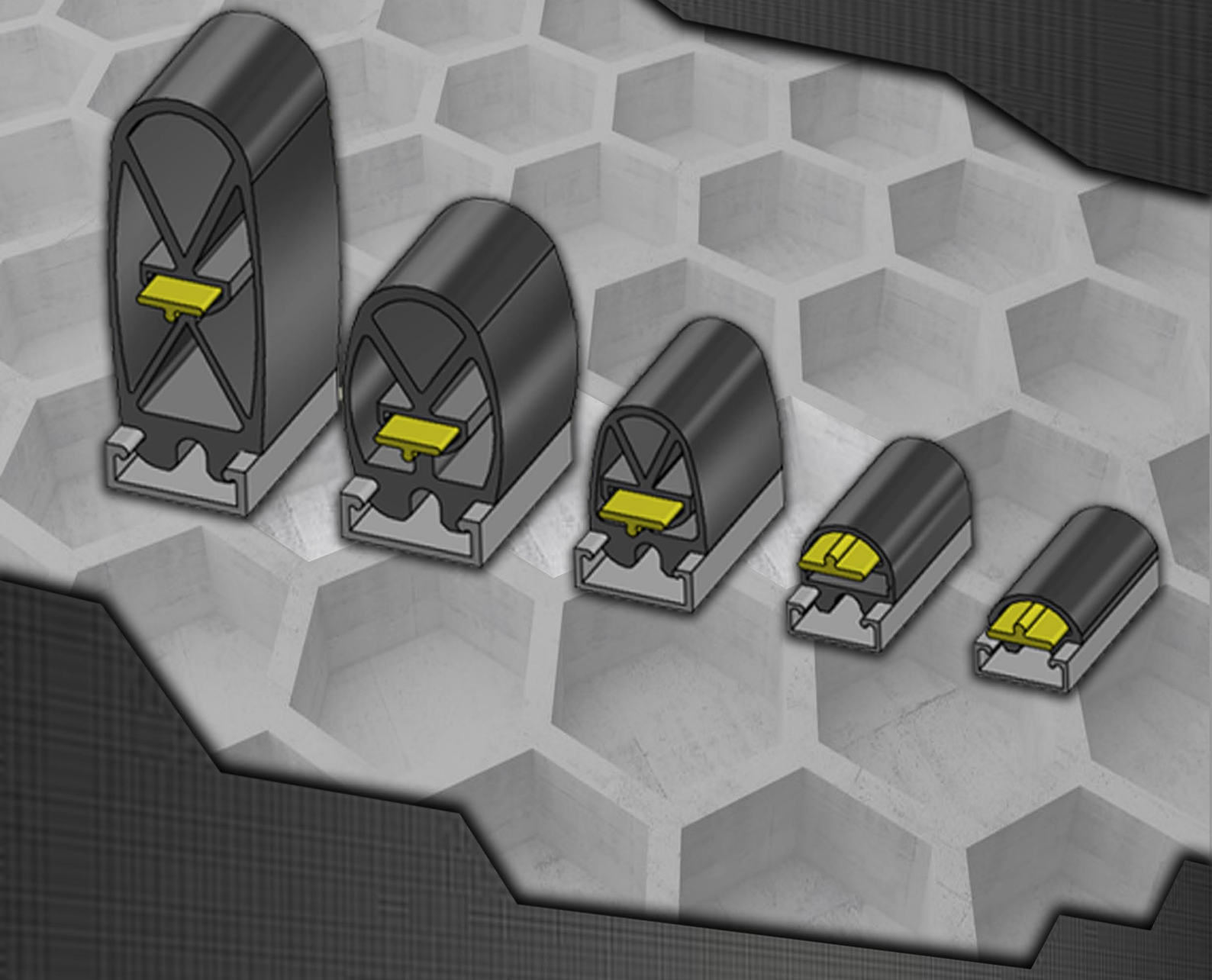
proswitch

Safety edges



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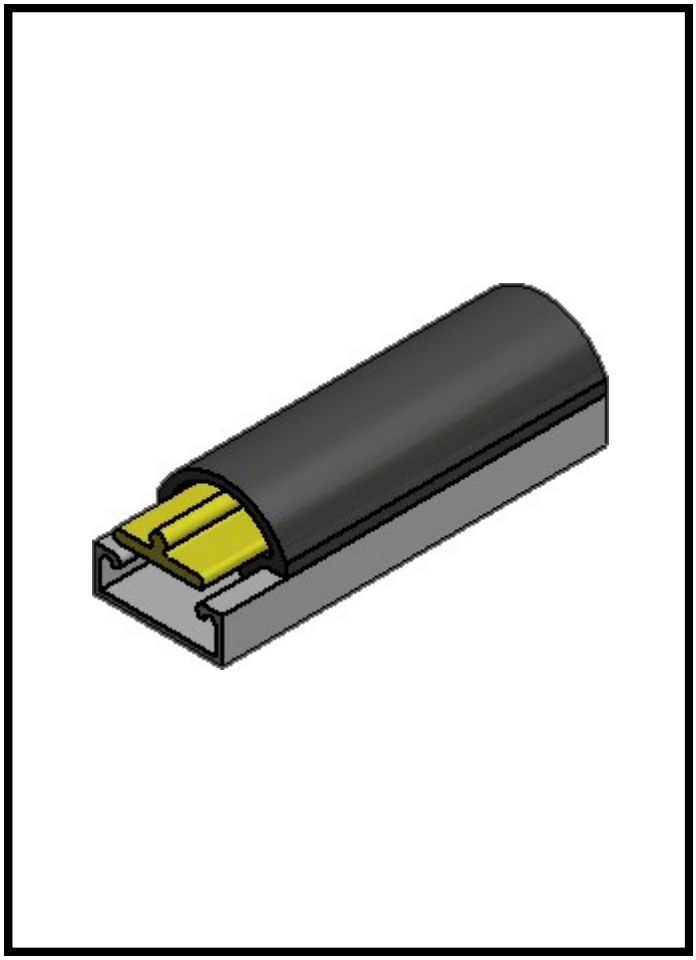
Safety Edges

PS-100



PS-100 type safety edges are designed in accordance with EN 13856-2.

They are designed to protect personnel against impacts, crushes and/or dismemberment of body parts, when installed on leading edges of a power driven object or automated machine.

In the range of different **Proswitch™** profiles, the **PS-100** type has the smallest profile size, that allows it to be installed in narrow sections, keeping the machine design intact.

Its functioning principle was developed to allow a long duration and a reliable performance.

The switch is sealed inside the edge housing, in order to guarantee a good protection against solid and liquid agents. On demand, the **PS-100** type safety edge can meet the requirements of the IP65 protection class.

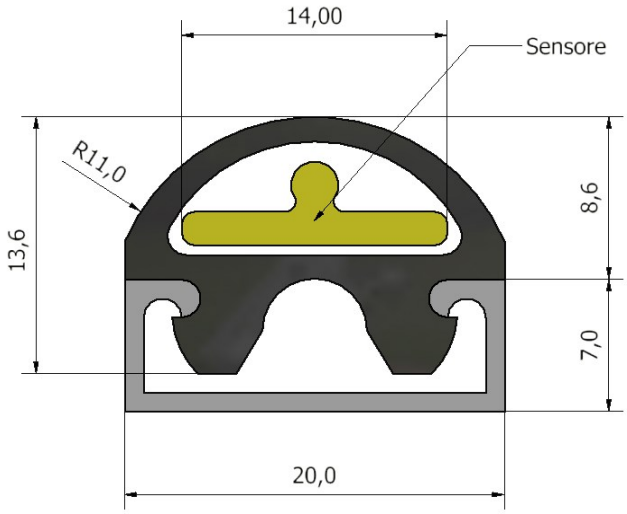
Both the edge housing and the edge channel are easily and prompt to install and to substitute, in case of damages or wear.

General features

Edge housing material:	EPDM
Edge housing colour:	Black
Edge housing hardness:	70 shore
Dimensional tolerances:	DIN ISO 3302-1 E2 class
Edge channel material:	Aluminium
Wires:	PVC insulated copper
Protection level:	IP56 (IP65 on request)
Total weight:	0,4 Kg
Actuations number:	$2x10^6$
Switch contact type:	N.O.
Inactive zone on each end of the edge:	15 mm
Actuation angle:	30°
Max. length:	65 m (one piece or serial pieces)
Functioning temperature:	-10°C + 65°C @ 10 mm/s or 0°C + 65°C @ 100 mm/s

Dimensions

Safety edge dimensions



Edge housing GM-H10 + switch

Aluminium edge channel

Electric features

Resistance:	0,5 Ohm/m
Max current:	1 A
Max tension:	32 Vcc
Max wire length:	100 m (section 0,50 mm^2 copper)

Mechanical features

Pre-travel:	1.5 mm
Working travel 250 N:	3.4 mm
Working travel 400 N:	4.1 mm
Working travel 600 N:	4.8 mm
Overtravel 250 N:	1.9 mm
Overtravel 400 N:	2.6 mm
Overtravel 600 N:	3.3 mm
Actuating force test rod φ20 mm:	16 N @ 20°C
Actuating force test rod φ80 mm:	56 N @ 20°C
Mechanical force:	500 N

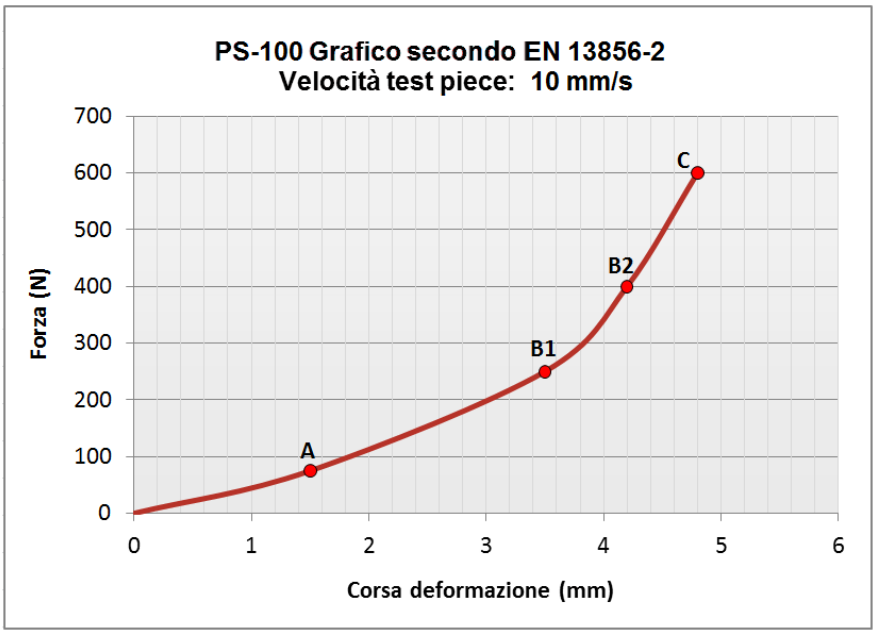
Chemical compatibility

The edge housing profiles are made of **EPDM,** that is compatible with incombustible hydraulic fluids, such as ketones, cold and hot water, alkalis and alcohols, while it is less compatible with oils, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids. In order to assess precisely the edge housing profile with specific substances contact, it is highly recommended to check the analytic tables on the chemical substances, considering the exposure time and the temperature.

Characteristic curve

Each **Proswitch™** safety edge is designed to meet the requirements of EN 13869-2, and is duly tested through application of force. Such force parameters can be represented on a characteristic graph.

