## 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		
15mm x 10mm [0.6 in x 0.4 in]	Force (F) Required for Actuation (A)	42.9 N [9.64 lbf]	F(N) c		
	Actuation Distance c	1.8 mm [0.07 in]	450 B1 C C C C C C C C C C C C C C C C C C		
	Overtravel Distance d to 250N	1.0 mm [0.04 in]	250 150 A		
	Overtravel Distance f to 400N	2.0 mm [0.08 in]	50 0,5 c1 1,5 2 d 2,5 3 3,5 4 4,5 5 e e s		
	Overtravel Distance h-c to 600N	2.8 mm [0.11 in]			
15mm x 25 mm [0.6 in x 1.0 in]	Force (F) Required for Actuation (A)	43N [9.67 lbf]	F[N] C		
	Actuation Distance c	3.7 mm [0.15 in]	450 B2 350 B1		
	Overtravel Distance d to 250N	7.6 mm [0.30 in]			
	Overtravel Distance f to 400N	9.3 mm [0.37 in]	50 0 $c$ $2$ $4$ $6$ $d$ $8$ $10$ $12$ $14$ $16e$		
	Overtravel Distance h-c to 600N	10.9 mm [0.43 in]	<u>e</u> f <u>b</u> s(nm)		
25mm x 30mm [1.0 in x 1.2 in]	Force (F) Required for Actuation (A)	35N [7.87 lbf]	F[N] C		
	Actuation Distance c	5.1 mm [0.20 in]	450 B2 350 B1		
$\mathcal{R}$	Overtravel Distance d to 250N	13.1 mm [0.52 in]			
	Overtravel Distance f to 400N	15.4 mm [0.61 in]	0 c 5 10 d 15 20 25 e c 5 [mm]		
	Overtravel Distance h-c to 600N	17.3 mm [0.68 in]	g h		
25mm x 30mm [1.0 in x 1.2 in]	Force (F) Required for Actuation (A)	54.3 N [12.21 lbf]	F[N] C		
	Actuation Distance c	10.0 mm [0.39 in]	450 350 B1		
	Overtravel Distance d to 250N	15.5 mm [0.61 in]			
	Overtravel Distance f to 400N	18.1 mm [0.71 in]	50 c 5 10 125 20 25 30 35 e 5 [mm]		
	Overtravel Distance h-c to 600N	20.7 mm [0.81 in]	g h t t t t t t t t t t t t t t t t t t		
25mm x 45mm [1.0 in x 1.8 in]	Force (F) Required for Actuation (A)	63.1 N [14.19 lbf]	F(N) C		
	Actuation Distance c	7.2 mm [0.28 in]	450 B1 B1		
	Overtravel Distance d to 250N	19.4 mm [0.76 in]	250 A A A A A A A A A A A A A A A A A A A		
	Overtravel Distance f to 400N	23.6 mm [0.93 in]	50 0 c 5 10 15 d 20 25 30 35 40 e [mm]		
	Overtravel Distance h-c to 600N	26.4 mm [1.04 in]	r f		
30mm x 70mm [1.2 in x 2.8 in]	Force (F) Required for Actuation (A)	44N [9.89 lbf]	F[N] C		
	Actuation Distance c	8.0 mm [0.31 in]	450 B2 350 B1		
	Overtravel Distance d to 250N	36.0 mm [1.42 in]			
	Overtravel Distance f to 400N	40.0 mm [1.57 in]	50 <u>c 10 20 d 30 50 60</u> s (nm)		
	Overtravel Distance h-c to 600N	43.0 mm [1.69 in]	f g h		

\* For other speed data, please refer to product data sheets. www.automationdirect.com



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
- 2 edge lengths available that can be easily cut to fit any application
- Can wire in 2-wire or 4-wire circuits
- Mounting rails included





<u>1804-3741</u>



<u>1804-3721</u>



Use pins 1 and 3 for continuity. (See safety relay for wiring)

ASO Safety Contact Edges - 15mm x 25mm						
Part Number	Price	Profile	Length	End Caps	Aluminum Mounting Rail	Drawing
<u>1502-4730</u>	\$26.50	15mm x 25mm	2.0 ft	End caps not	Included	PDF
<u>1502-4731</u>	\$63.00	[0.59 x 0.98 in]	5.0 ft	included; choose from table below		<u>PDF</u>

ASO Safety Contact Edge End Caps - 15mm x 25mm				
Part Number	Price	Description	Connection	Drawing
<u>1804-3730</u> *	Retired	Safety contact edge end cap	3-pin female M8 connector 1.65 ft [0.5 m] cable length	<u>PDF</u>
<u>1804-3740</u> *	Retired	Safety contact edge end cap 3-pin male M8 connector 1.65 ft [0.5 m] cable length		<u>PDF</u>
<u>1804-3720</u> *	Retired	Terminating resistor end cap: $8.2K\Omega$ for 15mm x 25mm safety contact edge	NA	<u>PDF</u>
<u>1804-3731</u>	\$22.00	Safety contact edge end cap 3-pin female M8 connector   1.65 ft [0.5 m] cable length		<u>PDF</u>
<u>1804-3741</u>	\$22.00	Safety contact edge end cap	3-pin male M8 connector 1.65 ft [0.5 m] cable length	
<u>1804-3721</u>	\$13.50	Terminating resistor end cap: $8.2K\Omega$ for 15mm x 25mm safety contact edge	NA	<u>PDF</u>

