

PCB KEY SWITCHES

KN 19 - SHORT-TRAVEL MAIN SWITCH



KN 19

Short-travel main switch

Short-travel main switch for use in membrane keyboards under the overlay or with RK 90 keycaps, 250V, 4A max. A cut-out in the overlay is not required!

- All products are RoHS compliant.

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→ The KN 19 makes it possible to implement a power switch directly in a low-profile data entry system. This eliminates the need for extra switches on the device and additional openings in the overlay. In this way, you can achieve an optimum of safety and a consistent design.

The contact opening widths comply with the VDE standards. The KN 19 can also be employed underneath RK 90 keycaps. Other actuation functions (momentary, latching/momentary) available on request.



Technical Data

→ General information

| | |
|----------------------|-----------------|
| Recommended key grid | 19.05 x 38.1 mm |
|----------------------|-----------------|

→ Dimensions

| | |
|----------------|---------|
| Length | 37.8 mm |
| Width | 18.8 mm |
| Overall height | 9.7 mm |

→ Mechanical design

| | |
|---|----------------------------|
| Mounting | on PCB |
| Terminals | THT solder terminals |
| Contact system | snap-action bridge contact |
| Contact arrangement | see order block |
| Contact materials | Ag |
| Illumination | 1 LED (max. 3 mm) possible |
| Degree of protection | IP40 (DIN EN 60529) |
| Hot wire ignition acc. to IEC 60695-2-1 | 850 °C |

→ Mechanical characteristics

| | |
|----------------------|--------------------------|
| Operating force max. | 9 ^{±3} N |
| Operating travel | 0.55 ^{±0.15} mm |
| Robustness max. | 100 N |

→ Electrical characteristics

| | |
|----------------------------------|-------|
| Rated voltage AC min. | 12 V |
| Rated voltage DC min. | 12 V |
| Rated voltage AC max. | 250 V |
| Rated voltage DC max. | 50 V |
| Ohmic load AC | 6 A |
| Ohmic load DC max. | 10 A |
| Ohmic load DC min. | 0.1 A |
| Contact resistance when new max. | 50 mΩ |
| Capacity input current AC max. | 100 A |
| Rated motor current AC | 4 A |
| Rated filament lamp current AC | 2.4 A |
| Bouncing time max. | 10 ms |

→ Other specifications

| | |
|------------------------------|--|
| Ambient temp. operating min. | -25 °C |
| Ambient temp. operating max. | +70 °C |
| Environmental resistance | acc. to IEC 60068-2-14, -30, -33 and -78 |
| Operating life AC | AC 250 V: 200.000 /2A; 100.000 /6A |
| Operating life DC | 50,000(10 A / 50 V=) |
| Soldering time max. | 3 s |
| Soldering temperature max. | 350 °C |
| Flame class acc. to UL 94 | UL 94 VO |
| ROHS compliant | yes |
| REACH compliant | yes |

Approvals



IEC 61058



UL 508, C22.2 No. 14-M91



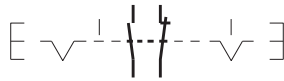
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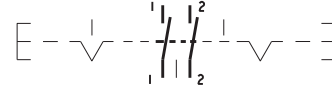
Accessories KN 19 - Short-travel main switch

| → Description | Photo | Order no. | Additional accessories see page |
|--------------------------|-------|-------------------|---------------------------------|
| KN19 - Absorption rubber | | 5.30.729.009/0000 | - |

Circuit diagrams

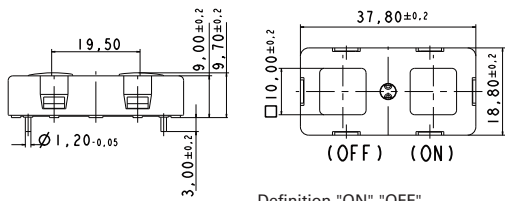


1 NC + 1 NO



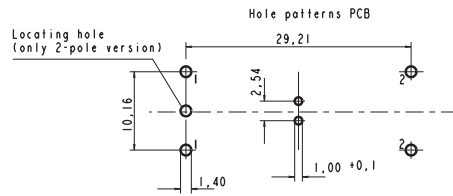
2 NC/2 NO

Dimensional drawing



Definition "ON" "OFF"
only valid for 2-pole version.

PCB hole pattern



Locating hole only version 2 NO/2 NC

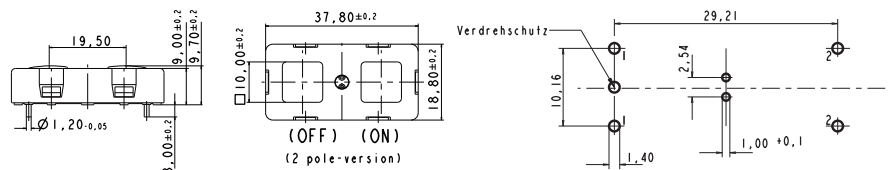
View on component side

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PCB footprint

| → Contact arrangement | Rated voltage AC max. | Order no. |
|-----------------------|-----------------------|-------------------|
| 1 NC + 1 NO | 250 V | 1.12.000.001/0000 |
| 2 NC / 2 NO | 250 V | 1.12.000.501/0000 |

For keycaps, refer to RK 90 system design.

Positive opening NC contacts to IEC 60 947-5-1.

1-LED spot-illumination (max. 3 mm) possible.

Accessoires:

KN19 - Absorption rubber: 5.30.729.009/0000