

Subminiature Power Relay ETS



- Slim size (width 5mm)
- High breakdown voltage 4kV (between coil and contacts)
- Surge voltage up to 6kV (between coil and contacts)
- Clearance/creepage distance: 8mm
- High sensitive: 170mW
- 1 Form A and 1 Form C configurations

Options and ordering codes

ETS	-	1A	N	-	S	L	-	12VDC
Contact Form							Coil Voltage	
SPNO		1A				L	RoHS Compliant	
SPCO		1C						
Contact Material						S	Sealing	
							Sealed	
			N			B	Flat Pack	
			N1					
			T					



Contact Data

Contact arrangement	1A, 1C
Initial contact resistance Max.	100mΩ (at 1A 6VDC) Gold plated: 30mΩ (at 1A 6VDC)
Contact material	AgNi
Contact Rating (Res. load)	6A 250VAC / 30VDC
Max. switching voltage	400VAC / 125VDC
Max. switching current	6A
Max. switching power	1500VA / 180W
Mechanical Life	1x10 ⁷ OPS
Electrical Life	NO / NC: 1x10 ⁴ OPS (at 85°C)

Characteristics

Initial Insulation Resistance		1000MΩ @ 500VDC
Dielectric Strength	Between coil & contact	4000VAC 1min.
	Between open contacts	1000VAC 1min.
Operate time (at nomi. Volt)		Max. 8ms
Release time (at nomi. Volt)		Max. 4ms
Shock Resistance	Functional	50m/s ²
	Destructive	1000m/s ²
Vibration Resistance		10 to 55Hz 1mm DA
Humidity		5 to 85% RH
Ambient Temp		-40°C to +85°C
Termination		PCB
Unit Weight		5.4g
Construction		Sealed IP67, Flux proof

Coil

Coil power	5 to 24VDC: 170mW 48VDC, 60VDC: 210mW
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Coil Data

20°C				
Coil Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max allowable voltage (VDC 85°C)	Coil Resistance Ω ± 10%
5	3.75	0.25	7.5	147±10%
6	4.50	0.30	9.0	212±10%
9	6.75	0.45	13.5	476±10%
12	9.00	0.60	18	848±10%
18	13.5	0.90	27	1906±15%
24	18.0	1.20	36	3390±15%
48	36.0	2.40	72	10600±15%
60	45.0	3.00	90	16600±15%

Notes: 1) When require pick-up voltage=70% nominal voltage, special order allowed
2) When install 1 Form C type of ETS, please do not make the relay side with 5mm width down

Safety Approval Ratings

UL & CUR	6A 30VDC Resistive: 6A 277VAC Pilot duty: R300
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Subminiature Power Relay ETS continued

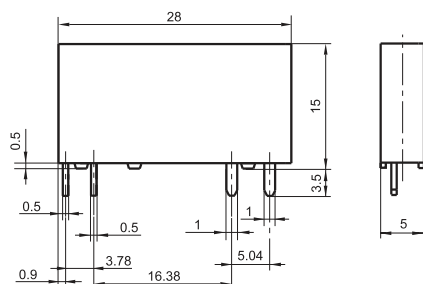


Outline dimensions (mm)

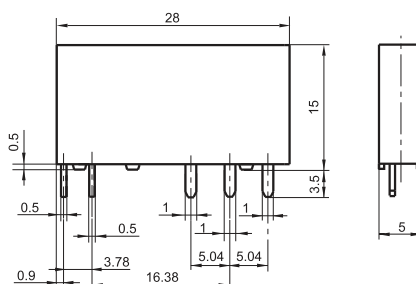
Wiring diagram and PC Board layout

1 Form A

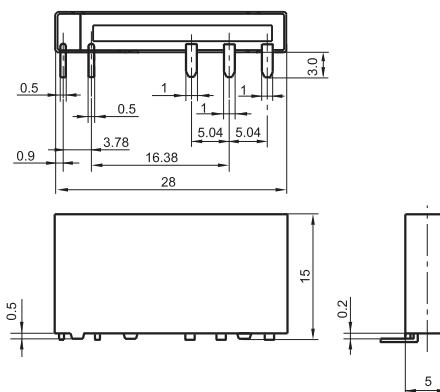
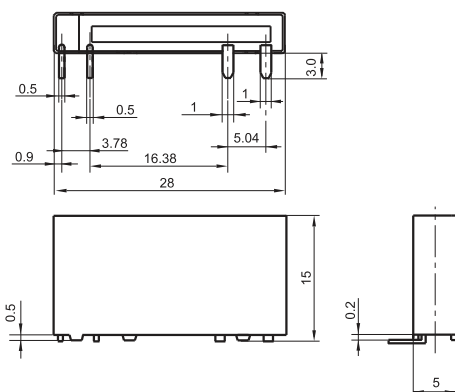
Vertical version



1 Form C

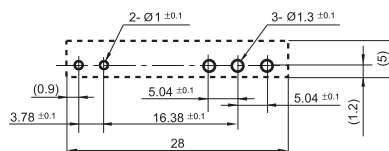
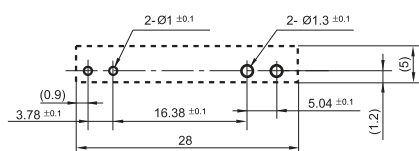


Flat pack version



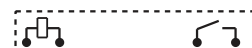
Vertical version

PCB Layout (Bottom view)

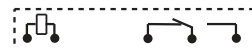


Wiring Diagram (Bottom view)

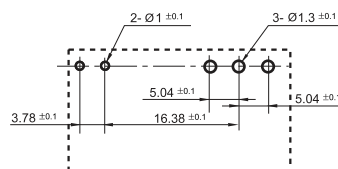
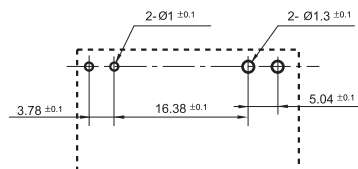
1 Form A



1 Form C



Flat pack version



Characteristic Curve

