Electromagnetic Counter
CSKE

CSM_CSKE_DS_E_3_1

Compact and Economical Totalizing Counter

- Four mounting methods
- Can be driven be a single-phase, full-wave rectified power source
- Six-digit and seven-digit models available

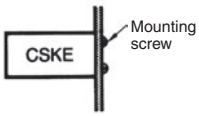
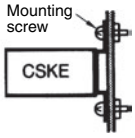
Ordering Information

Mounting method*		Surface mounting I	Surface mounting II	Flush mounting II
Operating mode		Up counting		
External connection		BY lead wires		
Count input		Contact (voltage) input		
Digit drive system		Half-digit drive system		
Number of digits and model	**6**	CSKE-6R	CSKE-6RL	CSKE-6Y
	7	CSKE-7R	CSKE-7RL	CSKE-7Y

Note: 1. When placing your order, specify the desired supply voltage listed in *Specifications* and a UL listed model if required, in addition to the model number.

2. If a UL listed model is required, specify this in your order in addition to the desired model number.

* Mounting Method

Surface mounting I (-R models)	Surface mounting II (-RL models)	Flush mounting II (-Y models)
		

Specifications

■ Ratings

Supply voltage	24 VDC
Operating voltage range	85 to 110% of rated supply voltage
Power consumption	AC: approx. 2 VA DC: approx. 2 W
Maximum counting speed	10 cps (contact input) Minimum signal width: 50 ms min. (Duty factor: 1:1)
Character height	4 mm

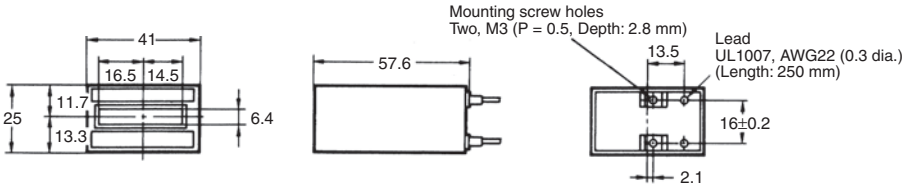
■ Characteristics

Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	1,500 VAC, 50/60 Hz for 1 minute
Vibration resistance	Destruction: 10 to 25 Hz, 2 mm double amplitude Malfunction: 10 to 55 Hz, 0.5 mm double amplitude
Shock resistance	Destruction: 300 m/s^2 (approx. 30 G) Malfunction: 50 m/s^2 (approx. 5 G)
Ambient temperature	Operating: –10°C to 40°C
Ambient humidity	45% to 85%
Life expectancy	10,000,000 counts
Approved standards (see note)	UL508, CSA C22.2 No.14
Weight	Approx. 100 g

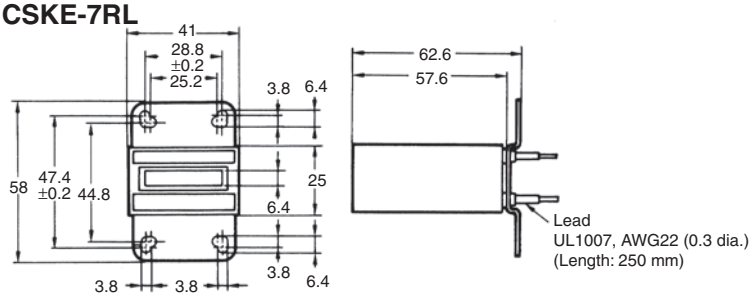
Note: These standards apply to the -US models only.