The graph relating safety edge type **PS-100** is the following:



Legend:

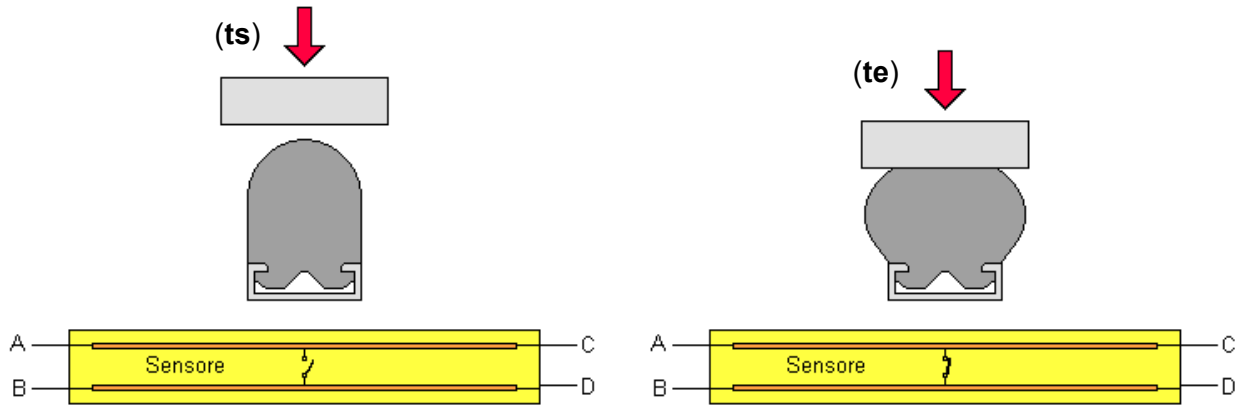
A	Switch activation point
B1	Travel at 250N
B2	Travel at 400N
C	Travel at 600N

Functioning principle

Proswitch™ safety edge type **PS-100** is designed to meet the requirements of EN 13856-2. In order to meet the standard CAT 3-PLe ISO 13849-1, **Proswitch™** safety edge type **PS-100** must be used with the **SP-xx** control unit.

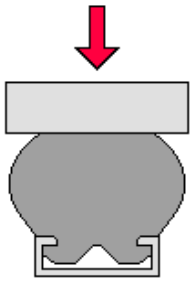
The time between the safety edge actuation (**ts**) and the moment the inner sensor's contact gets closed (**te**) is called "edge reaction time" (**Tr**). Such reaction time depends on the "pre-travel" parameter proper of the **Proswitch™** safety edge type **PS-100** and on the force application speed on the safety edge.

Tr = pre-travel / force application speed



Dynamic functioning of the safety edge

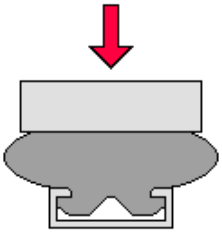
Pre-travel



Pre-travel is the distance the test piece travels from the external part of the safety edge to the inner switch actuation, as a consequence of the safety edge cushioning.

In the graph representing the safety edge type **PS-100** characteristic curve (pag. 4), pre-travel is the distance travelled from 0 to point A.

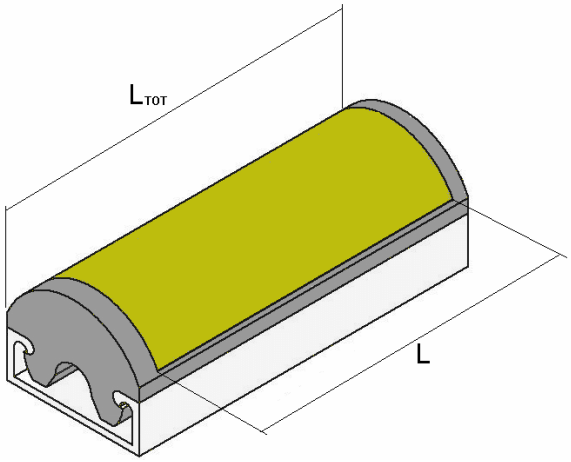
Overtravel



Overtravel is the further cushioning distance of the safety edge, detected at 250 N, 400 N and 600 N. During this phase, the inner switch contact is always closed, and the machine has already started the emergency stop.

In the graph representing the safety edge type **PS-100** characteristic curve (pag. 4), overtravel is the distance travelled from point A to point B1 (250 N), B2 (400 N) and C (600 N).

Inactive parts



LTOT: total edge length

L: effective safety length.

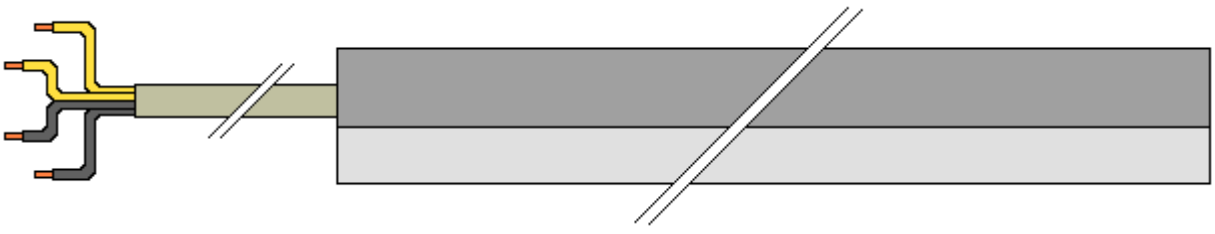
The image on the left shows a grey surface, that represents the inactive parts of the safety edge that, if submitted to crushing force, do not compress the inner switch.

The inactive parts are 15 mm long for each edge's end.

The following formula can be used to obtain the value of the effective safety length:

L = LTOT – 2 (15 mm)

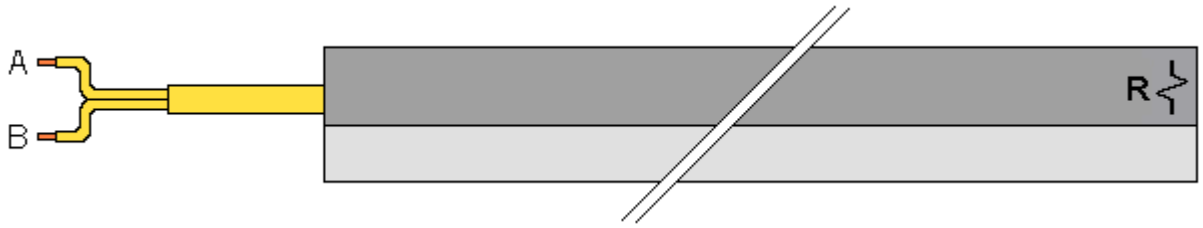
View of the safety edge



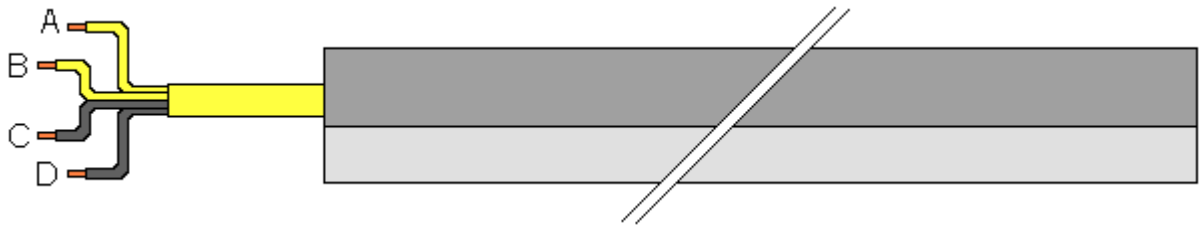
PS-100 safety edge different types

PS-100 type safety edges may be in three different versions, depending on the wire exit, and in another version that is not used for safety purposes.

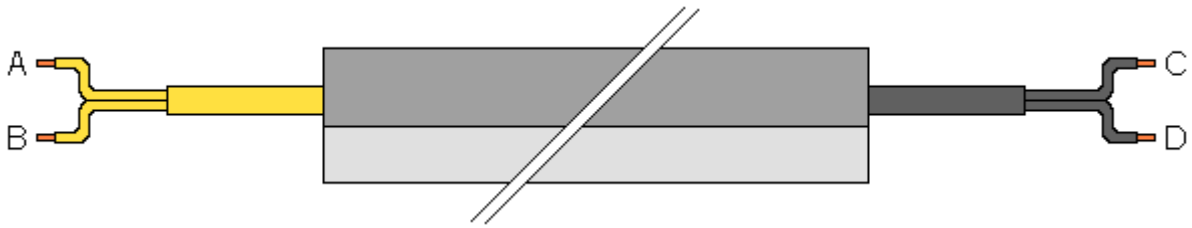
PS-100 safety edge, exit 1 wire 2 poles with final resistance



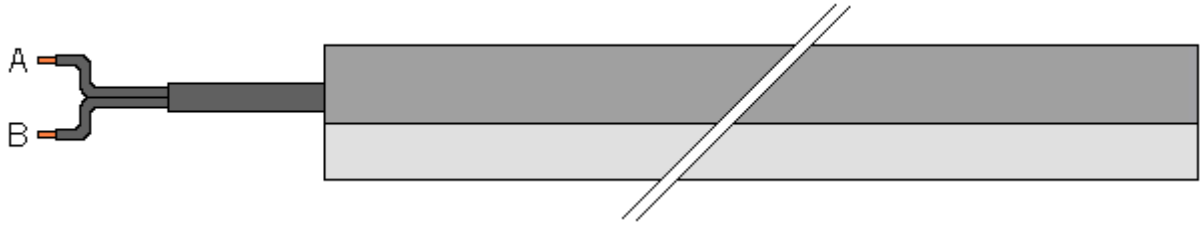
PS-100 safety edge, exit 1 wire 4 poles



PS-100 safety edge, exit 2 wires 2 poles

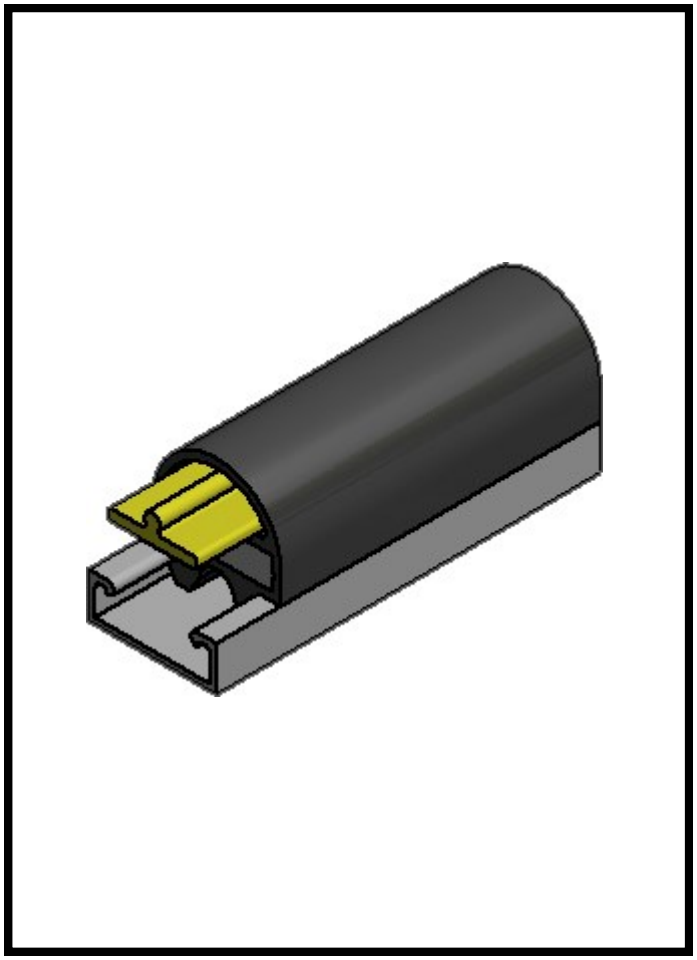


PS-100 safety edge, exit 1 wire 2 poles, not for safety purposes



Safety Edges

PS-200



PS-200 type safety edges are designed in accordance with EN 13856-2.

They are designed to protect personnel against impacts, crushes and/or dismemberment of body parts, when installed on leading edges of a power driven object or automated machine.

PS-200 type safety edges is designed for limited space applications, and its over travel allows compression after the inner switch activation.

They can be installed in narrow sections, keeping the machine design intact.

Their functioning principle ensures a long duration and a reliable performance. The inner switch is sealed inside the edge housing, in order to resist against external solid and liquid agents.

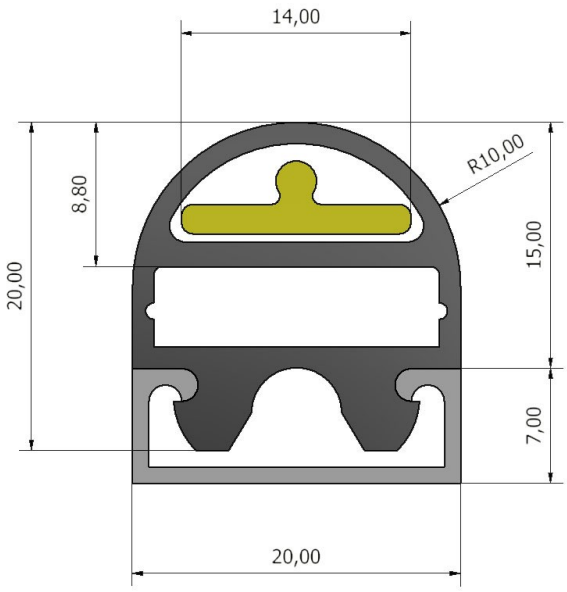
On request, they can reach the protection level IP65. Both the edge channel and the edge housing are easy to install on the machine.

