

# AZ7555

## 20 AMP MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- 20 Amp switching — single pole contacts
- 5.0 mm terminal spacing
- Class F insulation system available
- UL, CUR file E44211
- TUV R50290835



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 480 W or 5kVA Max. switched current: 20 A Max. switched voltage: 30* VDC or 277 VAC  *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Load UL, CUR</b>	<b>Normally Open Contacts (N.O.) Std &amp; Sen. Coil</b> 20 A at 125 VAC, Resistive, 100k cycles, 85°C 20 A at 250 VAC, General Use, 6k cycles, 40°C 16 A at 250 VAC, Resistive, 100k cycles, 85°C 16 A at 30 VDC, Resistive, 100k cycles, 85°C 1/6 HP at 250 VAC, 100k cycles, 85°C  <b>Normally Closed Contacts (N.C.) Std &amp; Sen. Coil</b> 10 A at 125 VAC, Resistive, 100k cycles, 85°C 8 A at 250 VAC, Resistive, 100k cycles, 85°C 8 A at 30 VDC, Resistive, 100k cycles, 85°C  <b>Super Sensitive Coil Only</b> 15A@150VAC inductive (General Use 85°C 0.75-0.8pf) NO 15A@277VAC/30VDC resistive 85°C NO and NC 480VA@240/277VAC pilot duty NO and NC 480VA@277VAC standard (magnetic) ballast NO and NC 600W@120VAC Tungsten NO 240W@120VAC Tungsten NC 1/3hp@120/240VAC NO 1/6hp@120/240VAC NC 1/4hp@277VAC NO 1/8hp@277VAC NC
<b>TUV</b>	5A NO / 3A NC @ 250VAC / 30VDC, 100k cycles, 85°C 10A NO / 5A NC @ 250VAC / 30VDC, 100k cycles, 85°C 16A NO / 8A NC @ 250VAC / 30VDC, 100k cycles, 85°C
<b>Material</b>	Silver tin oxide
<b>Resistance</b>	< 100 milliohms initially

### NOTES

1. All values at 23°C (73.4°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy Mechanical Electrical</b>	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at 20 A 125 VAC Res.
<b>Operate Time (max)</b>	15 ms at nominal coil voltage (standard) 20 ms at nominal coil voltage (sensitive)
<b>Release Time (max)</b>	8 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	5000 VAC contact to coil 1000 VAC between open contacts 2500 VAC between contact sets 10,000 V surge contact to coil
<b>Insulation Resistance</b>	1000 megohms min. at 20°C, 500 VDC
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature Operating Storage</b>	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°F)
<b>Vibration</b>	0.059" DA at 10–55 Hz
<b>Shock Mechanical Operational</b>	100 G 10 G
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P.C.
<b>Max. Solder Temp.</b>	270°C (518°F)
<b>Max. Solder Time</b>	5 seconds
<b>Max. Solvent Temp.</b>	80°C (176°F)
<b>Max. Immersion Time</b>	30 seconds
<b>Weight</b>	13 grams

### COIL

<b>Power At Pickup Voltage (typical)</b>	353 mW (standard) 300 mW (sensitive) 67.5mW (super sensitive)
<b>Max. Continuous Dissipation</b>	1.2 W at 20°C (68°F) ambient (Standard) 0.9 W at 20°C (68°F) ambient (Sensitive) 0.2 W at 20°C (68°F) ambient (S. Sensitive)
<b>Temperature Rise</b>	40° C (104°F) at nominal voltage
<b>Temperature</b>	Max. 105°C (221°F) Max. 155°C (311°F) Class F

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## RELAY ORDERING DATA

COIL SPECIFICATIONS (STANDARD)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance	Form A (SPST)	Form C (SPDT)
3	2.1	3.9	13 ±10%	AZ7555-1A-3DK	AZ7555-1C-3DK
5	3.5	6.5	36 ±10%	AZ7555-1A-5DK	AZ7555-1C-5DK
6	4.2	7.8	48.5 ±10%	AZ7555-1A-6DK	AZ7555-1C-6DK
9	6.3	11.7	115 ±10%	AZ7555-1A-9DK	AZ7555-1C-9DK
12	8.4	15.6	200 ±10%	AZ7555-1A-12DK	AZ7555-1C-12DK
18	12.6	23.4	450 ±10%	AZ7555-1A-18DK	AZ7555-1C-18DK
24	16.8	31.2	820 ±10%	AZ7555-1A-24DK	AZ7555-1C-24DK
48	33.6	62.4	3,300 ±10%	AZ7555-1A-48DK	AZ7555-1C-48DK
60	45.0	78.0	5,000 ± 10%	AZ7555-1A-60DK	AZ7555-1C-60DK
110	82.5	143.0	16,000 ± 10%	AZ7555-1A-110DK	AZ7555-1C-110DK

For epoxy seal change "DK" to "DEK". For Class F insulation system add suffix "F" to part number.

COIL SPECIFICATIONS (SENSITIVE)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance	Form A (SPST)	Form C (SPDT)
3	2.25	3.9	17 ±10%	AZ7555-1A-3DSK	AZ7555-1C-3DSK
5	3.75	6.5	48.5 ±10%	AZ7555-1A-5DSK	AZ7555-1C-5DSK
6	4.5	7.8	68 ±10%	AZ7555-1A-6DSK	AZ7555-1C-6DSK
9	6.75	11.7	155 ±10%	AZ7555-1A-9DSK	AZ7555-1C-9DSK
12	9	15.6	270 ±10%	AZ7555-1A-12DSK	AZ7555-1C-12DSK
18	13.5	23.4	600 ±10%	AZ7555-1A-18DSK	AZ7555-1C-18DSK
24	18	31.2	1100 ±10%	AZ7555-1A-24DSK	AZ7555-1C-24DSK
48	36	62.4	4400 ±10%	AZ7555-1A-48DSK	AZ7555-1C-48DSK
60	45.0	78.0	6,670 ± 10%	AZ7555-1A-60DSK	AZ7555-1C-60DSK
110	82.5	143.0	22,400 ± 10%	AZ7555-1A-110DSK	AZ7555-1C-110DSK

\* For epoxy seal change "DSK" to "DSEK". For Class F insulation system add suffix "F" to part number.