Dimensions

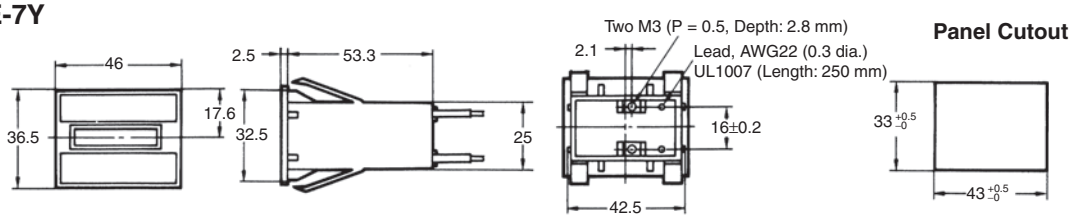
CSKE-6R
CSKE-7R



CSKE-6RL
CSKE-7RL



CSKE-6Y
CSKE-7Y



Safety Precautions

Mounting/Connection

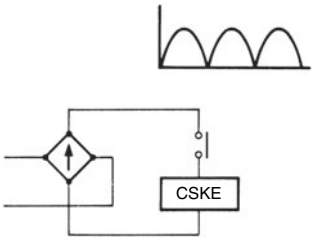
Whenever possible, install the Counter at an environment where it is not subject to heavy vibration, dust, and corrosive gases. When mounting the Counter on a panel with screws, do not apply excessive force on the screws when tightening, but be sure to tighten the screws securely. To flush-mount the Counter (a -Y model), insert it into the cutout on the mounting panel, until its class catch securely.

Use lead wires approximately 250 mm long. Do not stretch the leads with excessive force. Insulate the leads with insulation tape, etc.

When mounting the Counter using its screw holes, use screws that fit the holes properly. Also when determining the length of the screws, take the thickness of the mounting panel into consideration.

Supply Voltage

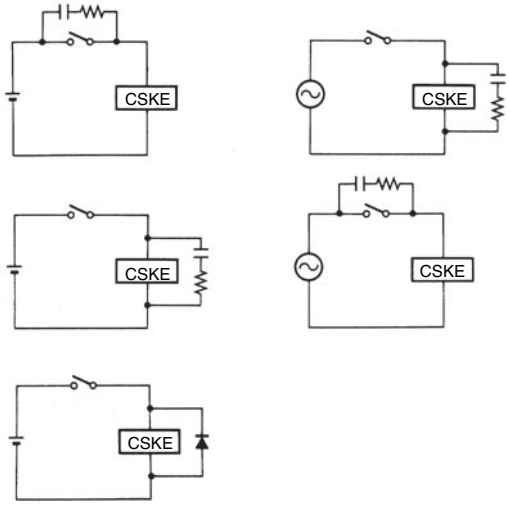
The Counter operates on a voltage 85% to 110% of the rated supply voltage. If the supply voltage exceeds or drops below this range, the Counter may malfunction. The DC models can operate with a ripple factor of 48% or less; so, they can be driven by a single-phase, full-wave rectified power source, whose waveform is shown below.



Count Signal

(1) Contact Input

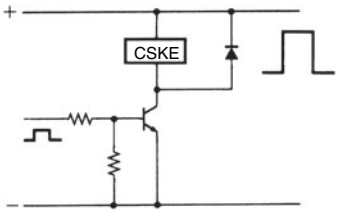
When using a contact input device to input the count signal, carefully select the input device. Use the current capacity and life of the contact of the input device as criteria for the selection. It is recommended to connect a protective circuit across the contacts of the input device, or a surge absorber across the Counter's coil, so that surges are absorbed and the life of the contacts are extended.



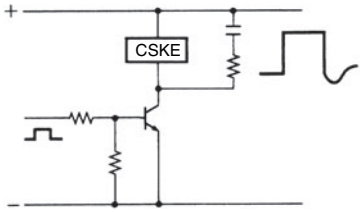
(2) Solid-state Input

When a solid-state input device is used, a surge absorber is necessary to protect the Counter drive transistor from being adversely affected by noises. If a diode is used as the surge absorber, the reset time of the Counter will be prolonged and, as a result, the Counter's response speed will be slowed down. If an RC network is used, the response characteristics of the Counter will be better as compared when a diode is used, but the counterelectromotive force cannot be completely reduced to zero.

Diode



RC network



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.