

SENSING EDGES

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Also known as a safety edge, the sensing edge is a sensor consisting of an external housing and an internal tape switch whose properties and functions are adapted to provide special characteristics.

Applications and Features

The sensing edge serves as an effective means of preventing trapping by automatic doors (including elevator, vehicle, home, high-speed shutter doors) and machines or suspending the operation of medical equipment in an emergency and avoiding collision of unmanned vehicles (bumpers).

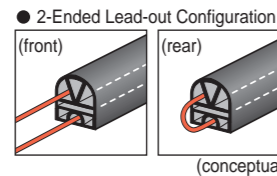
Ratings

Rated voltage/current	AC/DC28V-1A
Withstand voltage	AC 500V (1 min)
Contact life	1,000,000 activations (tested with relay; 24 V, 0.3 A load)
Operating force	7.5 N (750 gf) to 30 N (3.0 kgf) approx. (underφ15 pressing plate)
Insulation resistance	100 MΩ or more (by 500 VDC insulation tester)
Contact resistance	1.0 MΩ or less (if under operating force or more)
Operating temperature range	-10°C ~ +60°C
Withstand load	1470 N (150 kgf; underφ100 pressing plate for 1 min)
Waterproofing property	Water-tight, drip-proof (IP-54 equivalent)
Lead wire	w/ VFF (0.75 mm ² , 0.5 m)

4-Wire Lead and Open Circuit Detector

● A 4-wire control circuit (open circuit detector) for use in combination is recommended as part of standard specifications. If used, the circuit calls for a 4-wire lead. (P13-15)

◆ Orders may be for a single circuit and requests for the length of the lead wire (L), lead-out configuration (1-ended, 2-ended), and the like are accommodated.



Channel Designations

- ◆ Channel F refers to the aluminum flat type.
- ◆ Channel A refers to the aluminum angle type.
- ◆ Please indicate the sensor model and the channel designation (F or A) when placing an order for a channel separately.

Processing the Channel and Mounting the Edge

1. All sensor models come standard with a channel F.
2. A long channel may be formed by joining channel segments. (in units of L = 1000 mm)
3. Drill holes in the channel separately before starting the mounting work. (Use screws of M3 to M6 (dia.) for fixing to suit a specific model.)
4. While keeping the external housing against the channel, fit it into the cover groove first along one side. Apply a solution of a household detergent or the like to the cover groove of the other side, and press the housing firmly in place in both grooves. (See the User Guide that comes with the product.)
5. The internal tape switch may easily be repaired or replaced.



Sensing Edges (All safety edges come standard with a flat channel F.)

Model (color)	Production length (L, m)	Cross-sectional configuration (mm)	Operating force and weight	Margin of contraction (mm)	Applications and features
OT-10BP-B (black) R (red)			17 N (approx.) Weight 490 g/m (approx.)	3 (approx.)	<ul style="list-style-type: none"> ● External sheathing: PVC (polyvinyl chloride) ● Small-size edge: instantaneous activation type ● Color: 2; black (B), red (R) ● Applications: collision detection; machinery, medical equipment, doors, bumpers, etc. ● End cap: standard (both ends) ● Fixing screw diameter: M3 to M4 flat head screw recommended ● Channel F only
OT-08D-B (black)			14 N (approx.) Weight 690 g/m (approx.)	6 (approx.)	<ul style="list-style-type: none"> ● External sheathing: EPDM (ethylene propylene diene monomer) ● Medium-size edge: high sensitivity type ● Applications: collision detection; machinery, medical equipment, doors, bumpers, etc. ● End cap: standard (both ends). ● Fixing screw diameter: M4 to M6 flat head screw recommended ● Channel F only (bending in perpendicular direction: R100 approx.)

Sensing Edges (All safety edges come standard with a flat channel F.)

Model (color)	Production length (L, m)	Cross-sectional configuration (mm)	Operating force and weight	Margin of contraction (mm)	Applications and features
OT-TS3F-Y (yellow) B (black) R (red)			27 N (approx.) Weight 280 g/m (approx.)	1 (approx.)	<ul style="list-style-type: none"> ● External sheathing: PVC (polyvinyl chloride) ● Integrated formation with external cover ● Micro edge: instantaneous activation type ● Color: 3; red (R), black (B), yellow (Y) ● Applications: automatic doors, medical equipment, foot switches ● Fixing screw diameter: M3 flat head screw recommended (channel) ● End cap: none, with clamp doubling as cap ● Channel F, clamp: standard (※For configuration and dimensions, see P12.)
OT-TS6F-R (red) B (black)			9 N (approx.) Weight 330 g/m (approx.)	1 to 2 (approx.)	<ul style="list-style-type: none"> ● External sheathing: PVC (polyvinyl chloride) ● Mini edge: instantaneous activation type, high sensitivity peripheral switch ● Color: 2; black (B), red (R); TS6 only ● Applications: moving doors, medical tables, machinery, etc. ● Fixing screw diameter: M3 to M4 flat head screw recommended ● End cap: optional ● Channels F, A: both available (option: for both TS6/16)
OT-TS16F			14 N (approx.) Weight 390 g/m (approx.)	6 (approx.)	<ul style="list-style-type: none"> ● When placing an order for an angle channel, delete the suffix F of the model designation, and indicate A in its place. EX:OT-TS16A ● There may be a lead time in filling orders for angle channels.
OT-TS26F			30 N (approx.) Weight 760 g/m (approx.)	9 (approx.)	<ul style="list-style-type: none"> ● External sheathing: PVC (polyvinyl chloride) ● Medium-size edge: instantaneous activation type, excels in lateral operation to reduce need for post-operation action ● Applications: machine edge gates, stage lifts, bumpers, elevator doors, etc. ● Fixing screw diameter: M4 to M6 flat head screw recommended ● End cap: optional ● Channels F, A: both available ● When placing an order for an angle channel, delete the suffix F of the model designation, and indicate A in its place. ● There may be a lead time in filling orders for angle channels.
OT-TS47F			13 N (approx.) Weight 950 g/m (approx.)	25 (approx.)	<ul style="list-style-type: none"> ● External sheathing: TPE (polyolefin-family thermoplastic elastomer) ● Large-size edge: instantaneous activation type ● Accommodation of instantaneous and low-speed operation ● Reduction of shock from instantaneous and low/high-speed operation (priority on operation) ● Applications: high-speed door switches, gym doors, accordion doors, vehicle bumper switches, etc. ● Fixing screw diameter: M4 to M6 flat head screw recommended ● End cap: optional ● Channels F, A: both available (option: for both TS47/57) ● When placing an order for an angle channel, delete the suffix F of the model designation, and indicate A in its place. ● There may be a lead time in filling orders for angle channels.
OT-TS57F			13 N (approx.) Weight 1500 g/m (approx.)	60 (approx.)	<ul style="list-style-type: none"> ● When placing an order for an angle channel, delete the suffix F of the model designation, and indicate A in its place. ● There may be a lead time in filling orders for angle channels.

◆ Symbols Used ● E (edge): refers to the external housing (protective cover) and indicates available production lengths (L, m). ◆ A channel length may represent the sum of the lengths of individual channel segments.
● F (flat) ● A (angle): refers to the aluminum channel configuration and length. (A long channel may be formed by joining channel segments.)