

### **General data**

Keycaps for RACON, RF 15 / RF 19 and KN 19 short-travel keyswitches
• You can insert a legend insert between the lens and the plunger into the transparent keycaps.

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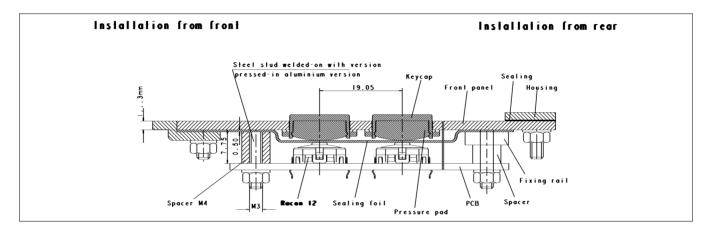
### Design

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

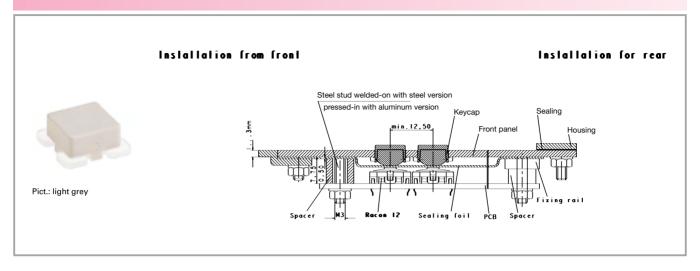
- Front panel thickness:
  - Aluminum: 2 mm (1.5 mm min, 3 mm max.)
     (Fixing with M 3 pressed-in studs)
  - Steel: 2 mm (3 mm max.): V2A: 1.25 mm (Fixing with M 3 welded-on studs)
     The keytop surface is flush with the keyboard at a panel thickness of 3.5 mm.

#### • 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.

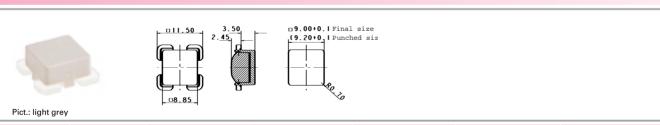
PCB Keyswitches 4 - 81



#### **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. You can use RK 90 keycaps 9 x 9 mm and RACON short-travel keyswitches 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 version. This keycap is our first choice in a combination with the illuminated RACON 12 i short-travel keyswitch.

# Keycaps, plastic, 9 x 9 mm, opaque, with pressure pad



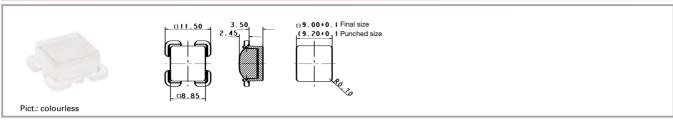
| Size     | Illuminability | Colour of lens       | Dimension keycap<br>behind front panel | Dimension keycap<br>in front of front<br>panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|----------------|----------------------|--|--|--|--------------------|
| 1-module | no             | opaque light<br>grey | 11.5 x 11.5 mm                         | 8.85 x 8.85 mm                                 | 9.00 x 9.00 mm                         | 5.04.668.015/0700  |
| 1-module | no             | opaque red           | 11.5 x 11.5 mm                         | 8.85 x 8.85 mm                                 | 9.00 x 9.00 mm                         | 5.04.668.015/0300  |
| 1-module | no             | opaque green         | 11.5 x 11.5 mm                         | 8.85 x 8.85 mm                                 | 9.00 x 9.00 mm                         | 5.04.668.015/0500  |
| 1-module | no             | opaque yellow        | 11.5 x 11.5 mm                         | 8.85 x 8.85 mm                                 | 9.00 x 9.00 mm                         | 5.04.668.015/0400  |
| 1-module | no             | opaque blue          | 11.5 x 11.5 mm                         | 8.85 x 8.85 mm                                 | 9.00 x 9.00 mm                         | 5.04.668.015/0600  |

Laser-printed on request, condition as supplied: Assembled. Keycap sets available on request.

