

## General data

### Keycaps for RACON, RF 15 / RF 19 and KN 19 short-travel keyswitches

- You can insert a legend insert between lens and the pressure pad of the transparent keycaps.

## Content

### RK 90 keycaps, plastic, 9 x 9 mm

RK 90 keycaps, plastic, 9 x 9 mm

4 - 80

4 - 80

### RK 90 keycaps, plastic, 14 mm

RK 90 keycaps, plastic, 14 mm, 1-module

RK 90 keycaps, plastic, 14 mm, 1½-module

RK 90 keycaps, plastic, 2-module, pressure pad and lens

4 - 82

4 - 82

4 - 83

4 - 83

### RK 90 keycaps, aluminum, 14 x 14 mm

RK 90 keycaps, aluminum, 14 mm, 1-module

RK 90 keycaps, aluminum, 14 mm, 1½-module

RK 90 keycaps, aluminum, 14 mm, 2-module

4 - 84

4 - 84

4 - 85

4 - 85

### RK 90 special accessories

Blocking frame for RF 15, 1-module

Covers (blocking frame and lens) for RF 15, 1-module

Fin, to avoid inadvertent operation

Spacer M 4

Silicone foil 600 x 590x 0.45 mm, for RF 15, RF 15N, RACON 8/12

Legend insert for RK 90

4 - 86

4 - 86

4 - 86

4 - 87

4 - 87

4 - 88

4 - 88

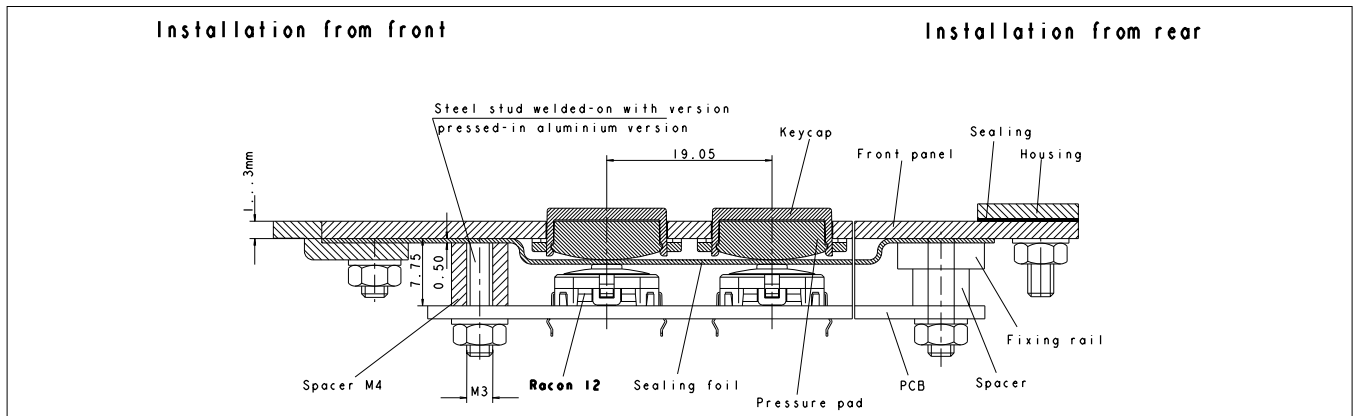
## Design

Example with RF 15 keyswitches. Instead of RF 15 following keyswitches can be used:

- RACON 8/12
- RF 15 keyswitches and signal indicators
- RF 19 keyswitches and signal indicators
- Short-travel main switch KN 19

The RK 90 system was granted the prize of the Design Forum of the Hannover Fair for good industrial design.  
**Degree of protection: IP65 according to DIN in front of the panel, with silicone sealing.**

## Installation methods



### Mounting from front

Sealing foil between RK 90 keyboard and customer's front panel.

### Mounting from rear

Sealing foil is screwed to RK 90 panel with fixing rails; sealing between keyboard and customer's front panel has to be provided.

## Legending

- **Laser printing:** This labelling method is possible for opaque keycaps. The symbols are engraved in the keycaps with laser.
- **Legend inserts:** Legends can be written on a legend insert foil which is then inserted into the transparent

keycaps. As the inserts are protected by the lens, they are friction-proof. The legend inserts can be replaced from front.

