

# AZ 2100 MINIATURE POWER RELAY

## Features

- Versatility of Both PC and 'Trace-Saver' Quick Connect Terminals on Contacts
- Up to 30 Amp Switching Capability in a Compact Size
- 1 Form A, B and C Contacts Available
- DC Coils to 120VDC
- Life Expectancy to 10 Million Operations
- Class B Insulation for High Temperature Applications
- Class F (155C) Version Available
- Complete UL and CUR Approvals
- Epoxy Sealed Version Available for Automatic Wave Soldering and Cleaning



## Specifications

### Contacts

Arrangement	SPDT (1 Form C) SPST (1 Form A & 1 Form B)
Rating	Noninductive load Max switched power: 90W or 7,200VA Max switched current: 30A (Form A NO) Max switched current: 15A (Form B NCO) Max switched current: 20A (Form C NO) Max switched current: 15A (Form C NC) Max switched voltage: 30VDC or 300VAC
UL Rating	AZ 2100 meets UL 508 Group A spacing and UL 873 refrigeration and safety control spacing requirements. AZ 2101 meets UL 508 Group B spacing requirements.
Material	Silver alloy
Resistance	20 milliohms initially (at rated load)

### Coil

Power at Pickup Voltage	500mW (typical)
Max Continuous Dissipation	2.2W @ 20C (68F) ambient 1.8W @ 40C (104F) ambient
Temperature Rise	36C (97F) at nominal coil voltage
Temperature	130C (266F) Maximum - Class B 155C (311F) Maximum - Class F

### General Data

Life Expectancy	Minimum operations 10,000,000
Mechanical Electrical	100,000 at rated load
Operate Time	15ms (including bounce) maximum 9ms (including bounce) typical
Release Time	10ms (including bounce) maximum 7ms (including bounce) typical
Dielectric Strength (at sea level)	Group A: 2,500Vrms NC contact to coil Group B: 2,000Vrms contact to coil 1,500Vrms between open contacts
Insulation Resistance	100 megohms min @ 20C (68F), 500VDC, 50% RH
Dropout	> 10% of nominal coil voltage
Ambient Temp (operating)	At nominal coil voltage -55C (-67F) to 100C (212F) Class B -55C (-67F) to 125C (257F) Class F
(storage)	-55C (-67F) to 130C (266F) Class B -55C (-67F) to 155C (311F) Class F
Vibration	0.062" DA @ 10-55 Hz
Shock	20 g
Enclosure	P.B.T. Polyester
Terminals	Tinned copper alloy, P.C. with Quick-Connect tabs 0.250" wide on top
Max Solder Temp	270C (518F)
Max Solder Time	5 seconds
Solvent Temp	80C (176F) maximum
Immersion Time	30 seconds maximum
Weight	43 grams

### Notes

- 1 All values at 20C (68F) unless otherwise indicated
- 2 Other coil resistances and sensitivities available upon request
- 3 Relay may pull in with less than "Must Operate" value
- 4 Unsealed relays should not be dip-cleaned or spray washed
- 5 Specifications subject to change without notice

## Relay Ordering Data

### UL 508 Group A; UL 873 Version

Coil Specifications				1 Form A (SPST NO)	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	ORDER NUMBER	
				Unsealed	Epoxy Sealed
5	7.3	27	3.75	AZ 2100-1A-5D	AZ 2100-1A-5DE
6	8.9	40	4.50	AZ 2100-1A-6D	AZ 2100-1A-6DE
9	13.9	97	6.75	AZ 2100-1A-9D	AZ 2100-1A-9DE
12	17.5	155	9.00	AZ 2100-1A-12D	AZ 2100-1A-12DE
15	22.5	256	11.25	AZ 2100-1A-15D	AZ 2100-1A-15DE
18	27.4	380	13.50	AZ 2100-1A-18D	AZ 2100-1A-18DE
24	36.1	660	18.00	AZ 2100-1A-24D	AZ 2100-1A-24DE
48	68.4	2,560	36.00	AZ 2100-1A-48D	AZ 2100-1A-48DE
70	104.4	5,500	52.50	AZ 2100-1A-70D	AZ 2100-1A-70DE
110	163.2	13,450	82.50	AZ 2100-1A-110D	AZ 2100-1A-110DE