General features

Edge housing material:	EPDM
Edge housing colour:	Black
Edge housing hardness:	70 shore
Dimensional tolerances:	DIN ISO 3302-1 E2 class
Edge channel material:	Aluminium
Wires:	PVC insulated copper
Protection level:	IP56 (IP65 on request)
Total weight:	0,4 Kg
Actuations number:	$2x10^6$
Switch contact type:	N.O.
Inactive zone on each end of the edge:	15 mm
Actuation angle:	40°
Max. length:	65 m (one piece or serial pieces)
Functioning temperature:	-10°C + 65°C @ 10 mm/s or 0°C + 65°C @ 100 mm/s

Dimensions

Safety edge dimensions



Edge housing GM-H150 + switch

Aluminium channel

Electrical features

Resistance:	0,5 Ohm/m
Max current:	1 A
Max tension:	32 Vcc
Max wire length:	100 m (section 0,50 mm^2 copper)

Mechanical features

Pre-travel:	2.0 mm
Working travel 250 N:	4.8 mm
Working travel 400 N:	6.0 mm
Working travel 600 N:	7.3 mm
Overtravel 250 N:	2.8 mm
Overtravel 400 N:	4.0 mm
Overtravel 600 N:	5.3 mm
Actuating force test rod φ20 mm:	11 N @ 20°C
Actuating force test rod φ80 mm:	45 N @ 20°C
Mechanical force:	500 N

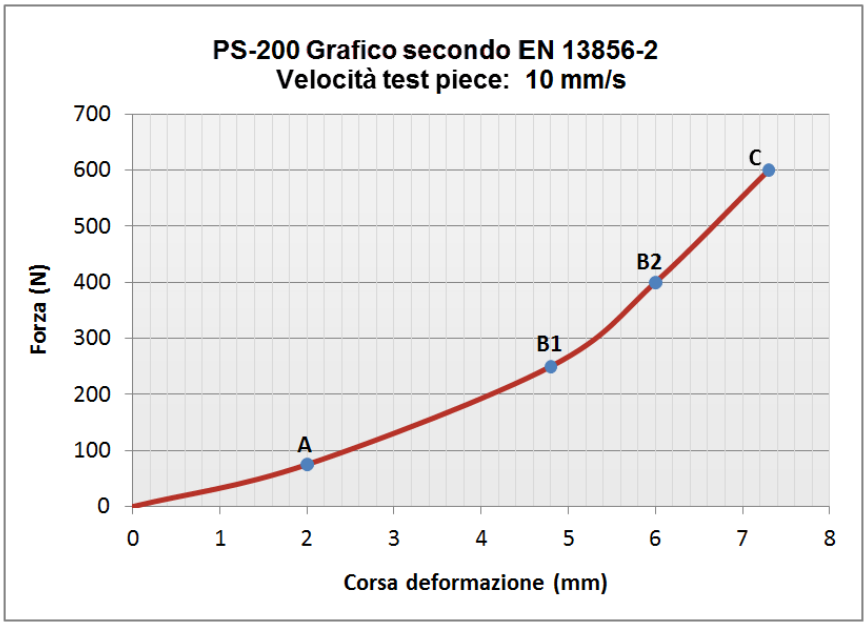
Chemical compatibility

The edge housing profiles are made of **EPDM,** that is compatible with incombustible hydraulic fluids, such as ketones, cold and hot water, alkalis and alcohols, while it is less compatible with oils, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids. In order to assess precisely the edge housing profile with specific substances contact, it is highly recommended to check the analytic tables on the chemical substances, considering the exposure time and the temperature.

Characteristic curve

Each **Proswitch™** safety edge is designed to meet the requirements of EN 13869-2, and is duly tested through application of force. Such force parameters can be represented on a characteristic graph.

The graph relating safety edge type **PS-200** is the following:



Legend:

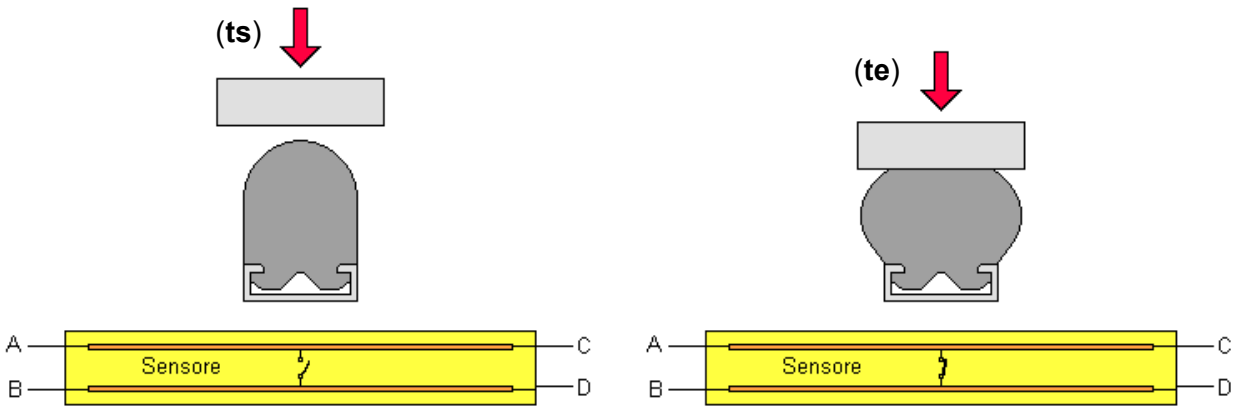
A	Switch activation point
B1	Travel at 250N
B2	Travel at 400N
C	Travel at 600N

Functioning principle

Proswitch™ safety edge type **PS-200** is designed to meet the requirements of EN 13856-2. In order to meet the standard CAT 3-PLe ISO 13849-1, **Proswitch™** safety edge type **PS-200** must be used with the **SP-xx** control unit.

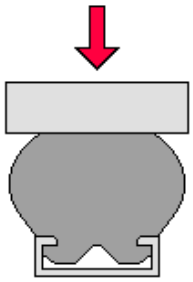
The time between the safety edge actuation (**ts**) and the moment the inner sensor's contact gets closed (**te**) is called "edge reaction time" (**Tr**). Such reaction time depends on the "pre-travel" parameter proper of the **Proswitch™** safety edge type **PS-200** and on the force application speed on the safety edge.

Tr = pre-travel / velocità applicazione forza



Dynamic functioning of the safety edge

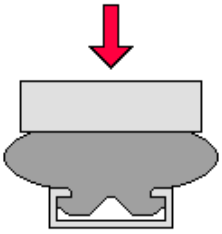
Pre-travel



Pre-travel is the distance the test piece travels from the external part of the safety edge to the inner switch actuation, as a consequence of the safety edge cushioning.

In the graph representing the safety edge type **PS-200** characteristic curve (pag. 4), pre-travel is the distance travelled from 0 to point A.

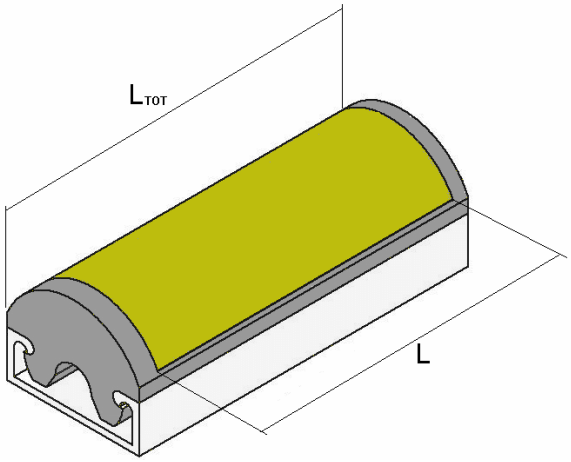
Overtravel



Overtravel is the further cushioning distance of the safety edge, detected at 250 N, 400 N and 600 N. During this phase, the inner switch contact is always closed, and the machine has already started the emergency stop.

In the graph representing the safety edge type **PS-200** characteristic curve (pag. 4), overtravel is the distance travelled from point A to point B1 (250 N), B2 (400 N) and C (600 N).

Inactive parts



LTOT: total edge length

L: effective safety length.

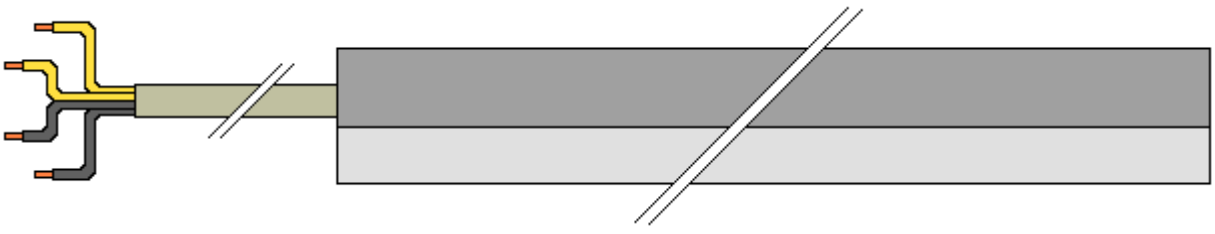
The image on the left shows a grey surface, that represents the inactive parts of the safety edge that, if submitted to crushing force, do not compress the inner switch.

The inactive parts are 15 mm long for each edge's end.

The following formula can be used to obtain the value of the effective safety length:

L = LTOT – 2 (15 mm)

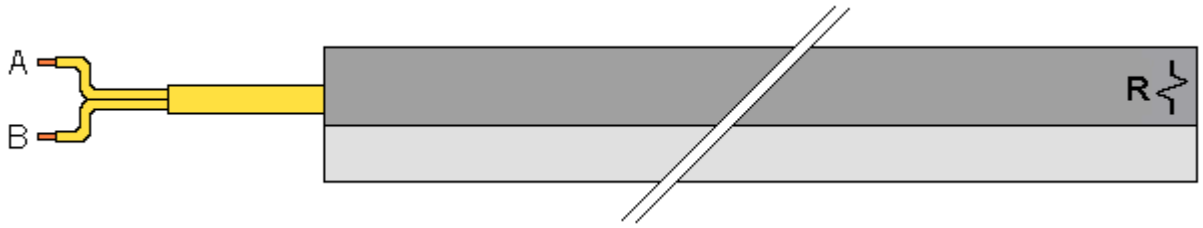
View of the safety edge



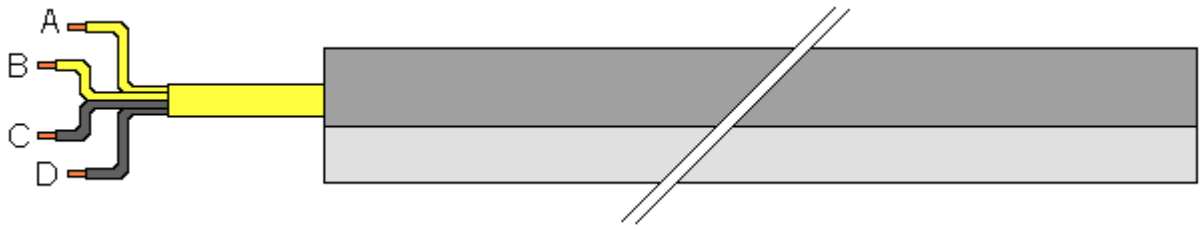
PS-200 safety edge different types

PS-200 type safety edges may be in three different versions, depending on the wire exit, and in another version that is not used for safety purposes.

