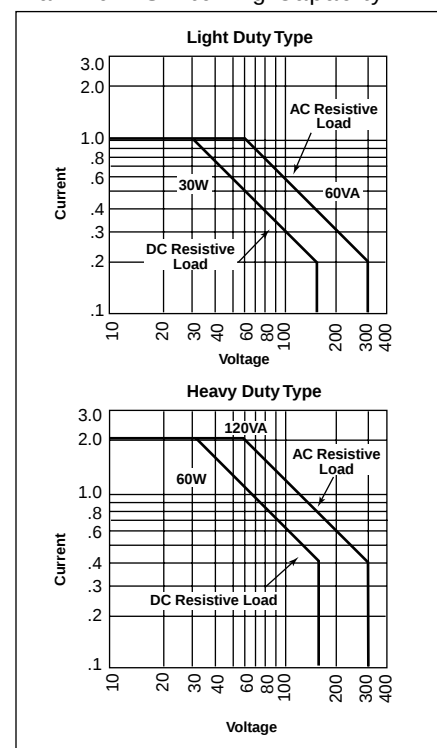


Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010''$

Coil Temperature Rise



Maximum Switching Capacity



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