



# Safety, Sensors & Controls

**ASO Safety Solutions, Inc.**  
Product Catalogue 2023



Valid from May 2023

# ASO Product Brands

**SENTIR<sup>®</sup>**  
*edge*

ASO Safety Contact Edges

**8**

Order Key

**9**

Description SENTIR *edge*

**10-25**

SENTIR *edge* Series

**26-31**

Contact Plug KS

**32-33**

Stoppers AP

**34-35**

Aluminum Rail AL

**36-37**

SENTIR *edge* Accessories

**SENTIR<sup>®</sup>**  
*bumper*

ASO Safety Contact Bumpers

**38**

Order Key

**39**

Description SENTIR *bumper*

**40-41**

SENTIR *bumper* Series

**SENTIR<sup>®</sup>**  
*mat*

ASO Safety Contact Mats

**42**

Order Key

**43-45**

SENTIR *mat* Series

**46-47**

SENTIR *mat* Flex Set

**47-49**

SENTIR *mat* Accessories

**STEPTU**

ASO Foot Switches

**49**

STEPTU Series



ASO Safety Relays

**50**  
Order Key

**51-54**  
ELMON *relay* Series



ASO Inductive  
Signal Transmission Systems

**55-56**  
Order Key

**57-59**  
ELMON *inductive* Series

**60-61**  
ELMON *inductive* Accessories



ASO Wireless  
Signal Transmission Systems

**62**  
Order Key



ASO Light Curtains

**63**  
Order Key

## General Information

**64-65**  
ASO Safety Solutions, Inc.- General Terms and Conditions

**66-67**  
ASO-Contacts

**LISENS<sup>®</sup>**  
*grid*

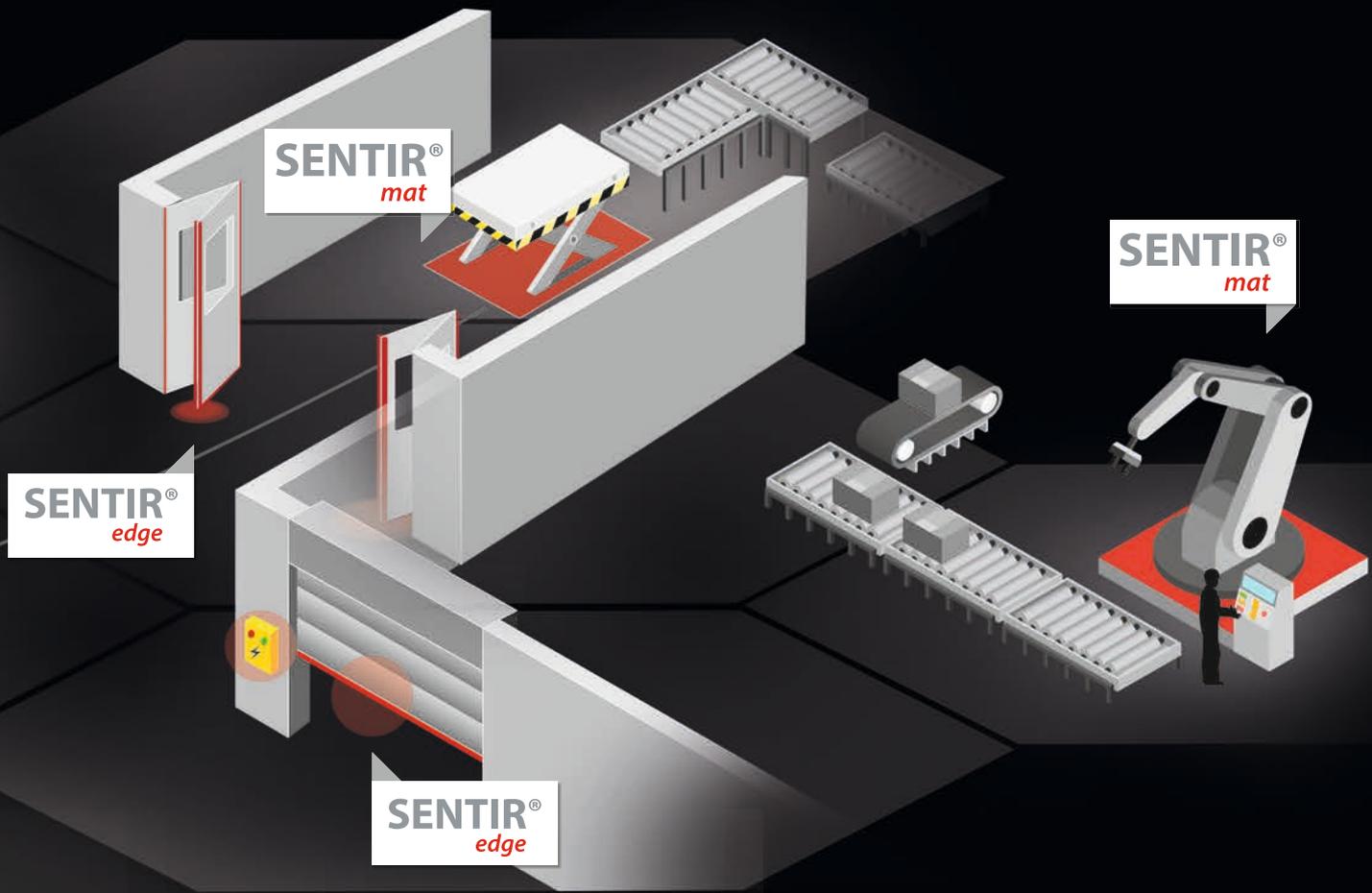
**SENTIR<sup>®</sup>**  
*bumper*

**SENTIR<sup>®</sup>**  
*bumper*

**SENTIR<sup>®</sup>**  
*edge*

# Applications



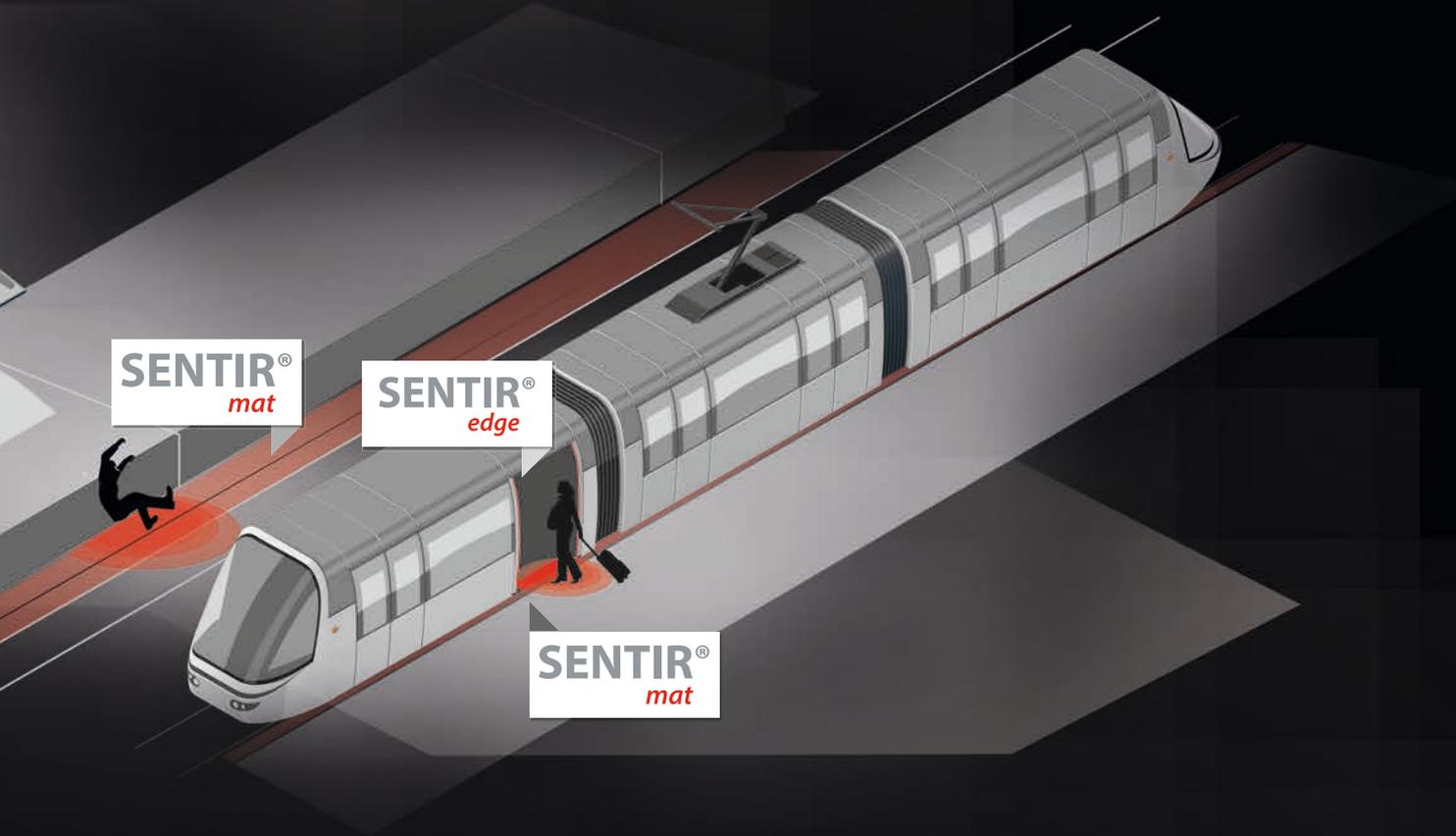


SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
mat

SENTIR<sup>®</sup>  
mat

SENTIR<sup>®</sup>  
edge



SENTIR<sup>®</sup>  
mat

SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
mat

- SENTIR<sup>®</sup> edge
- SENTIR<sup>®</sup> bumper
- SENTIR<sup>®</sup> mat
- STEPTU
- ELMON<sup>®</sup> relay
- ELMON<sup>®</sup> inductive
- ELMON<sup>®</sup> wicom
- LISENS<sup>®</sup> grid

# ASO – Interplay of Products

Sense



**SENTIR®**

Tactile Sensors

## Evaluate & Transmit



**ELMON®**

Safety Relays & Signal Transmission Systems

SENTIR®  
edge

SENTIR®  
bumper

SENTIR®  
mat

STEPTU

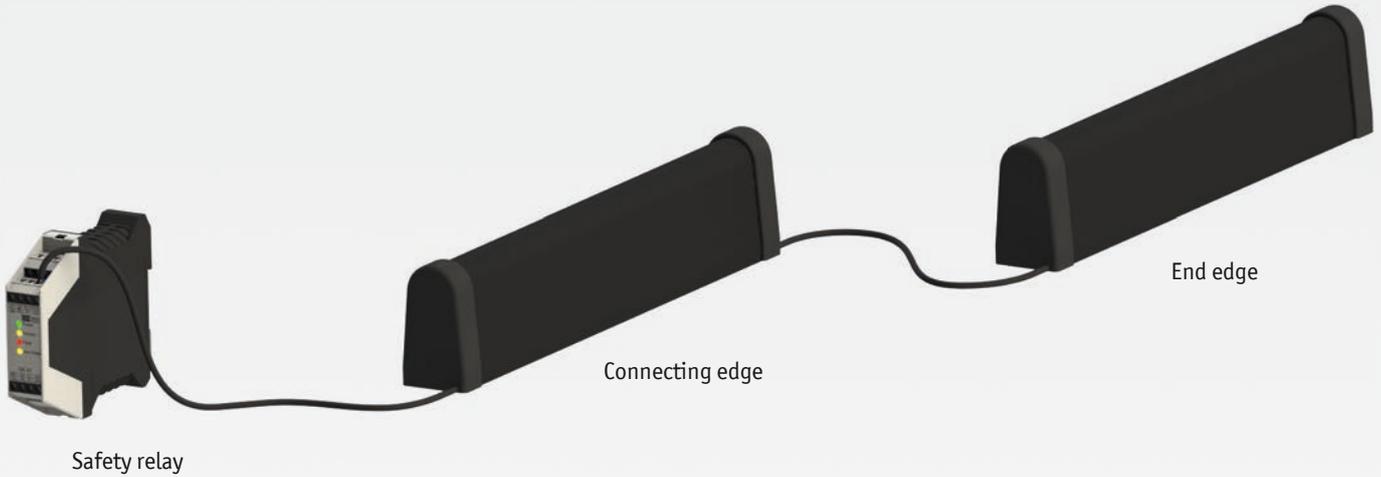
ELMON®  
relay

ELMON®  
inductive

ELMON®  
wicom

LISENS®  
grid

# ASO Safety Contact Edges



①	②	③	④	⑤	⑥	⑦	⑧
<b>SENTIR<sup>®</sup></b> <i>edge</i>	15 35	115 - 10 .55	<b>C</b>	<b>T</b>	<b>Li</b>	<b>2</b>	<b>L = x,x</b>

