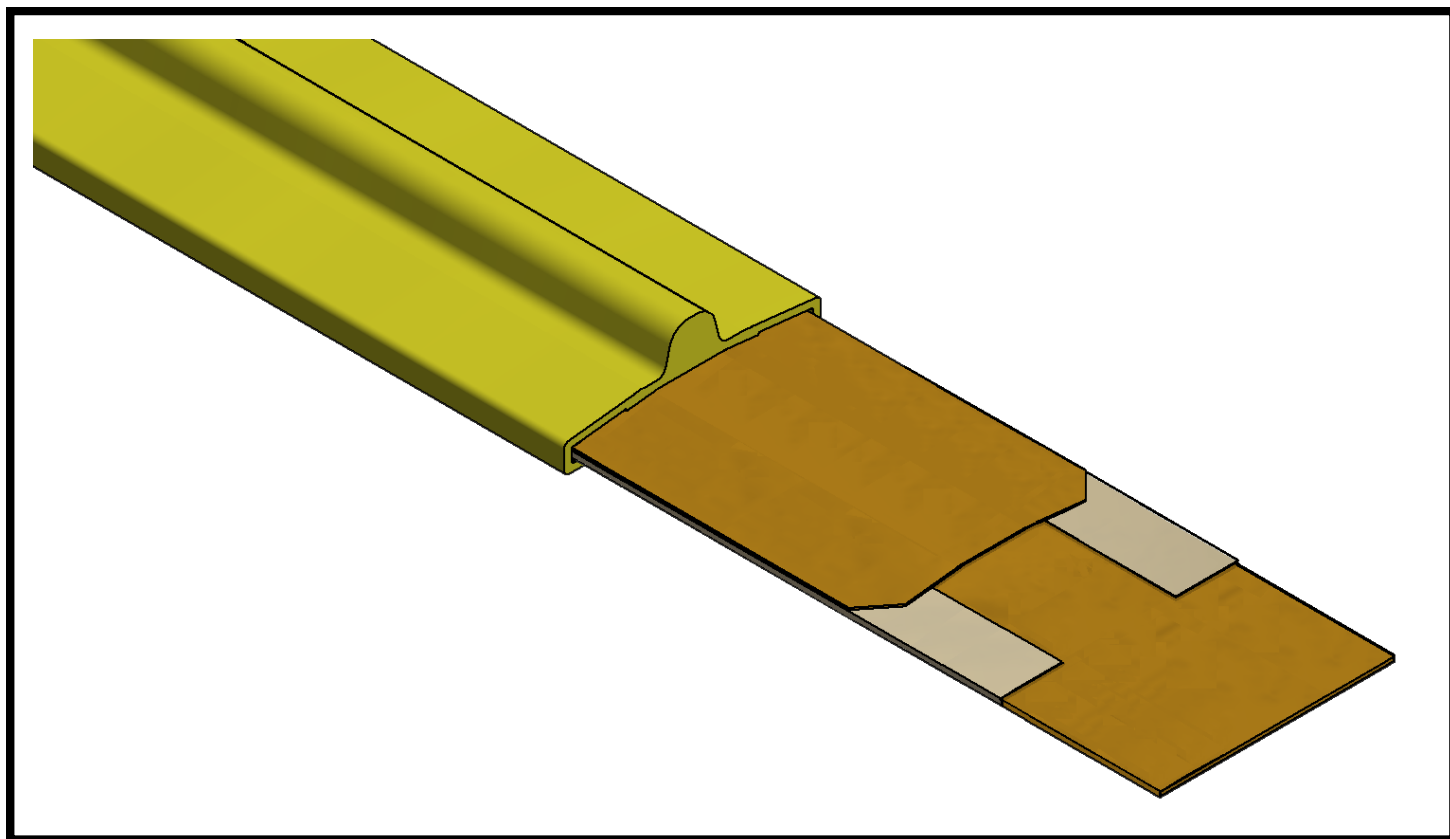


S-30



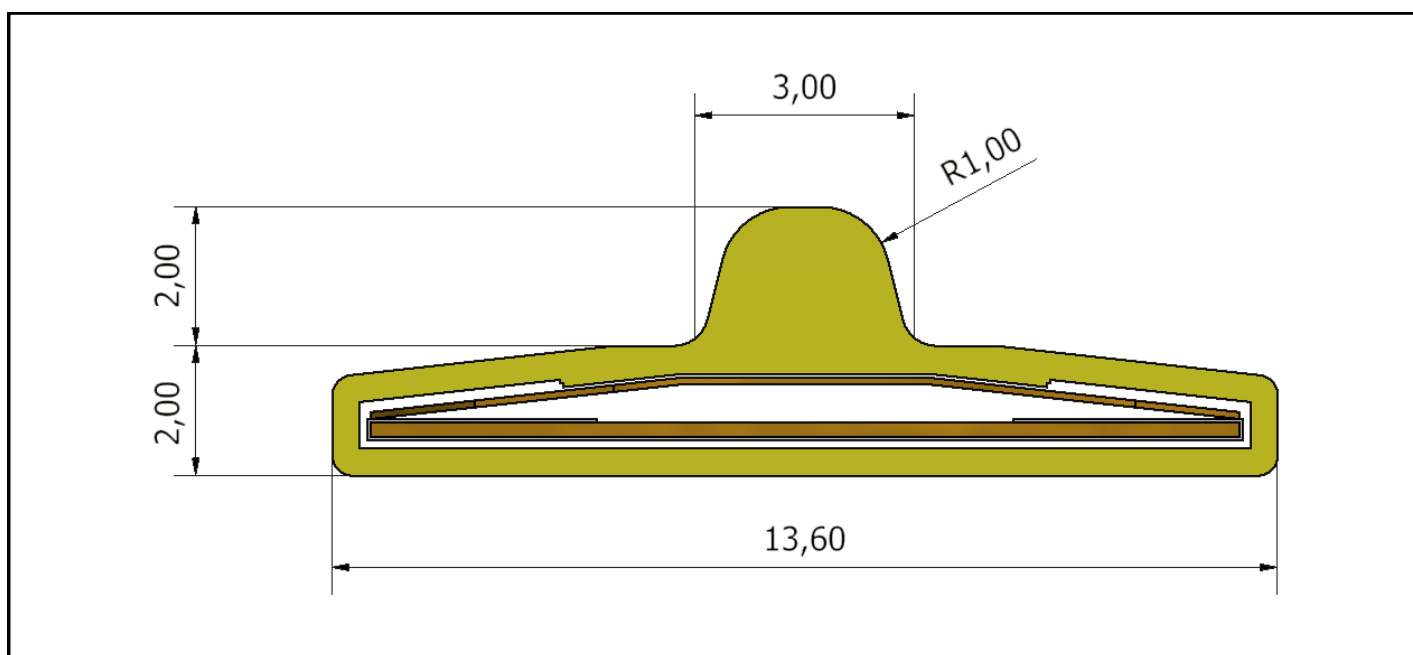
Ribbon switch type **S-30** can have different length and is housed inside each sensing edge **Proswitch™**. It can also be used autonomously, packed with its wires or can be provided selecting the specific length and, in such case, the client must prepare the wire connection.

The ribbon switch can be provided with an aluminium edge channel and specific terminals. The ribbon switch type **S-30** is designed according to the European set of rules.