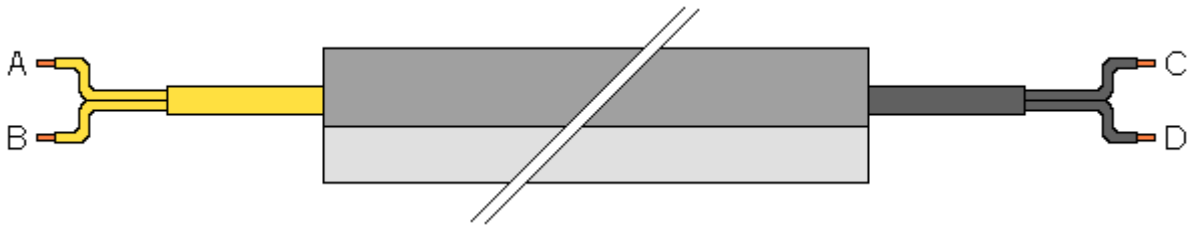
PS-200 safety edge, exit 1 wire 2 poles with final resistance



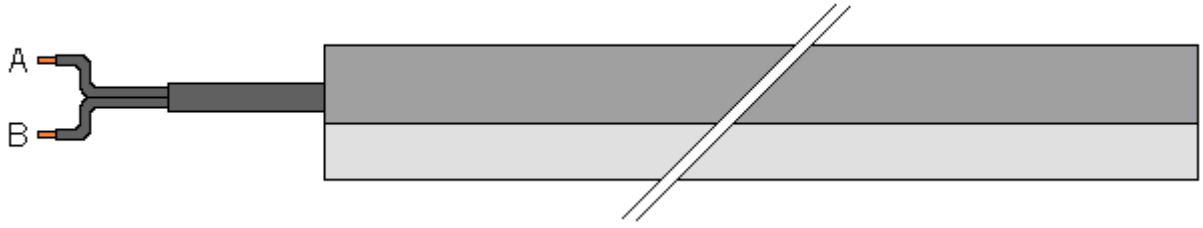
PS-200 safety edge, exit 1 wire 4 poles



PS-200 safety edge, exit 2 wires 2 poles

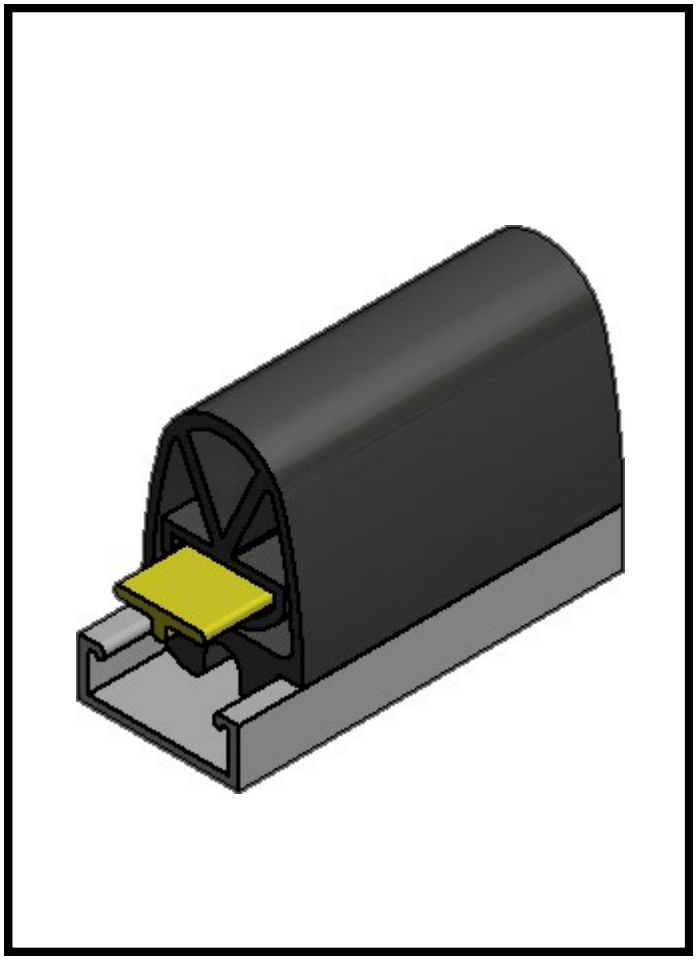


PS-200 safety edge, exit 1 wire 2 poles, not for safety purposes



Safety Edges

PS-300



PS-300 type safety edges are designed in accordance with EN 13856-2.

They are designed to protect personnel against impacts, crushes and/or dismemberment of body parts, when installed on leading edges of a power driven object or automated machine.

PS-300 type are a medium size pressure sensitive safety edge. The dimensions prevent a casual activation, and the safety edge is actuated only when subject to a huge force. Its unique design allows an excellent side activation.

The strong edge housing is resistant to deformations and shocks, ensuring a durability and a reliable performance in case of extreme working conditions.

PS 300 type safety edge can be provided with external end caps, in order to ensure a better protection to the inner ribbon switch from external liquids or solids.

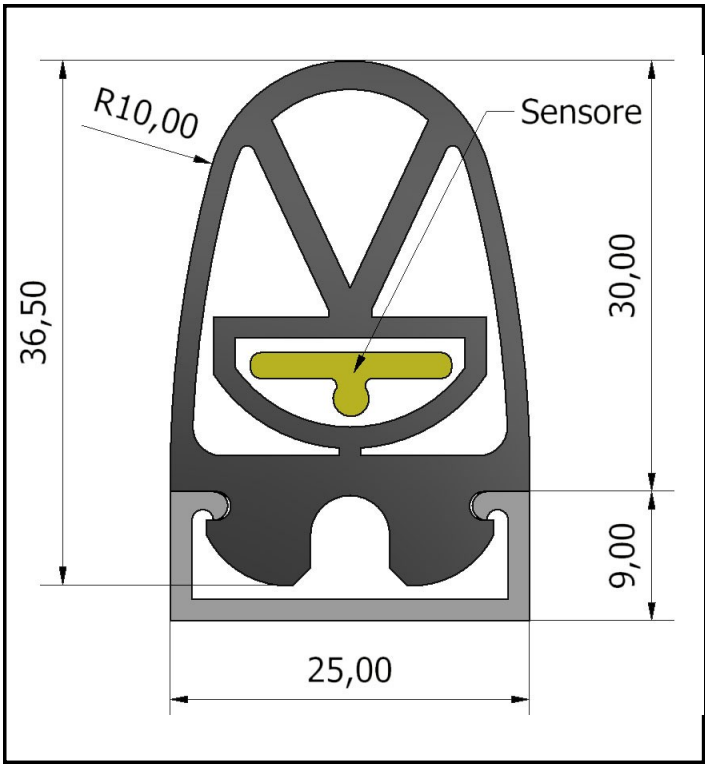
PS-300 type safety edge can be curved on request.

General features

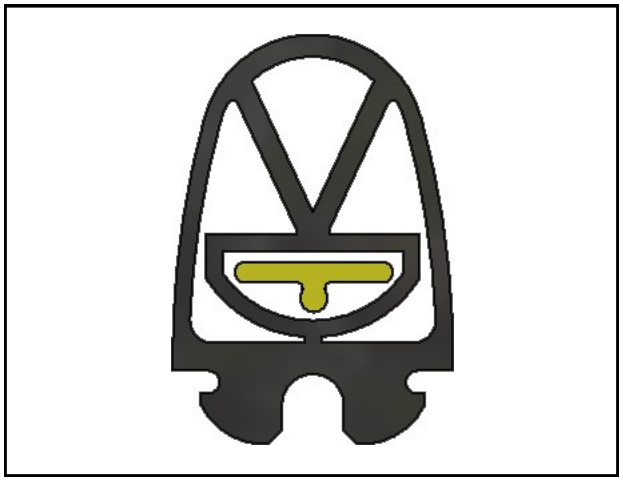
Edge housing material:	EPDM
Edge housing colour:	Black
Edge housing hardness:	70 shore
Dimensional tolerances:	DIN ISO 3302-1 E2 class
Edge channel material:	Aluminium
Wires:	PVC insulated copper
Protection level:	IP56 (IP65 on request)
Total weight:	0,4 Kg
Actuations number:	$2x10^6$
Switch contact type:	N.O.
Inactive zone on each end of the edge:	15 mm
Actuation angle:	80°
Max. length:	65 m (one piece or serial pieces)
Functioning temperature:	-10°C + 65°C @ 10 mm/s or 0°C + 65°C @ 100 mm/s

Dimensions

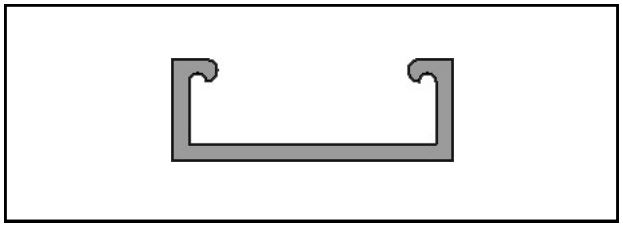
Safety edge dimensions



Edge housing GM-H50 + switch



Aluminium channel



Electrical features

Resistance:	0,5 Ohm/m
Max current:	1 A
Max tension:	32 Vcc
Max wire length:	100 m (section 0,50 mm^2 copper)

Mechanical features

Pre-travel:	6.0 mm
Working travel 250 N :	9.5 mm
Working travel 400 N :	13.3 mm
Working travel 600 N :	7.3 mm
Overtravel 250 N:	4.7 mm
Overtravel 400 N:	7.8 mm
Overtravel 600 N:	9.5 mm
Actuating force test rod φ20 mm:	40 N @ 20°C
Actuating force test rod φ80 mm:	90 N @ 20°C
Mechanical force:	500 N

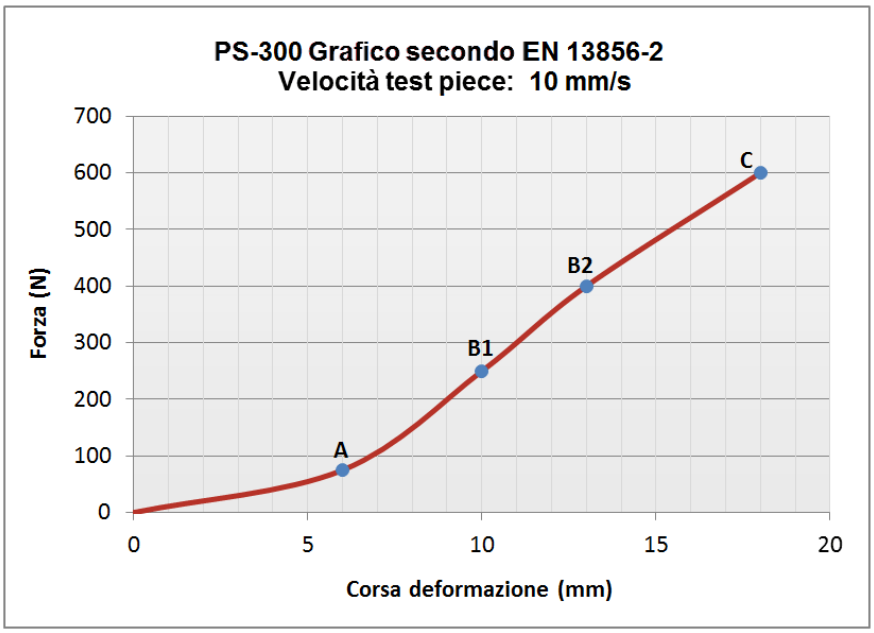
Chemical compatibility

The edge housing profiles are made of **EPDM,** that is compatible with incombustible hydraulic fluids, such as ketones, cold and hot water, alkalis and alcohols, while it is less compatible with oils, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids. In order to assess precisely the edge housing profile with specific substances contact, it is highly recommended to check the analytic tables on the chemical substances, considering the exposure time and the temperature.

Characteristic curve

Each **Proswitch™** safety edge is designed to meet the requirements of EN 13869-2, and is duly tested through application of force. Such force parameters can be represented on a characteristic graph.

