

ASO Safety Solutions

SENTIR Edges



Selecting the Edge Profile

ASO Safety Solutions offers several sizes of safety edges to fit most applications, including automatic gate, door, and machine applications. The size (profile) of the edge should be selected based on the application and overtravel permitted by the profile. If the edge experiences overtravel beyond the allowed amount, damage may occur. An additional important deciding factor to consider when determining which profile to use is sensitivity. Sensitivity is the amount of force required to activate the unit.

Where greater actuating forces or overtravel requirements are needed, a safety bumper may be the preferred approach.

Profile Series	Test Speed (10 mm/sec [0.4 in/sec]*		Tested according to DIN EN ISO 13856-2, Test Unit round 80mm, Actuating Point C3, Temp 20 °C	
15 x 10mm [0.6 in x 0.4in]	Force (F) Required for Actuation (A)	42.9N [9.64 lbf]		
	Actuation Distance c	1.8mm [0.07in]		
	Overtravel Distance d to 250 N	1.0mm [0.04in]		
	Overtravel Distance f to 400 N	2.0mm [0.08in]		
	Overtravel Distance h-c to 600 N	2.8mm [0.11in]		
15 x 25mm [0.6 x 1.0in]	Force (F) Required for Actuation (A)	43N [9.67 lbf]		
	Actuation Distance c	3.7mm [0.15in]		
	Overtravel Distance d to 250 N	7.6mm [0.30in]		
	Overtravel Distance f to 400 N	9.3mm [0.37in]		
	Overtravel Distance h-c to 600 N	10.9mm [0.43in]		
25 x 30mm [1.0 x 1.2in]	Force (F) Required for Actuation (A)	35N [7.87 lbf]		
	Actuation Distance c	5.1mm [0.20in]		
	Overtravel Distance d to 250 N	13.1mm [0.52in]		
	Overtravel Distance f to 400 N	15.4mm [0.61in]		
	Overtravel Distance h-c to 600 N	17.3mm [0.68in]		
25 x 30mm [1.0 x 1.2in]	Force (F) Required for Actuation (A)	54.3N [12.21 lbf]		
	Actuation Distance c	10.0mm [0.39in]		
	Overtravel Distance d to 250 N	15.5mm [0.61in]		
	Overtravel Distance f to 400 N	18.1mm [0.71in]		
	Overtravel Distance h-c to 600 N	20.7mm [0.81in]		
25 x 45mm [1.0 x 1.8in]	Force (F) Required for Actuation (A)	63.1N [14.19 lbf]		
	Actuation Distance c	7.2mm [0.28in]		
	Overtravel Distance d to 250 N	19.4mm [0.76in]		
	Overtravel Distance f to 400 N	23.6mm [0.93in]		
	Overtravel Distance h-c to 600 N	26.4mm [1.04in]		
30 x 70mm [1.2 x 2.8in]	Force (F) Required for Actuation (A)	44N [9.89 lbf]		
	Actuation Distance c	8.0mm [0.31in]		
	Overtravel Distance d to 250 N	36.0mm [1.42in]		
	Overtravel Distance f to 400 N	40.0mm [1.57in]		
	Overtravel Distance h-c to 600 N	43.0mm [1.69in]		

* For other speed data, please refer to product data sheets.

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Safety Electrical Components

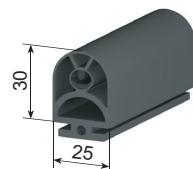
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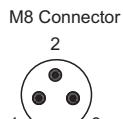
25 x 30mm SENTIR Edges and End Caps



1502-2110



1502-6220



Use pins 1 and 3
for continuity.



1804-2206



1804-2196



2002-0230



9501-0160

The SENTIR edge safety contact edges of ASO Safety Solutions are pressure-sensitive sensors applied to ensure the safety of closing edges at possible crushing or shearing points which are prone to accidents. They may be installed near automatic gates, machines and other facilities for handling equipment or moving stage elements in order to protect individuals from bodily harm or machinery from damage.