**1 Description**  
ASO Safety contact edges

**2 Profile width in mm / inch**  
Complies to given information, 35 mm / 1.38 " e.g.

**3 Profile height**  
e.g. 55 mm / e.g. 2.17 "

**4 Base Shape**  
C : Clips base  
T : T base  
Ts : small T base  
S : Lateral clips base  
D : Multiple T base  
F : Fin base

**5 Materials**  
T : TPE  
K : EPDM  
N : NBR  
B : Fire-retardant TPE  
To : Oil-resistant TPE

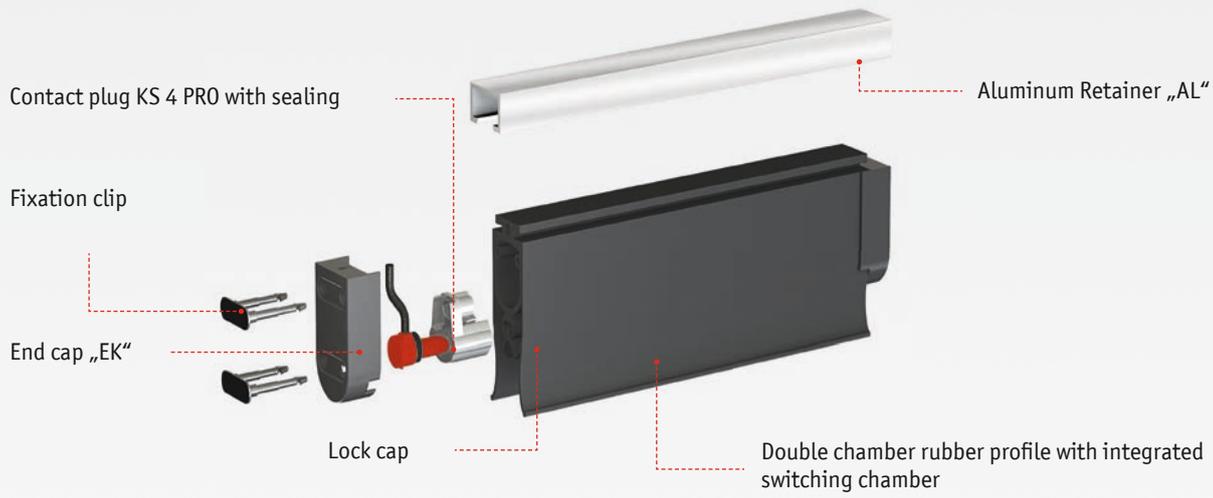
**6 Sealing Lips**  
- : None  
Li : Single-sided inwards  
La : Single-sided outwards  
LL : Double-sided outwards  
B : Bulb

**7 Kind of Edge**  
1 : End edge with internal resistor  
2 : Connecting edge  
3 : End edge with external resistor

**8 Edge Length**  
e.g. L = 2,5 m / 8.20 ft.

PLEASE NOTE: Not all available product variants are listed in this product catalogue – please contact us for more information!

# The Plug'N'Sense System



SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
bumper

SENTIR<sup>®</sup>  
mat

STEPTU

ELMON<sup>®</sup>  
relay

ELMON<sup>®</sup>  
inductive

ELMON<sup>®</sup>  
wicom

LISENS<sup>®</sup>  
grid

# ASO Safety Contact Edges

**SENTIR®**  
edge



Type  
Article No.

**SENTIR edge 25.30 TT**  
1502-0430

**SENTIR edge 25.45 TT**  
1502-0440

**SENTIR edge 35.55 FT**  
1502-2041

<b>Approvals</b>	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>		
<b>Features</b>	T base	T base	fin base
<b>Aluminum mounting rail AL</b>	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H	-
<b>Page</b>	38-39	38-39	-
<b>Dimensions*</b>	W 0.98 " x H 1.18 "	W 0.98 " x H 1.77 "	W 1.38 " x H 2.17 "
<b>Max. delivery length</b>	98.5 ft.	98.5 ft.	98.5 ft.

## Accessories

<b>Connecting plug</b>	KS 4 PRO L X,XX m – 25.30-Set	KS 4 PRO L X,XX m – 25.45-Set	KS 4 PRO L X,XX m – 35.55-Set
<b>Page</b>	32	33	33
<b>Resistor plug</b>	KS 4 PRO W – 25.30-Set	KS 4 PRO W – 25.45-Set	KS 4 PRO W – 35.55-Set
<b>Page</b>	32	33	33
<b>End cap</b>	EK 25.30 T	EK 25.45 T	EK 35.55 T
<b>Page</b>	-	-	-
<b>Stopper</b>	AP 20-32	AP 20-47	AP 34-57
<b>Page</b>	36	37	AP 35-55 FT 36-37

**Assembled**

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type  
Article No.

**SENTIR edge 25.30 TT 1**  
1502-0681

**SENTIR edge 25.45 TT 1**  
1502-0691

**SENTIR edge 35.55 FT 1**  
On request!

**Do you have special requirements? Then we have special, customized solutions. Ask us!**

\*Dimensions are without base and sealing lip

For information about ASO-Product series visit [www.asosafety.com](http://www.asosafety.com)



**SENTIR edge 35.55 FTLa**  
1502-2051



**SENTIR edge 25.45 TTLL**  
1502-0550



**SENTIR edge 45.30 DTLL**  
1502-0890



**SENTIR edge 15-10 TT**  
1503-0050

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

fin base, sealing lip	T base, two sealing lips	2 x T base, two sealing lips	T base
-	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H 38-39	On request!	AL 15-9
-	-	-	38
W 1.38 " x H 2.95 "	W 0.98 " x H 2.48 "	W 1.77 " x H 2.13 "	W 0.61 " x H 0.35 "
98.5 ft.	98.5 ft.	98.5 ft.	98.5 ft.

KS 4 PRO L X,XX m - 35.55-Set 33	KS 4 PRO L X,XX m - 25.45-Set 33	KS 4 PRO L X,XX m - 45.30-Set 32	KS 2 L X,X m 31
KS 4 PRO W - 35.55-Set 33	KS 4 PRO W - 25.45-Set 33	KS 4 PRO W - 45.30-Set 32	KS 2 W 31
EK 35.55 T -	EK 25.45 T -	- -	- -
AP 34-57 AP 35-55 FT 36-37	AP 20-47 37	AP 50-32 37	- -

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 35.55 FTLa 1**  
On request!

**SENTIR edge 25.45 TTLL 1**  
1502-0697

**SENTIR edge 45.30 DTLL 1**  
1502-2014

**SENTIR edge 15-10 TT 1**  
102 031

SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
bumper

SENTIR<sup>®</sup>  
mat

STEPTU

ELMON<sup>®</sup>  
relay

ELMON<sup>®</sup>  
inductive

ELMON<sup>®</sup>  
wicom

LISENS<sup>®</sup>  
grid

# ASO Safety Contact Edges

**SENTIR®**  
edge



Type Article No.	<b>SENTIR edge 15.25 TT</b> 1502-0640	<b>SENTIR edge 8-8</b> 102 044	<b>SENTIR edge 30.70 TT</b> 1502-2120
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Approvals	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>		
Features	T base	self adhesive	T base
Aluminum mounting rail AL	AL 15-9	-	AL 30-14
Page	38	-	38
Dimensions*	W 0.59 " x H 0.98 "	W 0.31 " x H 0.31 "	W 1.18 " x H 2.76 "
Max. delivery length	98.5 ft.	164.04 ft.	98.5 ft.

## Accessories

Connecting plug	KS 4 PRO L X,XX m – 15.25-Set	KS 1 L X,X m	KS 4 PRO L X,XX m – 30.70-Set
Page	32	30	34
Resistor plug	KS 4 PRO W – 15.25-Set	KS 1 W	KS 4 PRO W – 30.70-Set
Page	32	30	34
End cap	EK 15.25 T	-	EK 30.70 T
Page	-	-	-
Stopper	AP 15-30	-	On request!
Page	36	-	

*Assembled* End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type Article No.	<b>SENTIR edge 15.25 TT 1</b> 1502-0701	<b>SENTIR edge 8-8 1</b> 102 046	<b>SENTIR edge 30.70 TT 1</b> 1502-2591
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**Do you have special requirements? Then we have special, customized solutions. Ask us!**

\*Dimensions are without base and sealing lip

For information about ASO-Product series visit [www.asosafety.com](http://www.asosafety.com)



**SENTIR edge 30.70 TTLa**  
1502-2130



**SENTIR edge 15.25 TTLi**  
1502-0620



**SENTIR edge 15.25 TTo**  
1502-0980



**SENTIR edge 25.30 TTLL**  
1502-0530

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

T base, sealing lip	T base, sealing lip	T base, oil-resistant	T base, two sealing lips
AL 30-14	AL 15-9	AL 15-9	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H
38	38	38	38-39
W 1.18 " x H 3.46 "	W 0.59 " x H 1.77 "	W 0.59 " x H 0.93 "	W 0.98 " x H 1.89 "
98.5 ft.	98.5 ft.	98.5 ft.	98.5 ft.

KS 4 PRO L X,XX m - 30.70-Set 34	KS 4 PRO L X,XX m - 15.25-Set 32	KS 4 PRO L X,XX m - 15.25-Set 32	KS 4 PRO L X,XX m - 25.30-Set 32
KS 4 PRO W - 30.70-Set 34	KS 4 PRO W - 15.25-Set 32	KS 4 PRO W - 15.25-Set 32	KS 4 PRO W - 25.30-Set 32
EK 30.70 T -	EK 15.25 T -	EK 15.25 T -	EK 25.30 T -
On request!	AP 15-30 36	AP 15-30 36	AP 20-32 36

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 30.70 TTLa 1**  
1502-2594

**SENTIR edge 15.25 TTLi 1**  
1502-0704

**SENTIR edge 15.25 TTo 1**  
1502-4381

**SENTIR edge 25.30 TTLL 1**  
1502-0687

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**

**ELMON<sup>®</sup>**  
relay

**ELMON<sup>®</sup>**  
inductive

**ELMON<sup>®</sup>**  
wicom

**LISENS<sup>®</sup>**  
grid

# ASO Safety Contact Edges

**SENTIR®**  
edge



RU®



RU®



RU®

Type  
Article No.

**SENTIR edge 92.20 RT**  
On request!

**SENTIR edge 95.20 AT**  
On request!

**SENTIR edge 65 ST**  
1502-2490

<b>Approvals</b>	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>		
<b>Features</b>	fits round posts Ø 2 „	fits square posts 2 „	lateral clips base
<b>Aluminum mounting rail AL</b>	-	-	AL 11-10 AL 30-10
<b>Page</b>	-	-	38-39
<b>Dimensions*</b>	W 3.62 „ x H 2.46 „	W 3.80 „ x H 2.78 „	W 1.42 „ x H 2.56 „
<b>Max. delivery length</b>	On request!	On request!	98.5 ft.

## Accessories

<b>Connecting plug</b>	On request!	On request!	KS 4 PRO L X,XX m – 65-Set 33
<b>Page</b>	-	-	
<b>Resistor plug</b>	On request!	On request!	KS 4 PRO W – 65-Set 33
<b>Page</b>	-	-	
<b>End cap</b>	EK 92.20 RT	EK 95.20 AT	EK 65
<b>Page</b>	-	-	-
<b>Stopper</b>	-	-	-
<b>Page</b>	-	-	-

**Assembled**

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type  
Article No.

**SENTIR edge 92.20 RT 1**  
On request!

**SENTIR edge 95.20 AT 1**  
On request!

**SENTIR edge 65 ST 1**  
1502-2511

**Do you have special requirements? Then we have special, customized solutions. Ask us!**

\*Dimensions are without base and sealing lip

For information about ASO-Product series visit [www.asosafety.com](http://www.asosafety.com)



RU®

**SENTIR edge 15-10 VT**  
1503-0060



RU®

**SENTIR edge 25.30 TTLa**  
1502-0540



RU®

**SENTIR edge 25.45 TTLa**  
1502-0560



RU®

**SENTIR edge 25.45 TsTLa**  
1502-0950

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Profile with by side attachment	T base, sealing lip	T base, sealing lip	narrow T-base
-	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H 38-39	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H 38-39	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H 38-39
W 0.61 " x H 0.35 "	W 0.98 " x H 1.89 "	W 0.98 " x H 2.48 "	W 0.98 " x H 2.48 "
98.5 ft.	98.5 ft.	98.5 ft.	98 ft.