The graph relating safety edge type **PS-300** is the following:



Legend:

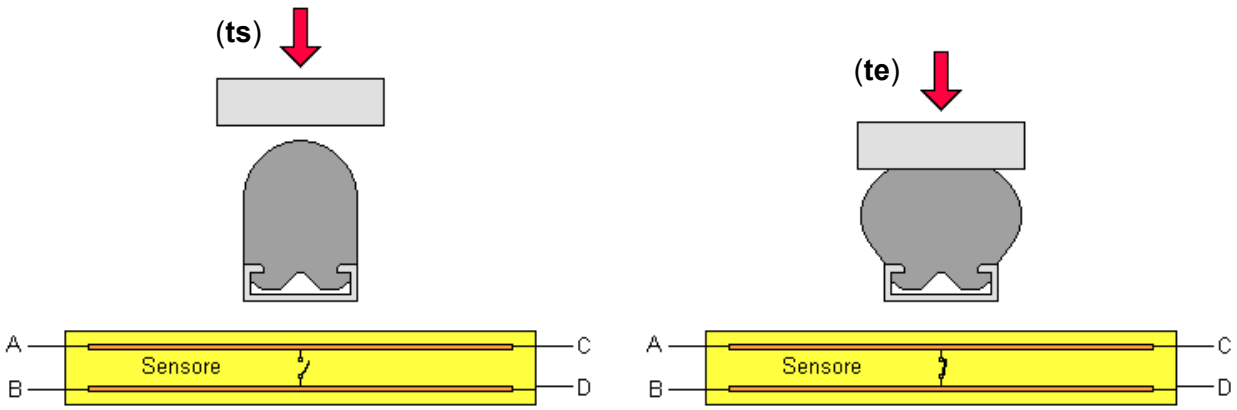
A	Switch activation point
B1	Travel at 250N
B2	Travel at 400N
C	Travel at 600N

Functioning principle

Proswitch™ safety edge type **PS-300** is designed to meet the requirements of EN 13856-2. In order to meet the standard CAT 3-PLe ISO 13849-1, **Proswitch™** safety edge type **PS-300** must be used with the **SP-xx** control unit.

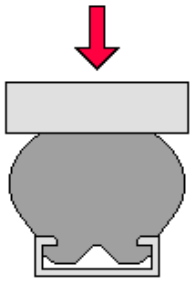
The time between the safety edge actuation (**ts**) and the moment the inner sensor's contact gets closed (**te**) is called "edge reaction time" (**Tr**). Such reaction time depends on the "pre-travel" parameter proper of the **Proswitch™** safety edge type **PS-300** and on the force application speed on the safety edge.

Tr = pre-travel / actuating force speed



Dynamic functioning of the safety edge

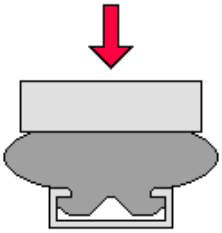
Pre-travel



Pre-travel is the distance the test piece travels from the external part of the safety edge to the inner switch actuation, as a consequence of the safety edge cushioning.

In the graph representing the safety edge type **PS-300** characteristic curve (pag. 4), pre-travel is the distance travelled from 0 to point A.

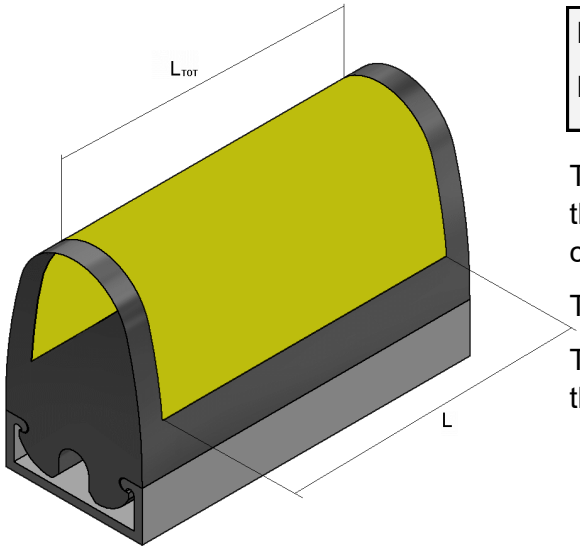
Overtravel



Overtravel is the further cushioning distance of the safety edge, detected at 250 N, 400 N and 600 N. During this phase, the inner switch contact is always closed, and the machine has already started the emergency stop.

In the graph representing the safety edge type **PS-300** characteristic curve (pag. 4), overtravel is the distance travelled from point A to point B1 (250 N), B2

Inactive parts



LTOT:	total edge length
L:	effective safety length.

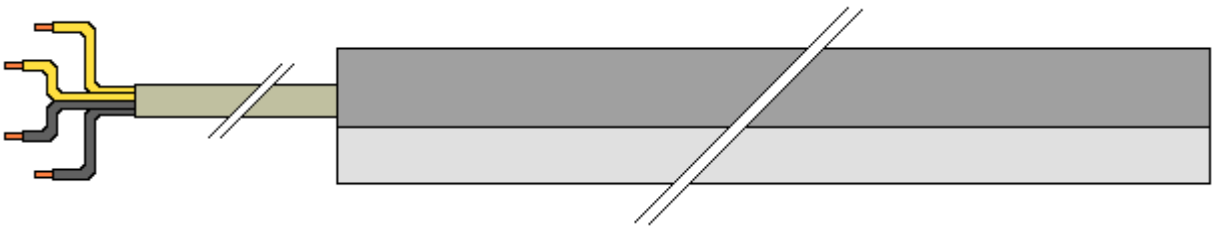
The image on the left shows a grey surface, that represents the inactive parts of the safety edge that, if submitted to crushing force, do not compress the inner switch.

The inactive parts are 15 mm long for each edge's end.

The following formula can be used to obtain the value of the effective safety length:

L = LTOT – 2 (15 mm)

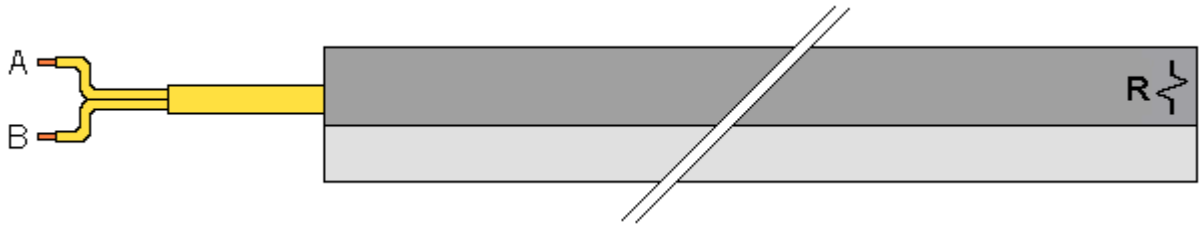
View of the safety edge



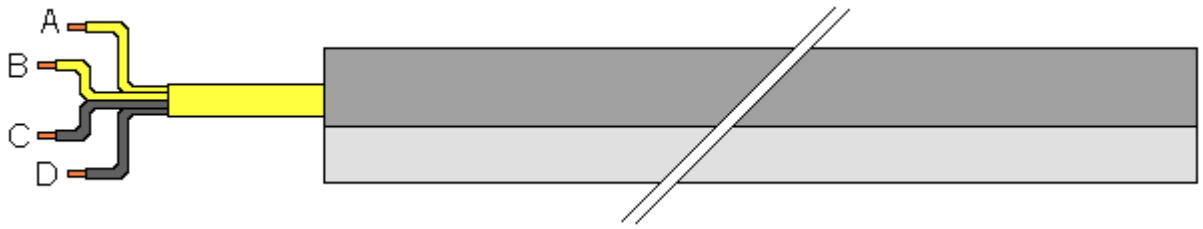
PS-300 safety edge different types

PS-300 type safety edges may be in three different versions, depending on the wire exit, and in another version that is not used for safety purposes.

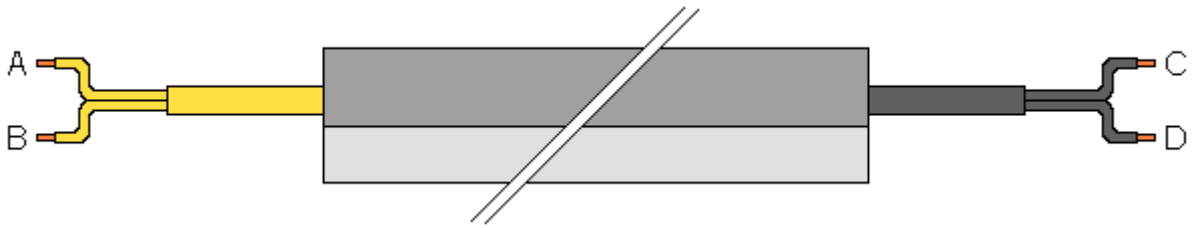
PS-300 safety edge, exit 1 wire 2 poles with final resistance



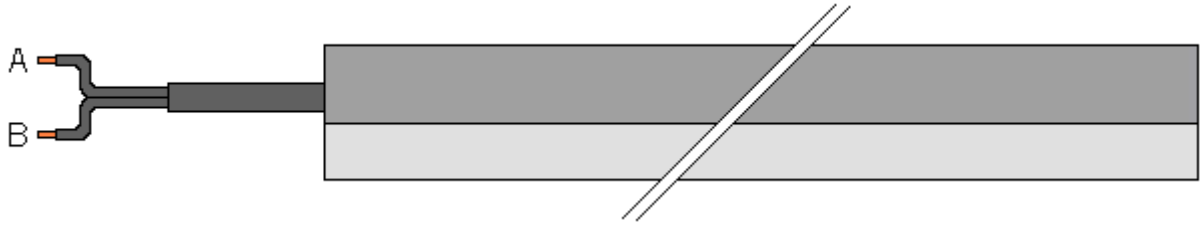
PS-300 safety edge, exit 1 wire 4 poles



PS-300 safety edge, exit 2 wires 2 poles

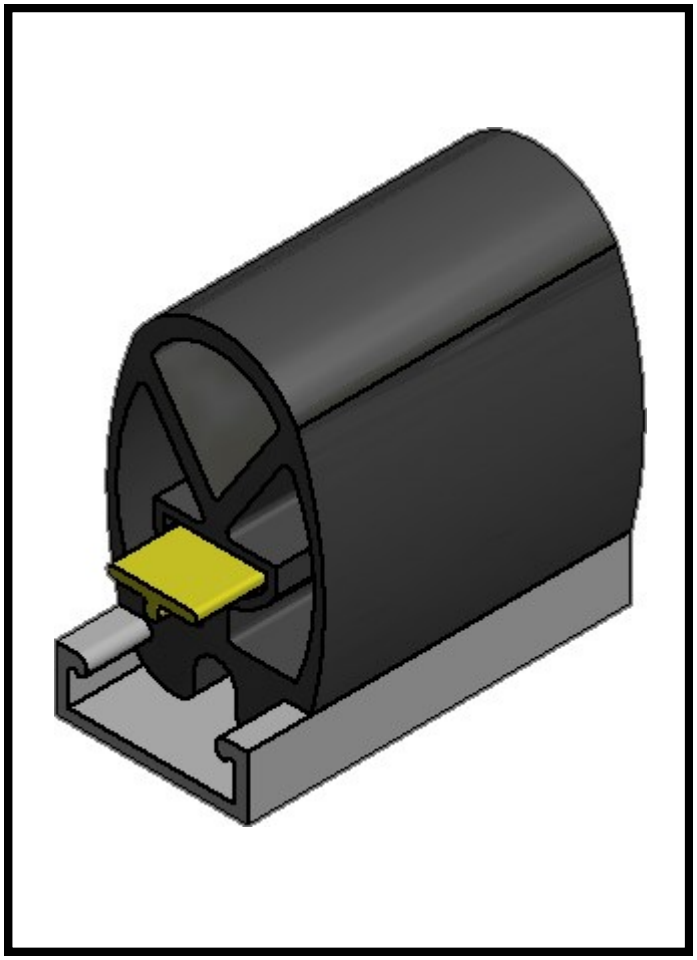


PS-300 safety edge, exit 1 wire 2 poles, not for safety purposes



Safety edges

PS-400



PS-400 type pressure sensitive safety edge are designed according to EN 13856-2, for safety based applications and can be installed on big/medium sized machineries.

PS 400 type safety edges are designed to protect personnel and equipment from being trapped or crushed by moving parts. The inner ribbon switch is sealed in a specific chamber inside the edge housing, ensuring a very good functioning also in case of hard crushing.

The ribbon switch is sealed inside the edge housing and the PS-400 type safety edge can be provided with external end caps.

This ensures a durability and resistance in case of extreme industrial conditions. This type of safety edge can be easily installed to safeguards long portions of hazard points.