- **Engraving:** With this method the keycaps are engraved with the required symbol and then inlaid with ink.

## Recommendations

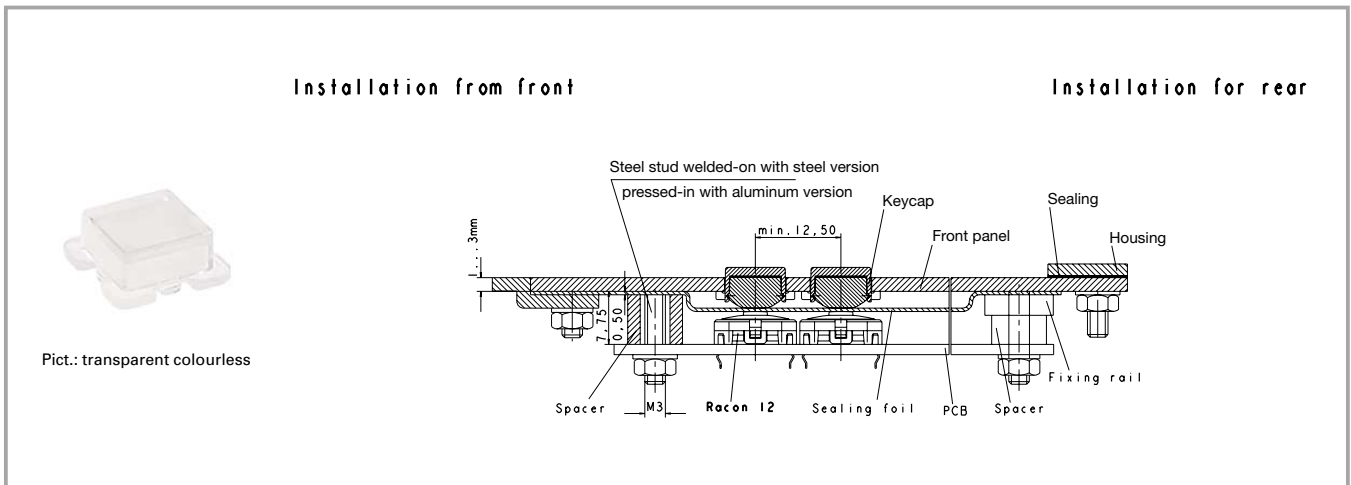
- **Front panel thickness:**
  - **Aluminum:** 2 mm (1.5 mm min, 3 mm max.) (Fixing with M 3 pressed-in studs)
  - **Steel:** 2 mm (3 mm max.): V2A: 1.25 mm (Fixing with M 3 welded-on studs)

The keytop surface is flush with the keyboard at a panel thickness of 3.5 mm.

- **Silicone sealing:**
  - Material: Silicone transparent
  - Type: A-SY 40-79
  - Hardness: 30° shore +/- 5°
  - Thickness: 0.45 +/- 0.05 mm

- **Installation:** Ensure that the keyboard slopes slightly so that any liquid can drain away between front panel and silicone sealing; if necessary, provide additional drain holes in the front panel.

**RK 90 keycaps, plastic, 9 x 9 mm**



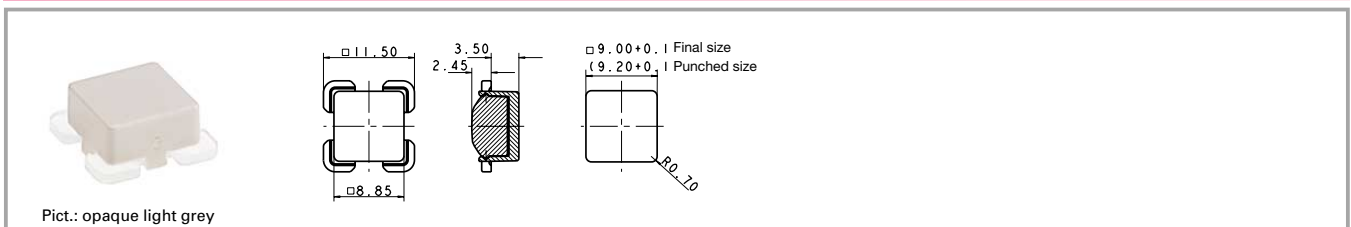
Pict.: transparent colourless

**General data**

You can design especially small input fields with the small keycap 9 x 9 mm. For example, controls for measurement and laboratory equipment which do not offer much space for input fields because of their small size. RK 90 keycaps 9 x 9 mm and RACON short-travel keyswitches can be used to implement key grids of only 12.5 mm. The keycaps can be legended by laser-printing, engraving or standard printing. Legend inserts can be used with the transparent lenses. This keycap is our first choice in a combination with the illuminated RACON 12 i short-travel keyswitch.