Features

- Optimized material properties guarantee fast switching results
- 4 edge lengths available that can be easily cut to fit any application
- Can wire in 2 or 4-wire circuits
- Requires aluminum mounting rail (included with 2ft and 5ft edges) and offered in varying lengths
- Available with a sealing lip
- Reference example connection drawings for easy product selection

ASO Safety Contact Edges – 25 x 30mm

Part Number	Price	Profile (mm [in])	Length (ft [m])	End Caps	Aluminum Mounting Rail	Sealing Lip	Drawing
1502-2110		25 x 30 [0.984 x 1.18]	2.0 [0.61]	End caps not included; choose from table below	Included	None	PDF
1502-2111		25 x 30 [0.984 x 1.18]	5.0 [1.52]		Included	None	PDF
1502-6220		25 x 30 [0.984 x 1.18]	2.0 [0.61]		Included	Single-sided	PDF
1502-6221		25 x 30 [0.984 x 1.18]	5.0 [1.52]		Included	Single-sided	PDF
1502-2112		25 x 30 [0.984 x 1.18]	20.0 [6.10]		Not included	None	PDF
1502-2600		25 x 30 [0.984 x 1.18]	82.0 [25.0]		Not included	None	PDF

ASO Safety Contact Edge End Caps – 25 x 30mm

Part Number	Price	Description	Connection	Drawing
1804-2205*		End cap for 25 x 30mm safety contact edges	3-pin female M8 connector 1.65ft [0.5m] cable length	PDF
1804-2195*		End cap for 25 x 30mm safety contact edges	3-pin male M8 connector 1.65ft [0.5m] cable length	PDF
1804-0565*		Terminating resistor end cap for 25 x 30mm safety contact edges, 8.2 kΩ	NA	PDF
1804-2206		End cap for 25 x 30mm safety contact edges	3-pin female M8 connector 1.65ft [0.5m] cable length	PDF
1804-2196		End cap for 25 x 30mm safety contact edges	3-pin male M8 connector 1.65ft [0.5m] cable length	PDF
1804-0566		Terminating resistor end cap for 25 x 30mm safety contact edges, 8.2 kΩ	NA	PDF

* Products will be discontinued once out of stock.

ASO Safety Contact Edge Mounting Rails

Part Number	Price	Description	Material	Contents	Drawing
2002-0230		Contact edge mounting rail	Aluminum	Package of 4 rails, each 5ft [1.52m] length	PDF
2002-0231		Contact edge mounting rail	Aluminum	1 rail, 2ft [609.6 mm] length	PDF

ASO Safety Solutions Industrial Shears

Part Number	Price	Description	Use With	Contents
9501-0160		Stainless steel industrial shears	Safety contact edges	1 shear

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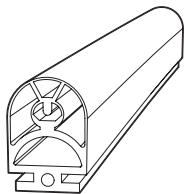
25 x 30mm SENTIR Edges and End Caps



Selection

Use the following Example Connections drawings to help you select the correct components for your system.

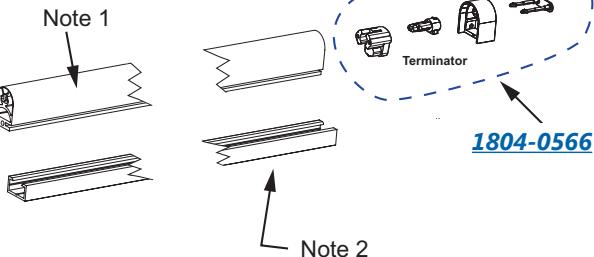
Example Connections – 25 x 30mm edges and end caps



Example Connections for a 2-wire Safety Relay

1804-2196
M8 Female
3-pole Q/D Cable.
See recommended
items.
Wire to a 2-wire
Safety Relay per the
manufacturer's instructions.

Single Edge Connection



1804-2196
M8 Female
3-pole Q/D Cable.
See recommended
items.
Wire to a 2-wire
Safety Relay per the
manufacturer's instructions.