KS 2 L X,X m 31	KS 4 PRO L X,XX m - 25.30-Set 32	KS 4 PRO L X,XX m - 25.45-Set 33	KS 4 PRO L X,XX m - 25.45-Set 33
KS 2 W 31	KS 4 PRO W - 25.30-Set 32	KS 4 PRO W - 25.45-Set 33	KS 4 PRO W - 25.45-Set 33
- -	EK 25.30 T -	EK 25.45 T -	EK 25.45 T -
- -	AP 20-32 36	AP 20-47 37	AP 20-47 37

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 15-10 VT 1**  
1503-0140

**SENTIR edge 25.30 TTLa 1**  
1502-0684

**SENTIR edge 25.45 TTLa 1**  
1502-0694

**SENTIR edge 25.45 TsTLa 1**  
1502-4241

**SENTIR®**  
edge

**SENTIR®**  
bumper

**SENTIR®**  
mat

**STEPTU**

**ELMON®**  
relay

**ELMON®**  
inductive

**ELMON®**  
wicom

**LISENS®**  
grid

# ASO Safety Contact Edges

**SENTIR®**  
edge



Type  
Article No.

**SENTIR edge 25.45 TsLL**  
1502-0920

**SENTIR edge 45 ST**  
1502-2445

**SENTIR edge 45 STLi**  
1502-2450

<i>Approvals</i>	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>		
<i>Features</i>	narrow T-base	lateral clips base	lateral clips base, sealing lip
<i>Aluminum mounting rail AL</i>	AL 25-14 AL 25-14 E AL 25-14 V AL 25-10 H	AL 30-10	AL 30-10
<i>Page</i>	38-39	39	39
<i>Dimensions*</i>	W 0.98 " x H 2.46 "	W 1.38 " x H 1.77 "	W 1.38 " x H 2.56 "
<i>Max. delivery length</i>	98 ft.	98.5 ft.	98.5 ft.

## Accessories

<i>Connecting plug</i>	KS 4 PRO L X,XX m – 25.45-Set	KS PRO L X,XX m – 45-Set	KS 4 PRO L X,XX m – 45-Set
<i>Page</i>	33	33	33
<i>Resistor plug</i>	KS 4 PRO W – 25.45-Set	KS 4 PRO W – 45-Set	KS 4 PRO W – 45-Set
<i>Page</i>	33	33	33
<i>End cap</i>	EK 25.45 T	EK 45	EK 45
<i>Page</i>	-	-	-
<i>Stopper</i>	AP 20-47	AP 20-47	AP 20-47
<i>Page</i>	37	37	37

*Assembled*

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type  
Article No.

**SENTIR edge 25.45 TsLL 1**  
1502-2311

**SENTIR edge 45 ST 1**  
1502-2461

**SENTIR edge 45 STLi 1**  
1502-2464

**Do you have special requirements? Then we have special, customized solutions. Ask us!**

\*Dimensions are without base and sealing lip

For information about ASO-Product series visit [www.asosafety.com](http://www.asosafety.com)



**SENTIR edge 35.55 TT**  
1502-0730



**SENTIR edge 35.55 TTLa**  
1502-0740



**SENTIR edge 35.55 CT**  
1502-0710



**SENTIR edge 35.55 CTLa**  
1502-0720

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

T base	T base, sealing lip	clips base	clips base, sealing lip
AL 35-14 AL 35-14 W AL 35-14 HB			
38-39	38-39	38-39	38-39
W 1.38 " x H 2.17 "	W 1.38 " x H 2.80 "	W 1.38 " x H 2.17 "	W 1.38 " x H 2.80 "
98.5 ft.	98.5 ft.	98.5 ft.	98.5 ft.

KS 4 PRO L X,XX m - 35.55-Set 33			
KS 4 PRO W - 35.55-Set 33			
EK 35.55 T -	EK 35.55 T -	EK 35.55 T -	EK 35.55 T -
AP 34-57 36	AP 34-57 36	AP 34-57 36	AP 34-57 36

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 35.55 TT 1**  
1502-0751

**SENTIR edge 35.55 TTLa 1**  
1502-0754

**SENTIR edge 35.55 CT 1**  
1502-0761

**SENTIR edge 35.55 CTLa 1**  
1502-0764

**SENTIR®**  
edge

**SENTIR®**  
bumper

**SENTIR®**  
mat

**STEPTU**

**ELMON®**  
relay

**ELMON®**  
inductive

**ELMON®**  
wicom

**LISENS®**  
grid

# ASO Safety Contact Edges

**SENTIR®**  
edge



Type Article No.	<b>SENTIR edge 35.55 TsTLa</b> 1502-1650	<b>SENTIR edge 65 STLl</b> 1502-2500	<b>SENTIR edge 35.85 TT</b> 1502-1691
<i>Approvals</i>	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>		
<i>Features</i>	narrow T-base	lateral clips base, sealing lip	T base
<i>Aluminum mounting rail AL</i>	AL 35-14 AL 35-14 W AL 35-14 HB	AL 11-10 AL 30-10	AL 35-14 AL 35-14 W AL 35-14 HB
<i>Page</i>	38-39	38-39	38-39
<i>Dimensions*</i>	W 1.38 " x H 2.80 "	W 1.42 " x H 3.35 "	W 1.38 " x H 3.35 "
<i>Max. delivery length</i>	98 ft.	98.5 ft.	82.02 ft.

## Accessories

<i>Connecting plug</i>	KS 4 PRO L X,XX m – 35.55-Set	KS 4 PRO L X,XX m – 65-Set	KS 4 PRO L X,XX m – 35.85-Set
<i>Page</i>	33	33	34
<i>Resistor plug</i>	KS 4 PRO W – 35.55-Set	KS 4 PRO W – 65-Set	KS 4 PRO W – 35.85-Set
<i>Page</i>	33	33	34
<i>End cap</i>	EK 35.55 T	EK 65	EK 35.85
<i>Page</i>	-	-	-
<i>Stopper</i>	AP 34-57	-	AP 34-87
<i>Page</i>	36	-	36

*Assembled* End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type Article No.	<b>SENTIR edge 35.55 TsTLa</b> 1502-4144	<b>SENTIR edge 65 STLl 1</b> 1502-2514	<b>SENTIR edge 35.85 TT 1</b> 1502-1971
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\*Dimensions are without base and sealing lip

For information about ASO-Product series visit [www.asosafety.com](http://www.asosafety.com)



**SENTIR edge 35.85 TLa**  
1502-1701



**SENTIR edge 35.85 CTLL**  
1502-1681



**SENTIR edge 35.85 TsT**  
On request!

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

T base, sealing lip	clips base, two sealing lips	
AL 35-14 AL 35-14 W AL 35-14 HB	AL 35-14 AL 35-14 W AL 35-14 HB	
38-39	38-39	
W 1.38 " x H 4.06 "	W 1.38 " x H 4.06 "	
82.02 ft.	82.02 ft.	

On request!

KS 4 PRO L X,XX m – 35.85-Set 34	KS 4 PRO L X,XX m – 35.85-Set 34	
KS 4 PRO W – 35.85-Set 34	KS 4 PRO W – 35.85-Set 34	
EK 35.85 -	EK 35.85 -	
AP 34-87 36	AP 34-87 36	

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 35.85 TLa 1**  
1502-1977

**SENTIR edge 35.85 CTLL 1**  
1502-1984

**SENTIR edge 35.85 CTLL 1**  
On request!

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**

**ELMON<sup>®</sup>**  
relay

**ELMON<sup>®</sup>**  
inductive

**ELMON<sup>®</sup>**  
wicom

**LISENS<sup>®</sup>**  
grid

# ASO Safety Contact Edges

**SENTIR®**  
edge



Type  
Article No.

**SENTIR edge 85 ST**  
1502-2540

**SENTIR edge 85 STL**  
1502-2550

<i>Approvals</i>	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>	
<i>Features</i>	lateral clips base	lateral clips base, sealing lip
<i>Aluminum mounting rail AL</i>	AL 11-10 AL 30-10	AL 11-10 AL 30-10
<i>Page</i>	38-39	38-39
<i>Dimensions*</i>	W 1.57 " x H 3.35 "	W 1.57 " x H 4.13 "
<i>Max. delivery length</i>	98.5 ft.	98.5 ft.

## Accessories

<i>Connecting plug</i>	KS 4 PRO L X,XX m – 85-Set	KS 4 PRO L X,XX m – 85-Set
<i>Page</i>	35	35
<i>Resistor plug</i>	KS 4 PRO W – 85-Set	KS 4 PRO W – 85-Set
<i>Page</i>	35	35
<i>End cap</i>	EK 85	EK 85
<i>Page</i>	-	-
<i>Stopper</i>	-	-
<i>Page</i>	-	-

*Assembled*

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type  
Article No.

**SENTIR edge 85 ST 1**  
1502-2561

**SENTIR edge 85 STL 1**  
1502-2564



**SENTIR edge 115 SK**  
1509-0490



**SENTIR edge 115 SKLi**  
1509-0500

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

lateral clips base

AL 11-10  
AL 40-10

38-39

W 1.77 " x H 4.53 "

49.21 ft.

lateral clips base, sealing lip

AL 11-10  
AL 40-10

38-39

W 1.77 " x H 5.31 "

49.21 ft.

KS 8 L X,XX m – 115-Set

35

KS 8 W – 115-Set

35

EK 115 PNS

-

-

-

KS 8 L X,XX m – 115-Set

35

KS 8 W – 115-Set

35

EK 115 PNS

-

-

-

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 115 SK 1**  
100 801

**SENTIR edge 115 SKLi 1**  
100 811

**SENTIR®**  
edge

**SENTIR®**  
bumper

**SENTIR®**  
mat

**STEPTU**

**ELMON®**  
relay

**ELMON®**  
inductive

**ELMON®**  
wicom

**LISENS®**  
grid

# ASO Safety Contact Edges

**SENTIR®**  
*edge*



Type  
Article No.

**SENTIR edge 25-25 CN**  
103 101

**SENTIR edge 25-40 CN**  
103 111

Approvals

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Features

Rubber profile for SKS 18 T

Rubber profile for SKS 18 T

Aluminum mounting rail AL

AL 25-14  
AL 25-14 V  
AL 25-10 H

AL 25-14  
AL 25-14 V  
AL 25-10 H

Page

39

39

Dimensions\*

W 0.98 " x H 0.98 "

W 0.98 " x H 1.57 "

Max. delivery length

82.02 ft.

82.02 ft.

## Accessories

End cap  
Page

EKN 90/25  
31

EKN 90/25  
31

Stopper  
Page

-  
-

AP 20-47  
37

Assembled

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

Type  
Article No.

**SENTIR edge 25-25 CN 3**  
102 122

**SENTIR edge 25-40 CN 3**  
102 222

\*Dimensions are without base and sealing lip

For information about ASO-Product series visit [www.asosafety.com](http://www.asosafety.com)



**SENTIR edge 35-60 CN**  
103 121



**SENTIR edge 40-42**  
On request!

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Rubber profile for SKS 18 T

AL 35-14  
AL 35-14 W  
AL 35-14 HB

AL 40-10

38-39

W 1.38 " x H 2.36 "

W 1.57 " x H 1.65 "

82.02 ft.

49 ft.

EKN 90/25  
31

AP 35-70

-

End edge with 8.20 ft. cable and internal resistor (excl. Aluminum retainer).

**SENTIR edge 35-60 CN 3**  
102 453

**SENTIR edge 40-42 3**  
On request!

## Contact Edge-Sets



Type **SENTIR edge 25.30 TLL**  
Article No. 1502-6490

Approvals Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Features Sets comprised of contact profile and all accessories needed to build a safety contact edge with a length of 4 ft. end edge with 1.64 ft. cable and internal resistor 10kOhm, aluminum retainer included.

Dimensions W 0.98 " x H 1.89 " x L 48 "

Type **SENTIR edge 25.30 TLL**  
Article No. 1502-6491

Approvals Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Features Sets comprised of contact profile and all accessories needed to build a safety contact edge with a length of 5 ft. end edge with 1.64 ft. cable and internal resistor 10kOhm, aluminum retainer included.

Dimensions W 0.98 " x H 1.89 " x L 60 "

Type **SENTIR edge 25.30 TLL**  
Article No. 1502-6492

Approvals Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Features Sets comprised of contact profile and all accessories needed to build a safety contact edge with a length of 6 ft. end edge with 1.64 ft. cable and internal resistor 10kOhm, aluminum retainer included.

Dimensions W 0.98 " x H 1.89 " x L 72 "



**SENTIR edge 92.20 RT**  
On request!



**SENTIR edge 95.20 AT**  
On request!

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Set comprised of contact profile and all accessories needed to build a safety edge with a length of 4ft. Cable length 3.28ft. No aluminum retainer needed - direct screw connection to round 2 inch posts.