General characteristics

External cover material:	PVC
Externa colour:	Yellow RAL 1018 (other colours on demand)
External cover hardness:	80 shore
Dimensional tolerances:	according to DIN ISO 3302-1 class E2
Contacts material:	Phosporousus bronze (stainless steel in some cases)
Protection rate:	IP56 (IP65 on demand)
Total weight:	0,35 Kg/m
Actuations number:	$<3 \times 10^6$
Sensor contact type:	N.O.
Actuation angle:	120°
Max. length:	250 m

Dimensions



Characteristics

Resistance:	0,5 Ohm/m
Max. current:	1 A
Max tension:	32 Vcc
Max wires length:	100 m (copper, section 0,50 mm ²)
Actuation number:	<3x10 ⁶
Actuation force:	5 N (test piece ø80 mm)

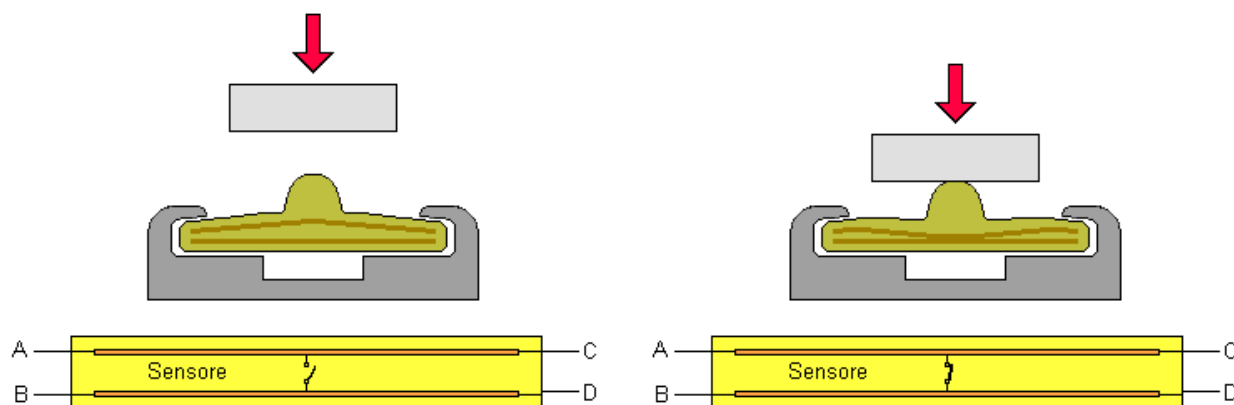
Chemical characteristics

The external cover is made of **PVC**, that has excellent chemical resistance together with good mechanical properties. In order to have a proper duration of the external cover, it is important to check the chemical charts indicating the specific chemical substances that may enter in contact with it, considering the exposure time and the temperature.

Functioning principle

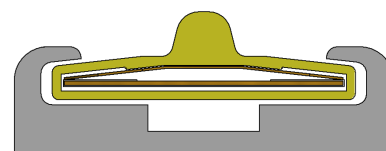
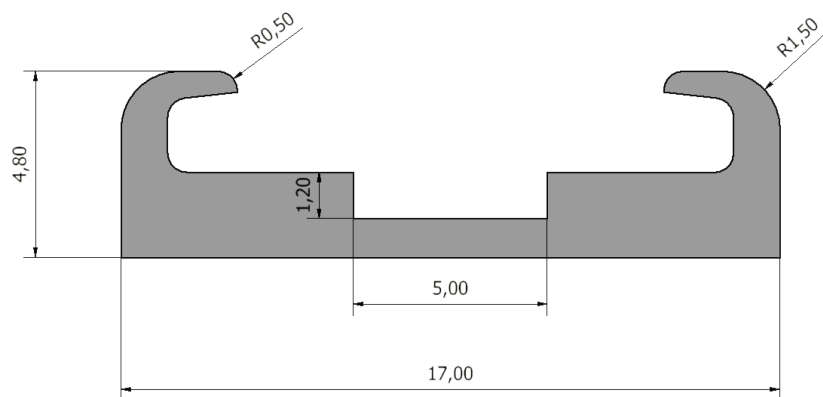
Proswitch™ ribbon switch type **S-30** is designed in order to meet the EN 13856-2 requirements.

In order to reach protection level CAT 3-PLc ISO 13849-1, the **Proswitch™** ribbon switch must be used with the control unit type **SP-2S** and **SP-4S**.



