



Optical 50-mm trackball: TKS-105a-TB50oF80-MODUL



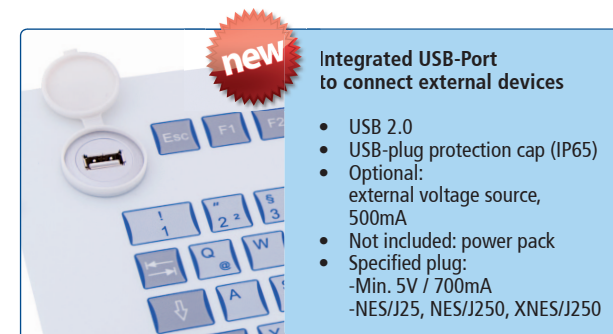
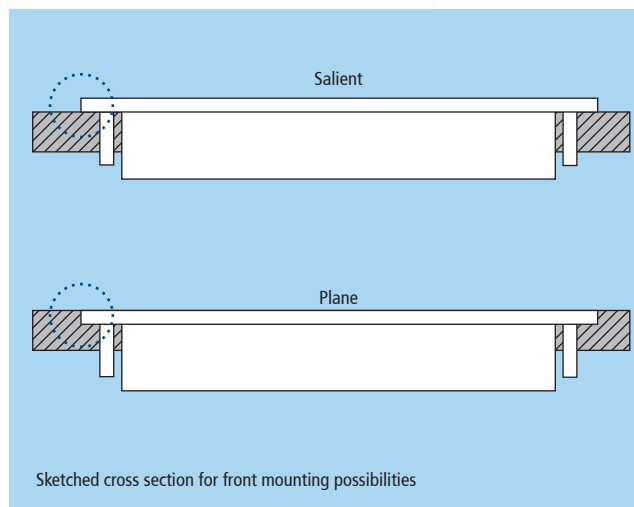
Integrated joystick: TKS-105a-JSTb-MODUL



## Front Mounting

The front mounting of a keyboard is the kind of systems integration which is most widely used in the field of engine and tool building. The input device is firmly linked to the system; if it is accordingly mounted, a plane surface of the operating panel is the result.

The front mounting is performed by means of threaded fastening bolts which are installed on the rear side of the keyboard front panel. The keyboard is embedded into the mounting surface of the system and is screwable in place. A gasket reliably prevents liquids and dust from entering the carrier system. In order to create the cut-out, a cutting template can be used. For the mounting of the keyboard, the studs can be screwed by nuts. In order to protect the circuit board of the keyboard, the back of the keyboard is equipped with a metal protective tray.



## Integrated USB-Port to connect external devices

- USB 2.0
- USB-plug protection cap (IP65)
- Optional:  
external voltage source,  
500mA
- Not included: power pack
- Specified plug:  
-Min. 5V / 700mA  
-NES/J25, NES/J250, XNES/J250

TKS-105a-TB50XF50-MODUL-USBPORT

## Technical data MODUL-versions

Switching technology:	short travel keys	Housing design:	front panel with threaded bolts
Switching force:	2.6 N	Front panel material:	aluminium
Switch travel:	0.3 mm	Operating temp.:	-25 °C to +70 °C <sup>1</sup>
Switching cycles:	approx. 3 Mio. (per key)	Storage temp.:	-25 °C to +80 °C



