

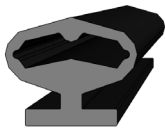
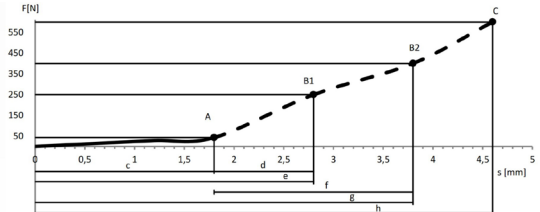
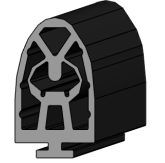
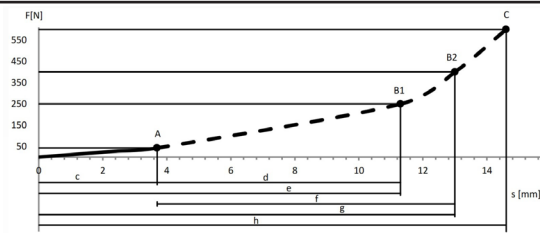

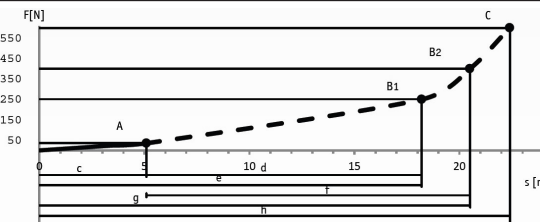

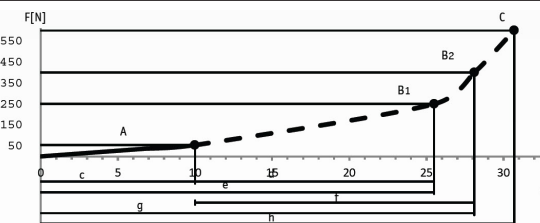
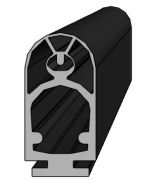
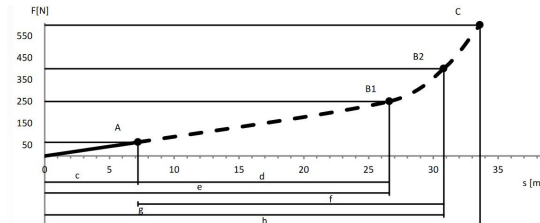

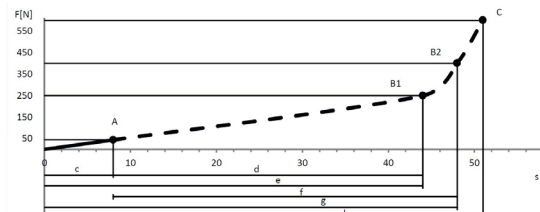
ASO Safety Solutions

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] |  |
| | Actuation Distance c | 1.8 mm [0.07 in] | |
| | Overtravel Distance d to 250N | 1.0 mm [0.04 in] | |
| | Overtravel Distance f to 400N | 2.0 mm [0.08 in] | |
| | Overtravel Distance h-c to 600N | 2.8 mm [0.11 in] | |
| 15mm x 25mm [0.6 in x 1.0 in]  | Force (F) Required for Actuation (A) | 43N [9.67 lbf] |  |
| | Actuation Distance c | 3.7 mm [0.15 in] | |
| | Overtravel Distance d to 250N | 7.6 mm [0.30 in] | |
| | Overtravel Distance f to 400N | 9.3 mm [0.37 in] | |
| | Overtravel Distance h-c to 600N | 10.9 mm [0.43 in] | |
| 25mm x 30mm [1.0 in x 1.2 in]  | Force (F) Required for Actuation (A) | 35N [7.87 lbf] |  |
| | Actuation Distance c | 5.1 mm [0.20 in] | |
| | Overtravel Distance d to 250N | 13.1 mm [0.52 in] | |
| | Overtravel Distance f to 400N | 15.4 mm [0.61 in] | |
| | Overtravel Distance h-c to 600N | 17.3 mm [0.68 in] | |
| 25mm x 30mm [1.0 in x 1.2 in]  | Force (F) Required for Actuation (A) | 54.3 N [12.21 lbf] |  |
| | Actuation Distance c | 10.0 mm [0.39 in] | |
| | Overtravel Distance d to 250N | 15.5 mm [0.61 in] | |
| | Overtravel Distance f to 400N | 18.1 mm [0.71 in] | |
| | Overtravel Distance h-c to 600N | 20.7 mm [0.81 in] | |
| 25mm x 45mm [1.0 in x 1.8 in]  | Force (F) Required for Actuation (A) | 63.1 N [14.19 lbf] |  |
| | Actuation Distance c | 7.2 mm [0.28 in] | |
| | Overtravel Distance d to 250N | 19.4 mm [0.76 in] | |
| | Overtravel Distance f to 400N | 23.6 mm [0.93 in] | |
| | Overtravel Distance h-c to 600N | 26.4 mm [1.04 in] | |
| 30mm x 70mm [1.2 in x 2.8 in]  | Force (F) Required for Actuation (A) | 44N [9.89 lbf] |  |
| | Actuation Distance c | 8.0 mm [0.31 in] | |
| | Overtravel Distance d to 250N | 36.0 mm [1.42 in] | |
| | Overtravel Distance f to 400N | 40.0 mm [1.57 in] | |
| | Overtravel Distance h-c to 600N | 43.0 mm [1.69 in] | |