4

**RK 90 keycaps, plastic, 9 x 9 mm**



Pict.: opaque light grey

Size	Illuminability	Dimension keycap behind front panel	Dimension keycap in front of front panel	Dimension (c) hole patterns final size	Order no. without lens
1-module	yes	11.5 x 11.5 mm	8.85 x 8.85 mm	9.00 x 9.00 mm	5.55.103.265/1013

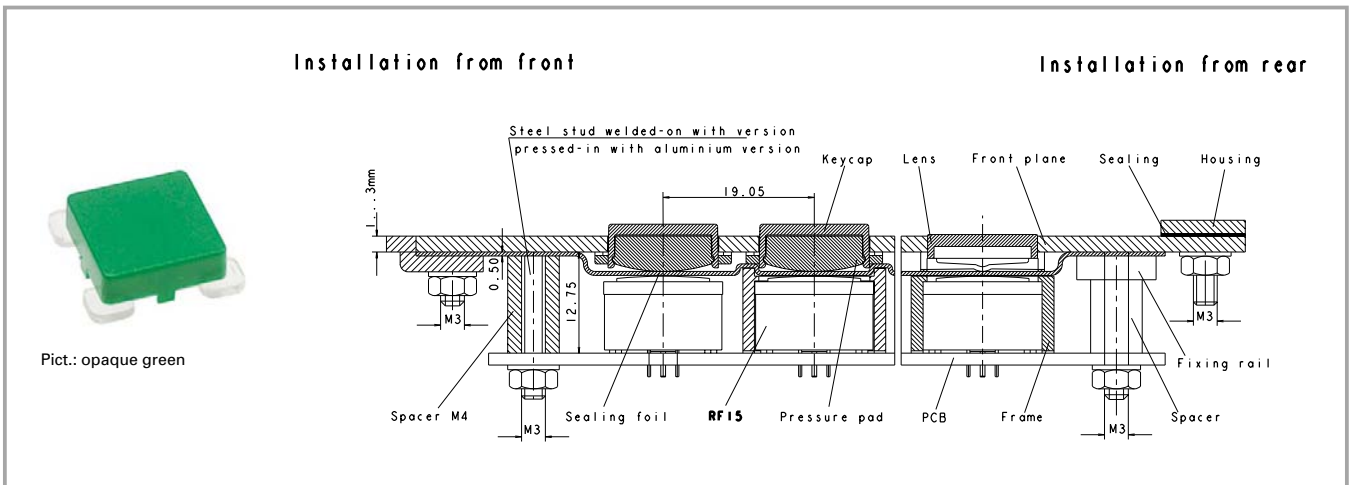
**Lenses:**

- Lens RK 90, 9 x 9 mm, opaque red: **5.46.651.015/0309**
- Lens RK 90, 9 x 9 mm, opaque yellow: **5.46.651.015/0409**
- Lens RK 90, 9 x 9 mm, opaque green: **5.46.651.015/0514**
- Lens RK 90, 9 x 9 mm, opaque blue: **5.46.651.015/0611**
- Lens RK 90, 9 x 9 mm, opaque light grey: **5.46.651.015/0700**
- Lens RK 90, 9 x 9 mm, transparent colourless: **5.46.651.019/1002**
- Lens RK 90, 9 x 9 mm, transparent red: **5.46.651.019/1307**
- Lens RK 90, 9 x 9 mm, transparent yellow: **5.46.651.019/1403**
- Lens RK 90, 9 x 9 mm, transparent green: **5.46.651.019/1510**

For illumination use transparent lenses.  
Laser-printed opaque lenses and keycap sets on request.

