



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# CONTROL COMPONENTS

RAFIX 16 - GENERAL INFORMATION

## Control Components RAFIX 16

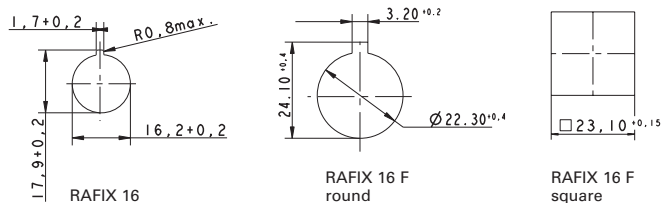
RAFIX 16 is a complete control component series and enables you to design attractive control panels with a minimum of space requirements and at the same time sufficiently large actuating areas.



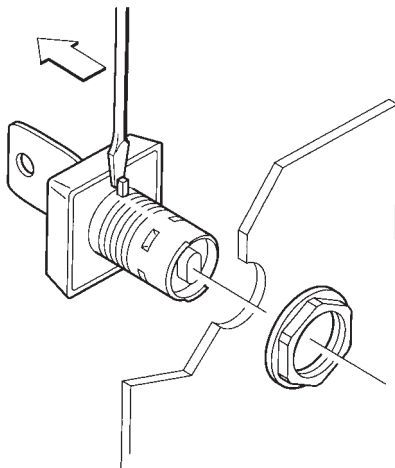
RAFIX 16 F,  
round

## Actuators

### Mounting hole according to IEC 60947



- Locating lug (easily removable).  
The locating lug can be easily removed using a screwdriver.



- Degree of protection IP65 on frontside of the panel.  
This is achieved by a reliable, tried and tested special seal.

### RAFIX 16 actuators

- Grid spacing 25 x 25 mm (RAFIX 16 F 30 x 30 mm)
- 7 mm height from front panel (RAFIX 16 F 1.9 mm)
- Three collar shapes, in black
  - Square
  - Round
  - Square, alignable in flush fitting rows, which avoids accumulation of dirt between the collars.

## Contact blocks

- Contact blocks standard: for actuators with one-way operation
  - latching function
  - momentary function
- Contact blocks universal: for E-stop pushbuttons and for actuators with two-way operation, e. g. selector or keylock switches
  - momentary function

### Contact material

- Silver contacts for mains voltage
- Gold contacts for electronic circuits

### Illumination

- LED or wedge base lamp, socket W 2 x 4.6 d

### Assembly

- Single-handed cost-effective assembly method
- Panel thickness 0.5 ... 5 mm for RAFIX 16 (RAFIX 16 F 0.5 ... 3.5 mm)
- Fixing with hexagon nut
- Starting torque 1.2 Nm max.

### Shock-resistance according to IEC 600 68-2-27

- Shock amplitude:  $\leq 50$  g
- Shock time: 11 ms
- Shock type: half sinusoidal

### Environment conditions

- acc. to IEC 600 68-2, -14, -30, -33 and -78

### Temperature range

- Operating temperature:
  - non-illuminated: - 25 ... + 70 °C
  - illuminated: - 25 ... + 55 °C (with LED)
- Storage temperature: - 40 ... + 85 °C

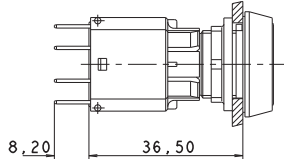
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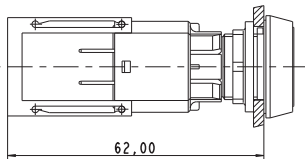
## Dimensional Drawings

Actuator with contact block resp. signal indicator with lamp socket

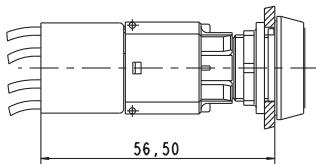
Contact block with quick-connect terminals and RAFIX 16 pushbutton



