



## Div. 2 / Zone 2 Ex-rated barrier

### SK-PC-D2-UU1-10-HS

- 1- or 2-channel Division 2 non-incendive barrier
- Div 2/Zone 2 mountable
- USB or PS2 interface for Ex-rated keyboard or mouse

## Div. 2 / Zone 2 Ex-rated barrier

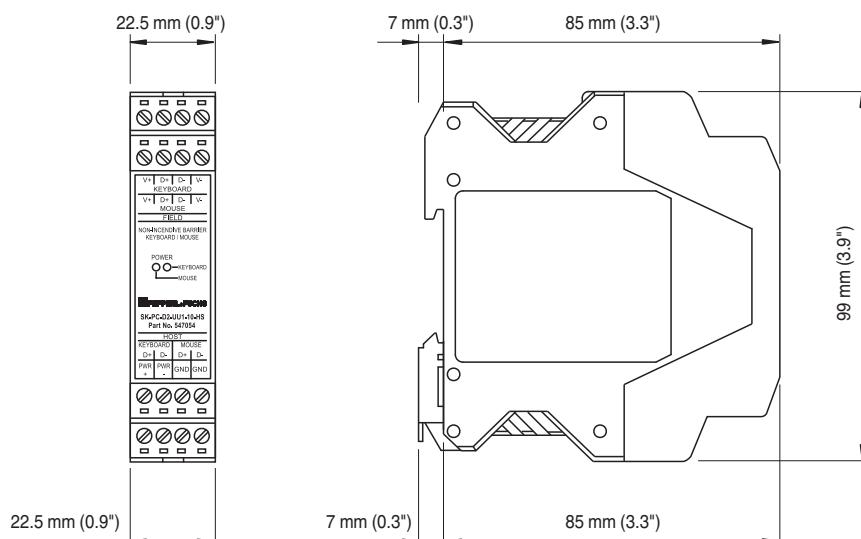


### Function

The SK-PC-D2-UU1-10-HS device may be mounted in Class I, Div. 2, Groups A-D and Zone 2 IIC locations and provides Non-incendive outputs for Class I, Div 2, Groups A-D, Class II, Div 2, Groups F-G, Class III, Div 2, Zone 2 IIC, and Zone 22 IIIB areas based on the entity parameter concept.

The barrier is for providing protected USB 1.1 or PS2 power and data signals to Ex-rated mouse/keyboard in the field.

### Dimensions



### Technical Data

#### Supply

Rated voltage  $U_r$  9 ... 30 VDC ( $U_m = 30$  V SELV)

Input current 120 mA nominal  
500 mA max

#### Indicators/operating means

## Technical Data

LED ON	power - keyboard power - Mouse
<b>Interface</b>	
Interface type	USB 1.1 or PS2
<b>Output</b>	
Output current	89 mA
Output voltage	4.8 VDC
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations) #224258
<b>RoHS</b>	
Directive 2011/65/EU (RoHS)	EN 50581:2012-09
<b>Conformity</b>	
Degree of protection	IEC 60529
Protection against electrical shock	IEC 61140
<b>Ambient conditions</b>	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Relative humidity	0 ... 95% (noncondensing)
Vibration resistance	5 G, 58 ... 150 Hz
Impact resistance	15 g, 11 ms
<b>Mechanical specifications</b>	
Connection type	Terminal Block
Degree of protection	IP20
Connection	Supply: terminals 13+, 14- Input: terminals 9+, 10-; 11+, 12- Output: terminals 1+, 2+, 3-, 4-; 5+, 6+, 7-, 8- (field terminal) Ground: terminals 15, 16
Mass	120 g
Dimensions	99 mm x 85 mm x 22.5 mm
Cable length	Max. 4.6 m (15'): barrier to keyboard/mouse Max. 4.6 m (15'): host pc to keyboard/mouse Max. 6.1 m (20'): total length, host PC to keyboard/mouse
<b>Data for application in connection with hazardous areas</b>	
EU-type examination certificate	DEMKO 14ATEX1269806X
Marking	Ex II 3 G Ex nA [ic] IIC T6 Gc Ex II 3 G Ex nA [ic IIIB] IIC T6 Gc
<b>Directive conformity</b>	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010
<b>International approvals</b>	
UL approval	cULus (E106378)
Control drawing	116-0337
Approved for	Mountable in Class I, Division 2, Groups A, B, C, D Providing non-incendive field wiring at field terminals to Class I, Division 2, Groups A, B, C, D Class II, Division 2, Groups F, G Class III, Division 2 Temperature Class T6 Mountable in Class I, Zone 2 Providing intrinsic safety wiring at field terminals for Class I, Zone 2, Group IIC and Group IIIB hazardous locations USL: Class I, Zone 2 AEx nA [ic] IIC T6 Gc Class I, Zone 2 AEx nA [ic IIIB] IIC T6 Gc CNL: Class I, Zone 2, Ex nA [ic] IIC T6 Gc X Class I, Zone 2, Ex nA [ic IIIB] IIC T6 Gc X
IECEx approval	IECEx UL 14.0017X
Approved for	Ex nA [ic] IIC T6 Gc Ex nA [ic IIIB] IIC T6 Gc

