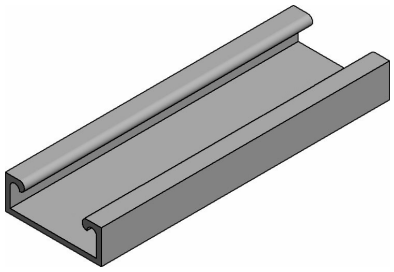
Installation and commissioning of the edge channel

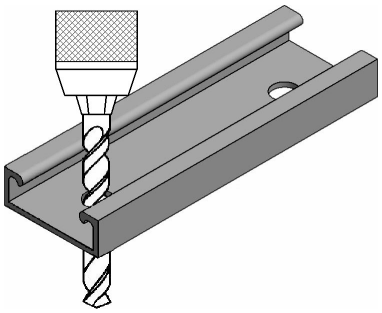
The installation of each type of **Proswitch™** sensing edge is prompt and easy. The edge channel profiles and the edge housing profiles can be fitted by hands, without the use of tools.

The proper installation of the **Proswitch™** sensing edges, must respect the following steps:

Edge channel preparation

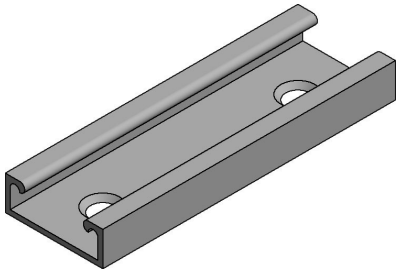


Aluminium edge channel is the support that allows the installation of the edge housing on the machine. It is designed to ensure a proper assembly of the sensing edge. Otherwise, it is possible to fit the aluminium edge channel directly to the machine profile section, in order to reduce the time requested for the installation and to respect the machine design. .

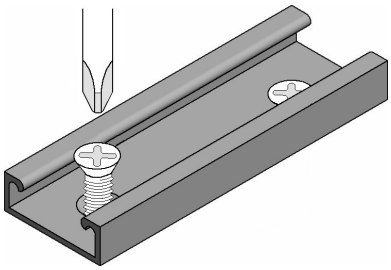


If the machine has not the profile section, the aluminium edge channel should be installed by drilling evenly holes along the edge channel, keeping a reasonable distance between 200 mm and 300 mm.

The suggested hole diameter for this kind of profile should be 4 mm or 5 mm. The diameter of the hole where the cables enter should be at least 10 mm.



Such holes must be flared holes, in order to insert the head of the screw and to allow the insertion of the cable (in this case, the flared holes prevent any damage caused by eventual sharp edges).

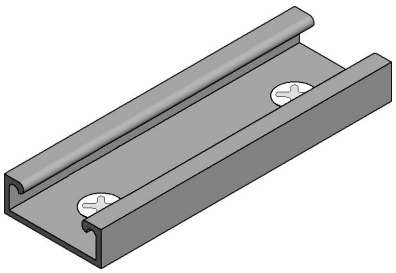


Once the flared holes are done and cleaned from eventual drilling traces, you can insert the appropriate screws.

Installation and commissioning of the edge housing

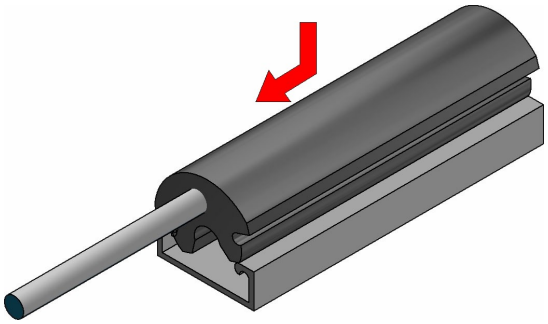
The installation of the edge housing where the sensor is inserted is simple, but it must be done properly, otherwise the consequences can be irreparable.

The proper installation of the edge housing, must respect the following steps.



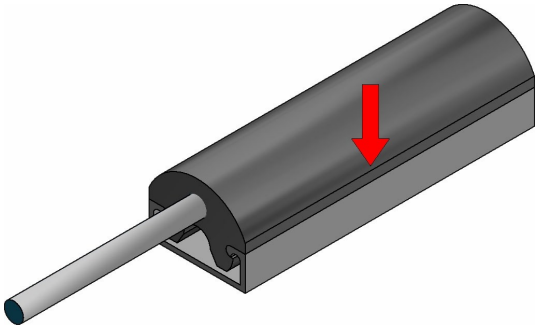
Once the edge channel is installed following the previous steps, the entire profile must be cleaned and checked.