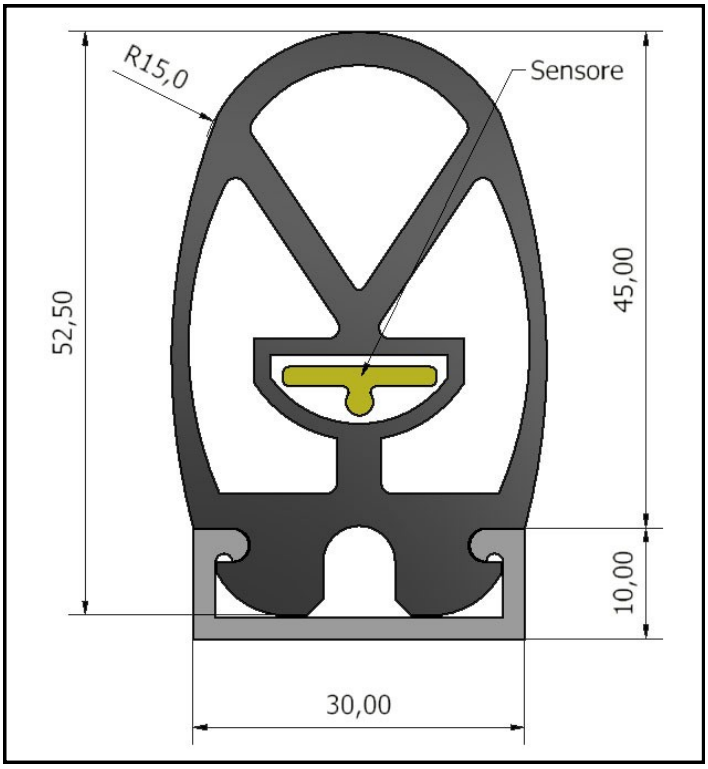
PS-400 type safety edge can be curved on request.

General features

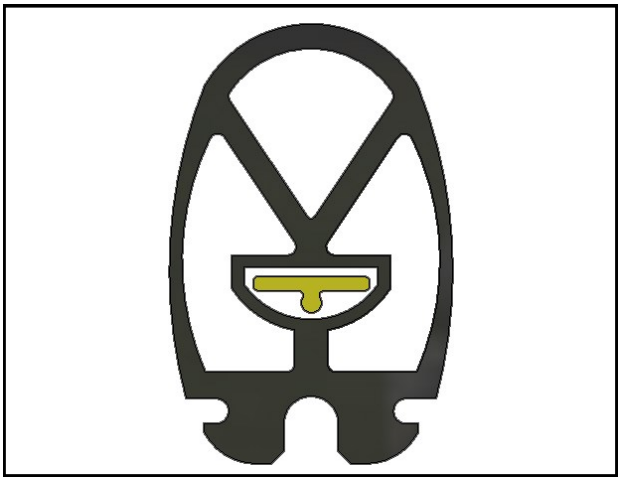
Edge housing material:	EPDM
Edge housing colour:	Black
Edge housing hardness:	70 shore
Dimensional tolerances:	DIN ISO 3302-1 E2 class
Edge channel material:	Aluminium
Wires:	PVC insulated copper
Protection level:	IP56 (IP65 on request)
Total weight:	0,4 Kg
Actuations number:	$2x10^6$
Switch contact type:	N.O.
Inactive zone on each end of the edge:	15 mm
Actuation angle:	90°
Max. length:	65 m (one piece or serial pieces)
Functioning temperature:	-10°C + 65°C @ 10 mm/s or 0°C + 65°C @ 100 mm/s

Dimensions

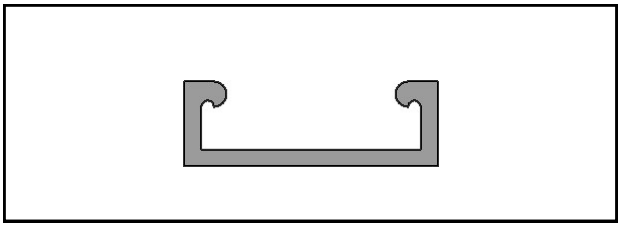
Safety edge dimensions



Edge housing GM-H50 + switch



Aluminium channel



Electrical features

Resistance:	0,5 Ohm/m
Max current:	1 A
Max tension:	32 Vcc
Max wire length:	100 m (section 0,50 mm^2 copper)

Mechanical features

Pre-travel:	6.0 mm
Working travel 250 N:	15.2mm
Working travel 400 N:	22.2 mm
Working travel 600 N:	26.5 mm
Overtravel 250 N:	10.5 mm
Overtravel 400 N:	17.8 mm
Overtravel 600 N:	22.5 mm
Actuating force test rod φ20 mm:	40 N @ 20°C
Actuating force test rod φ80 mm:	110 N @ 20°C
Mechanical force:	500 N

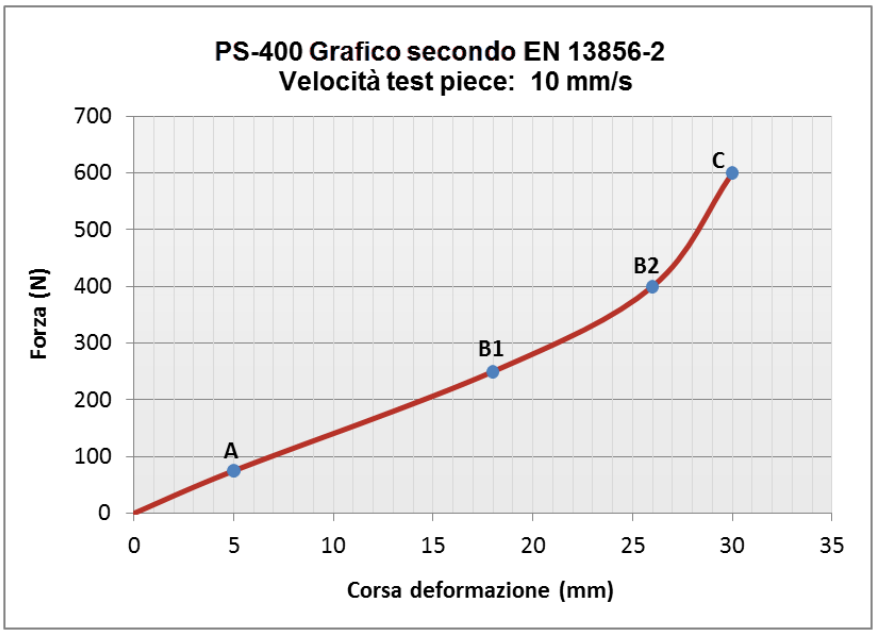
Chemical compatibility

The edge housing profiles are made of **EPDM,** that is compatible with incombustible hydraulic fluids, such as ketones, cold and hot water, alkalis and alcohols, while it is less compatible with oils, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids. In order to assess precisely the edge housing profile with specific substances contact, it is highly recommended to check the analytic tables on the chemical substances, considering the exposure time and the temperature.

Characteristic curve

Each **Proswitch™** safety edge is designed to meet the requirements of EN 13869-2, and is duly tested through application of force. Such force parameters can be represented on a characteristic graph.

The graph relating safety edge type **PS-400** is the following:



Legend:

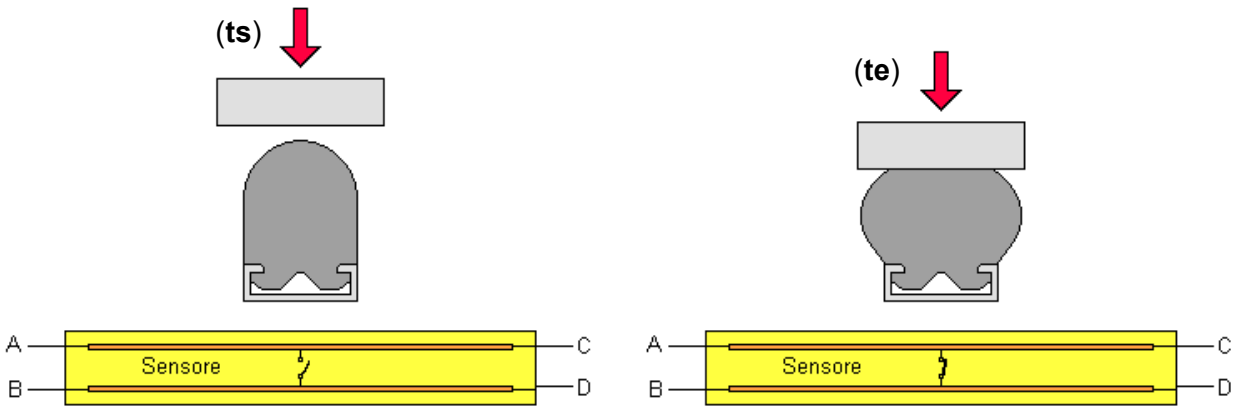
A	Switch activation point
B1	Travel at 250N
B2	Travel at 400N
C	Travel at 600N

Functioning principle

Proswitch™ safety edge type **PS-300** is designed to meet the requirements of EN 13856-2. In order to meet the standard CAT 3-PLe ISO 13849-1, **Proswitch™** safety edge type **PS-400** must be used with the **SP-xx** control unit.

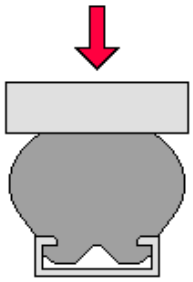
The time between the safety edge actuation (**ts**) and the moment the inner sensor's contact gets closed (**te**) is called "edge reaction time" (**Tr**). Such reaction time depends on the "pre-travel" parameter proper of the **Proswitch™** safety edge type **PS-400** and on the force application speed on the safety edge.

Tr = pre-travel / actuating force speed



Dynamic functioning of the safety edge

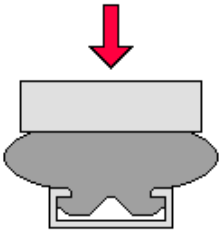
Pre-travel



Pre-travel is the distance the test piece travels from the external part of the safety edge to the inner switch actuation, as a consequence of the safety edge cushioning.

In the graph representing the safety edge type **PS-400** characteristic curve (pag. 4), pre-travel is the distance travelled from 0 to point A.

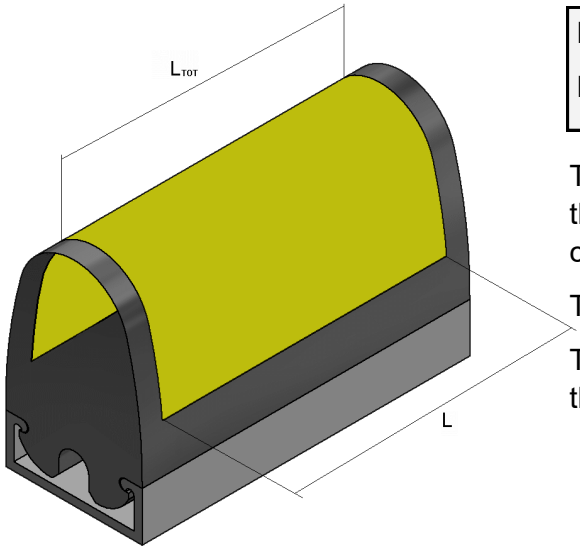
Overtravel



Overtravel is the further cushioning distance of the safety edge, detected at 250 N, 400 N and 600 N. During this phase, the inner switch contact is always closed, and the machine has already started the emergency stop.

In the graph representing the safety edge type **PS-400** characteristic curve (pag. 4), overtravel is the distance travelled from point A to point B1 (250 N), B2 (400 N) and C (600 N).

Inactive parts



LTOT: total edge length

L: effective safety length.

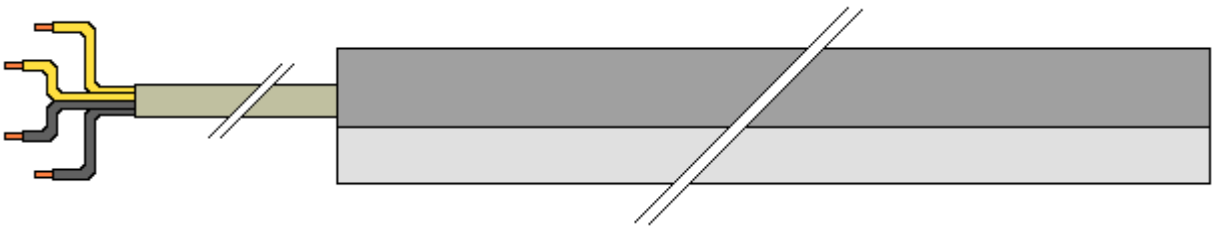
The image on the left shows a grey surface, that represents the inactive parts of the safety edge that, if submitted to crushing force, do not compress the inner switch.