Optional products

Aluminium channel GA-S30

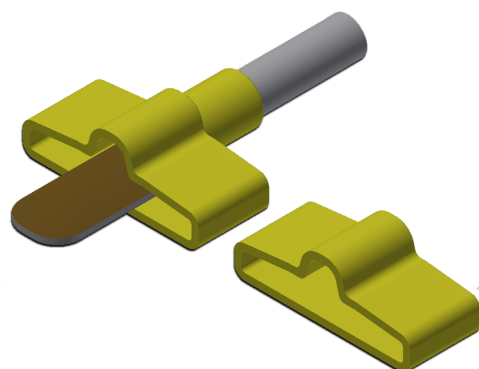


Terminals

Terminal type **TS-30** is a device that allow the ribbon switches to be connected with each other without welding them, in order to have different lengths.

A copper is weld to the external wire and inserted between the wire contacts.

It is highly recommended to stick the terminal type **TS-30** to the ribbon switch, sealing it in order to prevent strips and any kind of infiltration inside the ribbon switch.



Ribbon switch type S-30

Depending on the wire exit, ribbon switches type **S-30** vary in the following types:

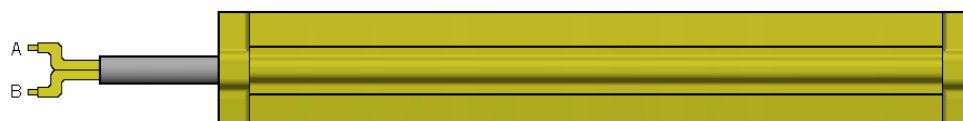
S-30, using terminals TS-30, with final resistance



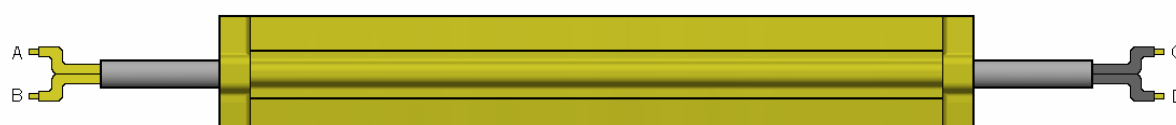
S-30, using terminals TS-30, 4 wires



S-30, 2 wires with final resistance and external sealing



S-30, 4 wires (2 each side) with external sealing



Installation and commissioning manual

Before installing each **Proswitch™** device, it is mandatory to read carefully any document provided with the product. In order to have a proper installation, it is important consider the documentation related to the machine where the **Proswitch™** product is installed. In such case, it is mandatory to do the risk assessment related to the machine functioning, according to the current national and European safety set of rules.

Once the product is installed, qualified personnel shall do the required tests to guarantee the proper machine safety system functioning.

If the installation implies structural changes to the **Proswitch™** product, such changes must be previously agreed between the client and the **Proswitch™** qualified personnel.

Periodical check

According to the current national and European safety set of rules, it is mandatory to check periodically the overall system, in order to detect eventual damaged or worn components.

The test frequency depends on the characteristic of the system and on the specification of the machine manufacturer, according to the current safety set of rules.

In order to ensure the proper functioning of the safety system, it is important to do daily checks at the beginning of the shift or of the machine start.

Connection check

In case of a 2 cables sensing edge, use a multimeter to assess a ohmic value equal to 8,2 KOhm, and such value should reduce to 0 when pressing the edge. The cables (A e B) are interchangeable in the connection to the control unit. Those 2 cables sensing edge that do not have a final resistance of 8,2 KOhm cannot be used for safety purposes, and have to be considered as controlling devices (linear button NO, etc.).

In case of a 4 cables sensing edge, the terminals A, B, C, and D must be detected, and electrical continuity must not exist between the terminal A-B and the terminal C-D. The pressure on the sensing edge must generate a short circuit between the two pairs of terminals.

Electrical continuity must always exist between the terminals A-C e B-D.

2 wires ribbon switch with terminals and with final resistance



4 wires ribbon switch with terminals