The screws must be inserted and fixed properly, in order to prevent their protrusion.



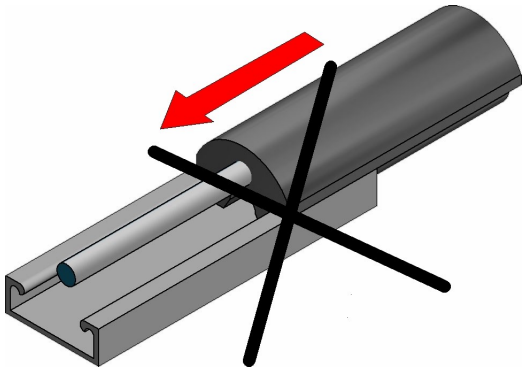
Apply the edge housing on the edge channel, starting inserting it carefully from one side.

It is important to maintain the insertion of only one side of the edge housing uniform, and that the edge housing and the edge channel have the same length.



Insert the other side of the edge housing, pushing it down without putting too much pressure on it.

Use the liquid soap or volatile lubricant, in order to prevent the edge housing to move longitudinally.



NB: never insert the edge housing by making it roll on the edge channel longitudinally. This may cause irreparable damages to the edge housing and to the sensor reliability.

Installation and commissioning of the safety edge

Before installing the safety edge, it is mandatory to read carefully each document attached to the supply. In order to have a proper installation, it is recommended to read also the documents relating the machine where the **Proswitch™** sensing edge is installed.

It is important to analyse and asses the risks related to the machine functioning, according to the national and European laws on machine safety.

Once the device is installed, qualified personnel shall conduct trial tests, in order to guarantee the proper functioning of the safety system.

If the installation of the safety edge requires some structural changes, those shall be evaluated previously with the **Proswitch™** qualified personnel, that will execute the changes agreed with the client.

Periodical check

According to the national and European laws on machine safety, periodic checks shall be performed on the entire system, in order to assess its proper functioning and to detect and change eventual worn or damaged components.

Test frequency and mode depends on each system's characteristics, accordingly with the machine's instructions, in compliance with the machine safety set of rules.

Before igniting the machine or starting the work shift, daily examinations should be carried in order to guarantee the proper functioning of the safety system.

Periodical cleaning of the safety edges shall be made using soapy water or alcohol based products.

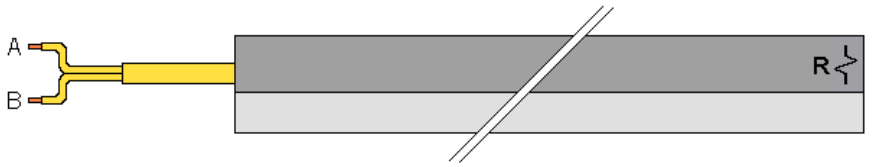
Connection check

In case of a 2 cables safety 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 safety 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.).

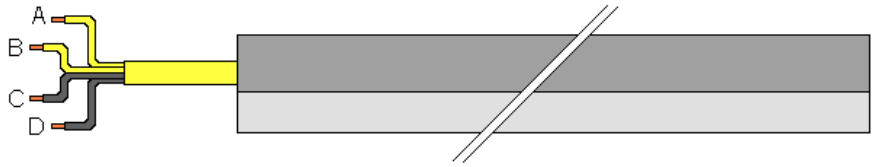
In case of a 4 cables safety edge, the terminals A, B, C, and D must be detected, and electrical continuity must not exist between the terminal A-B and the terminal C-D. The pressure on the safety edge must generate a short circuit between the two pairs of terminals.

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

2 cables safety edge with final resistance



4 cables safety edge terminals



Connecting more safety edges to one control unit SP - xx

The control units **SP** type can control pressure sensitive safety edge up to 60 meters length (one single piece or the sum of more pieces) and up to 100 meters length of connecting cables.

It is possible to connect more safety edges to one control unit: the safety edges must be connected in series, in order to monitor safely the whole system. If one of such serial sensing edge should be damaged, the control unit type SP would immediately detect the fault.

Connecting in series 2 wire safety edges with final resistance

Connecting in series 4 wire safety edges