W 3.62 " x H 2.46 " x L 48 "

Set comprised of contact profile and all accessories needed to build a safety edge with a length of 4ft. Cable length 3.28ft. No aluminum retainer needed - direct screw connection to angular 2 inch posts.

W 3.80 " x H 2.78 " x L 48 "

**SENTIR edge 92.20 RT**  
On request!

**SENTIR edge 95.20 AT**  
On request!

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Set comprised of contact profile and all accessories needed to build a safety edge with a length of 5ft. Cable length 3.28ft. No aluminum retainer needed - direct screw connection to round 2 inch posts.

W 3.62 " x H 2.46 " x L 60 "

Set comprised of contact profile and all accessories needed to build a safety edge with a length of 5ft. Cable length 3.28ft. No aluminum retainer needed - direct screw connection to angular 2 inch posts.

W 3.80 " x H 2.78 " x L 60 "

**SENTIR edge 92.20 RT**  
On request!

**SENTIR edge 95.20 AT**  
On request!

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

Set comprised of contact profile and all accessories needed to build a safety edge with a length of 6ft. Cable length 3.28ft. No aluminum retainer needed - direct screw connection to round 2 inch posts.

W 3.62 " x H 2.46 " x L 72 "

Set comprised of contact profile and all accessories needed to build a safety edge with a length of 6ft. Cable length 3.28ft. No aluminum retainer needed - direct screw connection to angular 2 inch posts.

W 3.80 " x H 2.78 " x L 72 "

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**

**ELMON<sup>®</sup>**  
relay

**ELMON<sup>®</sup>**  
inductive

**ELMON<sup>®</sup>**  
wicom

**LISENS<sup>®</sup>**  
grid

# ASO Safety Contact Edges

## Accessories

**SENTIR®**  
edge



Type  
Article No.

**KK W**  
103 440

**KS 1 W**  
101 401

Description

Plug with resistor (8,2 kOhm)

Dimensions

-

W 0.31 " x H 0.29 "



Type

**KK L XX,Xm**

**KS 1 L XX,Xm**

Description

Plug with cable

Cable

2 x 0,34 mm<sup>2</sup>

2 x 0,34 mm<sup>2</sup>

Type

KK L 1.64 ft.

KS 1 L 1.64 ft.

Article No.

103 405

101 402

Type

KK L 8.20 ft.

KS 1 L 8.20 ft.

Article No.

103 410

101 403

Type

KK L 16.40 ft.

KS 1 L 16.40 ft.

Article No.

103 420

101 404

Type

KK L 32.81 ft.

KS 1 L 32.81 ft.

Article No.

103 425

101 406

**Do you have special requirements? Then we have special, customized solutions. Ask us!**



**KS 2 W**  
1802-0390

Plug with resistor (8,2 kOhm)

W 0.61 " x H 0.38 "



**KS 2 90° L XX,X m**

Plug with cable

2 x 0,34 mm<sup>2</sup>

KS 2 L 1.64 ft.

1802-0430

KS 2 L 8.20 ft.

1802-0500

KS 2 L 16.40 ft.

1802-0410

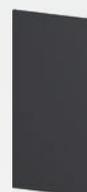
KS 2 L 32.81 ft.

1802-0510

Type  
Article No.

Suitable for

Dimensions \*



**EKN 90/25**  
103 343

SENTIR edge (Page 26-27,PU = 25 Pcs.)

W 1.77 " x H 3.54 "

# ASO Safety Contact Edges

## Accessories

**SENTIR®**  
*edge*



Type	<b>KS 4 PRO W - 15.25-Set</b>	<b>KS 4 PRO W - 25.30-Set</b>	<b>KS 4 PRO W - 45.30-Set</b>
Article No.	1804-0551	1804-0562	1804-1861
Description	Plug with resistor, lock cap, fixation clips and end cap (8.2 kOhm)		
Dimensions WxHxD	0.71 " x 1.02 " x 0.67 "	1.10 " x 1.22 " x 0.67 "	1.97 " x 1.57 " x 1.77 "
For	SENTIR edge 15.25	SENTIR edge 25.30	SENTIR edge 45.30



Type	<b>KS 4 PRO L XX,X m - 15.25-Set</b>	<b>KS 4 PRO L XX,X m - 25.30-Set</b>	<b>KS 4 PRO L XX,X m - 45.30-Set</b>
Description	Plug with cable, lock cap, fixation clips and end cap		

## Cable

Type	KS 4 PRO L 1.64 ft. - 15.25-Set	KS 4 PRO L 1.64 ft. - 25.30-Set	KS 4 PRO L 1.64 ft. - 45.30-Set
Article No.	1804-0631	1804-0642	1804-1911
Type	KS 4 PRO L 8.20 ft. - 15.25-Set	KS 4 PRO L 8.20 ft. - 25.30-Set	KS 4 PRO L 8.20 ft. - 45.30-Set
Article No.	1804-0711	1804-0721	1804-1931
Type	KS 4 PRO L 16.40 ft. - 15.25-Set	KS 4 PRO L 16.40 ft. - 25.30-Set	KS 4 PRO L 16.40 ft. - 45.30-Set
Article No.	1804-0751	1804-0761	1804-1941
Type	KS 4 PRO L 32.81 ft. - 15.25-Set	KS 4 PRO L 32.81 ft. - 25.30-Set	KS 4 PRO L 32.81 ft. - 45.30-Set
Article No.	1804-0831	1804-0841	1804-1961
For	SENTIR edge 15.25	SENTIR edge 25.30	SENTIR edge 45.30

# Plug 'N' Sense System



**KS 4 PRO W  
- 25.45-Set**  
1804-0571



**KS 4 PRO W  
- 45-Set**  
1804-2451



**KS 4 PRO W  
- 35.55-Set**  
1804-0582



**KS 4 PRO W  
- 65-Set**  
1804-2931

Plug with resistor, lock cap, fixation clips and end cap (8.2 kOhm)

1.10 " x 1.81 " x 0.67 "

1.50 " x 1.89 " x 0.79 "

1.50 " x 2.24 " x 0.67 "

1.50 " x 2.64 " x 0.79 "

SENTIR edge 25.45

SENTIR edge 45

SENTIR edge 35.55

SENTIR edge 65



**KS 4 PRO L XX,X m  
- 25.45-Set**



**KS 4 PRO L XX,X m  
- 45-Set**



**KS 4 PRO L XX,X m  
- 35.55-Set**



**KS 4 PRO L XX,X m  
- 65-Set**

Plug with cable, lock cap, fixation clips and end cap

KS 4 PRO L 1.64 ft. -  
25.45-Set

KS 4 PRO L 1.64 ft. -  
45-Set

KS 4 PRO L 1.64 ft. -  
35.55-Set

KS 4 PRO L 1.64 ft. -  
65-Set

1804-0651

1804-2471

1804-0662

1804-2971

KS 4 PRO L 8.20 ft. -  
25.45-Set

KS 4 PRO L 8.20 ft. -  
45-Set

KS 4 PRO L 8.20 ft. -  
35.55-Set

KS 4 PRO L 8.20 ft. -  
65-Set

1804-0731

1804-2491

1804-0741

1804-2991

KS 4 PRO L 16.40 ft. -  
25.45-Set

KS 4 PRO L 16.40 ft. -  
45-Set

KS 4 PRO L 16.40 ft. -  
35.55-Set

KS 4 PRO L 16.40 ft. -  
65-Set

1804-0771

1804-2501

1804-0781

1804-3001

KS 4 PRO L 32.81 ft. -  
25.45-Set

KS 4 PRO L 32.81 ft. -  
45-Set

KS 4 PRO L 32.81 ft. -  
35.55-Set

KS 4 PRO L 32.81 ft. -  
65-Set

1804-0851

1804-2521

1804-0861

1804-3021

SENTIR edge 25.45

SENTIR edge 45

SENTIR edge 35.55

SENTIR edge 65

SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
bumper

SENTIR<sup>®</sup>  
mat

STEPTU

ELMON<sup>®</sup>  
relay

ELMON<sup>®</sup>  
inductive

ELMON<sup>®</sup>  
wicom

LISENS<sup>®</sup>  
grid

# ASO Safety Contact Edges

## Accessories



Type  
Article No.

**KS 4 PRO W - 30.70-Set**  
1804-2661

**KS 4 PRO W - 35.85-Set**  
1804-1252

<i>Description</i>	Plug with resistor, lock cap, fixation clips and end cap (8.2 kOhm)	
<i>Dimensions WxHxD</i>	1.30 " x 1.80 " x 0.67 "	1.50 " x 2.24 " x 0.67 "
<i>For</i>	SENTIR edge 30.70	SENTIR edge 35.85



Type

**KS 4 PRO L XX,Xm - 30.70-Set**

**KS 4 PRO L XX,Xm - 35.85-Set**

<i>Description</i>	Plug with cable, lock cap, fixation clips and end cap	
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## Cable

<i>Type</i>	KS 4 PRO L 1.64 ft. - 30.70-Set	KS 4 PRO L 1.64 ft. - 35.85-Set
<i>Article No.</i>	1804-2681	1804-1282
<i>Type</i>	KS 4 PRO L 8.20 ft. - 30.70-Set	KS 4 PRO L 8.20 ft. - 35.85-Set
<i>Article No.</i>	1804-2701	1804-1301
<i>Type</i>	KS 4 PRO L 16.40 ft. - 30.70-Set	KS 4 PRO L 16.40 ft. - 35.85-Set
<i>Article No.</i>	1804-2711	1804-1311
<i>Type</i>	KS 4 PRO L 32.81 ft. - 30.70-Set	KS 4 PRO L 32.81 ft. - 35.85-Set
<i>Article No.</i>	1804-2731	1804-1331
<i>For</i>	SENTIR edge 30.70	SENTIR edge 35.85

# Plug 'N' Sense System



**KS 4 PRO W - 85-Set**  
1804-3111



**KS 8 W - 115-Set**  
1808-0170

Plug with resistor, lock cap, fixation clips and end cap (8.2 kOhm)

1.54 " x 3.43 " x 0.79 "

1.97 " x 4.65 " x 0.67 "

SENTIR *edge* 85

SENTIR *edge* 115



**KS 4 PRO L XX,Xm - 85-Set**



**KS 8 L XX,Xm - 115-Set**

Plug with cable, lock cap, fixation clips and end cap

KS 4 PRO L 1.64 ft. - 85-Set  
1804-3151

KS 8 L 1.64 ft. - 115-Set  
1808-0250

KS 4 PRO L 8.20 ft. - 85-Set  
1804-3171

KS 8 L 8.20 ft. - 115-Set  
1808-0330

KS 4 PRO L 16.40 ft. - 85-Set  
1804-3181

KS 8 L 16.40 ft. - 115-Set  
1808-0370

KS 4 PRO L 32.81 ft. - 85-Set  
1804-3201

KS 8 L 32.81 ft. - 115-Set  
1808-0450

SENTIR *edge* 85

SENTIR *edge* 115

**SENTIR<sup>®</sup>**  
*edge*

**SENTIR<sup>®</sup>**  
*bumper*

**SENTIR<sup>®</sup>**  
*mat*

**STEPTU**

**ELMON<sup>®</sup>**  
*relay*

**ELMON<sup>®</sup>**  
*inductive*

**ELMON<sup>®</sup>**  
*wicom*

**LISENS<sup>®</sup>**  
*grid*

# ASO Safety Contact Edges

## Accessories

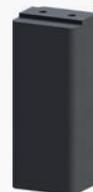


Type  
Article No.

**AP 15-30**  
101 330

**AP 20-32**  
1511-0090

<i>Description</i>	Guideseal	Guideseal
<i>Suitable for</i>	SENTIR edge 15.25 TTLi	SENTIR edge 25.30 TTLa SENTIR edge 25.30 TTL
<i>Dimensions</i>	W 0.59 " x H 1.22 " x D 1.42 "	W 0.77 " x H 1.34 " x D 1.36 "



Type  
Article No.

