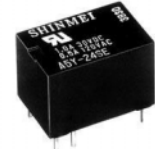


Wide Variation (X-Y terminal Variation, Heavy Duty Type), Single Pole Relay A5 RELAYS

Features

- ◇ Subminiature single pole relay.
- ◇ Standard (450mW) & High sensitive (200mW) type.
X and Y terminal arrangement standard (1A). Heavy duty (2A) type are available.
- ◇ Sealed construction.
- ◇ Approved by UL / C-UL.



Actual size

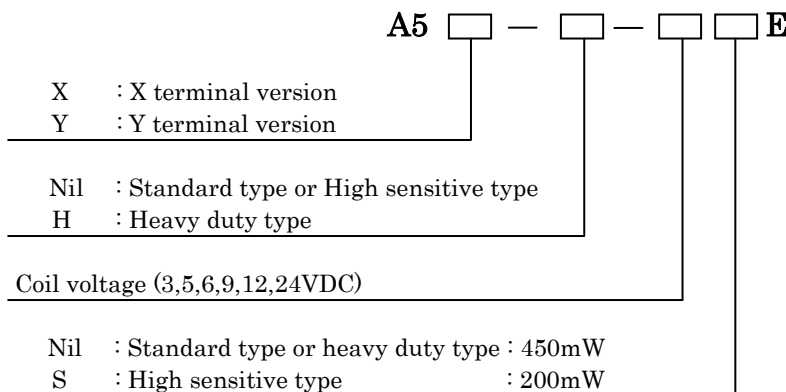
Applications

- ◇ Portable equipment, Audio equipment.
- ◇ Measuring instruments.

UL / C-UL Rating

Standard type : 1A30VDC, 1A120VAC
 Heavy duty type : 2A30VDC, 1A120VAC (UL/C-UL File No.E128155)

Model Number



Products Line(Standard type, X terminal version)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
A5X-3E	3	70% Max .of nominal voltage	10% Min .of nominal voltage	20	150.0	450	3.8
A5X-5E	5			56	89.3		6.3
A5X-6E	6			80	75.0		7.5
A5X-9E	9			180	50.0		11.2
A5X-12E	12			320	37.5		15.0
A5X-24E	24			1,280	18.8		30.1

□ Products Line(Standard type, Y terminal version)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
A5Y-3E	3	70% Max .of nominal voltage	10% Min .of nominal voltage	20	150.0	450	3.8
A5Y-5E	5			56	89.3		6.3
A5Y-6E	6			80	75.0		7.5
A5Y-9E	9			180	50.0		11.2
A5Y-12E	12			320	37.5		15.0
A5Y-24E	24			1,280	18.8		30.1

□ Products Line(Heavy duty type, X terminal version)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
A5X-H-3E	3	70% Max .of nominal voltage	10% Min .of nominal voltage	20	150.0	450	3.8
A5X-H-5E	5			56	89.3		6.3
A5X-H-6E	6			80	75.0		7.5
A5X-H-9E	9			180	50.0		11.2
A5X-H-12E	12			320	37.5		15.0
A5X-H-24E	24			1,280	18.8		30.1

□ Products Line(Heavy duty type, Y terminal version)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
A5Y-H-3E	3	70% Max .of nominal voltage	10% Min .of nominal voltage	20	150.0	450	3.8
A5Y-H-5E	5			56	89.3		6.3
A5Y-H-6E	6			80	75.0		7.5
A5Y-H-9E	9			180	50.0		11.2
A5Y-H-12E	12			320	37.5		15.0
A5Y-H-24E	24			1,280	18.8		30.1

□ Products Line(High sensitive type, X terminal version)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
A5X-3SE	3	70% Max .of nominal voltage	10% Min .of nominal voltage	45	66.7	200	5.6
A5X-5SE	5			120	41.7		9.2
A5X-6SE	6			180	33.3		11.2
A5X-9SE	9			400	22.5		16.8
A5X-12SE	12			700	17.1		22.2
A5X-24SE	24			2,800	8.6		44.5

□ Products Line(High sensitive type, Y terminal version)(at 20 degree Celsius)

Model number	Nominal Voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance (ohm)	Nominal operating current (mA)	Electric power consumption (mW)	Max .allowable voltage (VDC)
A5Y-3SE	3	70% Max .of nominal voltage	10% Min .of nominal voltage	45	66.7	200	5.6
A5Y-5SE	5			120	41.7		9.2
A5Y-6SE	6			180	33.3		11.2
A5Y-9SE	9			400	22.5		16.8
A5Y-12SE	12			700	17.1		22.2
A5Y-24SE	24			2,800	8.6		44.5