Multiple Edge Connection

1804-2206
Note 1: 1502-2110 2' edge (mounting rail included)
1502-2111 5' edge (mounting rail included)
1502-2112 20' (cut to length)
1502-2600 82' (cut to length)
1502-6220 2' edge with sealing lip (mounting rail included)
1502-6221 5' edge with sealing lip (mounting rail included)

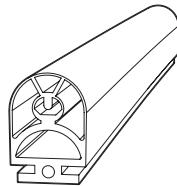
1804-2196
Note 2: 2002-0231 2' mounting rail
2002-0230 5' mounting rails (4 pack)

ASO Safety Solutions

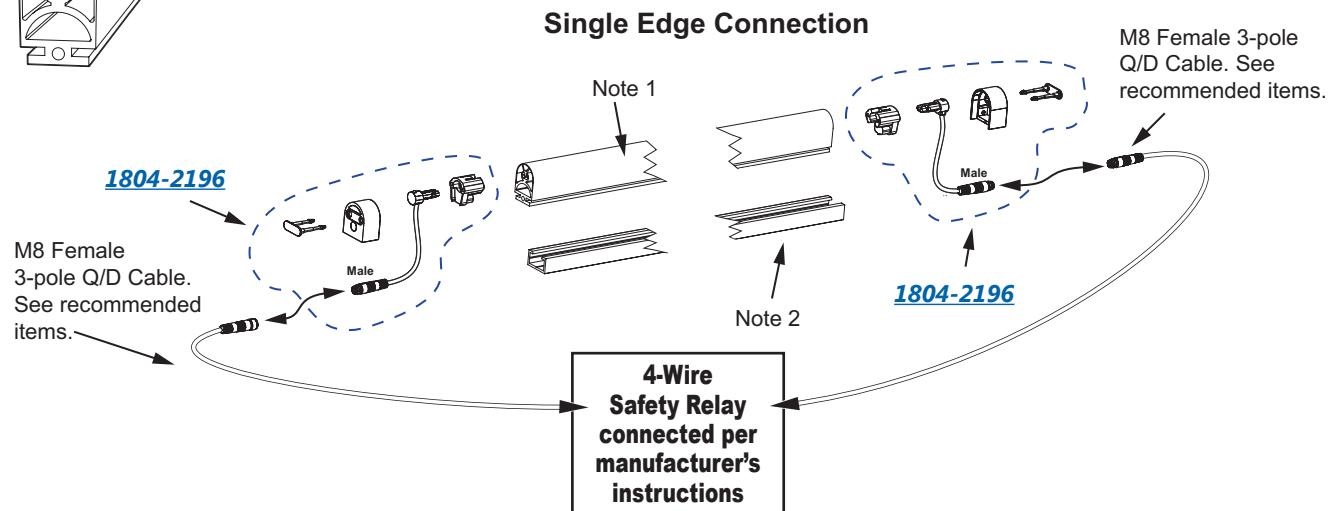
25 x 30mm SENTIR Edges and End Caps



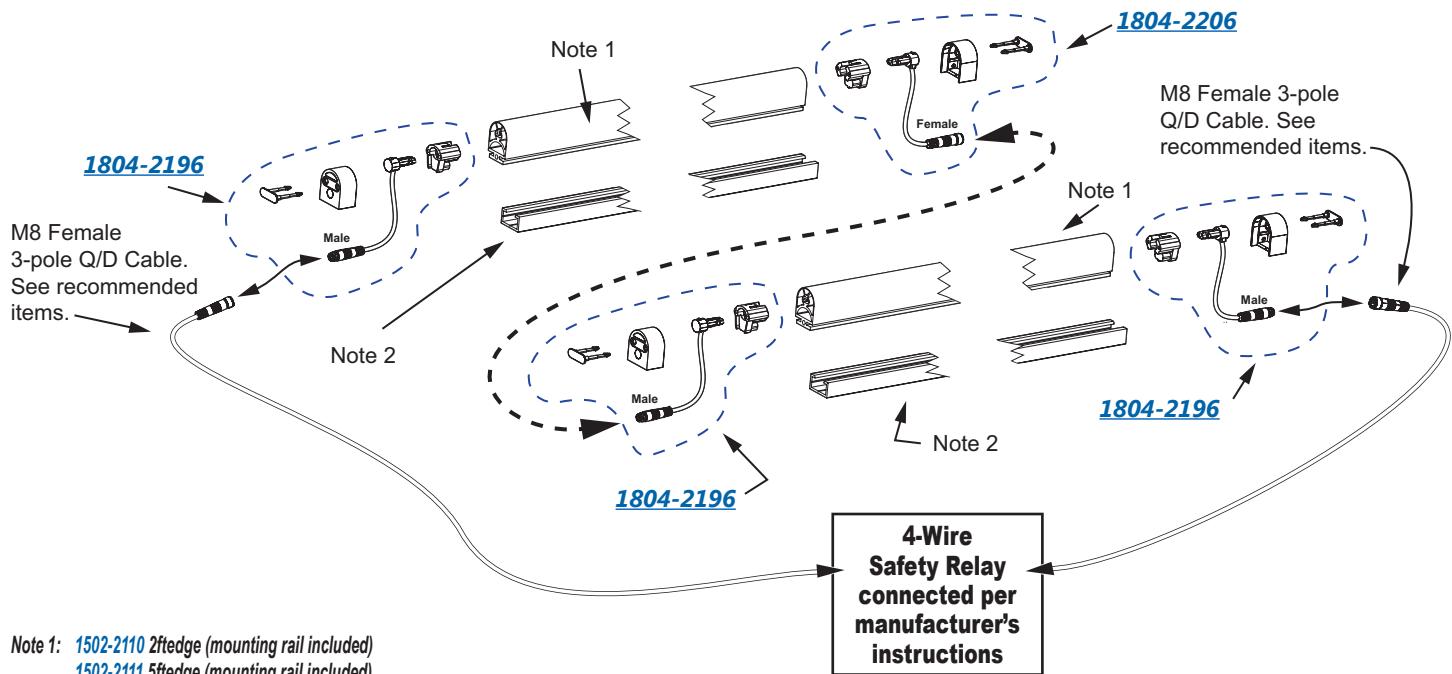
Example Connections – 25 x 30mm edges and end caps



Example Connections for a 4-wire Safety Relay



Multiple Edge Connection



Note 1: 1502-2110 2ftedge (mounting rail included)
 1502-2111 5ftedge (mounting rail included)
 1502-2112 20ft(cut to length)
 1502-2600 82ft(cut to length)
 1502-6220 2ftedge with sealing lip (mounting rail included)
 1502-6221 5ftedge with sealing lip (mounting rail included)

Note 2: 2002-0231 2ftmounting rail
 2002-0230 5ftmounting rails (4 pack)