**AP 34-57**  
1511-0100

**AP 34-87**  
1511-0110

<i>Description</i>	Guideseal	Guideseal
<i>Suitable for</i>	SENTIR edge 35.55 CTLa SENTIR edge 35.55 TTLa	SENTIR edge 35.85 CTLa SENTIR edge 35.85 CTLL SENTIR edge 35.85 TTLa SENTIR edge 35.85 TTL
<i>Dimensions</i>	W 1.34 " x H 2.32 " x D 1.38 "	W 1.34 " x H 3.50 " x D 1.38 "



**AP 20-47**  
101 335



**AP 20-30**  
1511-0130



**Set of height compensation clamps for AP 20-30**  
1804-2180

Guideseal	Guideseal	Set of height compensation clamps for AP 20-30 (2x 3 o. 6, 2x 10)
SENTIR <i>edge</i> 25.45 TTLa SENTIR <i>edge</i> 25.45 TTL	SENTIR <i>edge</i> 15.25 TTLi	AP 20-30
W 0.79 " x H 1.85 " x D 1.38 "	W 0.77 " x H 1.30 " x D 2.40 "	3 o.6: W 0.39 " x H 0.47 " x L 1.99 " 6-10: W 0.39 " x H 0.63 " x L 1.99 "



**AP 35-55 FT**  
1511-0180



**AP 50-32**  
1511-0120

Guideseal	Guideseal
SENTIR <i>edge</i> 35.55 FTLa	SENTIR <i>edge</i> 45.30
W 1.65 " x H 4.25 " x D 5.51 "	H 1.97 " x H 1.57 " x D 1.77 "

**SENTIR<sup>®</sup>**  
*edge*

**SENTIR<sup>®</sup>**  
*bumper*

**SENTIR<sup>®</sup>**  
*mat*

**STEPTU**

**ELMON<sup>®</sup>**  
*relay*

**ELMON<sup>®</sup>**  
*inductive*

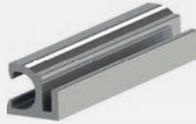
**ELMON<sup>®</sup>**  
*wicom*

**LISENS<sup>®</sup>**  
*grid*

# ASO Safety Contact Edges

## Accessories

**SENTIR®**  
*edge*



<i>Type</i>	<b>AL 11-10</b>	<b>AL 15-9</b>	<b>AL 25-10 H</b>
<i>Article No.</i>	103 213	2001-0100	2007-0040
<i>Description</i>	Aluminum retainer; Standard length 13.12 ft.	Aluminum C retainer; Standard length 13.12 ft.	Aluminum C retainer; Standard length 13.12 ft.
<i>Suitable for</i>	SENTIR <i>edge</i> 45 SENTIR <i>edge</i> 65 SENTIR <i>edge</i> 85 SENTIR <i>edge</i> 115	SENTIR <i>edge</i> 15.25 TT SENTIR <i>edge</i> 15-10 TT	SENTIR <i>edge</i> 25-40 SENTIR <i>edge</i> 25.30 SENTIR <i>edge</i> 25.45
<i>Dimensions</i>	W 0.43 " x H 0.39 "	W 0.59 " x H 0.35 "	W 0.95/1.97 " x H 0.39 "



<i>Type</i>	<b>AL 30-10 W</b>	<b>AL 30-14</b>	<b>AL 35-14</b>
<i>Article No.</i>	2004-0210	2021-0040	2003-0080
<i>Description</i>	Aluminum retainer 20°; Standard length 13.12 ft.	Aluminum C retainer; Standard length 13.12 ft.	Aluminum C retainer; Standard length 13.12 ft.
<i>Suitable for</i>	SENTIR <i>edge</i> 45 SENTIR <i>edge</i> 65 SENTIR <i>edge</i> 85	SENTIR <i>edge</i> 30.70	SENTIR <i>edge</i> 35-60 SENTIR <i>edge</i> 35.55 SENTIR <i>edge</i> 35.85
<i>Dimensions</i>	W 1.24 " x H 0.83 "	W 1.18 " x H 0.55 "	W 1.38 " x H 0.55 "



**AL 25-14**  
2002-2190

Aluminum C retainer;  
Standard length 10.00 ft.

SENTIR edge 25-40  
SENTIR edge 25.30

W 0.98 " x H 0.55 "



**AL 25-14 E**  
2008-0030

Aluminum C retainer;  
Standard length 13.12 ft.

SENTIR edge 25-40  
SENTIR edge 25.30  
SENTIR edge 25.45

W 0.98/1.22 " x  
H 0.55/1.07 "

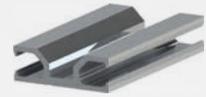


**AL 25-14 V**  
2006-0110

Aluminum C retainer;  
Standard length 13.12 ft.

SENTIR edge 25-40  
SENTIR edge 25.30  
SENTIR edge 25.45

W 0.98 " x H 0.55/1.18 "

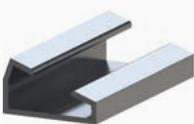


**AL 30-10**  
2004-0110

Aluminum retainer;  
Standard length 13.12 ft.

SENTIR edge 45  
SENTIR edge 65  
SENTIR edge 85

W 1.18 " x H 0.39 "



**AL 35-14 W**  
2003-0100

Aluminum C retainer 20°;  
Standard length 13.12 ft.

SENTIR edge 35-60  
SENTIR edge 35.55  
SENTIR edge 35.85

W 1.40 " x H 0.78 "



**AL 35-15 HB**  
2009-0030

Aluminum C retainer;  
Standard length 13.12 ft.

SENTIR edge 35-60  
SENTIR edge 35.55  
SENTIR edge 35.85

W 1.38/2.36 " x H 0.59 "



**AL 40-10**  
2005-0040

Aluminum retainer;  
Standard length 13.12 ft.

SENTIR edge 115

W 1.57 " x H 0.39 "



**Connection element**  
103 225

for AL 11-10

AL 11-10

W 1.18 " x H 0.31 "

**SENTIR®**  
edge

**SENTIR®**  
bumper

**SENTIR®**  
mat

**STEPTU**

**ELMON®**  
relay

**ELMON®**  
inductive

**ELMON®**  
wicom

**LISENS®**  
grid

# ASO Safety Contact Edges

## Accessories

**SENTIR<sup>®</sup>**  
*edge*



<i>Type</i>	<b>Contact glue</b>		<b>Contact primer</b>		<b>Activator</b>	
<i>Article No.</i>	101 914	101 912	101 921	101 922	101 924	101 923
<i>Description</i>	Contact glue for contact edges		Contact primer for contact edges		Activator for contact edges	
<i>Dimensions</i>	5 gram	20 gram	5 ml	10 ml	5 ml	10 ml



<i>Type</i>	<b>Cap for AL 25-14</b>	<b>C 35-14</b>	<b>Press-in aid</b>
<i>Article No.</i>	103 221	103 222	9501-0330
<i>Description</i>	Sealing cap	Sealing cap	
<i>Suitable for</i>	AL 25-14	AL 35-14	KS4 PRO
<i>Dimensions</i>	W 0.98 " x H 0.55 "	W 1.38 " x H 0.55 "	



**Gluing set**

101 925      101 926

Contact glue, primer and activator

Gluing set small 5 ml      Gluing set big 20/10 ml



**Scissors**

700 514

For cutting rubber profiles

-



**Edge cutter**

9501-0100

For cutting rubber profiles

-

**SENTIR®**  
edge

**SENTIR®**  
bumper

**SENTIR®**  
mat

**STEPTU**

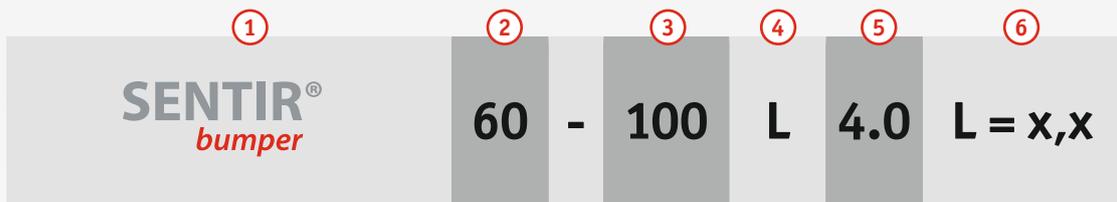
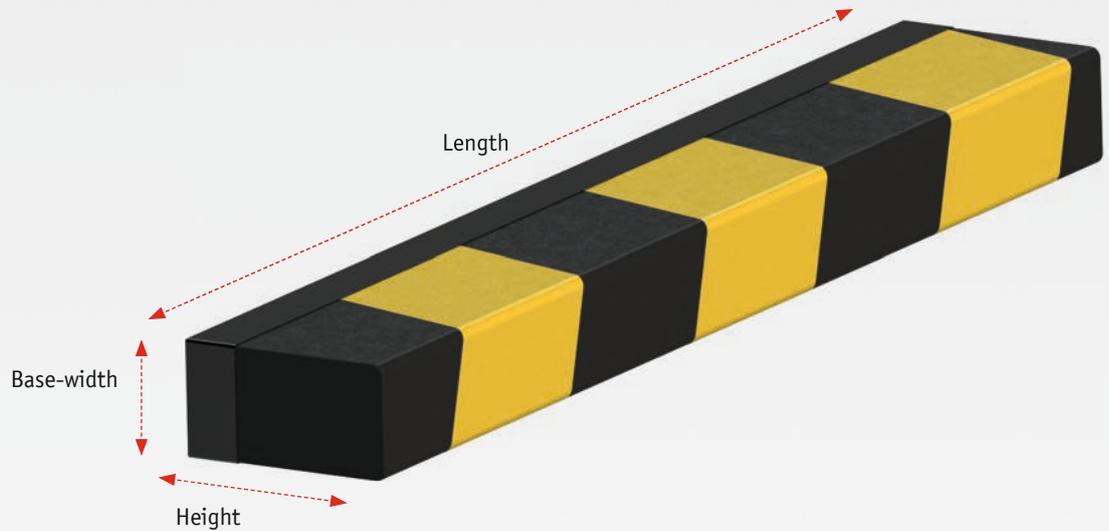
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relay

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inductive

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grid

# ASO Safety Contact Bumpers



- 1 Description**  
ASO Safety contact bumper
- 2 Base-width**  
e.g. 60 mm/ 2.36 "
- 3 Height**  
e.g. 100 mm/ 3.94 "
- 4 Materials**  
L : Artificial leather  
N : NBR rubber

- 5 Cable versions**  
4.0 : 1 x M8 connector male and 1 x M8 connector female  
(L= 47.24 ")

- 6 Length**  
e.g. L = 8.20 ft.

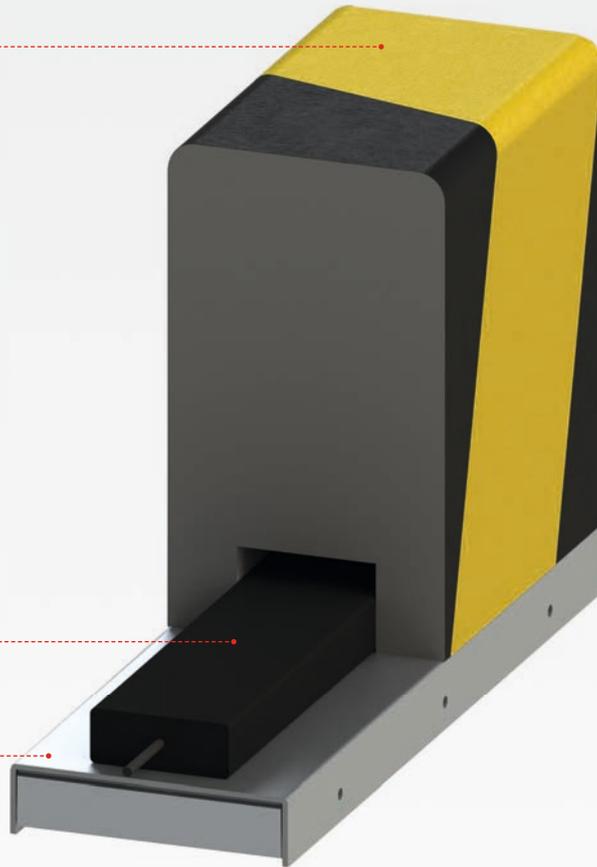
PLEASE NOTE: Not all available product variants are listed in this product catalogue – please contact us for more information!

# Description SENTIR bumper

Foam core covered with artificial leather / NBR-Cover

Integrated sensor

Aluminum support profile



SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
bumper

SENTIR<sup>®</sup>  
mat

STEPTU

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relay

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inductive

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wicom

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grid

# ASO Safety Contact Bumpers

**SENTIR<sup>®</sup>**  
bumper



Type	<b>SENTIR bumper 60-100</b>			<b>SENTIR bumper 100-200</b>			<b>SENTIR bumper 150-300</b>		
Approvals	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>								
Max. delivery length	8.20 ft.			8.20 ft.			8.20 ft.		
Weight	2,59 kg/m			3,89 kg/m			5,26 kg/m		
Type	<b>L 4.0</b>			<b>L 4.0</b>			<b>L 4.0</b>		
Article No.	1701-1140			1701-1150			1701-1160		
Cover	Artificial leather black								
Article No.	1701-1144			1701-1154			1701-1164		
Cover	Artificial leather black/yellow								
Type	<b>N 4.0</b>			<b>N 4.0</b>			<b>N 4.0</b>		
Article No.	105 211			105 231			105 251		
Cover	NBR rubber black								
Article No.	105 216			105 236			105 256		
Cover	NBR rubber black/yellow adhesive tape								



**SENTIR bumper 200-400**

Current test certifications available at [www.asosafety.com](http://www.asosafety.com)

8.20 ft.