RK 90

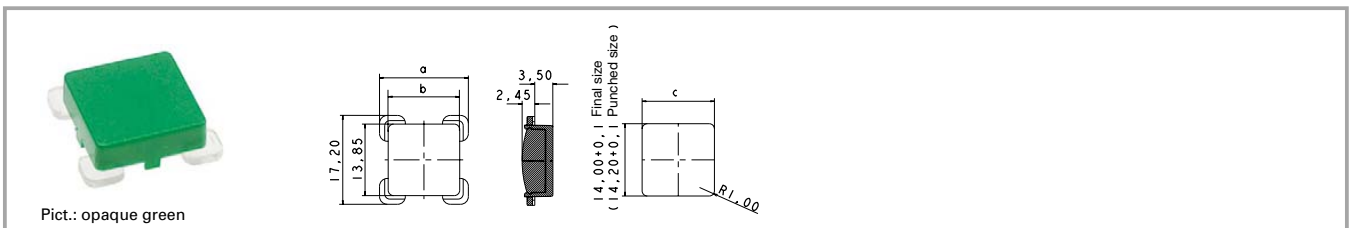
## RK 90 keycaps, plastic, 14 mm



### General data

Keycap system for 19.05 mm grid. The keycaps can be legended by laser-printing, engraving or standard printing. Legend inserts can be used for the transparent lenses. Keycaps / sets with legends and other keycap shapes / colours available on request.

## RK 90 keycaps, plastic, 14 mm, 1-module



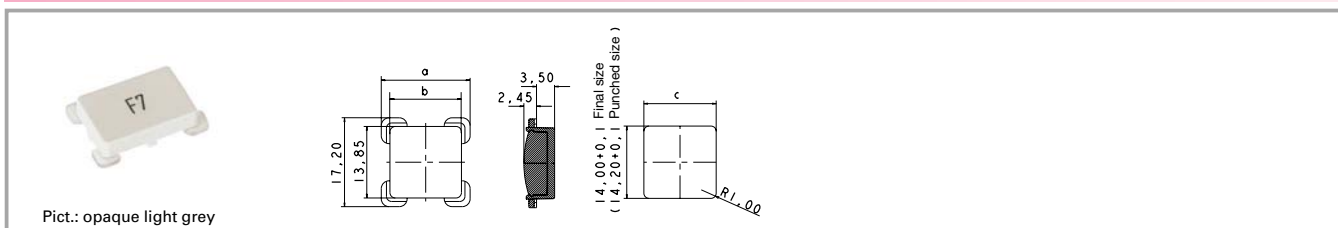
Size	Illuminability	Dimension (a) keycap behind front panel	Dimension (b) keycap in front of front panel	Dimension (c) hole patterns final size	Order no. without lens
1-module	yes	17.20 x 17.20 mm	13.85 x 13.85 mm	14.00 x 14.00 mm	5.55.103.030/1013

#### Lenses:

- Lens RK 90, 14 x 14 mm, 1-module, opaque red: **5.46.681.001/0309**
- Lens RK 90, 14 x 14 mm, 1-module, opaque yellow: **5.46.681.001/0409**
- Lens RK 90, 14 x 14 mm, 1-module, opaque green: **5.46.681.001/0514**
- Lens RK 90, 14 x 14 mm, 1-module, opaque blue: **5.46.681.001/0611**
- Lens RK 90, 14 x 14 mm, 1-module, opaque light grey: **5.46.681.001/0700**
- Lens RK 90, 14 x 14 mm, 1-module, transparent colourless: **5.46.681.021/1002**
- Lens RK 90, 14 x 14 mm, 1-module, transparent red: **5.46.681.021/1307**
- Lens RK 90, 14 mm, 1.5-module, transparent yellow: **5.46.681.021/1403**
- Lens RK 90, 14 x 14 mm, 1-module, transparent green: **5.46.681.021/1510**

Laser-printed opaque lenses on request.