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25 x 30mm SENTIR Edges and End Caps



SENTIR 25 x 30mm Edges	
	General Specifications
Material	TPE
Material Hardness	68 Shore A
Weight (per meter)	0.34 kg/m [0.23 lb/ft] without sealing lip 0.37 kg/m [0.25 lb/ft] with sealing lip
Protection Class (Enclosure)	IP65
Switching Cycles	>30,000 (UL 325)
Switching Angle	±45°
Actuation Resistance	≤ 500Ω
Actuation Force	35 N @ 10 mm/s [0.4 in/s] approach speed without sealing lip 54.1 N @ 10 mm/s [0.4 in/s] approach speed with sealing lip
Mechanical Life	10,000 cycles
Electrical Capacity	24 VDC, 10 mA
Max. Temperature Range	-25° to +75 °C [-13° to +167 °F]
Operating Temperature	-10° to +50 °C [+14° to +122 °F]
Max. Series Connection	5 contact edges or 100m [328.08ft] based on the ASO safety relay 1114-0210
Inactive End Region with Higher Forces	30mm [1.18in]
Connection Cables	LIY11Y 2 x 0.34 mm ² (22AWG)
Cable Material	PUR matte black
Agency Approvals	UL Recognized file E341185, CE

Safety Products



Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.

AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.