6,75 kg/m

**L 4.0**

1701-1170

Artificial leather black

1701-1174

Artificial leather black/yellow

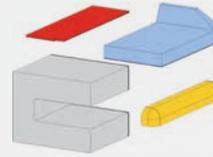
**N 4.0**

105 261

NBR rubber black

105 276

NBR rubber black/yellow adhesive tape



**SENTIR bumper customized**

On request!

On request!



**SENTIR bumper outdoor**

On request!

On request!

**Accessories**



**SENTIR Cable set 4.3**

1870-0340

Male connector 8.2 kOhm  
Connector female with 16.40 ft. cable



**SENTIR Cable set 4.4**

1870-0350

Connector male with 16.40 ft. cable  
Connector female with 16.40 ft. cable

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**

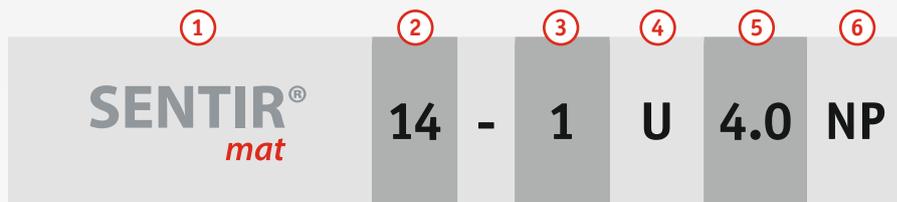
**ELMON<sup>®</sup>**  
relay

**ELMON<sup>®</sup>**  
inductive

**ELMON<sup>®</sup>**  
wicom

**LISENS<sup>®</sup>**  
grid

# ASO Safety Contact Mats



**1 Description**

ASO Safety contact mat

**2 Height**

e.g. 14 mm

**3 Number of switch zones within one mat**

**4 Materials ground plate**

U : One compound mat  
 T : With moulded ramp rail  
 F : For ARB- or TBV-cover

**5 Cable Versions**

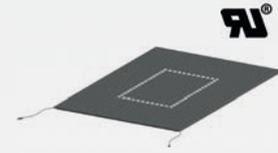
4.0 : 1 x M8 connector male and 1 x M8 connector female (L= 120mm)

**6 Surface**

NP : Dot surface  
 SA : Sand surface  
 ARB : Aluminum cover  
 TBV : Stainless steel cover

PLEASE NOTE: Not all available product variants are listed in this product catalogue – please contact us for more information!

# ASO Safety Contact Mats



Type	<b>SENTIR mat 14-1F4.0-TBV</b>	<b>SENTIR mat 14-1F4.0-ARB</b>	<b>SENTIR mat 14-2U4.0-NP</b>
Article No	1602-1520	1602-1480	1602-3196
Approvals	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>		
Specification	Contact mat with stainless steel cover, height 14 mm	Contact mat with aluminum checkered cover, height 14 mm	One compound mat with second switching zone
Max. Dimensions plus ramp rail	1829 mm x 1250 mm 6.00 x 4.10 ft	1829 mm x 1250 mm 6.00 x 4.10 ft	1829 mm x 1250 mm 6.00 x 4.10 ft
Weight	752.25 lb/ft <sup>2</sup>	633.60 lb/ft <sup>2</sup>	-



Type	<b>SENTIR mat 14-1U4.0-NP - PRO</b>	<b>SENTIR mat 14-1T4.0-NP - PRO</b>
Article No.	1602-5280	1602-5290
Approvals	Current test certifications available at <a href="http://www.asosafety.com">www.asosafety.com</a>	
Specification	Contact mat in encapsulation technique, 14 mm high, IP 67	Contact mat in encapsulation technique, 14 mm high, with cast on ramp rail, IP 67
Max. Dimensions plus ramp rail	1829 mm x 1250 mm 6.00 x 4.10 ft	1829 mm x 1250 mm 6.00 x 4.10 ft
Weight	593.26 lb/ft <sup>2</sup>	26 kg/m <sup>2</sup>

SENTIR<sup>®</sup>  
edge

SENTIR<sup>®</sup>  
bumper

SENTIR<sup>®</sup>  
mat

STEPTU

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relay

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inductive

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wicom

LISENS<sup>®</sup>  
grid

# ASO Safety Contact Mats

**SENTIR<sup>®</sup>**  
*mat*



Type

**SENTIR mat 14-1U4.0-NP**

**related trim kit**

<i>Description</i>	Contact mat in encapsulation technique, 14 mm high	
<i>Approvals</i>	Current test certificates at <a href="http://www.asosafety.com">www.asosafety.com</a>	
<i>Weight</i>	593.26 lb/ft <sup>2</sup>	
<i>Cable outlet</i>	4.0: 1 x M8-connector male and M8-connector female	
<i>Dimensions</i>	<b>24" x 24"</b>	<b>24" x 24"</b>
<i>Article No</i>	1602-5524	2010-0135
<i>Dimensions</i>	<b>24" x 36"</b>	<b>24" x 36"</b>
<i>Article No</i>	1602-5525	2010-0136
<i>Dimensions</i>	<b>24" x 48"</b>	<b>24" x 48"</b>
<i>Article No</i>	1602-5526	2010-0137
<i>Dimensions</i>	<b>24" x 60"</b>	<b>24" x 60"</b>
<i>Article No</i>	1602-5527	2010-0138
<i>Dimensions</i>	<b>24" x 72"</b>	<b>24" x 72"</b>
<i>Article No</i>	1602-5570	1602-5560
<i>Dimensions</i>	<b>30" x 48"</b>	<b>30" x 48"</b>
<i>Article No</i>	1602-5571	1602-5561
<i>Dimensions</i>	<b>36" x 36"</b>	<b>30" x 48"</b>
<i>Article No</i>	1602-5528	2010-0139
<i>Dimensions</i>	<b>36" x 48"</b>	<b>30" x 48"</b>
<i>Article No</i>	1602-5529	2010-0140
<i>Dimensions</i>	<b>36" x 60"</b>	<b>30" x 48"</b>
<i>Article No</i>	1602-5530	2010-0141
<i>Dimensions</i>	<b>36" x 72"</b>	<b>30" x 48"</b>
<i>Article No</i>	1602-5572	1602-5562

**SENTIR<sup>®</sup>**  
**mat**

Type



**SENTIR mat 14-1T4.0-NP**

<i>Description</i>	Contact mat in encapsulation technique, 14 mm high, with cast on ramp rail
<i>Approvals</i>	
<i>Weight</i>	616.26 lb/ft <sup>2</sup>
<i>Cable outlet</i>	4.0: 1 x M8-connector male and M8-connector female
<i>Dimensions</i>	<b>24" x 24"</b>
<i>Article No</i>	1602-5535
<i>Dimensions</i>	<b>24" x 36"</b>
<i>Article No</i>	1602-0290
<i>Dimensions</i>	<b>24" x 48"</b>
<i>Article No</i>	1602-0320
<i>Dimensions</i>	<b>24" x 60"</b>
<i>Article No</i>	1602-0335
<i>Dimensions</i>	<b>24" x 72"</b>
<i>Article No</i>	1602-5573
<i>Dimensions</i>	<b>30" x 48"</b>
<i>Article No</i>	1602-5574
<i>Dimensions</i>	<b>36" x 36"</b>
<i>Article No</i>	1602-0300
<i>Dimensions</i>	<b>36" x 48"</b>
<i>Article No</i>	1602-0330
<i>Dimensions</i>	<b>36" x 60"</b>
<i>Article No</i>	1602-0336
<i>Dimensions</i>	<b>36" x 72"</b>
<i>Article No</i>	1602-0310

**SENTIR<sup>®</sup>**  
**edge**

**SENTIR<sup>®</sup>**  
**bumper**

**SENTIR<sup>®</sup>**  
**mat**

**STEPTU**

**ELMON<sup>®</sup>**  
**relay**

**ELMON<sup>®</sup>**  
**inductive**

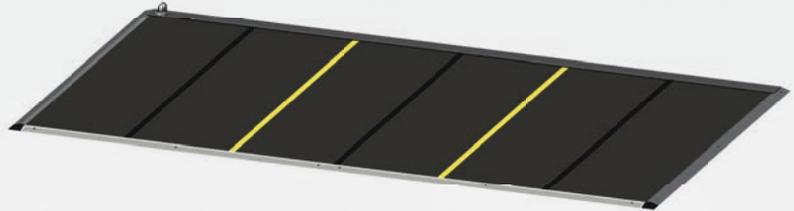
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**wicom**

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**grid**

# ASO Safety Contact Mats



**SENTIR<sup>®</sup>**  
*mat*



Type

**SENTIR mat 10-1CK4.0-NP FLEX SET**

Article No.

Specification

Machinery set (configurable from defined safety contact mats), with molded cable channel and clips edge, black and yellow clip connectors and clipable aluminum channel and ramp rails

Approvals

Current test certificates at [www.asosafety.com](http://www.asosafety.com)

Weight

22 kg/m<sup>2</sup>

Cable version single mat

4.0: 1 x M8-connector male and M8-connector female

Cable version set configuration

+ 3 x Cable-Set 4.3 ( allows up to 3 switching zones)

Dimensions (exkl. Cable channel ramp)

Single width stackable mats

500 mm / 750 mm / 1000 mm

Depth

**1200 mm**

Article No.

1602-5060

Depth

**1400 mm**

Article No.

1602-5070

Depth

**1600 mm**

Article No.

1602-5080

Depth

**1800 mm**

Article No.

1602-5090

Minimum area

3 m<sup>2</sup>



*How do I configure a set?*

Select required safety area depth (1200 -1829 mm)  
 Determination of required plant width  
 Calculate the total area

Select amounts of single mat widths in accordance to total width and zone separation

Accessories



**SENTIR Cable set 4.2**

1870-0330

Connecting cable male/  
 female 8.20 ft.



**SENTIR Cable set 4.3**

1870-0340

Male connector 8.2 kOhm  
 Connector female  
 with 16.40 ft. cable



**SENTIR Cable set 4.4**

1870-0350

Connector male  
 with 16.40 ft. cable  
 Connector female  
 with 16.40 ft. cable

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**

**ELMON<sup>®</sup>**  
relay

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inductive

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grid

# ASO Safety Contact Mats

## Accessories

**SENTIR<sup>®</sup>**  
*mat*



Type

**M8 SK (2-Pol)**

**M8 S (2-Pol)**

**M8 K (2-Pol)**

Specification

Cable with connector male and connector female

Cable with connector male

Cable with connector female

### Available sizes

8.20 ft. Article No. 603 123	-	-
16.40 ft. Article No. 603 126	16.40 ft. Article No. 603 114	16.40 ft. Article No. 603 109
-	32.81 ft. Article No. 603 115	32.81 ft. Article No. 603 117
-	49.21 ft. Article No. 603 116	49.21 ft. Article No. 603 118



Type

**M8 SK (4-Pol)**

**M8 S (4-Pol)**

**M8 K (4-Pol)**

Specification

Cable with connector male and connector female

Cable with connector male

Cable with connector female

### Available sizes

8.20 ft. Article No. 1812-0090	-	-
16.40 ft. Article No. 1812-0100	16.40 ft. Article No. 1810-0200	16.40 ft. Article No. 1811-0130
-	49.21 ft. : Article No. 1810-0220	49.21 ft. Article No. 1811-0150

Accessories

**SENTIR<sup>®</sup>**  
*mat*



**RS 14**  
Article No. 2010-0110



**BS 14**  
Article No. 2011-0050



**EVA RS 14**  
Article No. 603 020

<i>Specification</i>	Aluminum ramp rail with sealing lid	Aluminum fixing rail	Corner connector for ramp rail RS 14
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Cut to size (straight cut or mitre)

<i>Article No.</i>	2010-0010	2011-0010	-
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# ASO Foot Switches

## STEPTU



**STEPTU prime**  
Article No. 602 064



**STEPTU custom**  
On request!

<i>Actuation force</i>	approx. 120 N	On request!
<i>Description</i>	One compound contact switch, thickness 1.08 "	
<i>Dimensions</i>	B 3.94 " x T 4,35 "	On request!
<i>Weight</i>	0,238 kg	On request!