new

Cat.No.	Product description	Pointing device <sup>1</sup>	Protection level	Dimensions (mm)	Weight
KS07241	TKS-105a-MODUL-PS/2-US	none	IP65	482.6 x 177.8 x 23.0	1200 g
KS09490	TKS-105a-MODUL-USB-US	none	IP65	482.6 x 177.8 x 23.0	1200 g
KS08308	TKS-105a-TB38-MODUL-PS/2-US	Trackball, 38 mm	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1300 g
KS09498	TKS-105a-TB38-MODUL-USB-US	Trackball, 38 mm	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1300 g
KS01201	TKS-105a-TB50oF80-MODUL-PS/2-US <sup>2</sup>	Trackball, 50 mm <sup>2</sup>	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1600 g
KS01203	TKS-105a-TB50oF80-MODUL-USB-US <sup>2</sup>	Trackball, 50 mm <sup>2</sup>	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1600 g
KS07246	TKS-105a-TOUCH-MODUL-PS/2-US	Touchpad	IP65	482.6 x 177.8 x 23.0	1200 g
KS09502	TKS-105a-TOUCH-MODUL-USB-US	Touchpad	IP65	482.6 x 177.8 x 23.0	1200 g
KS15003	TKS-105a-JSTb-MODUL-PS/2-US	Joystick	IP65	482.6 x 177.8 x 48.0	1450 g
KS15005	TKS-105a-JSTb-MODUL-USB-US	Joystick	IP65	482.6 x 177.8 x 48.0	1450 g
KS07231	TKS-104a-MODUL-PS/2-US	none	IP65	370.0 x 180.0 x 23.0	1000 g
KS18357	TKS-105a-TB50XF50-MODUL-USBPORT-USB-US	Trackball, 50 mm <sup>2</sup>	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1500 g
KS09512	TKS-104a-MODUL-USB-US	none	IP65	370.0 x 180.0 x 23.0	1000 g
KS08312	TKS-088a-TB38-MODUL-PS/2-US	Trackball, 38 mm	IP65 <sup>3</sup>	370.0 x 180.0 x 43.0	1100 g
KS09520	TKS-088a-TB38-MODUL-USB-US	Trackball, 38 mm	IP65 <sup>3</sup>	370.0 x 180.0 x 43.0	1100 g
KS07236	TKS-088a-TOUCH-MODUL-PS/2-US	Touchpad	IP65	370.0 x 180.0 x 23.0	1000 g
KS09524	TKS-088a-TOUCH-MODUL-USB-US	Touchpad	IP65	370.0 x 180.0 x 23.0	1000 g
<b>Compact layout</b>					
KS08461	TKS-030-MODUL-PS/2-US	none	IP65	141.0 x 157.0 x 15.4	300 g
KS08466	TKS-030-MODUL-USB-US	none	IP65	141.0 x 157.0 x 15.4	300 g
KS02031	TKS-030-TOUCH-MODUL-PS/2-US	Touchpad	IP65	141.0 x 196.0 x 15.4	400 g
KS14001	TKS-030-TOUCH-MODUL-USB-US	Touchpad	IP65	141.0 x 196.0 x 15.4	400 g

Other layouts, configurations and interfaces on request

<sup>1</sup> Keyboards with pointing device: 0 °C to +70 °C

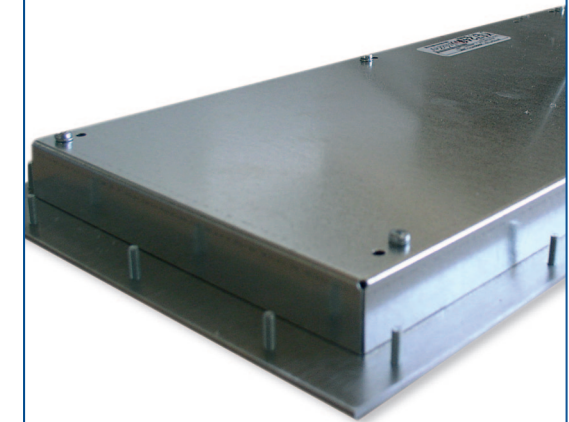
<sup>2</sup> Optical Trackball

<sup>3</sup> IP65 (front), IP54 (dynam.)



Learn more about further housing and mounting versions of the TKS series:

Housing	Page 9, 11
Rack mounting	Page 17, 19
Drawer	Page 17
Explosion protection	Page 27
With edge protection	Page 15



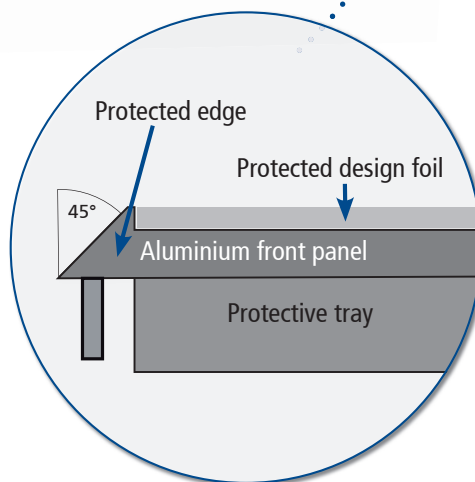
Stay bolts which are installed on the rear side of the keyboard front panel allow for a mounting of the keyboard to the respective mounting surface. A cutting template can help to create the mounting cut-out.



## Front Mounting with Edge Protection

In contrast to the conventional front mount models (see p. 12), those front mounting variants have a heightened revolving edge. The edge protection is realized by a deeper milling of the front panel.