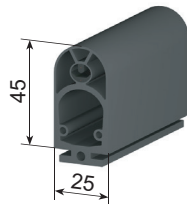
* For other speed data, please refer to product data sheets.

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25mm x 45mm SENTIR Edges and End Caps



1502-2113

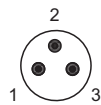


SENTIR safety contact edges are pressure-sensitive sensors used to ensure the safety of closing edges at possible crushing or shearing points which are prone to accidents. They may be installed near automatic gates, machines and other facilities for handling equipment to detect conditions that could cause bodily harm or damage machinery.



1502-2115

M8 Connector



Use pins 1 and 3 for continuity.

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
- Reference example connection drawings for easy product selection



1804-1386



1804-1376



1804-0576

| ASO Safety Contact Edges - 25mm x 45mm | | | | | | |
|--|----------|----------------------------------|----------------|--|------------------------|---------------------|
| Part Number | Price | Profile | Length | End Caps | Aluminum Mounting Rail | Drawing |
| 1502-2113 | \$51.00 | 25mm x 45mm [0.787 in x 1.77 in] | 2ft [0.610 m] | End caps not included; choose from table below | Included | PDF |
| 1502-2114 | \$113.00 | 25mm x 45mm [0.787 in x 1.77 in] | 5ft [1.52 m] | | Included | PDF |
| 1502-2115 | \$286.00 | 25mm x 45mm [0.787 in x 1.77 in] | 20ft [6.10 m] | | Not included | PDF |
| 1502-2610 | \$920.00 | 25mm x 45mm [0.787 in x 1.77 in] | 82ft [25.00 m] | | Not included | PDF |

| ASO Safety Contact Edge End Caps - 25mm x 45mm | | | | |
|--|---------|---|---|---------------------|
| Part Number | Price | Description | Connection | Drawing |
| 1804-1385* | Retired | End cap for 25mm x 45mm safety contact edges | 3-pin female M8 connector 1.65 ft [0.5 m] cable length | PDF |
| 1804-1375* | Retired | End cap for 25mm x 45mm safety contact edges | 3-pin male M8 connector 1.65 ft [0.5 m] cable length | PDF |
| 1804-0575 | Retired | Terminating resistor end cap for 25mm x 45mm safety contact edges, 8.2 kΩ | NA | PDF |
| 1804-1386 | \$23.50 | End cap for 25mm x 45mm safety contact edges | 3-pin female M8 connector 1.65 ft [0.5 m] cable length | PDF |
| 1804-1376 | \$23.50 | End cap for 25mm x 45mm safety contact edges | 3-pin male M8 connector 1.65 ft [0.5 m] cable length | PDF |
| 1804-0576 | \$14.50 | Terminating resistor end cap for 25mm x 45mm safety contact edges, 8.2 kΩ | NA | PDF |



2002-0230

| ASO Safety Contact Edge Mounting Rails | | | | | |
|--|----------|----------------------------|----------|--|---------------------|
| Part Number | Price | Description | Material | Contents | Drawing |
| 2002-0230 | \$102.00 | Contact edge mounting rail | Aluminum | Package of 4 rails, each 5ft [1.52 m] length | PDF |
| 2002-0231 | \$17.50 | Contact edge mounting rail | Aluminum | 1 rail, 2ft [609.6 mm] length | PDF |



9501-0160

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

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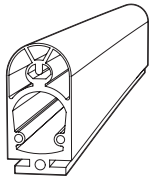
25mm x 45mm SENTIR Edges and End Caps