The inactive parts are 15 mm long for each edge's end.

The following formula can be used to obtain the value of the effective safety length:

L = LTOT – 2 (15 mm)

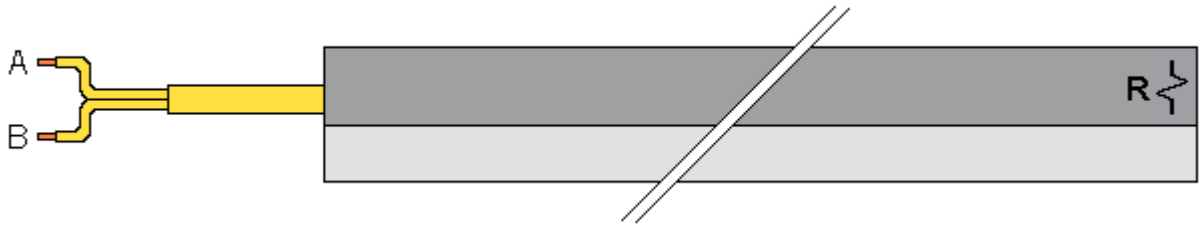
View of the safety edge



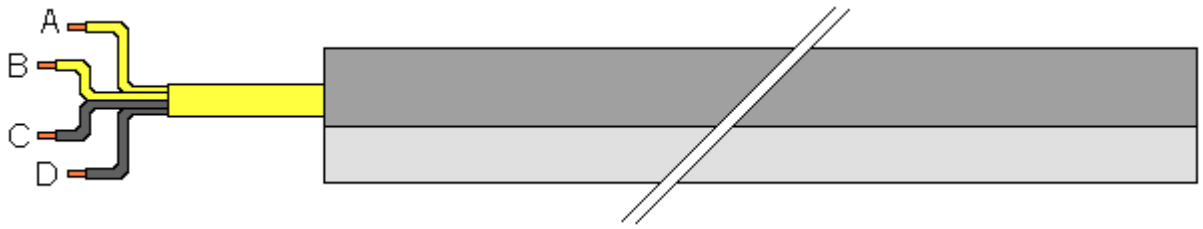
PS-400 safety edge different types

PS-400 type safety edges may be in three different versions, depending on the wire exit, and in another version that is not used for safety purposes.

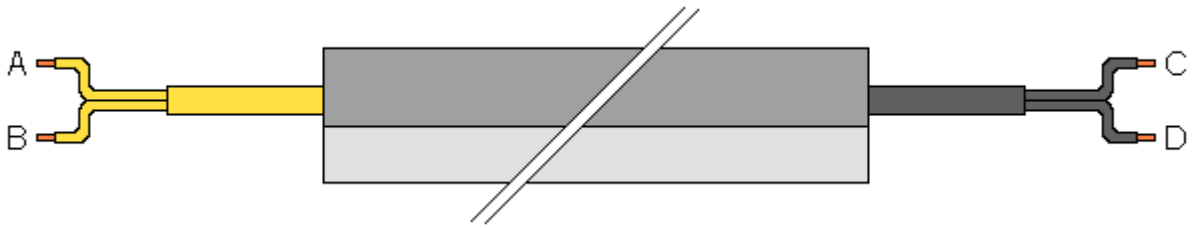
PS-400 safety edge, exit 1 wire 2 poles with final resistance



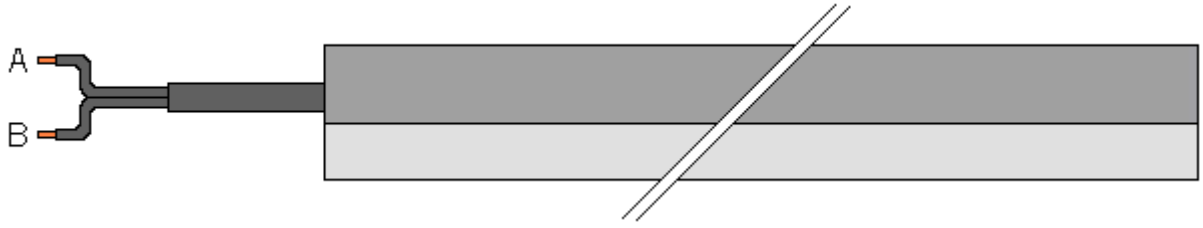
PS-400 safety edge, exit 1 wire 4 poles



PS-400 safety edge, exit 2 wires 2 poles

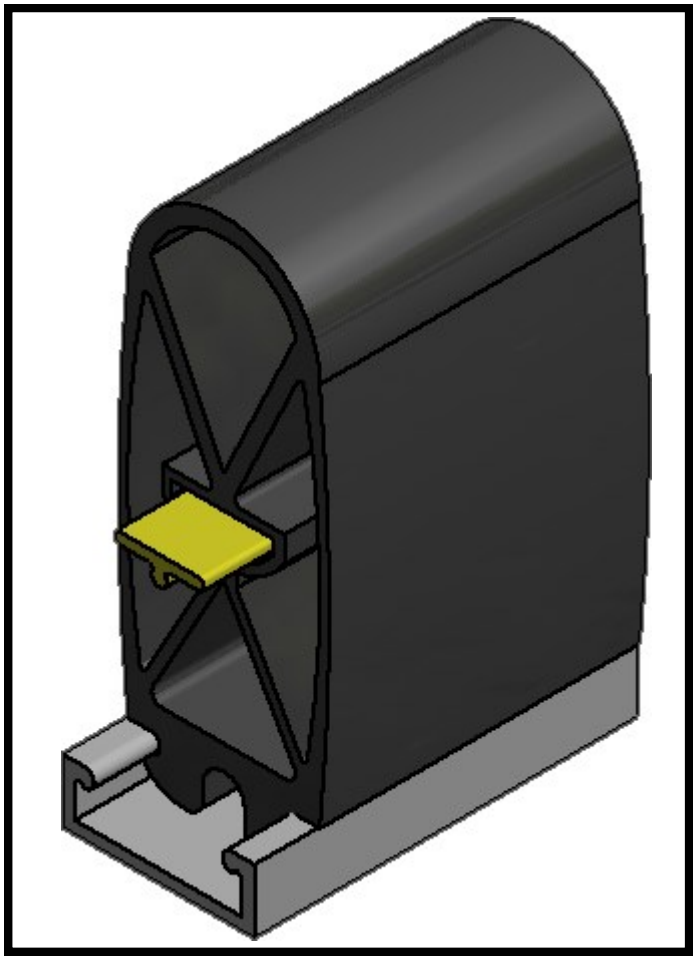


PS-400 safety edge, exit 1 wire 2 poles, not for safety purposes



Safety edges

PS-500



PS-500 type pressure sensitive safety edge are designed according to EN 13856-2, in order to protect personnel and equipment from being trapped or crushed by moving parts.

PS-500 type is the biggest profile among Proswitch safety edges, and it's used in applications which require immediate activation with considerable overtravel.

Although its big dimensions, PS-500 type safety edge have a wide safety degree, and respond both to head and side activation.

PS 500 type safety edge has a wide sensitive angle, although its big dimensions, it has a considerable overtravel that ensures protections to personnel and equipment from being trapped or crushed in automatic moving parts.

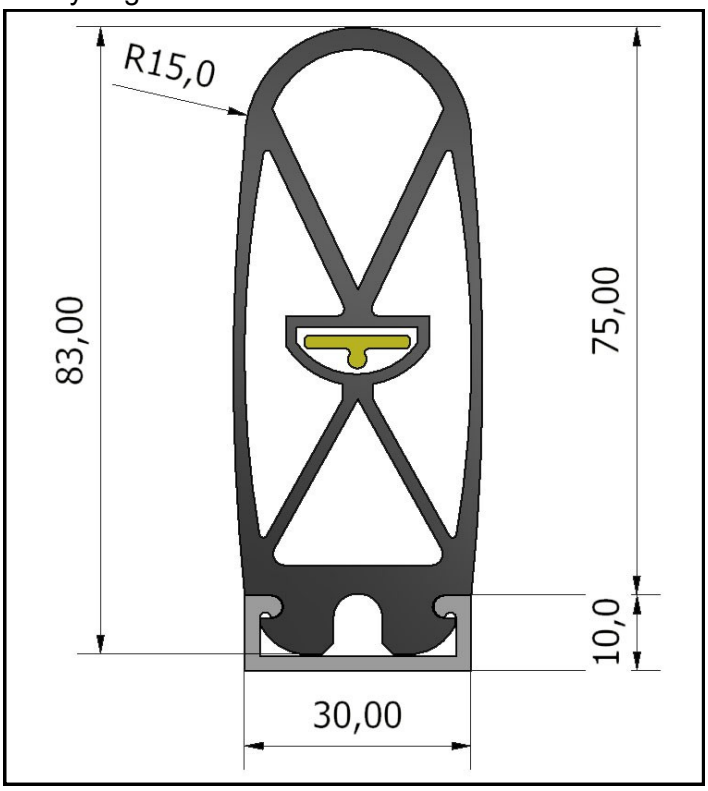
This type of safety edge is recommended for applications on long parts that can jeopardize the safety of persons or objects.

General features

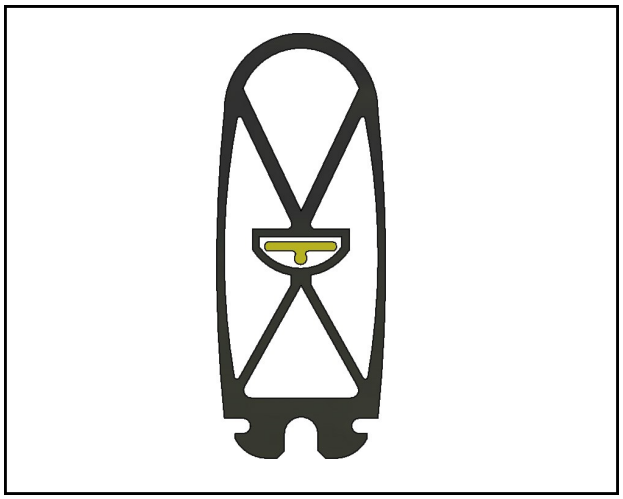
Edge housing material:	EPDM
Edge housing colour:	Black
Edge housing hardness:	70 shore
Dimensional tolerances:	DIN ISO 3302-1 E2 class
Edge channel material:	Aluminium
Wires:	PVC insulated copper
Protection level:	IP56 (IP65 on request)
Total weight:	0,4 Kg
Actuations number:	$2x10^6$
Switch contact type:	N.O.
Inactive zone on each end of the edge:	15 mm
Actuation angle:	30°
Max. length:	65 m (one piece or serial pieces)
Functioning temperature:	-10°C + 65°C @ 10 mm/s or 0°C + 65°C @ 100 mm/s

Dimensions

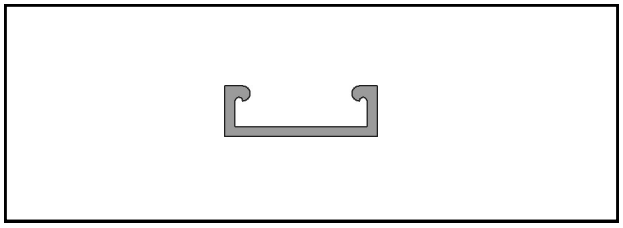
Safety edge dimensions



Edge housing GM-H50 + switch



Aluminium channel



Electrical features

Resistance:	0,5 Ohm/m
Max current:	1 A
Max tension:	32 Vcc
Max wire length:	100 m (section 0,50 mm^2 copper)

Mechanical features

Pre-travel:	6.0 mm
Working travel 250 N:	15.2mm
Working travel 400 N:	22.2 mm
Working travel 600 N:	26.5 mm
Overtravel 250 N:	10.5 mm
Overtravel 400 N:	17.8 mm
Overtravel 600 N:	22.5 mm
Actuating force test rod φ20 mm:	40 N @ 20°C
Actuating force test rod φ80 mm:	110 N @ 20°C
Mechanical force:	500 N