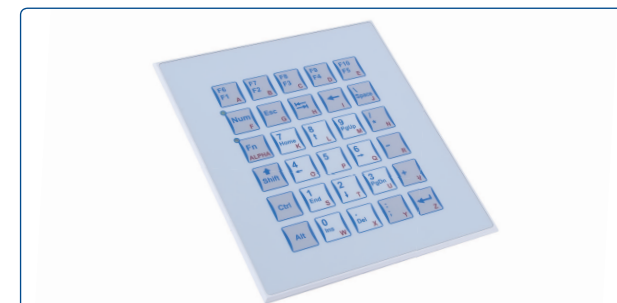
The reason for this variation is an increased protection of the front foil. Especially with regard to keyboards which are not plane mounted, it may be possible that the foil comes off on the edges and borders. Particularly with regard to machines and plants in mechanically demanding areas, the edge protection ensures a long durability of the device.



TKS-105b-TB38-MODUL



TKS-105b-TB50oF80-MODUL



Compact: TKS-030b-MODUL

## Technical data: MODUL-versions with edge protection

Switching technology:	short travel keys	Housing design:	front panel with threaded bolts
Switching force:	2.6 N	Front panel material:	aluminium
Switch travel:	0.3 mm	Operating temp.:	-25 °C to +70 °C <sup>1</sup>
Switching cycles:	approx. 3 Mio. (per key)	Storage temp.:	-25 °C to +80 °C



Cat.No.	Product description	Pointing device <sup>1</sup>	Protection level	Dimensions (mm)	Weight
KS13021	TKS-105b-MODUL-PS/2-US	none	IP65	482.6 x 177.8 x 23.0	1200 g
KS13023	TKS-105b-MODUL-USB-US	none	IP65	482.6 x 177.8 x 23.0	1200 g
KS13026	TKS-105b-TB38-MODUL-PS/2-US	Trackball, 38 mm	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1300 g
KS13028	TKS-105b-TB38-MODUL-USB-US	Trackball, 38 mm	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1300 g
KS14006	TKS-105b-TB50oF80-MODUL-PS/2-US <sup>2</sup>	Trackball, 50 mm <sup>2</sup>	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1600 g
KS14008	TKS-105b-TB50oF80-MODUL-USB-US <sup>2</sup>	Trackball, 50 mm <sup>2</sup>	IP65 <sup>3</sup>	482.6 x 177.8 x 48.0	1600 g
KS13031	TKS-105b-TOUCH-MODUL-PS/2-US	Touchpad	IP65	482.6 x 177.8 x 23.0	1200 g
KS13033	TKS-105b-TOUCH-MODUL-USB-US	Touchpad	IP65	482.6 x 177.8 x 23.0	1200 g
KS15007	TKS-105b-JSTb-MODUL-PS/2-US	Joystick	IP65	482.6 x 177.8 x 48.0	1450 g
KS15009	TKS-105b-JSTb-MODUL-USB-US	Joystick	IP65	482.6 x 177.8 x 48.0	1450 g
KS15011	TKS-104b-MODUL-PS/2-US	none	IP65	370.0 x 180.0 x 23.0	1000 g
KS15013	TKS-104b-MODUL-USB-US	none	IP65	370.0 x 180.0 x 23.0	1000 g
KS15015	TKS-088b-TB38-MODUL-PS/2-US	Trackball, 38 mm	IP65 <sup>3</sup>	370.0 x 180.0 x 43.0	1100 g
KS15017	TKS-088b-TB38-MODUL-USB-US	Trackball, 38 mm	IP65 <sup>3</sup>	370.0 x 180.0 x 43.0	1100 g
KS15019	TKS-088b-TOUCH-MODUL-PS/2-US	Touchpad	IP65	370.0 x 180.0 x 23.0	1000 g
KS15021	TKS-088b-TOUCH-MODUL-USB-US	Touchpad	IP65	370.0 x 180.0 x 23.0	1000 g
<b>Compact layout</b>					
KS14028	TKS-030b-MODUL-PS/2-US	none	IP65	141.0 x 157.0 x 15.4	300 g
KS14030	TKS-030b-MODUL-USB-US	none	IP65	141.0 x 157.0 x 15.4	300 g
KS14032	TKS-030b-TOUCH-MODUL-PS/2-US	Touchpad	IP65	141.0 x 196.0 x 15.4	400 g
KS14034	TKS-030b-TOUCH-MODUL-USB-US	Touchpad	IP65	141.0 x 196.0 x 15.4	400 g

Other layouts, configurations and interfaces on request

<sup>1</sup> Keyboards with pointing device: 0 °C to +70 °C

<sup>2</sup> Optical trackball

<sup>3</sup> IP65 (front), IP54 (dynam.)