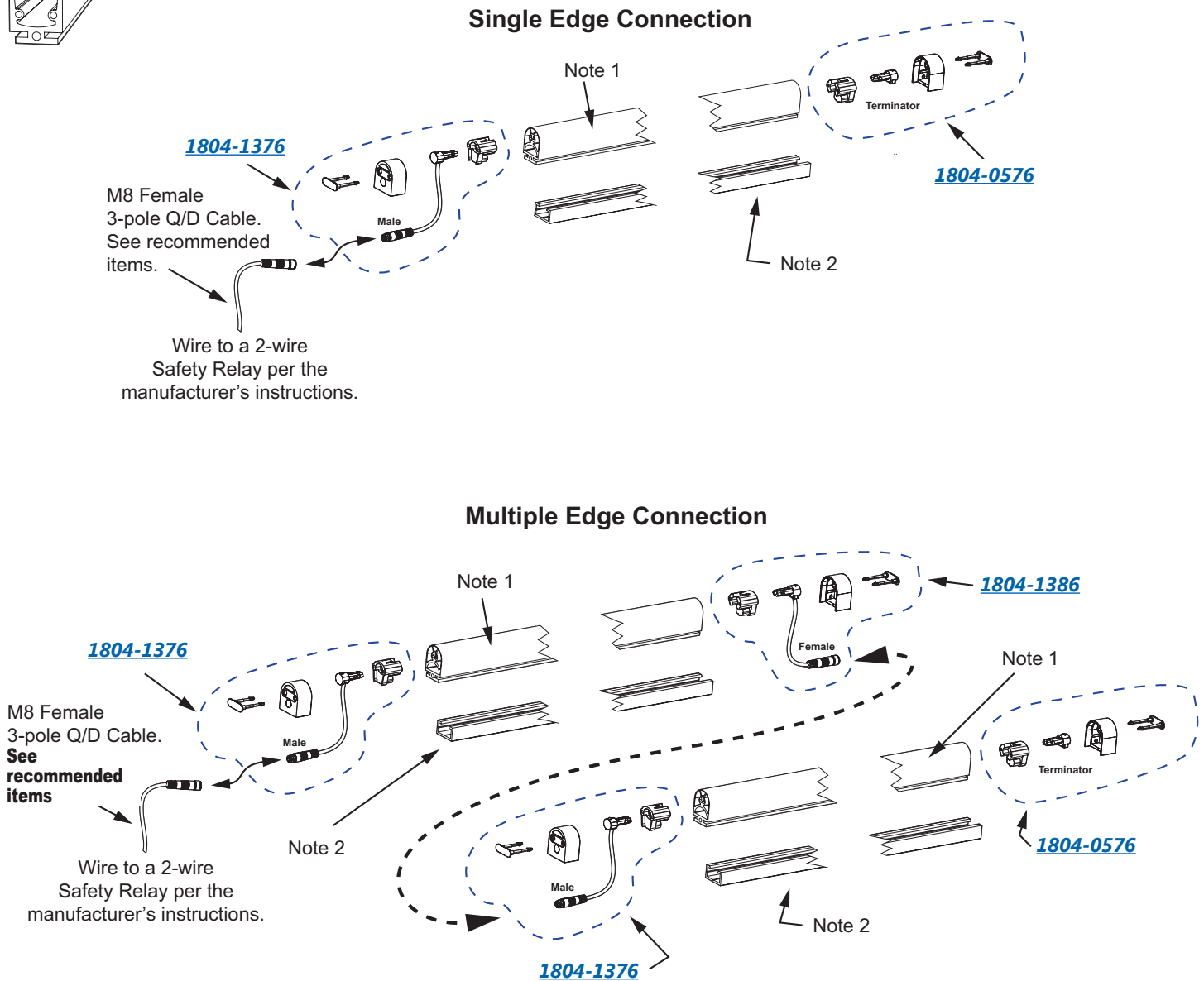
Selection

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

Example Connections - 25mm x 45mm edges and end caps



Example Connections for a 2-wire Safety Relay



Note 1: **1502-2113** 2' Edge (mounting rail included)
1502-2114 5' Edge (mounting rail included)
1502-2115 20' (cut to length)
1502-2610 82' (cut to length)