## RK 90 keycaps, plastic, 14 mm, 1 1/2-module



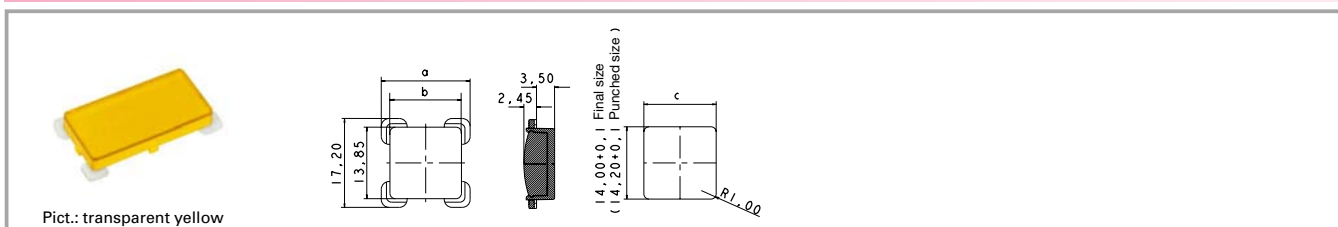
Size	Illuminability	Dimension (a) keycap behind front panel	Dimension (b) keycap in front of front panel	Dimension (c) hole patterns final size	Order no. without lens
1 1/2-module	yes	17.20 x 24.20 mm	13.85 x 20.85 mm	14.00 x 21.00 mm	<b>5.55.103.032/1013</b>

### Lenses:

- Lens RK 90, 14 mm, 1.5-module, opaque red: **5.46.681.003/0309**
- Lens RK 90, 14 mm, 1.5-module, opaque yellow: **5.46.681.003/0409**
- Lens RK 90, 14 mm, 1.5-module, opaque green: **5.46.681.003/0514**
- Lens RK 90, 14 mm, 1.5-module, opaque blue: **5.46.681.003/0611**
- Lens RK 90, 14 mm, 1.5-module, opaque light grey: **5.46.681.003/0700**
- Lens RK 90, 14 mm, 1.5-module, transparent colourless: **5.46.681.023/1002**
- Lens RK 90, 14 mm, 1.5-module, transparent red: **5.46.681.023/1307**
- Lens RK 90, 14 mm, 1.5-module, transparent yellow: **5.46.681.023/1403**
- Lens RK 90, 14 mm, 1.5-module, transparent green: **5.46.681.023/1510**

Laser-printed opaque lenses on request

## RK 90 keycaps, plastic, 14 mm, 2-module



Size	Illuminability	Dimension (a) keycap behind front panel	Dimension (b) keycap in front of front panel	Dimension (c) hole patterns final size	Order no. without lens
2-module	yes	17.20 x 31.20 mm	13.85 x 27.85 mm	14.00 x 28.00 mm	<b>5.55.103.004/0700</b>

### Lenses:

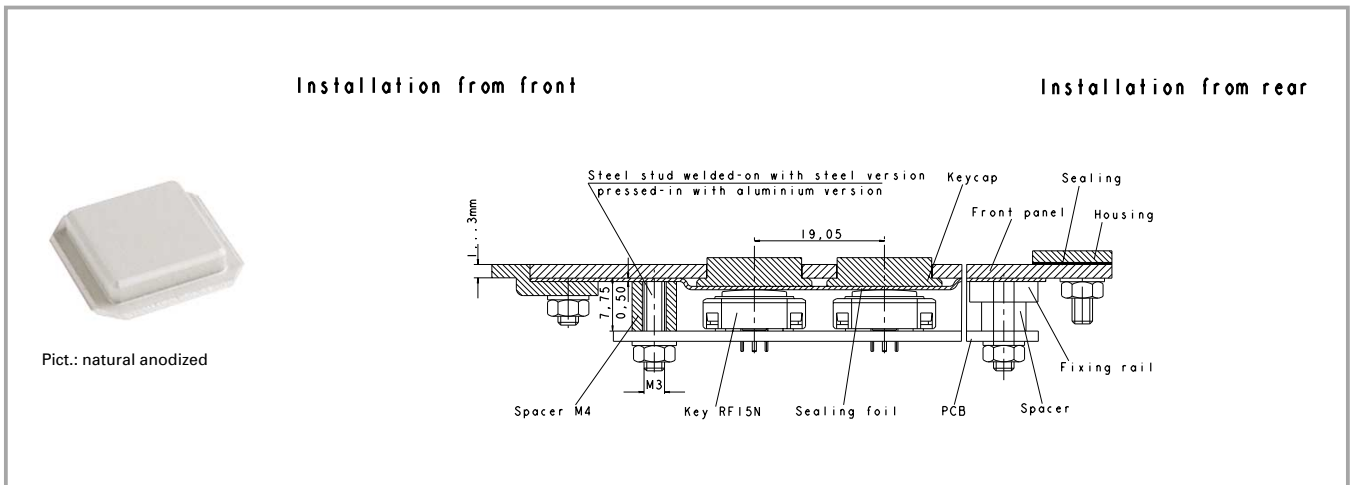
- Lens RK 90, 14 mm, 2-module, opaque red: **5.46.681.004/0309**
- Lens RK 90, 14 mm, 2-module, opaque yellow: **5.46.681.004/0409**
- Lens RK 90, 14 mm, 2-module, opaque green: **5.46.681.004/0514**
- Lens RK 90, 14 mm, 2-module, opaque blue: **5.46.681.004/0611**
- Lens RK 90, 14 mm, 2-module, opaque light grey: **5.46.681.004/0700**
- Lens RK 90, 14 mm, 2-module, transparent colourless: **5.46.681.024/1002**
- Lens RK 90, 14 mm, 2-module, transparent red: **5.46.681.024/1307**
- Lens RK 90, 14 mm, 2-module, transparent yellow: **5.46.681.024/1403**
- Lens RK 90, 14 mm, 2-module, transparent green: **5.46.681.024/1510**