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### Keycaps, plastic, 9 x 9 mm, transparent, with pressure pad



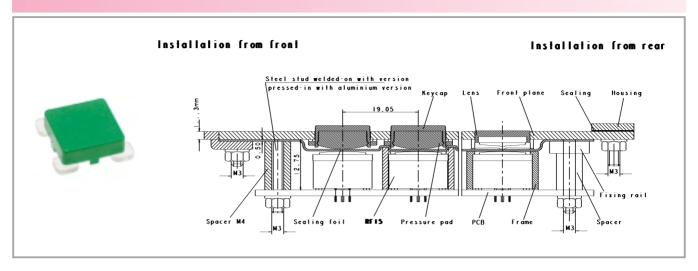
| Size     | Illuminability | Colour of lens         | Dimension keycap behind front panel | Dimension keycap in front of front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|----------------|------------------------|-------------------------------------|--|--|--------------------|
| 1-module | yes            | transparent colourless | 11.5 x 11.5 mm                      | 8.85 x 8.85 mm                           | 9.00 x 9.00 mm                         | 5.04.668.016/1000  |
| 1-module | yes            | transparent red        | 11.5 x 11.5 mm                      | 8.85 x 8.85 mm                           | 9.00 x 9.00 mm                         | 5.04.668.016/1300  |
| 1-module | yes            | transparent<br>green   | 11.5 x 11.5 mm                      | 8.85 x 8.85 mm                           | 9.00 x 9.00 mm                         | 5.04.668.016/1510  |
| 1-module | yes            | transparent<br>yellow  | 11.5 x 11.5 mm                      | 8.85 x 8.85 mm                           | 9.00 x 9.00 mm                         | 5.04.668.016/1400  |

#### Accessories:

Legend inserts for RK 90, 9 x 9, 1-module: 5.70.644.000/2000

Supplied as single parts, please order legend insert separately (legending on request).

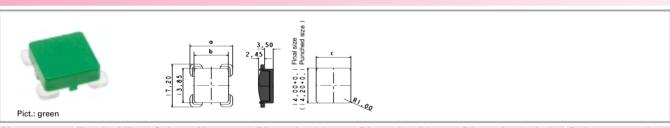
### Keycaps, plastic, 14 mm



### **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 versions. Keycaps / sets with legends and other keycap shapes / colours available on request.

### Keycaps, plastic, 1-module, opaque, with pressure pad



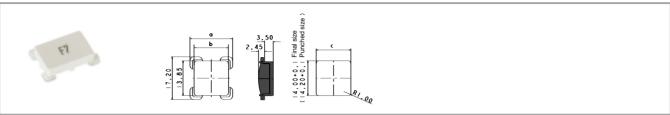
| Size     | Illuminability | Colour of lens       | Dimension (a)<br>keycap behind<br>front panel | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|----------------|----------------------|---|--|--|--------------------|
| 1-module | no             | opaque light<br>grey | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.001/0700  |
| 1-module | no             | opaque red           | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.001/0309  |
| 1-module | no             | opaque green         | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.001/0514  |
| 1-module | no             | opaque yellow        | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.001/0409  |
| 1-module | no             | opaque blue          | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.001/0611  |

 $Laser\mbox{-}printed \ on \ request, \ condition \ as \ supplied: \ Assembled.$ 





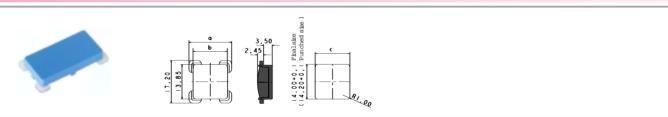
### Keycaps, plastic, 1,5-module, opaque, with pressure pad



| Size           | Illuminability | Colour of lens       | Dimension (a)<br>keycap behind<br>front panel | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------------|----------------|----------------------|---|--|--|--------------------|
| 1,5-<br>module | no             | opaque light<br>grey | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.003/0700  |
| 1,5-<br>module | no             | opaque red           | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.003/0309  |
| 1,5-<br>module | no             | opaque green         | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.003/0514  |
| 1,5-<br>module | no             | opaque yellow        | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.003/0409  |
| 1,5-<br>module | no             | opaque blue          | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.003/0611  |

Laser-printed on request, condition as supplied: Assembled.