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

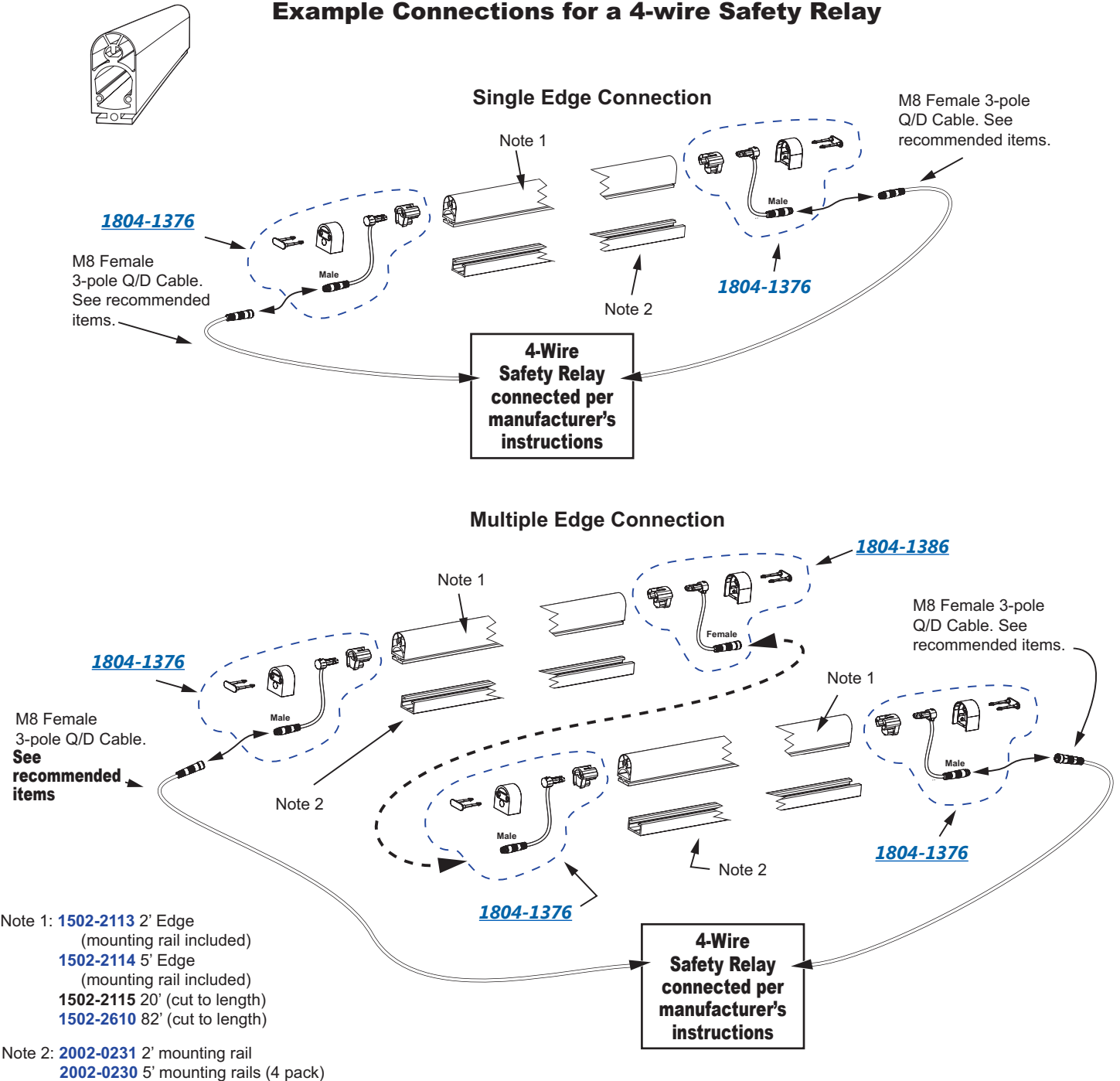
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25mm x 45mm SENTIR Edges and End Caps



Example Connections - 25mm x 45mm edges and end caps

Example Connections for a 4-wire Safety Relay



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25mm x 45mm SENTIR Edges and End Caps



| SENTIR 25mm x 45mm Edges | |
|---|---|
| | <i>General Specifications</i> |
| Material | TPE |
| Material Hardness | 68 Shore A |
| Weight (per meter) | 0.44 kg/m [0.31 lb/ft] |
| Protection Class (Enclosure) | IP65 |
| Switching Cycles | >30,000 (UL 325) |
| Switching Angle | ±45° |
| Actuation Resistance | ≤ 500Ω |
| Actuation Force | 53.9N @ 100mm/s [3.9 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 0.34 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.