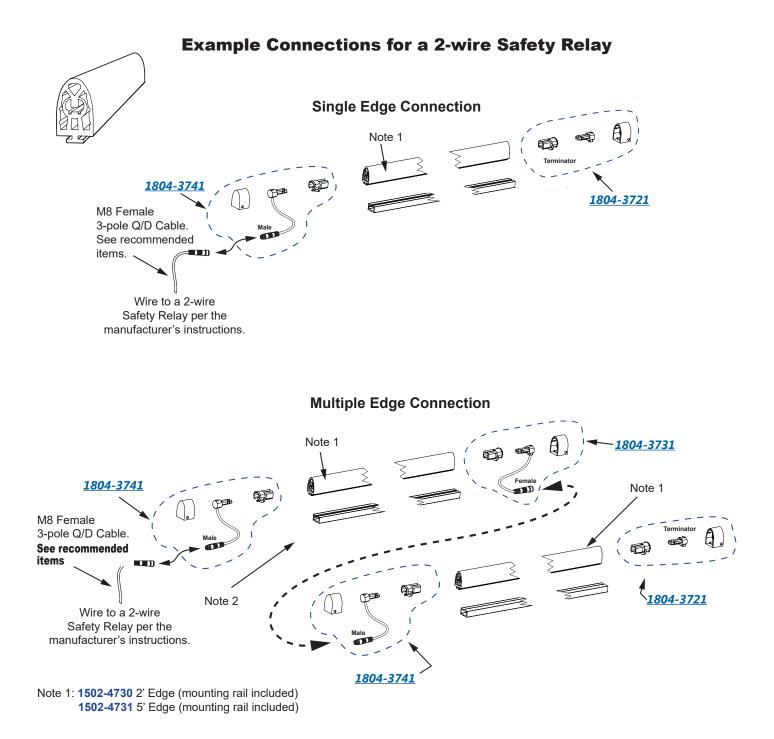
\* Products will be discontinued once out of stock.

ASO Safety Solutions Industrial Shears				
Part Number	Price	Description	Use With	Contents
<u>9501-0160</u>	\$93.00	Stainless steel industrial shears	Safety contact edges	1 shear

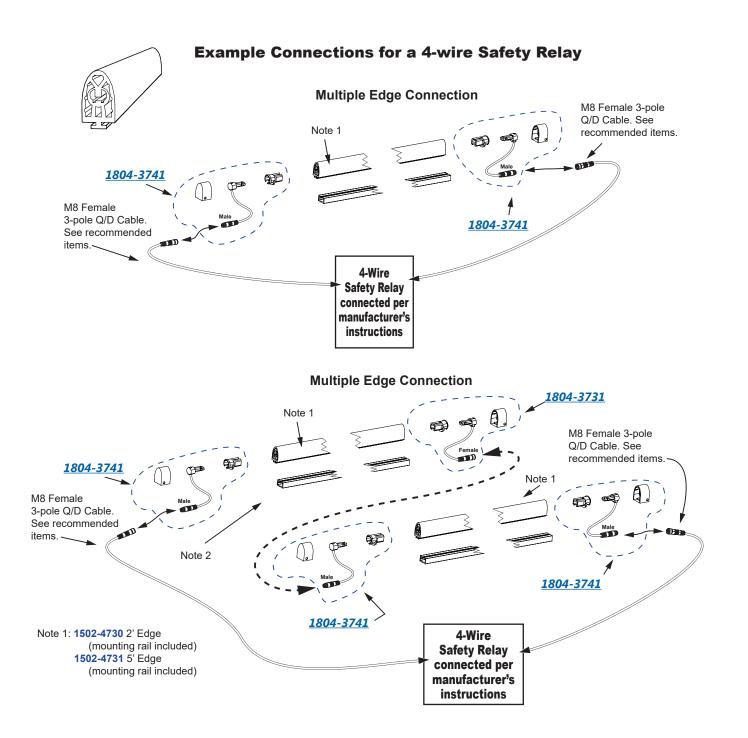
#### Selection

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

#### Example Connections - 15mm x 25mm edges and end caps



Example Connections - 15mm x 25mm edges and end caps



SENTIR 15mm x 25mm Edges		
	General Specifications	
Material	TPE	
Material Hardness	68 Shore A	
Weight (per meter)	0.2 kg/m [0.14 lb/ft]	
Protection Class (Enclosure)	IP65	
Switching Cycles	>30,000 (UL 325)	
Switching Angle	±45°	
Actuation Resistance	≤ 500Ω	
Actuation Force	43N @ 10mm/s [0.4 in/s] approach speed	
Mechanical Life	10,000 cycles	
Electrical Capacity	24VDC, 10mA	
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 [328.08 ft] based on the ASO safety relay 1114-0210	
Inactive End Region with Higher Forces	30mm [1.18 in]	
Connection Cables	LIY11Y 2 x 0.34mm <sup>2</sup> (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.