**SENTIR<sup>®</sup>**  
*edge*

**SENTIR<sup>®</sup>**  
*bumper*

**SENTIR<sup>®</sup>**  
*mat*

**STEPTU**

**ELMON<sup>®</sup>**  
*relay*

**ELMON<sup>®</sup>**  
*inductive*

**ELMON<sup>®</sup>**  
*wicom*

**LISENS<sup>®</sup>**  
*grid*

# ASO Safety Relays



**1 Description**  
ASO Safety relays

**2 Name**  
31, 32, 34, 35, 39, 41, 42

**3 Operating Voltage**  
1 : 230 V AC  
2 : 24 V AC/DC  
3 : 24 V AC/CDC + 230 V AC  
4 : 12-24 V DC  
6 : 24 V AC/DC + 85-265 V AC  
7 : 24 V DC  
8 : 24 V AC/DC + 120 V AC  
9 : Special voltages

**4 Casing Versions**  
0 : Without case  
1 : Clear plastic cover case  
2 : 1,38 " DIN-rail  
3 : DIN-rail mounting  
4 : 11-pin slot  
5 : Plug-in card  
6 : Surface-mounted case  
9 : Customer's own case

**5 Types of Output**  
1 : Mechanical relay Cat. 2  
2 : Mechanicalforced relay Cat. 3  
3 : Electronical relay Cat. 2  
4 : Resistance output Cat. 3  
5 : Transistor output Cat. 2  
6 : Transistor output Cat. 3  
7 : Pulse output

PLEASE NOTE: Not all available product variants are listed in this product catalogue – please contact us for more information!

# ASO Safety Relays

**ELMON<sup>®</sup>**  
relay



Type  
Article No.

**ELMON relay 41-822**  
1114-0040

**ELMON relay 41-322**  
1114-0030

**ELMON relay 42-622**  
1120-0010

<i>Safety category and Performance level</i>	Cat. 3 / PL „e“ *	Cat. 3 / PL „e“ *	Cat. 3 / PL „e“ *
<i>Electric supply</i>	120 V, 24 V AC/DC ± 10%	230 V, 24 V AC/DC ± 10%	85 ... 265 V AC (50/60 Hz) 24 V AC / DC (± 10%)
<i>Reaction time</i>	< 12 ms	< 12 ms	< 11 ms
<i>Input</i>	1x Sensing device 8.2 kOhm	1x Sensing device 8.2 kOhm	2x Sensing device 8.2 kOhm
<i>Output</i>	1x forcibly actuated relay contact	1x forcibly actuated relay contact	2x forcibly actuated redundant relay contact
<i>Additional function</i>	auxiliary contact, manual reset	auxiliary contact, manual reset	2x auxiliary contact (signal relay), manual reset
<i>Case</i>	0.89 " case for mounting on 1.38 " DIN-rail	0.89 " case for mounting on 1.38 " DIN-rail	Case for mounting on 1.38 " DIN-rail
<i>Dimensions WxHxD</i>	0.89 " x 4.49 " x 3.90 "	0.89 " x 4.49 " x 3.90 "	1.77 " x 4.49 " x 3.90 "

The range of ELMON relay system components includes further variations of control units/designs, operating voltages etc., which can be inquired separately.

\*According to EN ISO 13849-1:2008

In combination with a sensing device the Performance Level of the overall system has to be evaluated according to EN ISO 13849.

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**

**ELMON<sup>®</sup>**  
relay

**ELMON<sup>®</sup>**  
inductive

**ELMON<sup>®</sup>**  
wicom

**LISENS<sup>®</sup>**  
grid

# ASO Safety Relays

**ELMON®**  
relay



Type  
Article No.

**ELMON relay 39-726**  
1119-0010

**ELMON relay 32-242**  
1109-0080

**ELMON relay 35-32**  
203 302

<i>Safety category and Performance Level</i>	Cat. 3 / PL „e“ *	Cat. 3 / PL „e“ *	Cat. 2 / PL „d“ *
<i>Electric supply</i>	24 V DC ± 10%	24 V AC/DC ± 10%	230 V, 24 V AC/DC ± 10%
<i>Reaction time</i>	< 12 ms	< 12 ms	< 5 ms
<i>Input</i>	2x Sensing device 8.2 kOhm	2x Sensing device 8.2 kOhm	2x Sensing device 8.2 kOhm
<i>Output</i>	2x semiconductor output	2x forcibly actuated relay contact	2x Relay contact
<i>Additional function</i>	2x auxiliary contacts, manual reset Input selectable, separately or jointly acting on one output	-	Test signal input, manual reset
<i>Case</i>	0.89 " case for mounting on 1.38 " DIN-rail	Dual in line plug case for mounting on 1.38 " DIN-rail	0.89 " case for mounting on 1.38 " DIN-rail
<i>Dimensions WxHxD</i>	0.89 " x 4.49 " x 3.90 "	1.50 " x 3.23 " x 3.94 "	0.89 " x 4.49 " x 3.90 "

The range of ELMON *relay* system components includes further variations of control units/designs, operating voltages etc., which can be inquired separately.

\* According to EN ISO 13849-1:2008

In combination with a sensing device the Performance Level of the overall system has to be evaluated according to EN ISO 13849.


**ELMON relay 41-312**  
1114-0060

**ELMON relay 32-312**  
1109-0030

**ELMON relay 31-31**  
203 122

**ELMON relay 34-32**  
203 301

Cat. 3 / PL „e“ *	Cat. 3 / PL „e“ *	Cat. 2 / PL „d“ *	Cat. 2 / PL „d“ *
230 V, 24 V AC/DC ± 10%	230 V, 24 V AC/DC ± 10%	230 V, 12-24 V AC/DC + 10%	230 V, 24 V AC/DC ± 10%
< 12 ms	< 12 ms	< 5 ms	< 5 ms
1x Sensing device 8.2 kOhm	2 x Sensing device 8.2 kOhm	1 x Sensing device 8.2 kOhm	2x Sensing device 8.2 kOhm
1x forcibly actuated relay contact	2 x forcibly actuated relay contact	1 x Relay contact	1x Relay contact
Auxiliary contact, manual reset	-	Test signal output	Auxiliary contact, test signal input, manual reset
Wall mounting with clear plastic cover case	Wall mounting with clear plastic cover case	Wall mounting with clear plastic cover case	0.89 " case for mounting on 1.38 " DIN-rail
4.72 " x 4.02 " x 2.17 "	4.72 " x 4.02 " x 2.17 "	4.72 " x 3.94 " x 2.24 "	0.89 " x 4.49 " x 3.90 "

**SENTIR<sup>®</sup>**  
edge

**SENTIR<sup>®</sup>**  
bumper

**SENTIR<sup>®</sup>**  
mat

**STEPTU**
**ELMON<sup>®</sup>**  
relay

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inductive

**ELMON<sup>®</sup>**  
wicom

**LISENS<sup>®</sup>**  
grid

# ASO Safety Relays

**ELMON<sup>®</sup>**  
*relay*



Type **ELMON relay 01-27**  
Article No. 203 009

*Safety category and  
Performance Level*

-

*Electric supply*

24 V AC/DC  $\pm$  10%

*Reaction time*

< 5 ms

*Input*

1 x Sensing device  
8.2 kOhm

*Output*

1 x Relay contact

*Additional function*

-

*Case*

Polyurethane, black for  
mounting on 1,38 " DIN-rail

*Dimensions WxHxD*

0.79 " x 2.52 " x 1.93 "

The range of ELMON *relay* system components includes further variations of control units/designs, operating voltages etc., which can be inquired separately.

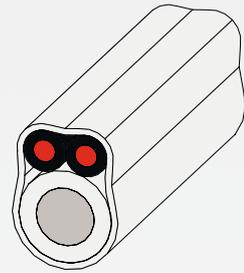
\* According to EN ISO 13849-1:2008

In combination with a sensing device the Performance Level of the overall system has to be evaluated according to EN ISO 13849.

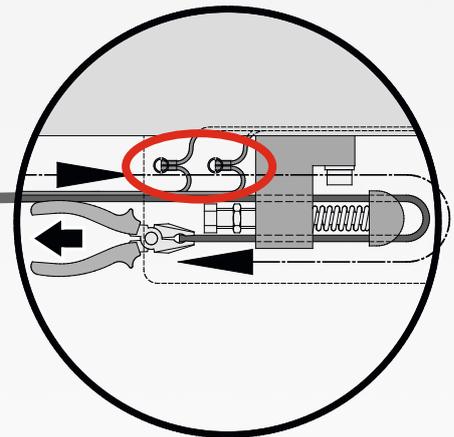
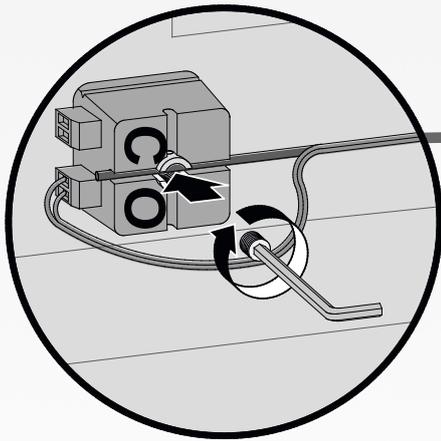
# ASO Inductive Signal Transmission System

**ELMON®**  
inductive

Pair of cable cores for connecting a contact edge opposite to the travelling coil core.



Pre-assembled for travelling coil core

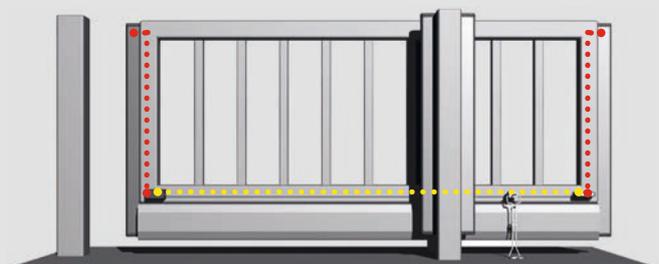
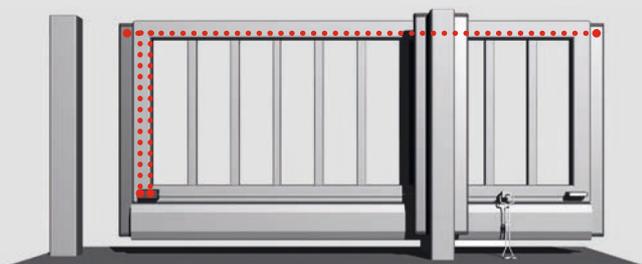


Clamping unit

## Connection of Cable System in Comparison

**Conventionally:**  
Cable along the gate's entire length needed

**ASO Cable System:**  
Contact edges can be connected to either side of the gate.



SENTIR®  
edge

SENTIR®  
bumper

SENTIR®  
mat

STEPTU

ELMON®  
relay

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ELMON®  
wicom

LISENS®  
grid

# ASO Inductive Signal Transmission System



## 1 Description

ASO Inductive signal transmission system

## 2 Name

70, 71, 74, 77

## 3 Operating Voltage

1 : 230 V AC  
 2 : 24 V AC/DC  
 3 : 24 V AC/CDC + 230 V AC  
 4 : 12-24 V DC  
 6 : 24 V AC/DC + 85-265 V AC  
 7 : 24 V DC  
 8 : 24 V AC/DC + 120 V AC  
 9 : Special voltages

## 4 Casing Versions

0 : Without case  
 1 : Clear plastic cover case  
 2 : 1,38 " DIN-rail  
 3 : DIN-rail mounting  
 4 : 11-pin slot  
 5 : Plug-in card  
 6 : Surface-mounted case  
 9 : Customer's own case

## 5 Types of Output

1 : Mechanical relay Cat. 2  
 2 : Mechanical forced relay Cat. 3  
 3 : Electronical relay Cat. 2  
 4 : Resistance output Cat. 3  
 5 : Transistor output Cat. 2  
 6 : Transistor output Cat. 3  
 7 : Pulse output

# ASO Inductive Signal Transmission System

## ELMON<sup>®</sup> inductive



**ELMON inductive 77 R Set S**  
1320-0910



**ELMON inductive 74-312 Set S**  
1206-0010

Type  
Article No.

Safety category / Performance Level

Cat. 2 / PL "d" \*

Cat. 3 / PL "e" \*

Voltage

24 V AC/DC ± 10%

24 V AC/DC ± 10%  
230 V AC



**ELMON inductive 71-242 Set S**  
1204-0010

Type  
Article No.

Safety category / Performance Level

Cat. 3 / PL "e" \*

Voltage

24 V AC/DC ± 10%

The range of ELMON *inductive* system components includes further variations of control units / designs, operating voltages etc. and coil cores, which can be inquired separately.

\* According to EN ISO 13849-1:2008

In combination with a sensing device the Performance Level of the overall system has to be evaluated according to EN ISO 13849.

