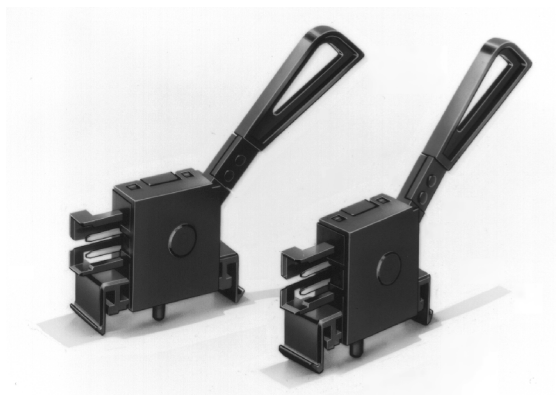


Connector Termination Switch D3K

Requires Only Minimal Operating Force

- Detects cards and paper sheets with a 0.03-N {3 gf} operating force.
- Snap-fit onto 0.8, 1.0 or 1.2 mm-thick mounting objects.
- Easy wiring ensured through quick-connect terminals.
- Long 45-degree stroke angle makes it easier to design a wide range of mechanisms.
- Long life ensured with 2,000,000 switching operations.
- RoHS Compliant.



Ordering Information

Minimum order	Model
100	D3K-B

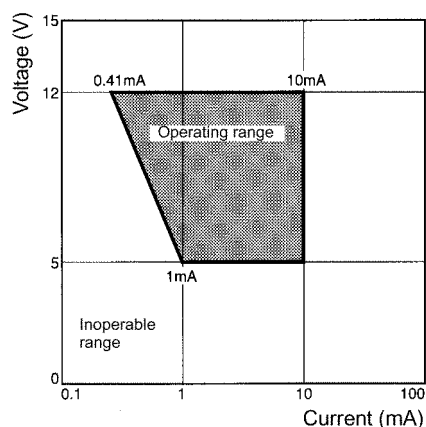
Note: Only orders in multiples of 100 are accepted.

Specifications

■ Ratings

12 VDC	10 mA (resistive load)
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Use the Switch under the following operating range:



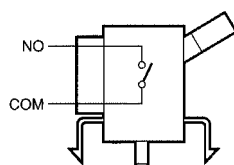
Minimum applicable load	1mA at 5 VDC
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■ Characteristics

Operating speed	0.1 to 100 mm/s
Operating frequency	Mechanical: 30 operations per minute Electrical: 30 operations per minute
Insulation resistance	100 MΩ min. (at 250 VDC)
Contact resistance	200 MΩ min. (initial value)
Dielectric strength	250 VAC, 60/80 Hz for 1 min. between contacts of the same polarity 250 VAC, 50/60 Hz for 1 min. between each terminal and non-current-carrying metal part
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5-min. double amplitude (at a contact separation time of 1 min. max.) (see note)
Shock resistance	Malfunction: 300 m/s ² {30G} (at a contact separation time of 1 ms max) (see note)
Life expectancy (see note)	Mechanical: 2,000,000 (30 operations/min.) Electrical: 2,000,000 (30 operations/min.)
Degree of protection (IP code)	IP00
Degree of protection against electrical shock	Class III
Ambient temperature	Operating: -10°C to 70°C (with no icing or condensation)
Ambient humidity	Operating: 35% to 85% (for 5°C to 35°C)
Weight	Approx. 0.9 g

Note: These values are possible on condition that the actuator of the D3K is operated up to the total travel position (TTP).