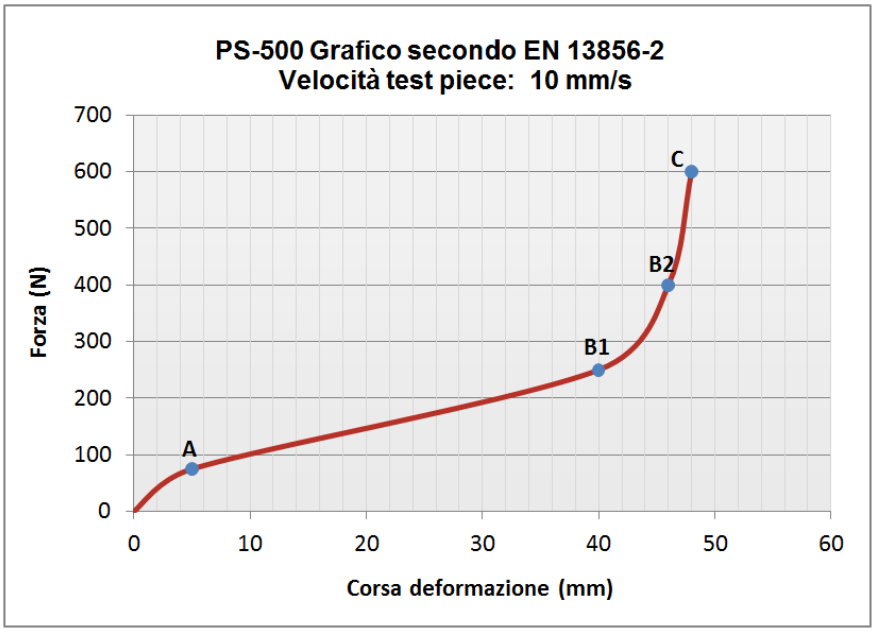
Chemical compatibility

The edge housing profiles are made of **EPDM,** that is compatible with incombustible hydraulic fluids, such as ketones, cold and hot water, alkalis and alcohols, while it is less compatible with oils, aromatic and aliphatic hydrocarbons, halogenated solvents and concentrated acids. In order to assess precisely the edge housing profile with specific substances contact, it is highly recommended to check the analytic tables on the chemical substances, considering the exposure time and the temperature.

Characteristic curve

Each **Proswitch™** safety edge is designed to meet the requirements of EN 13869-2, and is duly tested through application of force. Such force parameters can be represented on a characteristic graph.

The graph relating safety edge type **PS-500** is the following:



Legend:

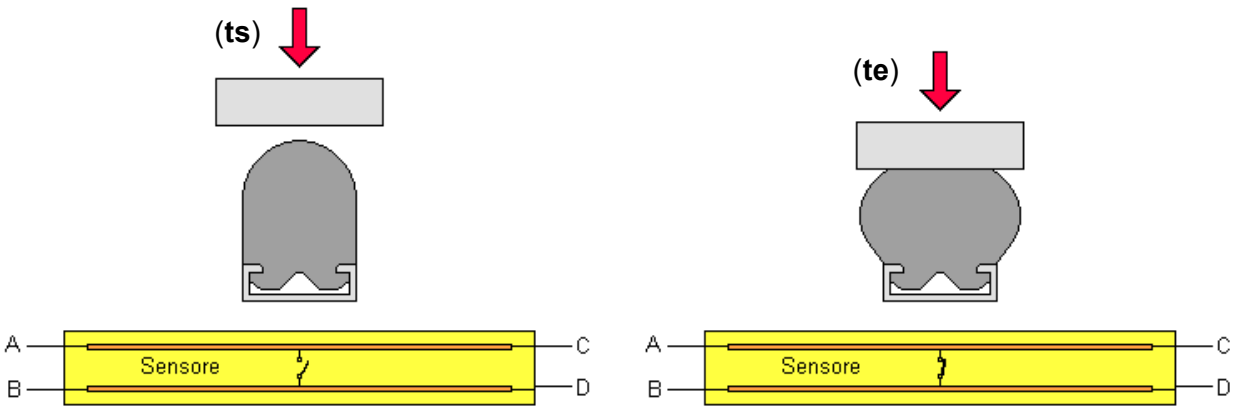
A	Switch activation point
B1	Travel at 250N
B2	Travel at 400N
C	Travel at 600N

Functioning principle

Proswitch™ safety edge type **PS-300** is designed to meet the requirements of EN 13856-2. In order to meet the standard CAT 3-PLe ISO 13849-1, **Proswitch™** safety edge type **PS-500** must be used with the **SP-xx** control unit.

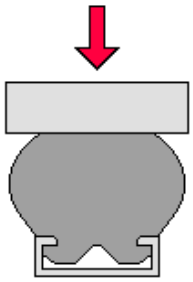
The time between the safety edge actuation (**ts**) and the moment the inner sensor's contact gets closed (**te**) is called "edge reaction time" (**Tr**). Such reaction time depends on the "pre-travel" parameter proper of the **Proswitch™** safety edge type **PS-500** and on the force application speed on the safety edge.

Tr = pre-travel / actuating force speed



Dynamic functioning of the safety edge

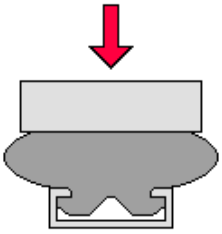
Pre-travel



Pre-travel is the distance the test piece travels from the external part of the safety edge to the inner switch actuation, as a consequence of the safety edge cushioning.

In the graph representing the safety edge type **PS-500** characteristic curve (pag. 4), pre-travel is the distance travelled from 0 to point A.

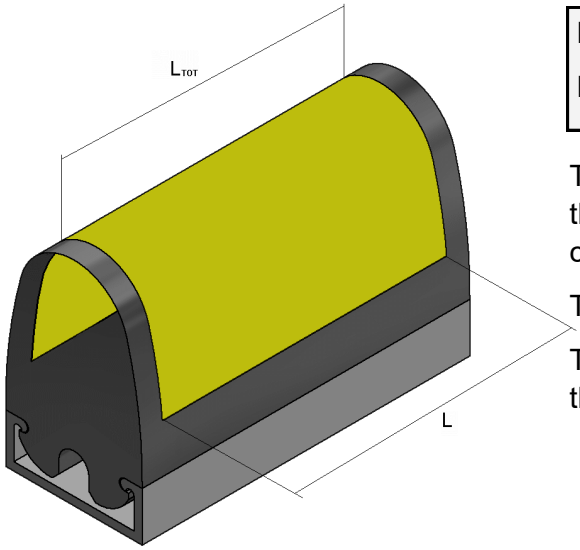
Overtravel



Overtravel is the further cushioning distance of the safety edge, detected at 250 N, 400 N and 600 N. During this phase, the inner switch contact is always closed, and the machine has already started the emergency stop.

In the graph representing the safety edge type **PS-500** characteristic curve (pag. 4), overtravel is the distance travelled from point A to point B1 (250 N), B2 (400 N) and C (600 N).

Inactive parts



LTOT:	total edge length
L:	effective safety length.

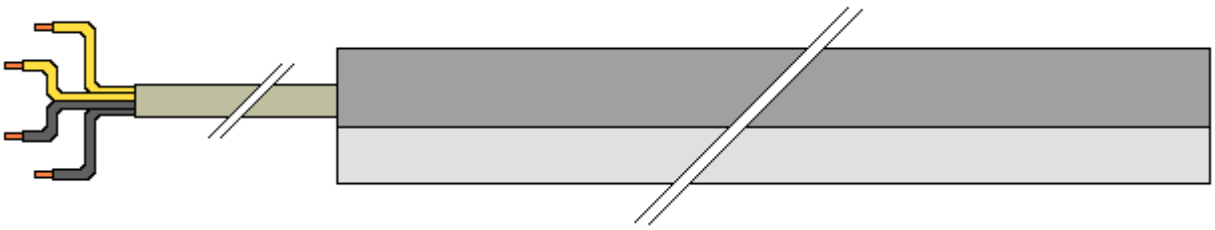
The image on the left shows a grey surface, that represents the inactive parts of the safety edge that, if submitted to crushing force, do not compress the inner switch.

The inactive parts are 15 mm long for each edge's end.

The following formula can be used to obtain the value of the effective safety length:

L = LTOT – 2 (15 mm)

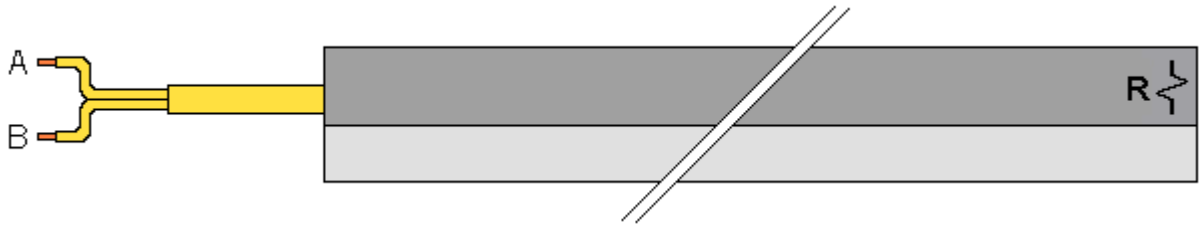
View of the safety edge



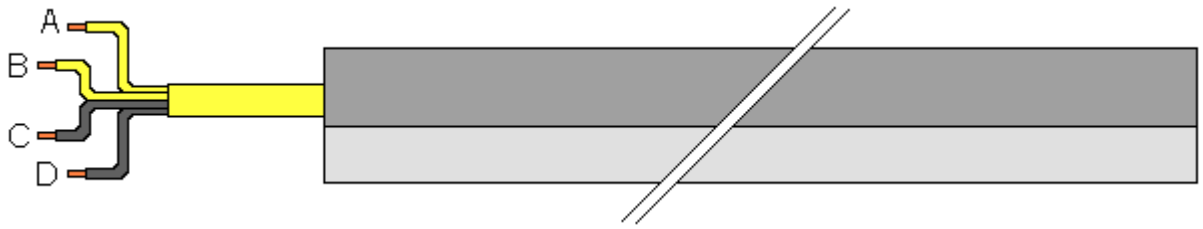
PS-500 safety edge different types

PS-500 type safety edges may be in three different versions, depending on the wire exit, and in another version that is not used for safety purposes.

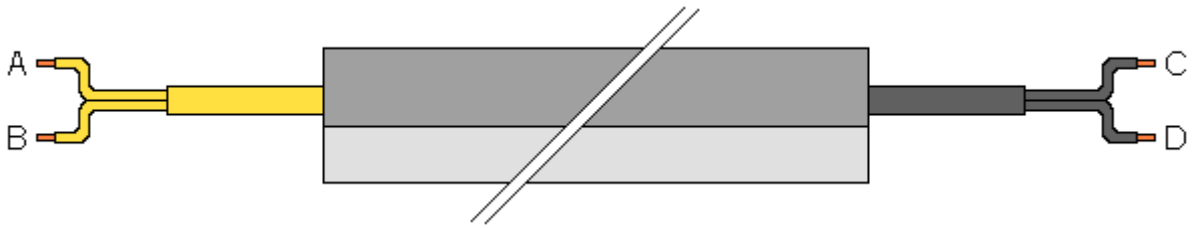
PS-500 safety edge, exit 1 wire 2 poles with final resistance



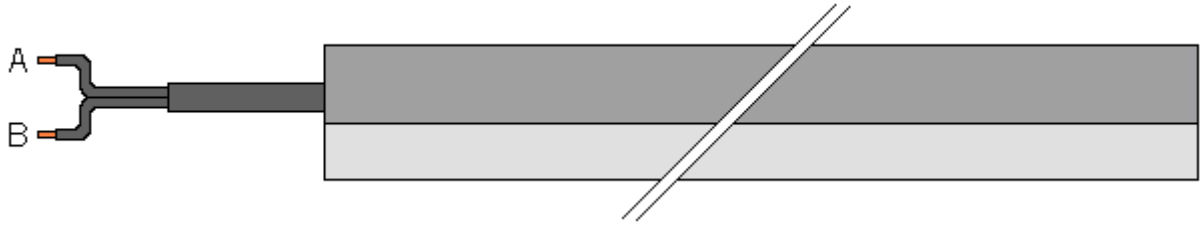
PS-500 safety edge, exit 1 wire 4 poles



PS-500 safety edge, exit 2 wires 2 poles



PS-500 safety edge, exit 1 wire 2 poles, not for safety purposes



proswitch

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