


# RF 15, silver, spot illumination, 2.9 ± 0.6 N, lamp yellow, bezel transparent, 1 NO



**fields of application**

- > Measurement-control-regulation
- > Mechanical and system engineering
- > Automotive
- > Electro-medical

**special features**

- > Silver contacts, reliable switching with medium currents
- > Optional: spot illumination or full illumination
- > Key grid 19.05 mm
- > Overall height: 9.7 mm or 12.5 mm with keycap
- > Terminal technology: THT



## description

The RF 15 silver tactile switches have a 15 x 15 mm edge length, reliable silver contacts and a noticeable click. They are used in flat data entry keyboards under overlays or under keycaps, such as RAFI RK 90 keycaps.

Flat data entry keyboards with RF 15 elements should be constructed in a 19.05 mm grid. With this grid, strips of glue remain between the individual keys on the front panel. The overlay, which we recommend embossing above the key switches, can be glued onto these strips of glue.

RF 15, mit Silber-Kontakten, Punktausleuchtung mit 1 LED in verschiedenen Farben. Die LED sitzt in der Ecke des Tasters.

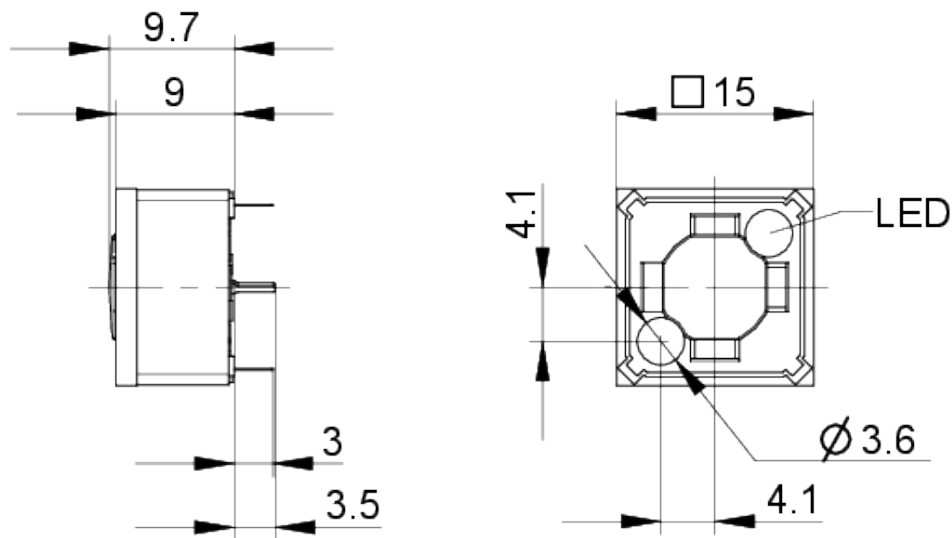
## technical data

| > general                                    |                         | direct links    |
|--|-------------------------|-----------------|
| Bezel color                                  | transparent             | > RAFI eCatalog |
| Luminous element color                       | yellow                  |                 |
| Operating temperature, min.                  | -25 °C                  |                 |
| Operating temperature, max.                  | 70 °C                   |                 |
| Storage temperature, min.                    | -25 °C                  |                 |
| Storage temperature, max.                    | 70 °C                   |                 |
| illuminated                                  | Yes                     |                 |
| Luminous elements                            | Spot illumination 1 LED |                 |
| Soldering time for manual soldering, max.    | 5 sec                   |                 |
| Soldering temperature for manual soldering   | 350 °C                  |                 |
| Soldering temperature for wave soldering     | 260 °C                  |                 |
| Soldering                                    | Manual / wave           |                 |
| Solder heat resistance according to standard | DIN EN 60068-2-20       |                 |