COIL SPECIFICATIONS (SUPER SENSITIVE)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance	Form A (SPST)	Form C (SPDT)
5	3.75	6.5	208 ±10%	AZ7555-1A-5DSSK	AZ7555-1C-5DSSK
6	4.5	7.8	300 ±10%	AZ7555-1A-6DSSK	AZ7555-1C-6DSSK
9	6.75	11.7	675 ±10%	AZ7555-1A-9DSSK	AZ7555-1C-9DSSK
12	9	15.6	1,200 ±10%	AZ7555-1A-12DSSK	AZ7555-1C-12DSSK
18	13.5	23.4	2,700 ±10%	AZ7555-1A-18DSSK	AZ7555-1C-18DSSK
24	18	31.2	4,800 ±10%	AZ7555-1A-24DSSK	AZ7555-1C-24DSSK
48	36	62.4	19,200 ±10%	AZ7555-1A-48DSSK	AZ7555-1C-48DSSK
60	45.0	78.0	30,000 ± 10%	AZ7555-1A-60DSSK	AZ7555-1C-60DSSK

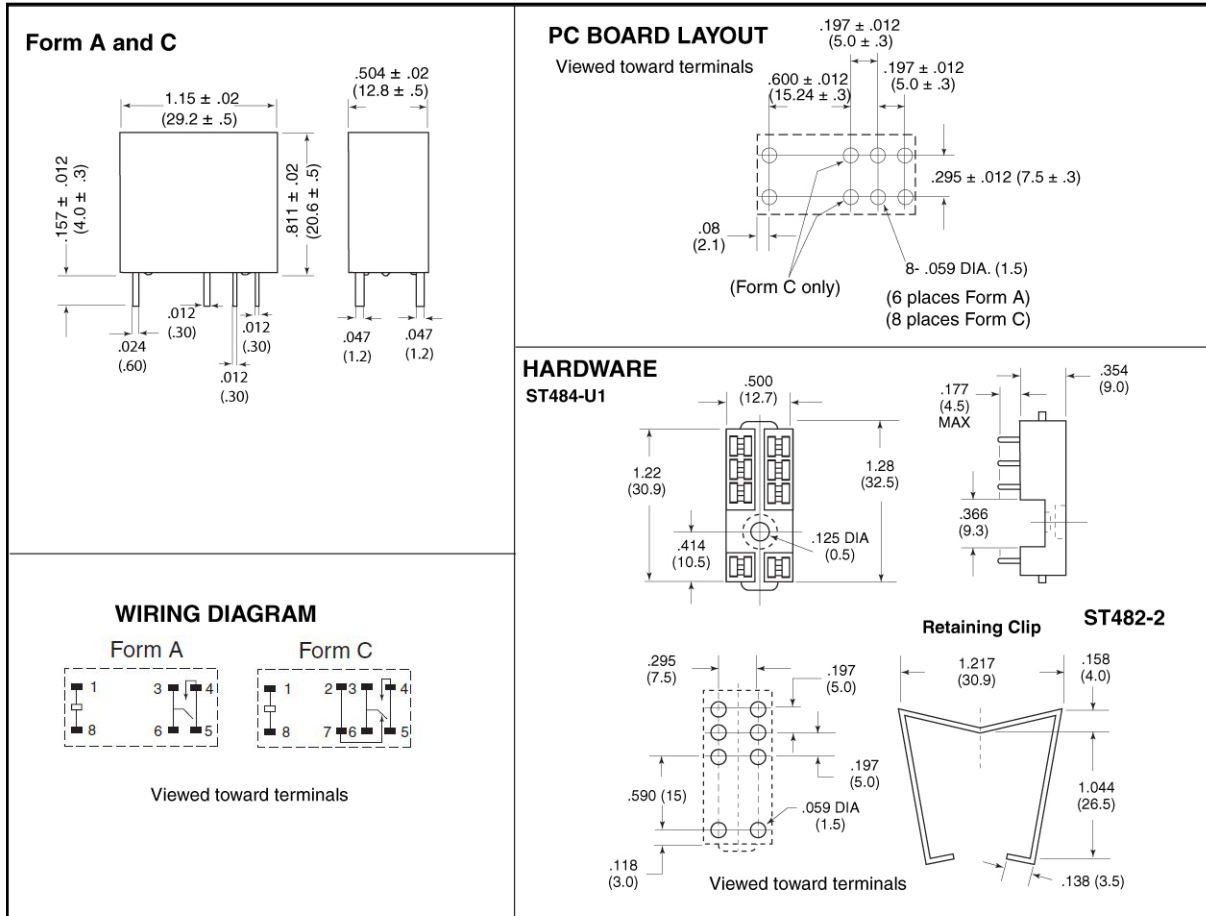
\* For epoxy seal change "DSSK" to "DSSEK". For Class F insulation system add suffix "F" to part number.

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## HARDWARE ORDERING DATA

DESCRIPTION	ORDER NUMBER	DESCRIPTION	ORDER NUMBER
Socket (5.0 mm)	ST484-U1	Retainer	ST482-2

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ " unless specified.