■ Contact Form

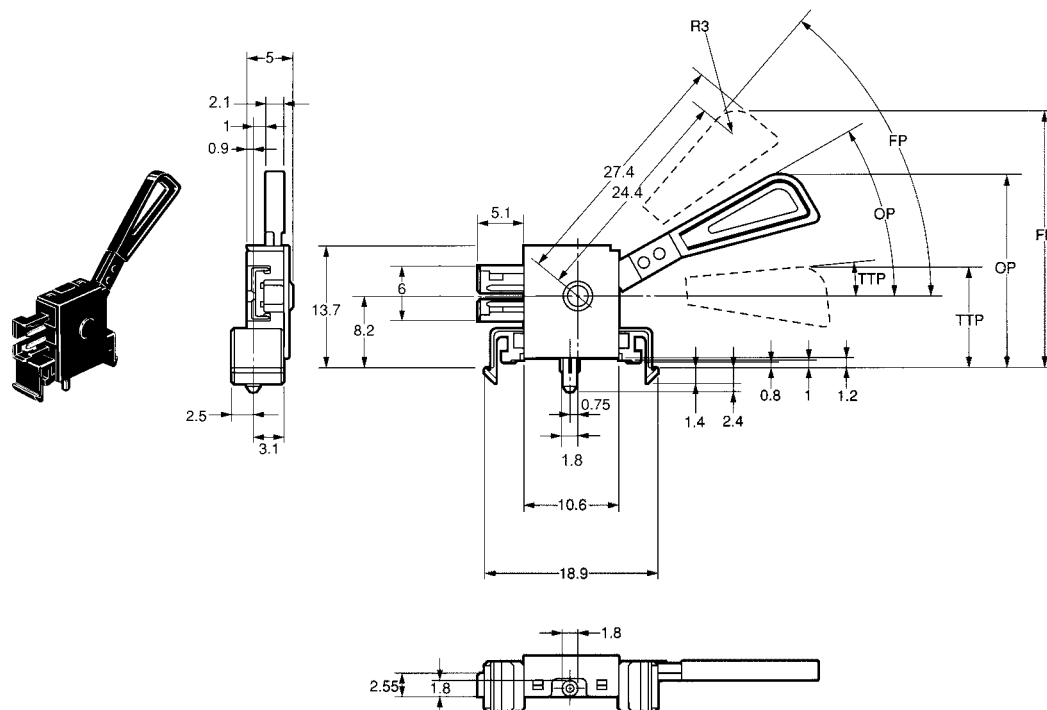


Dimensions

Note: 1. All units are in millimeters unless otherwise indicated.
2. Unless specified, a tolerance of ± 0.4 mm applies to all dimensions.

■ Dimensions and Operating Characteristics

D3K



OF max.	0.03 N {3 gf}
TTF max.	0.05 N {5 gf}
TTP max.	11.4 mm {5°}
FP max.	28.7 mm {50°}
OP	21.6 $\pm$ 2 mm (30 $\pm$ 5°)

Precautions

■ Mounting Dimensions

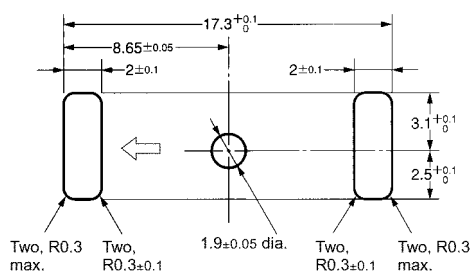
Mounting

Refer to the following mounting hole dimensions and be sure that the burred side is opposite to the Switch mounting side.

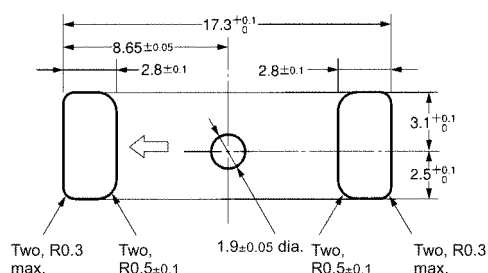
If further mounting security is required for the prevention of rattling, contact your OMRON representative.

By changing the 1.9±0.05-dia. hole to a 1.7 to 1.8-dia. hole, the pin on the Switch side will need to be pressed in. This will reduce the clattering of the pin.

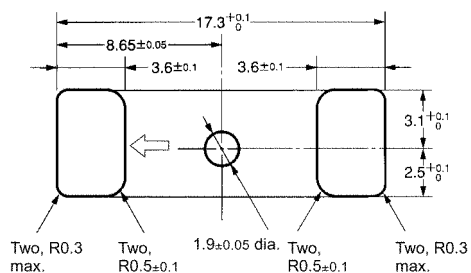
- Plate thickness $t=0.8$



- Plate thickness $t=1.0$



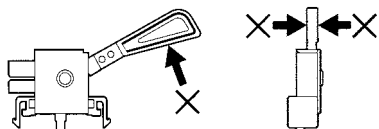
- Plate thickness $t=1.2$



Note: The switch lever is set in the direction indicated by an arrow in the above illustration.

Lever Load

Do not impose loads in the following directions on the lever, otherwise the D3K may be damaged or malfunction.



Operating Object

The operating object must fully press the lever when the operating object travels and must be perfectly separated from the lever when the operating object is in the free position. The operating object must not be pressed excessively to exceed the TTP, otherwise the D3K may be damaged. Be sure that the operating object imposes a proper load on the lever according to the motion of the lever.

■ Connector

Use the following type CT connectors of Nippon AMP for wiring the D3K:

Press-fit connector	173977-2
Crimp-style connector housing	179228-2
Crimp-style connector contact	179227-1

The above connectors are not sold by OMRON. Contact the following offices for these connectors:

- AMP (Japan), Ltd.
Phone: 81-44-844-8111
- AMP Inc. (U.S.A.)
Phone 1-800-522-6752
- AMP of Great Britain Ltd.
Phone: 44-181-954-2356
- AMP Products Pacific Ltd. (Hong Kong)
Phone: 852-2735-1628

Omron Electronic Components, LLC

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 - Seller will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
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