Laser-printed opaque versions on request

4

**RK 90**

## RK 90 keycaps, aluminum, 14 x 14 mm

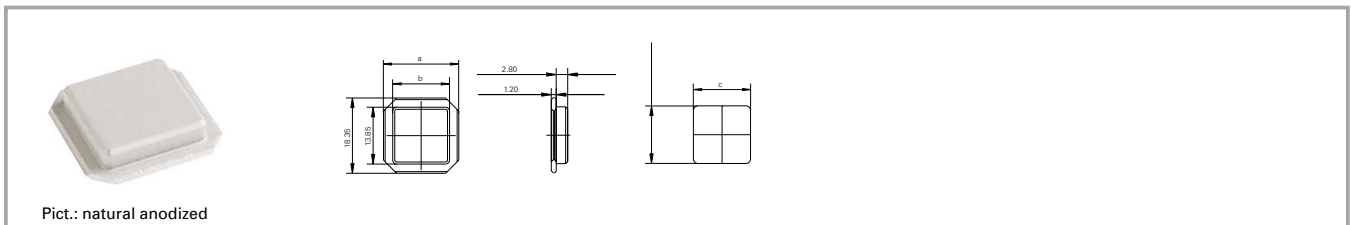


### General data

The RK 90 system design with metal keycaps is fairly safe against mechanical, thermal or chemical effects. Combined with a metal front panel, this data entry system offers maximum protection against vandalism. Tried and tested RF 15/19 or RACON PCB keyswitches are employed underneath the metal keycaps. The keycaps can be provided with engraved, coloured anodized or laser-printed legends. This means that the legend is durable and cannot be removed by mechanical or chemical means.

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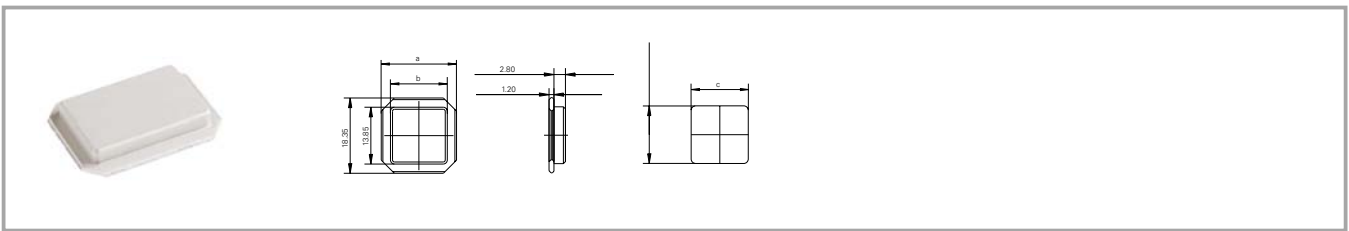
## RK 90 keycaps, aluminum, 14 mm, 1-module