Learn more about further housing and mounting versions of the TKS series:

Housing	Page 9, 11
Front mounting	Page 13
Rack mounting	Page 17, 19
Explosion protection	Page 27
Drawer	Page 17



Front-mounted keyboards with edge protection secures the front foil against delamination due to mechanical influences. This product variant is called „b-variant“ at InduKey®; the „a-variant“ represents the conventional front mount model.

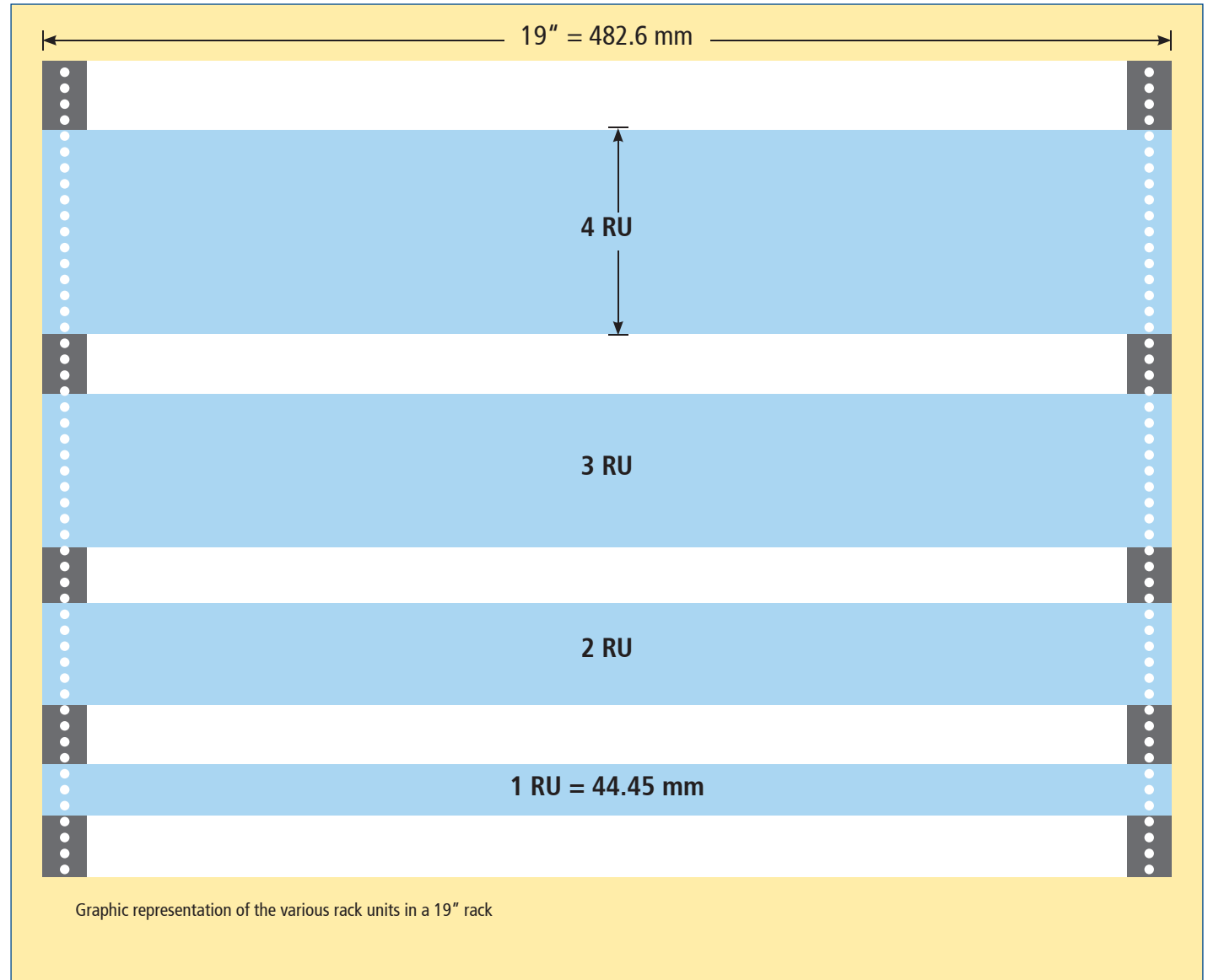
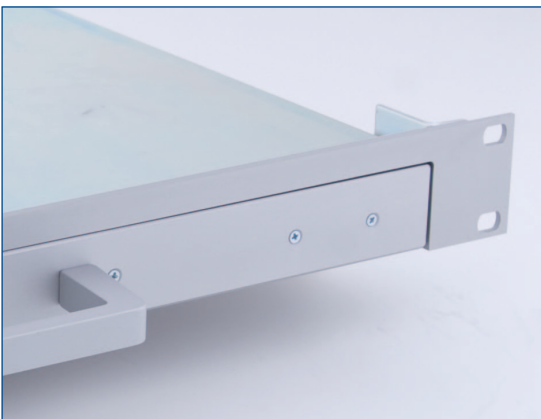