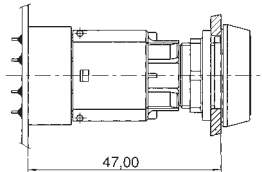
... with protection cage



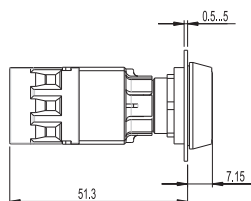
... with multipole connector



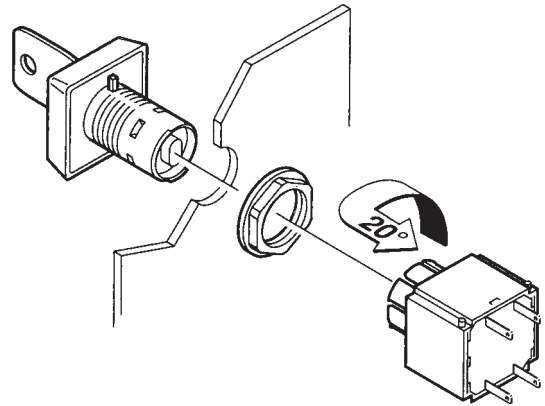
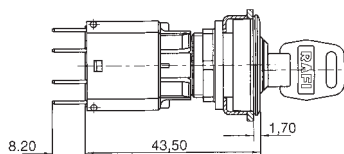
... with PCB plug-in socket



Contact block with screw terminals and RAFIX 16 pushbutton



Contact block with quick-connect terminals and RAFIX 16 F keylock switch



Assembly/Disassembly

## Assembly

- Insert the actuator through the panel cut-out from the front.
- If there is no locating indent provided in the cut-out, first remove the locating lug using a screwdriver.
- Screw the hexagon nut onto the actuator or signal indicator from the rear and tighten it using a fixing spanner.
- Click the contact block onto the actuator from the rear.
- Install protection against accidental contact, if applicable.
- Install PCB if applicable.

### With quick-connect terminals

Contact cables with quick connector

### With screw terminals

Push in cables and fix by screwing

## Disassembly

- Turn the contact block by approx. 20° to the left or right – the latches open.
- Pull the contact block off towards the rear.
- To dismount a PCB, pull the PCB with the soldered plug-in sockets off the mounted contact blocks.

# CONTROL COMPONENTS

RAFIX 16 - GENERAL INFORMATION

## Legending

- **Label holders**  
All elements can be labelled using a **separate label holder**. The label holder is mounted together with the actuator/signal indicator.
- **Non-illuminated pushbuttons and mushroom-headed pushbuttons**  
Can be **printed** or laser engraved.
- **Legend inserts**  
All illuminated pushbuttons and the majority of the signal indicators can be **labelled by means of legend inserts**. The legend inserts are fitted between actuator body and lens and can be easily changed.

Alternatively, the plungers can be printed directly. The mounted lens protects the printing against abrasion.

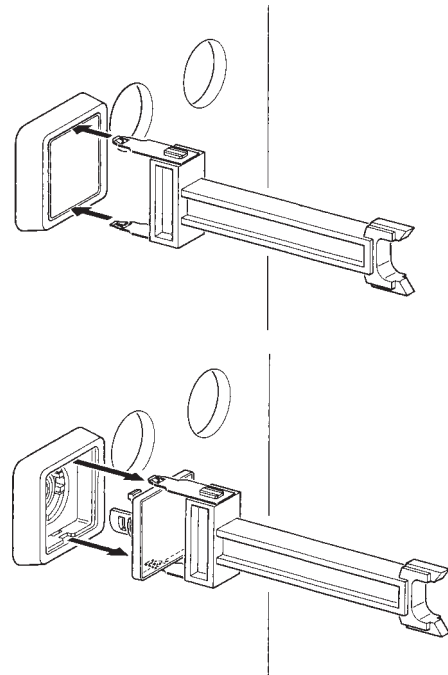
RAFI also provides custom legending. Price and delivery on request.

## Lamp replacement from front

Use the disassembly tool to grasp the actuator body and pull it towards the front with the lens.

Alternatively, you can use a screwdriver in place of the disassembly tool. In this case, insert the screwdriver between actuator body and collar and carefully raise the actuator body.

Replace the lamp using a lamp extractor or a suitable insulation sleeve.



Lamp replacement from front

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