AZ8

MINIATURE PC BOARD RELAY

FEATURES

- Subminiature size
- High sensitivity, 110 mW pickup
- Coils to 48 VDC
- Hermetically sealed version available
- Epoxy sealed for automatic wave soldering
- Contacts rated at 3, 6 or 10 Amps
- Withstands 6 kV IEEE Lightning Surge (special order)
- Class B insulation (130°C) standard
- Class F insulation (155°C) version available
- UL, CUR file E44211
- VDE approved versions available (Class A Insulation only)

CONTACTS

Arrangement	SPDT (1 Form C) SPST (1 Form A) 10 A version only
Ratings Light Duty	Resistive load: Max. switched power: 100 W or 600 VA Max. switched current: 3 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: See chart on Page 3
Medium Duty	Max. switched power: 180 W or 1800 VA Max. switched current: 6 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: See chart on Page 3
Heavy Duty	Max. switched power: 300 W or 2400 VA Max. switched current: 10 A Max. switched voltage: 150 VDC or 300 VAC UL Rating: See chart on Page 3
Material	Light duty: Silver Medium duty: Silver nickel Heavy duty: Silver cadmium oxide
Resistance	< 100 milliohms initially

COIL

Power At Pickup Voltage (typical) Max. Continuous Dissipation Temperature Rise	Standard coil: 210 mW Sensitive coil: 140 mW Heavy duty: 228 mW (110 mW available) Class B: 2.0 W 20°C (68°F) ambient 1.6 W 40°C (104°F) ambient Class F: 2.5 W 20°C (68°F) ambient 2.1 W 40°C (104°F) ambient At nominal coil voltage Standard coil: 38°C (68°F)			
	Sensitive coil: 28°C (50°F)			
Temperature	Max. 105°C (221°F) Class A Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F			



GENERAL DATA

Life Expectancy Mechanical Electrical Light Duty Medium Duty Heavy Duty	Minimum operations 100 million operations 3 x 10 ⁵ at 3 A, 120 VAC 1.8 x 10 ⁵ at 6 A, 120 VAC 1 x 10 ⁵ at 10 A, 120 VAC
Operate Time (typical)	5 ms at nominal coil voltage
Release Time (typical)	2 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	750 Vrms contact to contact 2500 Vrms contact to coil except hermetically sealed version which is 1600 Vrms
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 5% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -55°C (-67°F) to 90°C (194°F) Class B -55°C (-67°F) to 115°C (239°F) Class F -55°C (-67°F) to 130°C (266°F) Class B -55°C (-67°F) to 155°C (311°F) Class F
Vibration	0.062" DA at 10-55 Hz, 10 g at 55-110 Hz
Shock	10 g
Enclosure	P.E.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	8 grams

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. Unsealed relays should not be dip cleaned.
- 5. Specifications subject to change without notice.



AMERICAN ZETTLER, INC.

www.azettler.com



RELAY ORDERING DATA

COIL SPECIFICATIONS				ORDER NUMBER*			
STANDARD RELAYS: 1 Form C (SPDT)				LIGHT DUTY (3 Amp contact) MEDIUM DUTY (6 Amp co			(6 Amp contact)
Nominal Coil VDC	Max. VDC Continuous	Resistance ± 10%	Must Operate VDC	Unsealed	Epoxy Sealed	Unsealed	Epoxy Sealed
5	10.6	56	3.25	AZ8-1C-5D	AZ8-1C-5DE	AZ8-1CH-5D	AZ8-1CH-5DE
6	12.6	80	3.90	AZ8-1C-6D	AZ8-1C-6DE	AZ8-1CH-6D	AZ8-1CH-6DE
9	19.0	180	5.85	AZ8-1C-9D	AZ8-1C-9DE	AZ8-1CH-9D	AZ8-1CH-9DE
12	25.0	320	7.80	AZ8-1C-12D	AZ8-1C-12DE	AZ8-1CH-12D	AZ8-1CH-12DE
18	37.8	720	11.7	AZ8-1C-18D	AZ8-1C-18DE	AZ8-1CH-18D	AZ8-1CH-18DE
24	50.0	1,280	15.60	AZ8-1C-24D	AZ8-1C-24DE	AZ8-1CH-24D	AZ8-1CH-24DE
48	87.0	3,800	31.20	AZ8-1C-48D	AZ8-1C-48DE	AZ8-1CH-48D	AZ8-1CH-48DE
SENSITIVE RELAYS: 1 Form C (SPDT)				LIGHT DUTY (3 Amp contact)		MEDIUM DUTY (6 Amp contact)	
Nominal Coil VDC	Max. VDC Continuous	Resistance ± 10%	Must Operate VDC	Unsealed	Epoxy Sealed	Unsealed	Epoxy Sealed
5	12.6	80	3.25	AZ8-1C-5DS	AZ8-1C-5DSE	AZ8-1CH-5DS	AZ8-1CH-5DSE
6	14.8	110	3.90	AZ8-1C-6DS	AZ8-1C-6DSE	AZ8-1CH-6DS	AZ8-1CH-6DSE
9	22.4	250	5.85	AZ8-1C-9DS	AZ8-1C-9DSE	AZ8-1CH-9DS	AZ8-1CH-9DSE
12	30.0	440	7.80	AZ8-1C-12DS	AZ8-1C-12DSE	AZ8-1CH-12DS	AZ8-1CH-12DSE
24	60.0	1,780	15.60	AZ8-1C-24DS	AZ8-1C-24DSE	AZ8-1CH-24DS	AZ8-1CH-24DSE
48	120.0	7,120	31.20	AZ8-1C-48DS	AZ8-1C-48DSE	AZ8-1CH-48DS	AZ8-1CH-48DSE
STANDARD RELAYS: 1 Form C (SPDT)				HEAVY DUTY (10 Amp contact)			
Nominal Coil VDC	Max. VDC Continuous	Resistance ± 10%	Must Operate VDC	Unsealed		Epoxy Sealed	
5	10.6	56	4.0	AZ8-1CT-5D		AZ8-1CT-5DE	
6	12.6	80	4.8	AZ8-1CT-6D		AZ8-10	CT-6DE
9	19.0	180	7.2	AZ8-1CT-9D		AZ8-10	CT-9DE
12	25.0	320	9.6	AZ8-1CT-12D		AZ8-10	CT-12DE
24	50.0	1,280	19.2	AZ8-1CT-24D		AZ8-10	CT-24DE
48	87.0	3,800	38.4	AZ8-1CT-48D		AZ8-1CT-48DE	

