

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	-	012VDC
Contact Form										Coil Voltage
SPNO		1A						L		RoHS Compliant
SPCO		1C								
Contact Material				N		S				Sealing
AgNi										Sealed
AgNi + Au Plate				N1						

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 (at 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	49m/s ²
	Destructive	980m/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

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	6.50	147±10%
6	4.50	0.30	7.80	212±10%
9	6.75	0.45	11.7	476±10%
12	9.00	0.60	15.6	848±10%
18	13.5	0.90	23.4	1906±15%
24	18.0	1.20	31.2	3390±15%
48	36.0	2.40	62.4	10600±15%
60	45.0	3.00	78.0	16600±15%

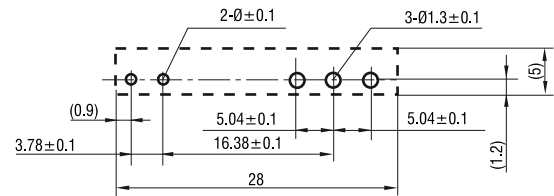
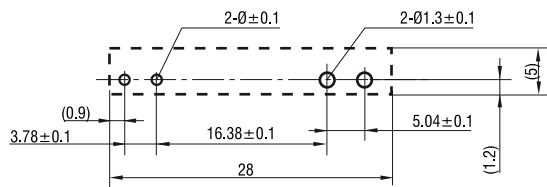
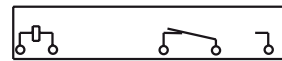
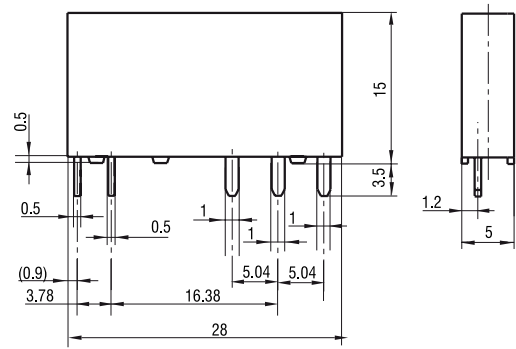
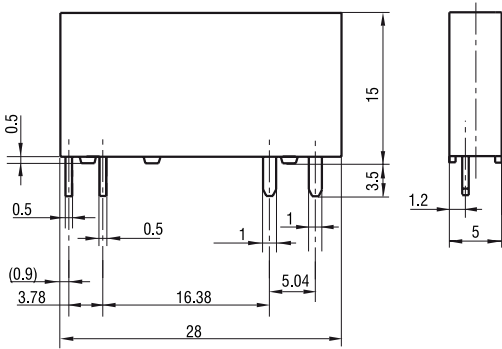
Notes: 1) When require pick-up voltage=70% nominal voltage, special order allowed
2) When install 1 Form C type of ETS, please do not make the relay side with 5mm width down

Safety Approval Ratings

UL & CUR	6A 30VDC Resistive: 6A 277VAC Pilot duty: R300
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Outline dimensions (mm)

Wiring diagram and PC Board layout



Characteristic Curve