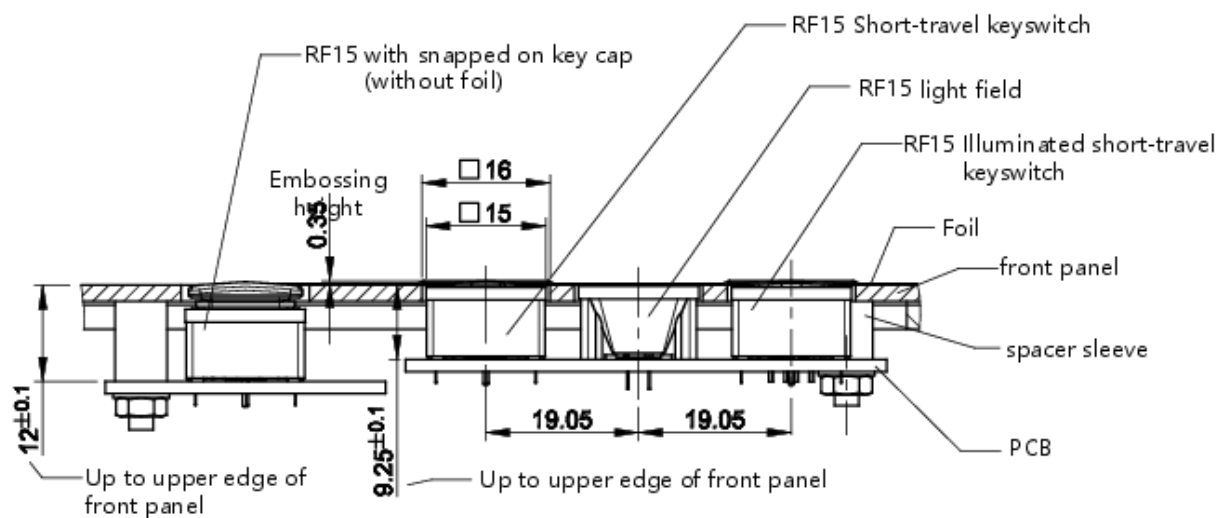
|   |                            |
|---|----------------------------|
| Packaging                                       | Tube                       |
| Packaging unit                                  | 32 pcs.                    |
| net weight                                      | 2.6 g                      |
| Operating life                                  | 1,000,000 cycles           |
| B10   | 1,300,000 cycles           |
| MOQ order                                       | 32 pcs.                    |
| RoHS compliant                                  | Yes                        |
| REACH compliant                                 | Yes                        |
| <b>&gt; mounting diameters</b>                  |                            |
| Outside dimension, length                       | 15 mm                      |
| Outside dimension, width                        | 15 mm                      |
| Outside dimension, height                       | 9.7 mm                     |
| Installation height                             | 9.7 mm                     |
| Grid, min.                                      | 19.05 mm                   |
| <b>&gt; mechanical data</b>                     |                            |
| Actuation function                              | momentary contact function |
| Operating force, min.                           | 2.9 ± 0.6 N                |
| Switching travel                                | 0.5 <sup>+0.3</sup> mm     |
| Contact function                                | 1 NO                       |
| Contact system                                  | Snap-action contact        |
| Contact material                                | Silver                     |
| Fixing  | Soldering                  |
| Solderability                                   | Yes                        |
| Terminal on the rear                            | THT                        |
| <b>&gt; electrical data</b>                     |                            |
| Operating voltage of the luminous element, min. | 2 V                        |
| Operating voltage of the luminous element, max. | 5 V                        |
| Rated voltage, min.                             | 3 V                        |
| Rated voltage, max.                             | 35 V                       |
| Operating current of the luminous element, max. | 20 mA                      |
| Rated current, min.                             | 0.0001 A                   |
| Rated current, max.                             | 0.25 A                     |
| Rated power, max.                               | 12.5 W                     |
| dropping resistor                               | no                         |

## drawings

### Dimensioned drawing



### System drawing



Technical drawing of a mechanical part with dimensions:

- Overall width: 6.35
- Overall height: 5.00
- Top flange thickness: 1.10 ± 0.10
- Top flange width: 5.00
- Top flange hole diameter: 3.21
- Bottom flange thickness: 1.778
- Bottom flange width: 3.21
- Bottom flange hole diameter: 5.00
- Internal hole diameter: 1.778

