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Please note that the number of variants of Goodsky relay part numbers means that it is not possible to maintain stock of every one. If you are researching to replace just one relay on a component, say as a spare part for domestic equipment, you may need to contact the manufacturer of that equipment. Stock of Goodsky relays is maintained in the UK for those exact parts where there is a continuous demand within the UK.

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### Important Note

The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.

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# ***EML SERIES***

**For General Control & Home Appliance**

**Application :** Lamp Control

**Features :**

- ◆ Single Pole with Twin Contacts
- ◆ Tungsten Contacts
- ◆ 8mm Creepage / Clearance
- ◆ Able to Withstand 160A Inrush Current

**Safety Standard :** VDE, C-UL  
(Certification in Progress)

**RoHS Compliant**

EML性能比較表 (Performance Comparison List)

品牌 Supplier		GOODSKY	TYCO	
型號 Item		EML	RT*3T	
Coil Type		DCV	DCV	
接點部 Contact Specs	開關型式 Contact Configuration	1a, 1b	1a, 1b	
	接點材質 Contact Material	W/Fe + AgSnO2	W/AgSnO2 + AgSnO2	
	接點規格 Contact Rating	16A/250VAC	16A/250VAC	
	最大流通電流 Max. Allowable Current	16A	16A	
	最大承受電壓 Max. Allowable Voltage	400V	400V	
線圈部 Coil Specs	額定電壓 Nominal Voltage	5, 6, 9, 12, 18, 24, 48, 60	5,6,12,18,24,48,60,110	
	動作電壓 Pull-In Voltage %	70%	70%	
	開放電壓 Drop-Out Voltage %	10%	10%	
	額定消耗功率 Power Consumption	0.4W	0.4W	
	最大承受電壓 Maximum Allowable Voltage	130%	120%	
性能 Performance	接點阻抗 Contact Resistance		100mΩ	-
	動作時間 Operate Time		8ms	-
	開放時間 Release Time		3ms	-
	最大開閉頻率 Max. On/Off Switching:	機械 Mechanical	300 /Min	300 /Min
		電氣 Electrical	6 /Min	6 /Min
	耐電壓(AC) Dielectric Strength	I/O	5000 V	4000 V
		O/O	1000 V	1250 V
	振動 Vibration	耐久 Endurance	100m/S <sup>2</sup>	-
		誤動作 Error Operation	100m/S <sup>2</sup>	-
	壽命 Life Expectancy	機械 Mechanical	5x10 <sup>6</sup>	5x10 <sup>6</sup>
		電氣 Electrical	1x10 <sup>5</sup>	1x10 <sup>5</sup>
	使用環境溫度 Temperature Range		-40~+85° C	-40~+70° C
	使用環境濕度 Humidity Range		45~85%	45~85%
	重量 Weight		12.5g	14g
安全規格 Safety Standard		-	VDE、UL	
寸法 Dimension	外型尺寸 Dimension	29.0x12.6x15.7	29.0x12.7x15.7	
端腳外型 Terminal Type	直Pin(DIP)	-	-	
	90°Pin(SMD)	-	-	



## Main Feature

1. EML Series Relays are designed for switching capacity by 16A to comply with industrial control system use.
2. Slim type and low profile ( 29.0 x 12.6 x 15.7 mm ) is developed to provide more flexibility on PCB design.
3. 1 N/O contact with a tungsten pre-made contact.
4. Proper insulation distance in place to ensure EML a 5000VAC dielectric strength between contact and coil.
5. Complete protective structure from dust and Soldering flux is designed. If required, plastic epoxy resin sealed type is available for washing procedure.
6. 1 pole 16A, 1 NO contact (W pre-mark contact + AgSnO<sub>2</sub>). 165A/20ms inrush peak current.

## Contact Rating

Load Type	EML(DM)
Rated Load (Resistive)	16A 250VAC
Rated Carrying Current	16A
Max. Allowable Voltage	AC 400V
Max. Allowable Current	16A
Max. Allowable Power Force	4000VA
Contact Material	R: Ag Alloy, L: W
Contact Capacity	Tungsten Load : 3000VA/230VAC
Contact Form	SPST

## Application

Lamp Control, Audio Equipments, Home Appliance and other Controlling Equipments...etc.