# Keycaps, plastic, 2-module, opaque, with pressure pad

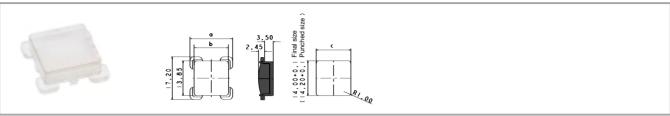


| Size     | Illuminability | Colour of lens       | Dimension (a)<br>keycap behind<br>front panel | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|----------------|----------------------|---|--|--|--------------------|
| 2-module | no             | opaque light<br>grey | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.004/0700  |
| 2-module | no             | opaque red           | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.004/0309  |
| 2-module | no             | opaque green         | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.004/0514  |
| 2-module | no             | opaque yellow        | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.004/0409  |
| 2-module | no             | opaque blue          | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.004/0611  |

Laser-printed on request, condition as supplied: Assembled.



### Keycaps, plastic, 1-module, transparent, with pressure pad



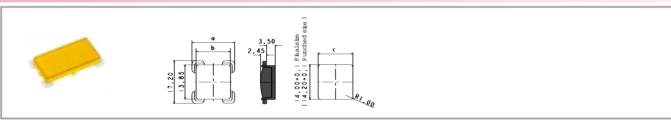
| Size     | Illuminability | Colour of lens         | Dimension (a)<br>keycap behind<br>front panel | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|----------------|------------------------|---|--|--|--------------------|
| 1-module | yes            | transparent colourless | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.005/1002  |
| 1-module | yes            | transparent red        | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.005/1307  |
| 1-module | yes            | transparent<br>green   | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.005/1510  |
| 1-module | yes            | transparent<br>yellow  | 17.20 x<br>17.20 mm                           | 13,85 x<br>13,85 mm                                | 14.00 x<br>14.00 mm                    | 5.04.668.005/1403  |

#### Accessories:

Legend inserts for RK 90, 12 x 12, 1-module: 5.70.640.000/2000

Supplied as single parts, please order legend insert separately (legending on request).

# Keycaps, plastic, 1,5-module, transparent, with pressure pad



| Size           | Illuminability | Colour of lens         | Dimension (a)<br>keycap behind<br>front panel | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------------|----------------|------------------------|---|--|--|--------------------|
| 1,5-<br>module | yes            | transparent colourless | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.007/1002  |
| 1,5-<br>module | yes            | transparent red        | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.007/1307  |
| 1,5-<br>module | yes            | transparent green      | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.007/1510  |
| 1,5-<br>module | yes            | transparent yellow     | 17.20 x<br>24.20 mm                           | 13.85 x<br>20.85 mm                                | 14.00 x<br>21.00 mm                    | 5.04.668.007/1403  |

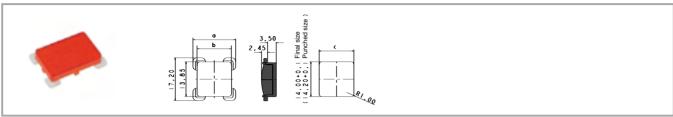
Accessories:

Legend inserts for RK 90, 12 x 12, 1,5-module: 5.70.642.000/2000

Supplied as single parts, please order legend insert separately (legending on request).



## Keycaps, plastic, 2-module, transparent, with pressure pad



| Size     | Illuminability | Colour of lens         | Dimension (a)<br>keycap behind<br>front panel | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|----------------|------------------------|---|--|--|--------------------|
| 2-module | yes            | transparent colourless | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.008/1002  |
| 2-module | yes            | transparent red        | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.008/1307  |
| 2-module | yes            | transparent<br>green   | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.008/1510  |
| 2-module | yes            | transparent yellow     | 17.20 x<br>31.20 mm                           | 13.85 x<br>27.85 mm                                | 14.00 x<br>28.00 mm                    | 5.04.668.008/1403  |

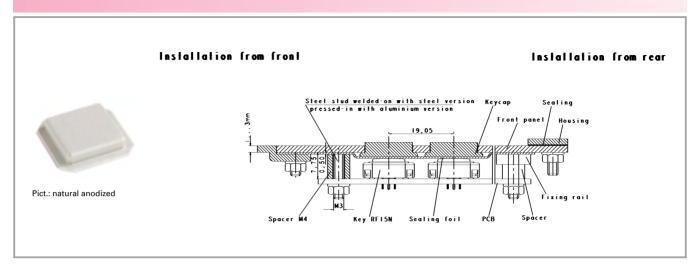
#### Accessories:

Legend inserts for RK 90, 12 x 12, 2-module: 5.70.643.000/2000

Supplied as single parts, please order legend insert separately (legending on request). We recommend the fully illuminated RF 19 key/signal indicator for illumination.



