InduKey®
Industrial Input Devices

Explosion Protected Industrial Keyboards

EX Series

The keyboards of this category are used in areas where a potentially explosive atmosphere occurs. This does not only apply to „classical" explosion-prone areas such as tank farms or mines, but also increasingly to industrial environments. There are two possibilities to prevent an explosion – either the formation of an explosive atmosphere is prevented or the ignition of which. In most cases it is not possible to eliminate an explosive atmosphere. Consequently, the ignition of such a mixture must be avoided. This means that all devices, being a potential ignition source when used in explosion-prone areas, must be designed in such a way that an ignition is impossible. The keyboards of this category are completely certified and tested for the following protection zones:

Protection zone 1: Area in which a potentially explosive atmosphere composed of a mixture of air, combustible gases, vapours or mist may occasionally occur during normal operation.

Protection zone 2: Area in which a potentially explosive atmosphere composed of a mixture of air, combustible gases, vapours or mist does normally not, or only temporarily, occur during normal operation.

Protection zone 22: Area in which a potentially explosive atmosphere consisting of a cloud of combustible dust contained in the air does normally not, or only temporarily, occur during normal operation.

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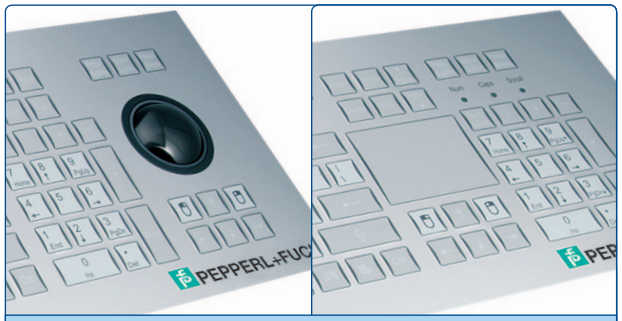
IP 65 Metal Housing

This explosion protected keyboard is available as housing variant. Due to the metal front panel and the stainless steel housing, the keyboard is extremely resistant. For this keyboard, a decoupling device for the galvanic isolation between the keyboard and the system is required. This barrier can be ordered as well.

Available as version with 50-mm trackball or touchpad

IP 65 Front Mounting

This explosion protected keyboard, being a front panel model, can easily be integrated into systems by means of threaded bolts which are located on the rear side. Here again, a decoupling device for the galvanic isolation between the keyboard and the system is required which can be ordered as well.



Available as version with 50-mm trackball or touchpad

IP 68 Entirely Covered Silicone Keyboard

This explosion protected keyboard and the explosion protected mouse are completely covered with silicone, which makes them entirely waterproof and dustproof. In order to be able to use the keyboard in explosion-prone areas, a decoupling device becomes necessary in this case as well.

Optical silicone mouse: TKH-MAUS-EX-IP68-GREY-OPT

Technical data:

Switching technology:	short travel keys
Switching force:	2.6 N
Switch travel:	0.3 mm
Switching cycles:	approx. 3 Mio. (per key)
Front panel material:	TKS version: aluminium
	TKG version: silicone
Housing material:	MGEH version: stainless steel
Operating temp.:	0 °C to +50 °C
Storage temp.:	0 °C to +60 °C
Interface:	PS/2

TKA Interface EX:

For this keyboard, a decoupling device for the galvanic isolation between the keyboard and the system is optionally required.

TKA-EX-VERSORGUNG-TKS-PS/2

TKA-INTERFACE-EX

Cat.No.	Product description	Pointing device	Protection level[1]	Dimensions (mm)	Weight
KS02011	TKS-105-EX-MGEH-US	none	IP65	508.0 x 213.0 x 52.0	5700 g
KS02013	TKS-105-EX-TB50-MGEH-US	Trackball, 50 mm	IP65[1]	508.0 x 213.0 x 52.0	6000 g
KS02015	TKS-105-EX-TOUCH-MGEH-US	Touchpad	IP65	508.0 x 213.0 x 52.0	5800 g
KA09210	TKA-EX-VERSORGUNG-TKS-PS/2	Please order the EX keyboard interface separately.			

Cat.No.	Product description	Pointing device[1]	Protection level	Dimensions (mm)	Weight
KS09220	TKS-105-EX-TB50-MODUL-US	Trackball, 50 mm	IP65[1]	482.6 x 177.8 x 48.0	1600 g
KS09218	TKS-105-EX-TOUCH-MODUL-US	Touchpad	IP65	482.6 x 177.8 x 23.0	1200 g
KA09210	TKA-EX-VERSORGUNG-TKS-PS/2	Please order the EX keyboard interface separately.			

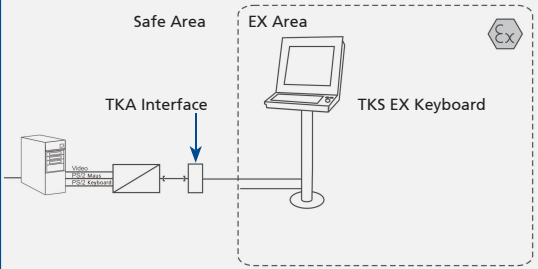
Cat.No.	Product description	Pointing device[1]	Protection level	Dimensions (mm)	Weight
KG14046	TKG-105-EX-IP68-GREY-PS/2-US	none	IP68	387.0 x 150.0 x 22.0	1200 g
KA08201	TKA-INTERFACE-EX	Please order the EX interface separately.			

Mouse					
KH14001	TKH-MOUSE-EX-IP68-GREY-OPT-PS/2	Optical mouse	IP68	126.0 x 63.0 x 33.0	250 g
KA08201	TKA-INTERFACE-EX	Please order the EX interface separately.			

Other layouts, configurations and interfaces on request

[1] IP65 (front), IP54 (dynam.)

Other industrial keyboards:



Data input devices as electromechanic devices, being a potential source of ignition, are subject to specific technical modifications and are furthermore confronted with demanding industrial environments.

For the operation in explosion-prone areas, the operating devices are at first separated from the system and from the remaining periphery, which are located in a safe area (see picture). For this, a so called barrier is used, which allows for the galvanic isolation of the two circuits. Without this barrier, the proper use of an explosion protected data input device is not possible. The distance between the operating element and the barrier can amount to up to 10.0 m.