## Performance (at Initial Value)

- Contact Resistance ..... 100mΩ Max.@1A,6VDC
- Contact Rating (resistive load)
- Operate Time..... 8 mSec. Max.
- Release Time ..... 3 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact.....5000VAC at 50/60 Hz for one minute.
  - Between Contacts ..... 1000VAC at 50/60 Hz for one minute.
- Surge Strength .....10,000V (between coil & contact 1.2x50uSec.)
- Insulation Resistance .....100MΩ Min. at 500VDC.
- Max. On/Off Switching:
  - Electrical..... 6 Cycles per Minute.
  - Mechanical ..... 300 Cycles per Minute.

- Vibration :
  - Endurance .....10 to 55 Hz dual amplitude width 1.5 mm.
  - Error Operation ..... 10 to 55 Hz dual amplitude width 1.5 mm.
- Humidity Range ..... 45~85% RH.
- Temperature Range..... -40~85°C
- Coil Temperature Rise..... 45°C Max.
- Shock:
  - Endurance .....1,000 m/S<sup>2</sup>
  - Error Operation..... 100 m/S<sup>2</sup>
- Life Expectancy :
  - Mechanical .....5x10<sup>6</sup> Operations at No Load condition.
  - Electrical ..... 1x10<sup>5</sup> Operations at Rated Resistive Load.
  - 1.2x10<sup>4</sup> Operations at Rated Resistive Load.
- Contact Material ..... Ag Alloy, W.
- Weight ..... About 12.5 g.

## Safety Standard & Its File Number

- In Progress

## Coil Specification (at 20 °C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
EML DC Coil	5	80	63	Abt. 0.40	70% Maximum	10% Minimum	130%
	6	67	90				
	9	44	203				
	12	33	360				
	18	22	810				
	24	17	1440				
	48	8	5760				
	60	7	9000				

## Ordering Information

EML - SH - 1 12 D M

**Contact Form:**

M: One Form A

**Coil Type:**

D: Standard DC Coil

**Coil Voltage:**

05: 5V ,06: 6V , 09: 9V, 12: 12V, 24: 24V, 48: 48V, 60: 60V

**Number of Pole:**

1: One Pole

**Type of Sealing:**

SS: RT II Flux Proofed Relays

SH: RT III Wash Tight Relays

**Type:**

EML

## NOTE:

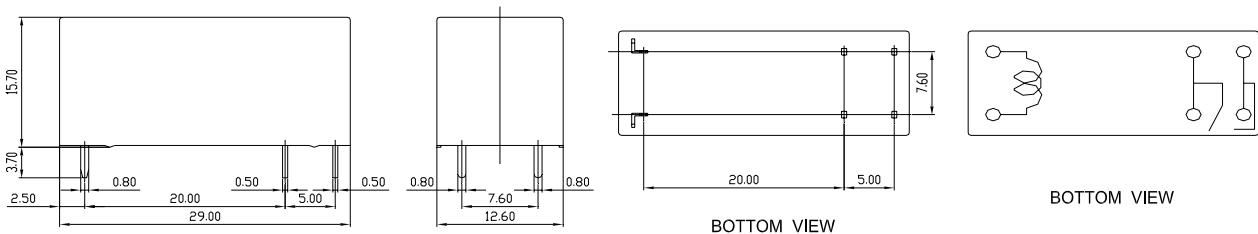
Contact Material: R: AgSnO<sub>2</sub>, L: W

## Classification

Model	EML
Coil Sensitivity	DC Coil
Contact Form	1A
Flux Proofed Relay	EML-SS-1□□DM
Wash Tight Relay	EML-SH-1□□DM

Dimension ( $\leq 5\text{mm} \pm 0.2\text{mm}$ ,  $>5\text{mm} \pm 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )

### EML-SS/SH



BOTTOM VIEW

BOTTOM VIEW