### Keycaps, aluminum, 14 x 14 mm

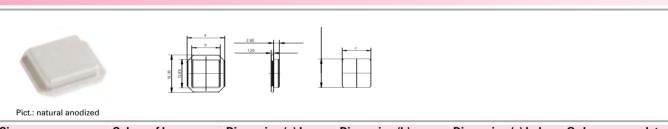


#### **General data**

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.

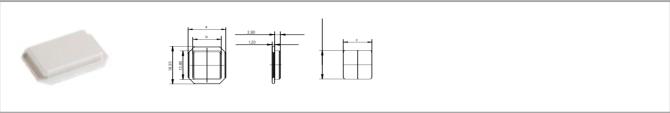
### Keycaps, aluminum, 1-module



| Size     | Colour of lens         |                  |                  | Dimension (c) hole patterns final size | Order no. complete |
|----------|------------------------|------------------|------------------|--|--------------------|
| 1-module | aluminum<br>colourless | 18.35 x 18.35 mm | 13,85 x 13,85 mm | 14.00 x 14.00 mm                       | 5.46.500.001/4010  |

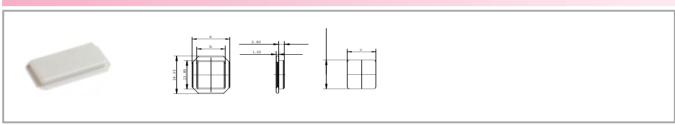


# Keycaps, aluminum, 1,5-module



| Size       | Colour of lens | •                | Dimension (b)<br>keycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|------------|----------------|------------------|--|--|--------------------|
| 1,5-module | aluminum       | 18.35 x 25.35 mm | 13.85 x 20.85 mm                                   | 14.00 x 21.00 mm                       | 5.46.500.003/4010  |

# Keycaps, aluminum, 2-module



| Size     | Colour of lens      | •                | Dimension (b) k<br>eycap in front of<br>front panel | Dimension (c) hole patterns final size | Order no. complete |
|----------|---------------------|------------------|---|--|--------------------|
| 2-module | aluminum colourless | 18.35 x 32.35 mm | 13.85 x 27.85 mm                                    | 14.00 x 28.00 mm                       | 5.46.500.004/4010  |



# **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.



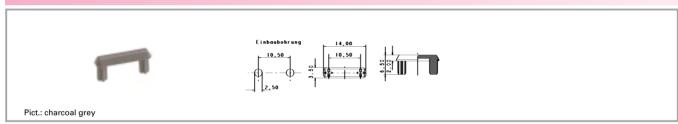
### Covers (blocking frame and lens) for RF 15, 1-module



| Short text  | Feature 1            | Feature 2 | Order no.         |
|---|----------------------|-----------|-------------------|
| Cover for RF 15, 1.7 mm high, 1-module, opaque light grey | opaque light<br>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.

### 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 for<br>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 for<br>RF 15      | 5.30.764.027/0000 |
| Spacer M 4, height 9.00 mm, for RF 15 N   |           | 9.00 mm for<br>RF15N      | 5.30.759.046/0000 |
| 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 for<br>RF15N       | 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 for<br>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 for<br>RACON 8/12 | 5.30.764.005/0000 |

# Fixing rail 10 x 3 x 490 mm, for RF 15, RF 15 N, RACON 8/12

4

| Short text  | Feature 1 | Feature 2          | Order no.         |
|---|-----------|--------------------|-------------------|
| Fixing rail 10 x 3 x 490 mm, for RK 90 with RF 15, RF 15 N, RACON 8/12 keys, mounting from rear |           | 10 x 3 x 490<br>mm | 5.41.082.016/6000 |



# Silicone foil 600 x 590 x 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<br>mm | 7.16.102.006/0000 |

# Legend insert for RK 90



| Short text                                   | Feature 1 | Feature 2 | Order no.         |
|--|-----------|-----------|-------------------|
| Legend insert for RK 90, 12 x 12, 1-module   |           |           | 5.70.640.000/2000 |
| Legend insert for RK 90, 12 x 12, 1,5-module |           |           | 5.70.642.000/2000 |
| Legend insert for RK 90, 12 x 12, 2-module   |           |           | 5.70.643.000/2000 |
| Legend insert for RK 90, 9 x 9, 1-module     |           |           | 5.70.644.000/2000 |