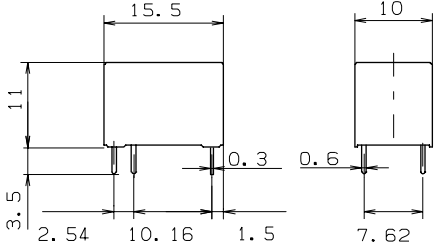
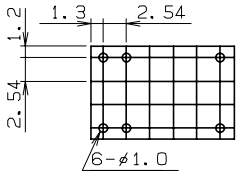
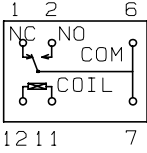
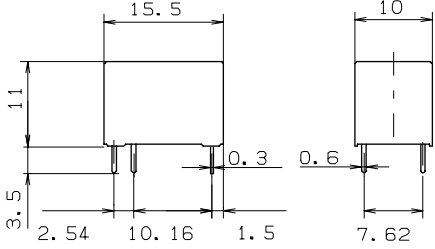
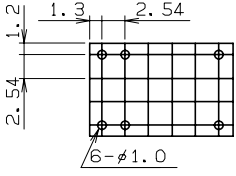
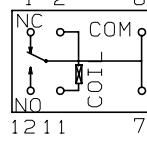
□ Typical Specifications

Item		Specifications		
Type		Standard type & High sensitive type	Heavy duty type	
	Arrangement	1c		
Contact	Initial contact resistance max.	Max. 50 milliohm		
	Material	AgPd, gold clad	AgNi	
	Nominal switching Capacity	1A30VDC , 0.5A125VAC*	2A30VDC , 1A120VAC*	
Rating	Max .switching power	30W , 60VA	60W , 120VA	
	Max .switching voltage	60VDC , 120VAC		
	Max .switching current	1A	2A	
	Electrical specification	Withstanding voltage (Initial)	Between open contacts	AC500V (1 minute)
Between contacts and coil			AC1,000V (1 minute)	
Coil Temperature rise(at nominal Voltage)		Standard type & Heavy duty type	Max. 60 degree Celsius	
		High sensitive type	Max. 30 degree Celsius	
Operate time (at nominal Voltage)		Standard type & Heavy duty type	Max. 5msec	
		High sensitive type	Max. 7msec	
Release time(at nominal voltage)		Max. 3msec		
Mechanical specification	Shock resistance	Functional	Standard type & Heavy duty type	Min. 98m/s ² (10G)
			High sensitive type	Min. 58.8m/s ² (6G)
		Destruction		Min. 980 m/s ² (100G)
	Vibration resistance	Functional	10 to 55Hz at double amplitude of 3.3mm	
Life expectancy	Mechanical life		10,000,000 operations (at 600cpm)	
	Electrical life(at rating)		500,000 operations (1A30VDC) 200,000 operations (0.5A120VAC) (at 20cpm)	200,000 operations (2A30VDC) 100,000 operations (1A120VAC) (at 20cpm)
Ambient temperature	Standard type & Heavy duty type		-25 to +55 degree Celsius (without being frozen)	
	High sensitive type		-25 to +75 degree Celsius (without being frozen)	
Unit weight			Approx. 3.8g	

*These AC ratings are under random phase-control. In driving AC load, life expectancy so greatly depends on the phase at turning on or off so that user should check selected relays with actual load

Dimensions

Unit:mm

Dimensions	PC board pattern (Bottom view)	Schematics (Bottom view)
<p>A5X Type (X terminal version)</p> 	<p>A5X Type (X terminal version)</p> 	<p>A5X Type (X terminal version)</p> 
<p>A5Y Type (Y terminal version)</p> 	<p>A5Y Type (Y terminal version)</p> 	<p>A5Y Type (Y terminal version)</p> 

Note

1. The appearance and specifications of the product may be modified without prior notice to improve its performance.
2. This catalog shows only outline specifications. When using the product, please obtain formal specifications for supply.
3. Please see appendix "Technical Definitions" and "Technical Notes".
4. Please feel free to contact us for relays with the specifications not shown in this catalogue.
5. Please confirm the performance on actual operation by simulation with actual environments for high reliability.