Button with 1x point illumination

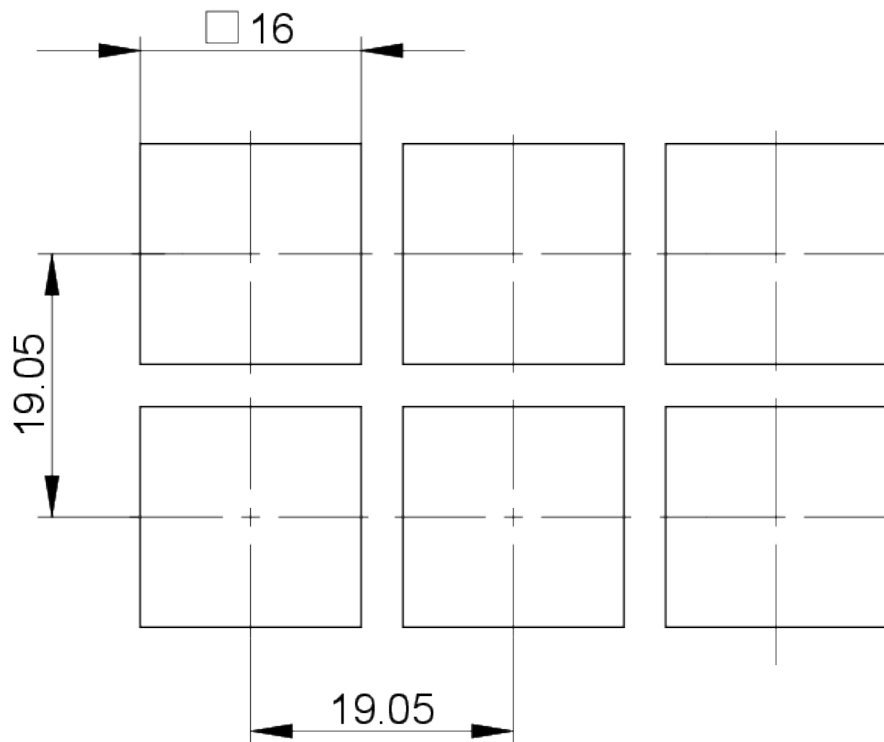
The diagram illustrates the experimental setup for the 2x2 grid of buttons. The grid is composed of six square panels arranged in two rows and three columns. The top row contains three panels, and the bottom row contains three panels. The panels are labeled as follows:

- Top-left panel:** Labeled "light field". It shows a 2x2 grid of buttons with a central crosshair. Dimensions: 19.05 (width) x 19.05 (height). A vertical dimension of 12.70 is indicated for the top half, and a horizontal dimension of 3.556 is indicated for the left half.
- Top-middle panel:** Labeled "Button with 2x point illumination". It shows a 2x2 grid of buttons with a central crosshair. Dimensions: 19.05 (width) x 19.05 (height). A vertical dimension of 12.70 is indicated for the top half, and a horizontal dimension of 3.556 is indicated for the left half.
- Top-right panel:** Labeled "Button with full illumination". It shows a 2x2 grid of buttons with a central crosshair. Dimensions: 19.05 (width) x 19.05 (height). A vertical dimension of 12.70 is indicated for the top half, and a horizontal dimension of 3.556 is indicated for the left half.
- Bottom-left panel:** Labeled "Button not illuminated". It shows a 2x2 grid of buttons with a central crosshair. Dimensions: 19.05 (width) x 19.05 (height). A vertical dimension of 12.70 is indicated for the top half, and a horizontal dimension of 3.556 is indicated for the left half.
- Bottom-middle panel:** Labeled "Button with 2x point illumination". It shows a 2x2 grid of buttons with a central crosshair. Dimensions: 19.05 (width) x 19.05 (height). A vertical dimension of 12.70 is indicated for the top half, and a horizontal dimension of 3.556 is indicated for the left half.
- Bottom-right panel:** Labeled "light field". It shows a 2x2 grid of buttons with a central crosshair. Dimensions: 19.05 (width) x 19.05 (height). A vertical dimension of 12.70 is indicated for the top half, and a horizontal dimension of 3.556 is indicated for the left half.

Additional dimensions and labels include:

- 2.54:** Indicated for the top-left and top-middle panels.
- 5.00:** Indicated for the top-right panel.
- 3.21:** Indicated for the top-right panel.
- 5.8 (Led):** Indicated for the top-right panel.
- 3.21:** Indicated for the top-right panel.
- 5.00:** Indicated for the top-right panel.
- Diode:** Indicated for the top-right panel.
- 1.27:** Indicated for the bottom-middle panel.
- 5.08:** Indicated for the bottom-middle panel.
- 1.27:** Indicated for the bottom-middle panel.
- 5.08:** Indicated for the bottom-middle panel.
- 19.05:** Indicated for the bottom-middle panel.
- 19.05:** Indicated for the bottom-middle panel.

front panel drawing



front panel drawing