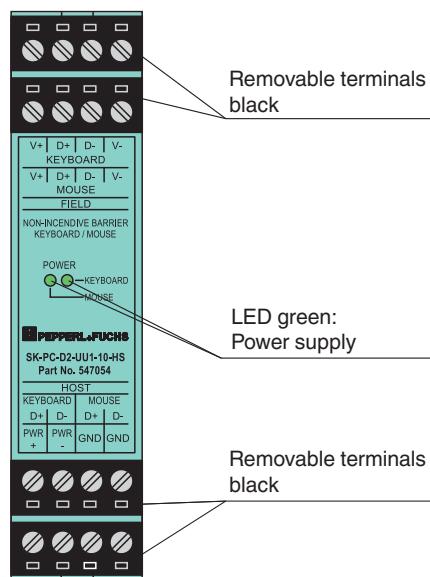
## Technical Data

### Standards

IEC 60079-0:2011 (6th edition)  
 IEC 60079-11:2011 (6th edition)  
 IEC 60079-15:2010 (4th edition)

## Characteristic Curve

### Front view

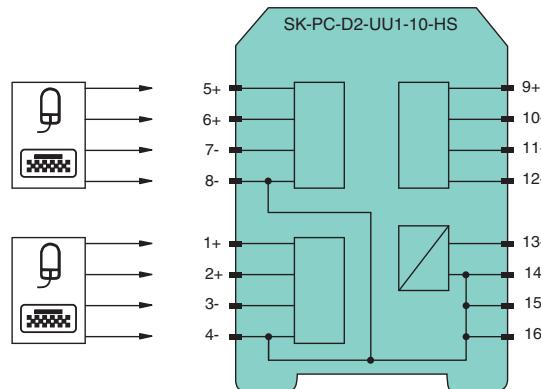


**Pluggable terminal blocks**

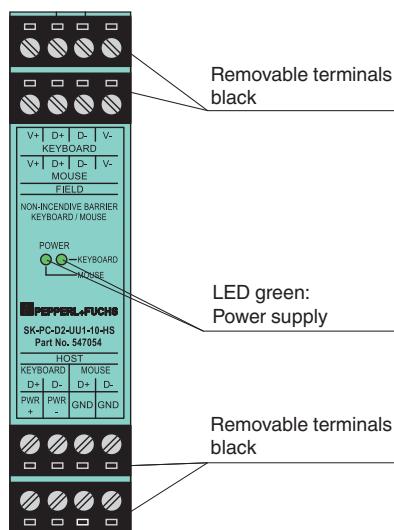
Conductor size	0.2 mm <sup>2</sup> (24 AWG) to 2.5 mm <sup>2</sup> (12 AWG)
Conductor insulation	Must be rated 65 °C or higher
Tightening torque	0.5 Nm (4.4 in-lb) to 0.6 Nm (5.3 in-lb)

**Connection**

## Div. 2 / Zone 2



## Front view



Field terminals 1 ... 4 and 5 ... 8 are for connection to a USB or PS2 keyboard or mouse with proper matching entity parameters. Connections 9 ... 12 are the host side USB/PS2 data signal connections. These match the common named field connections (D+ - D- keyboard are the datalines to the keyboard connections on the field side, etc.). 13 and 14 are for connection to a properly rated SELV supply voltage. Connections 15 and 16 are to be connected to ground. By connecting the host USB cables, the connections 4, 8, 12, 14, 15, and 16 are grounded via the host PC. The precondition for this is that the GND line of the PC USB connection is internally connected to ground. This must be ensured by measurement.

**Installation**

This barrier shall be installed according to all applicable standards and regulations for the location in which it is being installed. This barrier is intended to be mounted on a 35 mm DIN rail within a properly rated equipment cabinet for the application area. When installed under ATEX/IECEx, the barrier shall be in an ATEX/IECEx certified enclosure with a minimum ingress protection rating of IP54. This barrier shall be used in an environment of not more than pollution degree 2.

This device contains no user serviceable components. Replacing internal components may impair the safety of the device.