Size	Colour of lens	Dimension (a) keycap behind front panel	Dimension (b) keycap in front of front panel	Dimension (c) hole patterns final size	Order no.
1-module	aluminum colour-less anodized	18.35 x 18.35 mm	13.85 x 13.85 mm	14.00 x 14.00 mm	<b>5.46.500.001/4010</b>

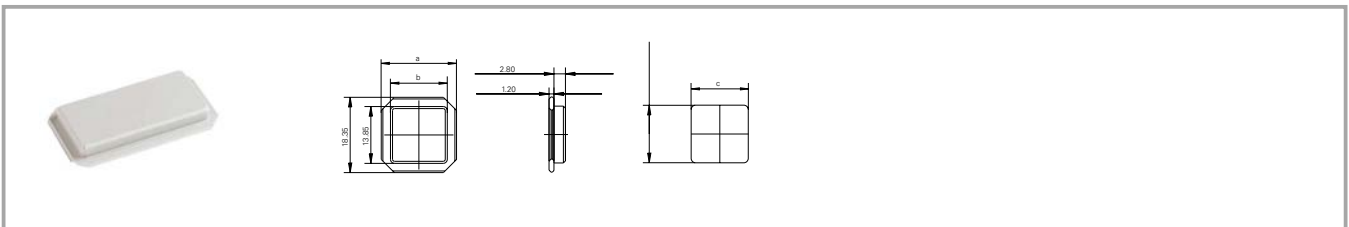
RK 90

## RK 90 keycaps, aluminum, 14 mm, 1 1/2-module



Size	Colour of lens	Dimension (a) keycap behind front panel	Dimension (b) keycap in front of front panel	Dimension (c) hole patterns final size	Order no.
1 1/2-module	aluminum colour-less anodized	18.35 x 25.35 mm	13.85 x 20.85 mm	14.00 x 21.00 mm	<b>5.46.500.003/4010</b>

## RK 90 keycaps, aluminum, 14 mm, 2-module

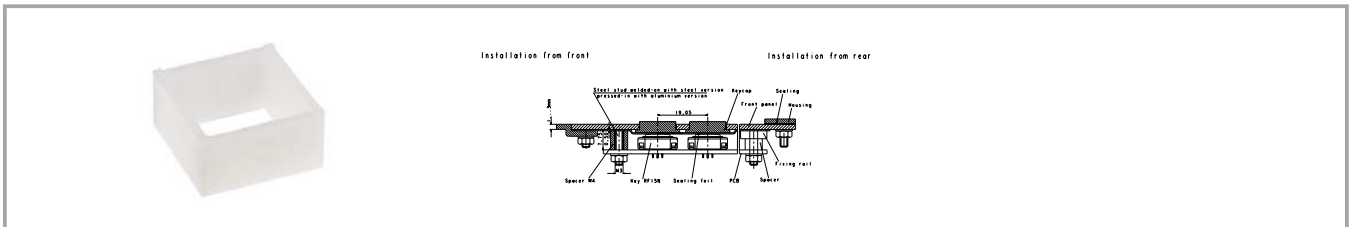


Size	Colour of lens	Dimension (a) keycap behind front panel	Dimension (b) keycap in front of front panel	Dimension (c) hole patterns final size	Order no.
2-module	aluminum colour-less anodized	18.35 x 32.35 mm	13.85 x 27.85 mm	14.00 x 28.00 mm	<b>5.46.500.004/4010</b>

**RK 90 special accessories**



**Blocking frame for RF 15, 1-module**



Short text	Feature 1	Feature 2	Order no.
Blocking frame for RF 15	transparent		5.55.103.133/0214

Blocking frames can be used for blocking fitted RF 15 keys! The RK 90 keycaps cover the keyswitch in such a way that the blocked key cannot be visually distinguished from the functional keys.