^{*}To indicate Class F version, add suffix "F". Other coil resistances and sensitivities available. Please contact the factory. Substitute "1AT" in place of "1CT" to indicate 1 Form A. For Hermetically sealed version, substitute "H" for "E".

RELAY ORDERING DATA - VDE APPROVED VERSIONS

COIL SPECIFICATIONS				ORDER NUMBER		
STANDARD RELAYS: 1 Form C (SPDT) – VDE			DE	MEDIUM DUTY		
Nominal Coil VDC	Max. VDC Continuous	Resistance ± 10%	Must Operate VDC	Unsealed Epoxy Sealed 6 Amp 5 Amp		
5	10.6	56	3.25	AZ8-1CH-5DA	AZ8-1CH-5DEA	
6	12.6	80	3.90	AZ8-1CH-6DA	AZ8-1CH-6DEA	
9	19.0	180	5.85	AZ8-1CH-9DA	AZ8-1CH-9DEA	
12	25.0	320	7.80	AZ8-1CH-12DA	AZ8-1CH-12DEA	
24	50.0	1,280	15.60	AZ8-1CH-24DA	AZ8-1CH-24DEA	
48	87.0	3,800	31.20	AZ8-1CH-48DA	AZ8-1CH-48DEA	
SENSITIVE RELAYS: 1 Form C (SPDT) – VDE			DE	MEDIUM DUTY		
Nominal Coil VDC	Max. VDC Continuous	Resistance ± 10%	Must Operate VDC	Unsealed 6 Amp	Epoxy Sealed 5 Amp	
5	12.6	80	3.25	AZ8-1CH-5DSA	AZ8-1CH-5DSEA	
6	14.8	110	3.90	AZ8-1CH-6DSA	AZ8-1CH-6DSEA	
9	22.4	250	5.85	AZ8-1CH-9DSA	AZ8-1CH-9DSEA	
12	30.0	440	7.80	AZ8-1CH-12DSA	AZ8-1CH-12DSEA	
24	60.0	1,780	15.60	AZ8-1CH-24DSA	AZ8-1CH-24DSEA	
48	120.0	7,120	31.20	AZ8-1CH-48DSA	AZ8-1CH-48DSEA	



AMERICAN ZETTLER, INC. www.azettler.com

AZ8

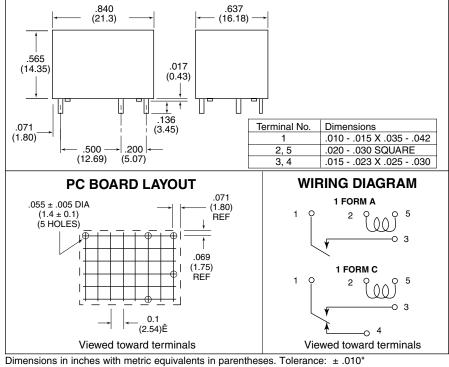
UL, CUR RATINGS

Light Duty	2 A at 28 VDC or 300 VAC 1/8 HP at 120 VAC 1/10 HP at 120/240 VAC (100,000 cyc) 1.2/0.6 A at 120/240 VAC, Pilot Duty 100,000 cyc 3.0/1.5 A at 120/240 VAC General Use 100,000 cyc
Medium Duty	6 A at 28 VDC or 300 VAC 1/8 HP at 120/240 VAC (100,000 cyc) 1.5/0.8 A at 120/240 VAC, Pilot Duty 100,000 cyc 3.8/1.9 A at 120/240 VAC General Use 100,000 cyc
Heavy Duty	SPST: 10 A at 24 VDC / 125 VAC Resistive 1/4 HP at 120 / 125 VAC 1/2 HP at 250 VAC 7 A at 277 VAC Resistive SPDT: 10 A at 250 VAC General Use 7 A at 277 VAC Resistive 6 A at 24 VDC Resistive 1/4 HP at 125 VAC

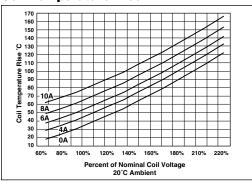
VDE RATINGS

Sealed	5 A at 250 VAC resistive, 10,000 cycles
Unsealed	6 A at 250 VAC resistive, 50,000 cycles

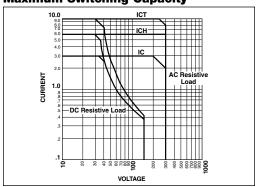
MECHANICAL DATA



Coil Temperature Rise



Maximum Switching Capacity





HERMETICALLY SEALED VERSION



MECHANICAL DATA