## Rack Mounting:

One type of front mounting is the installation into industrial rack systems. In the majority of cases, these systems are subject to the 19" system. In this context, 19" or 482.6 mm refer to the width of the racks which can be stored on rails inside the cabinet; therefore they are extractable and retractable. The height of one cassette compartment fits to the standardisation as well. Here, rack units play a significant role. Those units, called RU, have a height of 1.75" or 44.45 mm per unit.

With the FP-series, InduKey has developed a product family of industrial keyboards which are precisely adapted to the specifications of the 19" system. All those keyboards have a width of 19"; according to the rack units, models with 1 (drawer version), 3 or 4 RU are available. The mounting of the industrial keyboards of the InduKey-FP-series is performed by means of boreholes on the front of the keyboard front panel. The keyboard front panel is connected to the frame of the rack by means of a screw.





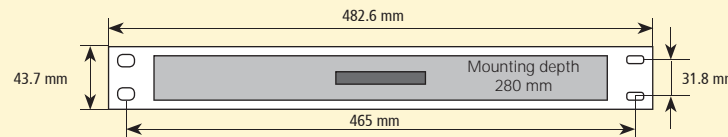
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Housing	Page 9, 11
Front mounting	Page 13
Rack mounting	Page 17, 19
Explosion protection	Page 27
With edge protection	Page 15

## Technical data: version with drawer

Switching technology:	short travel keys
Switching force:	2.6 N
Switch travel:	0.3 mm
Switching cycles:	approx. 3 Mio. (per key)
Mounting type:	19" drawer (1 RU)
Front panel material:	aluminium
Interfaces:	PS/2; USB
Operating temp.:	-25 °C to +70 °C <sup>1</sup>
Storage temp.:	-25 °C to +80 °C

## Front view<sup>2</sup>:



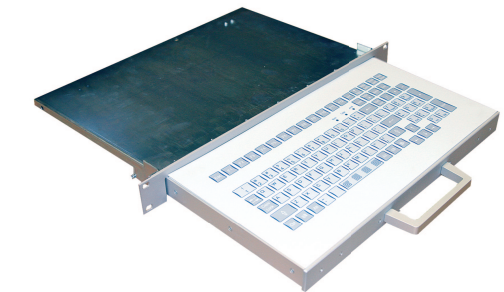
## Technical data of the integrated touchpad

Operating principle:	capacitive
Resolution:	100-300 dpi
Dimensions:	65 x 49 mm
Active surface:	59 x 42 mm

The extracted drawers are bendable up to approx. 15°!

## Rugged keyboard/ drawer combination

This aesthetically appealing mounting variant of the TKS input system is suited for the use in 19" systems. Due to the low height of 1 RU (1 rack unit = 44.45 mm) it requires very little space. The extracted drawer has an angle of 15° which allows an easy operation in standing position.



TKS-104a-SCHUBL  
Drawer without integrated mouse pointing device



TKS-088a-TOUCH-SCHUBL  
Drawer with integrated touchpad (capacitive)



Cat.No.	Product description	Pointing device <sup>1</sup>	Protection level	Dimensions (mm)	Weight
KS07426	TKS-104a-SCHUBL-PS/2-US	none	IP65	482.6 x 280.0 x 43.7	5000 g
KS09528	TKS-104a-SCHUBL-USB-US	none	IP65	482.6 x 280.0 x 43.7	5000 g
KS07421	TKS-088a-TOUCH-SCHUBL-PS/2-US	Touchpad	IP65	482.6 x 280.0 x 43.7	5100 g
KS09530	TKS-088a-TOUCH-SCHUBL-USB-US	Touchpad	IP65	482.6 x 280.0 x 43.7	5100 g

Other layouts, configurations and interfaces on request

<sup>1</sup> Keyboards with pointing device: 0 °C to +70 °C