### UL 508 Group A; UL 873 Version

Coil Specifications				1 Form C (SPDT)	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	ORDER NUMBER	
				Unsealed	Epoxy Sealed
5	7.3	27	3.75	AZ 2100-1C-5D	AZ 2100-1C-5DE
6	8.9	40	4.50	AZ 2100-1C-6D	AZ 2100-1C-6DE
9	13.9	97	6.75	AZ 2100-1C-9D	AZ 2100-1C-9DE
12	17.5	155	9.00	AZ 2100-1C-12D	AZ 2100-1C-12DE
15	22.5	256	11.25	AZ 2100-1C-15D	AZ 2100-1C-15DE
18	27.4	380	13.50	AZ 2100-1C-18D	AZ 2100-1C-18DE
24	36.1	660	18.00	AZ 2100-1C-24D	AZ 2100-1C-24DE
48	68.4	2,560	36.00	AZ 2100-1C-48D	AZ 2100-1C-48DE
70	104.4	5,500	52.50	AZ 2100-1C-70D	AZ 2100-1C-70DE
110	163.2	13,450	82.50	AZ 2100-1C-110D	AZ 2100-1C-110DE

### UL 508 Group B

Coil Specifications				1 Form A (SPST NO)	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	ORDER NUMBER	
				Unsealed	Epoxy Sealed
5	7.3	27	3.75	AZ 2101-1A-5D	AZ 2101-1A-5DE
6	8.9	40	4.50	AZ 2101-1A-6D	AZ 2101-1A-6DE
9	13.9	97	6.75	AZ 2101-1A-9D	AZ 2101-1A-9DE
12	17.5	155	9.00	AZ 2101-1A-12D	AZ 2101-1A-12DE
15	22.5	256	11.25	AZ 2101-1A-15D	AZ 2101-1A-15DE
18	27.4	380	13.50	AZ 2101-1A-18D	AZ 2101-1A-18DE
24	36.1	660	18.00	AZ 2101-1A-24D	AZ 2101-1A-24DE
48	68.4	2,560	36.00	AZ 2101-1A-48D	AZ 2101-1A-48DE
70	104.4	5,500	52.50	AZ 2101-1A-70D	AZ 2101-1A-70DE
110	163.2	13,450	82.50	AZ 2101-1A-110D	AZ 2101-1A-110DE

### UL 508 Group B

Coil Specifications				1 Form C (SPDT)	
Coil VDC nominal	Max VDC continuous	Coil Resistance	Must Operate VDC	ORDER NUMBER	
				Unsealed	Epoxy Sealed
5	7.3	27	3.75	AZ 2101-1C-5D	AZ 2101-1C-5DE
6	8.9	40	4.50	AZ 2101-1C-6D	AZ 2101-1C-6DE
9	13.9	97	6.75	AZ 2101-1C-9D	AZ 2101-1C-9DE
12	17.5	155	9.00	AZ 2101-1C-12D	AZ 2101-1C-12DE
15	22.5	256	11.25	AZ 2101-1C-15D	AZ 2101-1C-15DE
18	27.4	380	13.50	AZ 2101-1C-18D	AZ 2101-1C-18DE
24	36.1	660	18.00	AZ 2101-1C-24D	AZ 2101-1C-24DE
48	68.4	2,560	36.00	AZ 2101-1C-48D	AZ 2101-1C-48DE
70	104.4	5,500	52.50	AZ 2101-1C-70D	AZ 2101-1C-70DE
110	163.2	13,450	82.50	AZ 2101-1C-110D	AZ 2101-1C-110DE

Substitute '1B' in place of '1A' or '1C' to indicate 1 Form B.  
To indicate Class F version, add suffix 'F'.