4

**Covers (blocking frame and lens) for RF 15, 1-module**



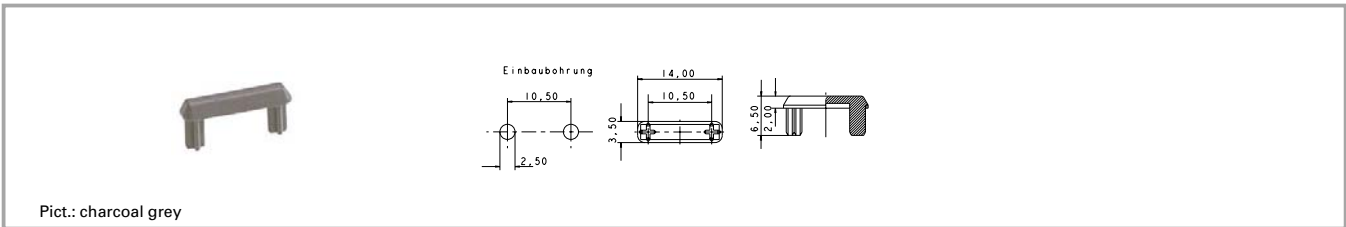
Short text	Feature 1	Feature 2	Order no.
Cover for RF 15, 1.7 mm high, 1-module, opaque light grey	opaque light grey	1-module	5.00.350.802/0700

Covers consist of blocking frames and lenses. The blocking frame is used for blocking fitted RF 15 keys. The blocked key is fitted with lenses that are flush with the front panel.

RK 90

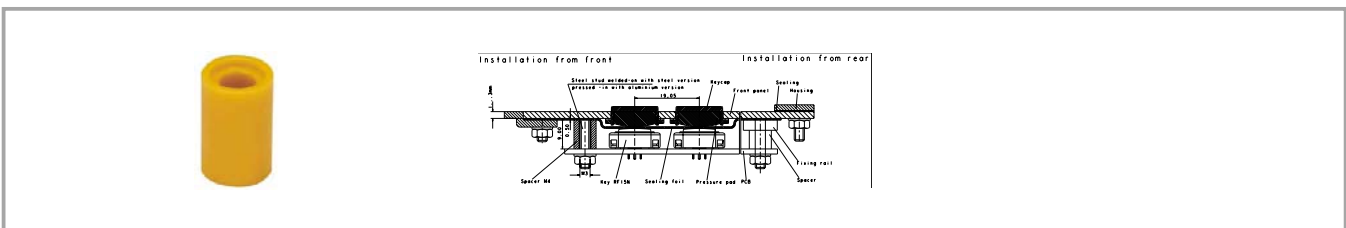


## Fin, to avoid inadvertent operation



Short text	Feature 1	Feature 2	Order no.
Fin, to avoid inadvertent operation, light grey			5.55.103.079/0700
Fin, to avoid inadvertent operation, charcoal grey			5.55.103.079/0152

## Spacer M 4



Short text	Feature 1	Feature 2	Order no.
Spacer M 4 for RK 90 with RF 15 keys, height 12.50 mm, mounting from front (1 pc. per stud)		12.5 mm overall height for RF 15	5.30.764.040/0000
Spacer M 4 for RK 90 with RF 15 keys, height 9.25 mm, mounting from rear (1 pc. per stud)		9.25 mm overall height, for RF 15	5.30.764.027/0000
Spacer M 4 for RK 90 with RF 15 N keys, height 5.50 mm, mounting from rear (1 pc. per stud)		5.5 mm overall height, for RF15 N	5.30.764.010/0000
Spacer M 4 for RK 90 with RACON 8/12 keys, height 7.50 mm, mounting from front (1 pc. per stud)		7.5 mm overall height for RACON 8/12	5.30.764.018/0000
Spacer M 4 for RK 90 with RACON 8/12 keys, height 4.25 mm, mounting from rear (1 pc. per stud)		4.25 mm overall height, for RACON 8/12	5.30.764.005/0000

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RK 90

## Silicone foil 600 x 590x 0.45 mm, for RF 15, RF 15N, RACON 8/12



Short text	Feature 1	Feature 2	Order no.
Silicone foil 600 x 590x 0.45 mm, for RK 90 with RF 15, RF 15 N or RACON 8/12 keys	transparent	600 x 590 x 0.45 mm	7.16.102.006/0000

## Legend insert for RK 90



Short text	Feature 1	Feature 2	Order no.
Legend insert for RK 90, 14 mm, 1-module			<b>5.70.640.000/2000</b>
Legend insert for RK 90, 14 mm, 1½-module			<b>5.70.642.000/2000</b>
Legend insert for RK 90, 14 mm, 2-module			<b>5.70.643.000/2000</b>
Legend insert for RK 90, 9 mm, 1-module			<b>5.70.644.000/2000</b>

Use only with transparent lenses.

4

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90