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bumper

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ELMON<sup>®</sup>  
relay

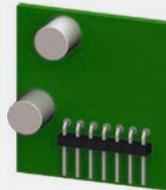
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inductive

ELMON<sup>®</sup>  
wicom

LISENS<sup>®</sup>  
grid

# ASO Inductive Signal Transmission System

## Single Components



Type Article No.	<b>ELMON inductive 70-755</b> 1203-0020	<b>ELMON inductive 70-757</b> 1402-0740	<b>ELMON inductive 74-332</b> 1206-0070
Safety category / Performance Level	Cat. 2 / PL "d" *	Cat. 2 / PL "d" *	Cat. 3 / PL „e“ *
Voltage	24 V DC	24 V DC	24 V AC/DC 230 V AC ± 10%
Case	Without case	Without case	Without case
Equipment	-	-	-



Type Article No.	<b>ELMON inductive 71-242</b> 1204-0100	<b>ELMON inductive 74-312</b> 1206-0060
Safety category / Performance Level	Cat. 3 / PL "e" *	Cat. 3 / PL "e" *
Voltage	24 V AC/DC ± 10%	24 V AC/DC 230 V AC ± 10%
Case	Dual in line plug for mounting on 1.38 " DIN-rail	Wall mounting with clear plastic cover case
Equipment	-	-



Type **ELMON inductive 77 R**  
 Article No. 1320-0880

Safety category / Performance Level	Cat. 2 / PL "d" *
Voltage	24 V AC/DC $\pm$ 10%
Outputs	Solid state relays output
Case	Black polyurethane case for DIN-rail or screw assembly
Dimensions WxHxD	2.52 " x 1.38 " x 3.82 "

The range of ELMON *inductive* system components includes further variations of control units /designs, operating voltages etc. and coil cores, which can be inquired separately.

\* According to EN ISO 13849-1:2008

In combination with a sensing device the Performance Level of the overall system has to be evaluated according to EN ISO 13849.

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inductiveELMON<sup>®</sup>  
wicomLISENS<sup>®</sup>  
grid

# ASO Inductive Signal Transmission System

## Accessories



Type  
Article No.

**SPK 54 S**  
1317-0010

**SPK 54 M**  
1317-0020

<i>Specification</i>	Coil core travelling on the gate for external mounting (screw-type mounting)	Coil core travelling on the gate for external mounting (M8-connection)
<i>Dimensions WxHxD</i>	1.70 " x 1.42 " x 1.89 "	1.70 " x 1.42 " x 1.89 "



Type

**ISB I1**  
206 185

**SPK 51.2**  
206 124

<i>Specification</i>	Complete set with coil cores, mounting brackets, 65.62 " steel rope and accessories for internal mounting in door roller profiles from 5.12 " up to 7.48 "	Coil core travelling on the gate for internal installation
<i>Dimensions WxHxD</i>	-	2.64 " x 0.83 " x 0.83 "



**SPK 55**  
1319-0010

Coil core stationary on the gate for external mounting

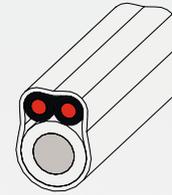
1.54 " x 1.06 " x 1.57 "



**ISB A4**  
1209-0020

Clamping unit, Mounting brackets, 65.62 " steel rope and accessories for external mounting

-



**Steel cable**  
1209-0170

Steel cable with additional pair of cable cores, 65.62 "

-



**SPK 52.2**  
206 125

Coil core travelling on the gate for internal installation

1.97 " x 0.83 " x 0.83 "



**SPE 3**  
205 147

Connection electronic for SPK 52.2

1.97 " x 1.97 " x 1.38 "

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edge

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bumper

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inductive

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wicom

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grid

## ASO Wireless Transmission System



**ELMON<sup>®</sup>**  
*wicom*

The ELMON wicom extends ASO's product portfolio by a secure radio transmission system for horizontally as well as vertically moving gates. The energy-saving technology ensures a safe evaluation of moving safety contact edges and other sensors.

### Features:

- Secure radio transmission technology
- Adaptive Mapping System: For a permanently stable and secure connection
- Fastest transmission and response times for safe operation
- Flexible output signals suitable for every door application
- Intuitive quick pairing process
- Low maintenance thanks to long-life lithium battery

# ASO Light Curtains



## LISENS<sup>®</sup> grid

The LISENS grid light curtain, a non-contact sensor, complements the SENTIR product line for securing closing edges and danger spots. The concealed installation, for example of a LISENS grid light curtain on a sectional door, also preserves the aesthetics of the door system and at the same time enables high operating speeds.

### Features:

- Universal output signals: FSS, PNP
- Integrated electronic signal processor
- Integrated electronic adjustment functionality
- For flexible use : activatable blanking functionality
- Robust extruded aluminum profile
- Cables with colour coded M8-connectors: Easy to fit, safe against false wiring

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STEPTU

ELMON<sup>®</sup>  
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inductiveELMON<sup>®</sup>  
wicomLISENS<sup>®</sup>  
grid

# General Terms and Conditions of Sale and Delivery

ASO Safety Solutions, Inc., 350 North Frontage Road, Landing, NJ 07850

These General Terms and Conditions of Sale and Delivery (herein, "Terms and Conditions") are applicable to all customers (collectively, the "Customers" and each, individually, a "Customer") of Aso Safety Solutions, Inc., a New Jersey corporation (the "Company").

## Terms and Conditions of Sale:

1.1 The Company shall sell and deliver to the Customer and the Customer shall purchase and accept from the Company the products (herein, the "Products") described on or in any confirmed order, agreement or quotation, or any combination thereof (the "Order"), pursuant to the terms and conditions of the Order and those specified below, which taken together shall constitute the entire agreement between the Company and the Customer regarding the Products (herein, this "Agreement").

1.2 Unless otherwise agreed in writing or otherwise stated on the quotations, all quotations for Products are valid for a period of thirty (30) days from the date of issue. Subsequent modifications in quantity or quality, if such are requested by the Customer, generally will cause a modification of the quoted price. The Customer shall bear all costs associated with the modification of the Order.

1.3 No Order is binding upon the Company until the earlier of acceptance of the Order in writing with an order confirmation or the delivery of the Products to the Customer. Notwithstanding any prior acceptance of an Order by the Company, the Company shall have no obligation if the Customer is in breach of any of its obligations hereunder, or any other agreement between the Customer and the Company, at the time the Company's performance was due.

1.4 All verbal agreements concerning the terms of any Order, including agreements made by telephone, shall have no force and effect unless and until acknowledged by the Company in writing.

1.5 Orders placed with and accepted by the Company may not be canceled except upon the Company's written consent prior to shipment and the Customer's acceptance of the Company's cancellation charges which shall protect the Company against all costs and losses. The Company reserves the right to cancel any Order hereunder in the Company's sole discretion without liability to the Company (except for refund of monies already paid).

## 2. Prices:

2.1 All price quotations are EXW (per Incoterms 2010) from the Company's shipping facility at 350 North Frontage Road, Landing, NJ 07850 and do not include costs for packing, postage or other freight charges, insurance or taxes, if any.

2.2 Prices in catalogues and brochures are not binding unless confirmed in writing by the Company in order confirmation.

2.3 The price of the Products shall be the Company's current prices in effect from time to time or by special price quotes made to customer in writing.

2.4 The Company may, without notice to the Customer, increase the price of Products by the amount of any new or increased tax or duty (excluding franchise, net income and excess profits taxes) which the Company may be required to pay on the manufacture, sale, transportation, delivery, export, import or use of the Products or the materials required for their manufacture or which affects the costs of such materials.

## 3. Terms of Payment:

3.1 Unless otherwise agreed to in writing by the Company, invoices issued by the Company are due and payable by the Customer within thirty (30) days from the invoice date. The Customer shall make payments by check or wire transfer to the account indicated on the invoice without a cash discount or offset and the Company shall not be required to incur any expense to receive timely payment in full as required by this Agreement. Payments by check shall be subject to collection and shall be received by the Company within said thirty (30) day period. In the event of returned checks, the Company shall be entitled to charge a \$25 processing fee.

3.2 Unless otherwise agreed to in writing by the Company, invoices for the production material (the "Tools" as defined below in Section 4.6) will be invoiced separately by the Company.

3.3 The Company may without notice change or withdraw extensions of credit at any time. If the Company ceases to extend credit terms before shipment, the Customer's sole remedy shall be cancellation of its order. If the Customer does not receive notice before shipment, its sole remedy shall be rejection of the Products immediately upon delivery.

3.4 If the Customer fails to make payment on or before the date required, the Customer shall pay interest to the Company at the rate of one point five (1.5%) percent per month or such lesser amount permitted by law. The specification or charging of interest shall not be deemed an agreement to extend credit.

3.5 If the Customer fails to observe these Terms and Conditions or the terms of any other agreements between the Company and the Customer, or if the Customer becomes insolvent, all balances then due and owing to the Company shall become due immediately, notwithstanding any agreed upon payment periods. Any Orders that have been confirmed by the Company but not yet filled shall in such cases become cancelable at the sole discretion of the Company.

3.6 The Customer does not enjoy a right of set-off under any circumstances.

## 4. Delivery Terms:

4.1 Unless otherwise provided on the face hereof, all Products furnished hereunder will be shipped EXW (per Incoterms 2010) and title in, risk of loss, and the right of possession to such Products shall pass to the Customer upon the Company's delivery to a carrier at the Company's shipping facility, and the Company is not responsible for damage or loss in transit, regardless of whether or not the Customer may have the right to reject or revoke acceptance of said Products. The Company can arrange for in-transit insurance at the Customer's expense, but will not do so without the Customer's written instructions. Unless otherwise stated in Agreement documents, all Products will be shipped freight prepaid and billed. Charges for shipping may not reflect net transportation cost paid by the Company. The Company shall be responsible for all import requirements of any country into which it seeks to import the Products. The Company shall be entitled to make partial deliveries or deliveries prior to the agreed-upon delivery date, provided that the Company notifies the Customer of the same.

4.2 The Customer shall pay all freight, transportation, shipping, insurance and handling charges, duties, and taxes, including any applicable VAT, sales, personal property, ad valorem, and other taxes, duties, levies or charges imposed by any governmental authority, irrespective of whether applicable law makes such items the responsibility of the Customer or the Company, but excluding any taxes payable by the Company with respect to its net income.

4.3 The Company shall be entitled to deliver excess or short deliveries within a ten (10) percent tolerance of the total order quantity if the difference results from technical or production causes. The invoice amount shall then be adjusted accordingly.

4.4 The Products shall be packaged as stated in the Company's order confirmation. The Customer shall be exclusively responsible for, and shall provide the Company with, any information necessary to comply with special labeling requirements applicable at the Customer's place of business. The Company is not bound to organize export clearance.

4.5 Subject to the Company's available facilities at the shipping point, the Company shall determine the type of transportation and shall notify the Customer thereof at the time the Customer places each Order. The Company or its agent may select any commercial air, ship, motor or rail carrier or any combination thereof for the transportation of the Products. The Company will make deliveries of the Products in the quantities ordered as near as reasonably possible to the Customer's requested delivery dates.

4.6 The Company shall use its reasonable efforts to deliver the Products to the Customer by the agreed upon date. However, time shall not be of the essence. Except in cases of the Company's willful misconduct or gross negligence, the Company shall not be liable to Customer for delays in delivery or damage to Products while in transit, irrespective of whether the Company or the Customer determined the mode of transportation.

4.7 In cases of deliveries of Products manufactured to the Customer's specification ("Special Orders") and unless otherwise agreed to in writing, all tools, drawings, samples, models, plans, blueprints or other devices and/or documents used and/or developed by the Company (the "Tools") in order to fulfill any Order or Special Order are the property of the Company, even if the cost of development and/or manufacturing of such tools, models, plans, blueprints or other devices and/or documents was wholly or partially borne by the Customer.

**5. Termination**

5.1 In addition to any other remedies that the Company may have, the Company may terminate this Agreement with immediate effect upon written notice to the Customer, if the Customer: (i) fails to pay any amount when due under this Agreement and that failure continues thirty (30) days after the Customer's receipt of written notice of nonpayment; (ii) has not otherwise performed or complied with any terms under this Agreement, in whole or in part; (iii) becomes insolvent, (iv) calls a meeting of its creditors, or (v) makes any assignment for the benefit of creditors, or if (vi) a bankruptcy, insolvency, reorganization, receivership or reorganization proceeding shall be commenced by or against the Customer.

5.2 In each such occasion, the Company may, at its sole discretion, opt to (1) cancel this and any other Agreement with the Customer (without waiving any of the Company's rights to pursue any remedy against the Customer); (2) claim return of any Products in the possession of the Customer, the title of which has not passed to the Customer, and enter the Customer's premises (or the premises of any associated company or agent where such Products are located), without liability for trespass or any alleged damage, to retake possession of such Products; (3) defer any shipment hereunder; (4) declare forthwith due and payable all outstanding invoices of the Customer under this or any Agreement; and/or (5) sell all or part of the undelivered Products, without notice at public and/or on private sale, while the Customer shall be responsible for all costs and expenses of such sale and be liable to the Company for any shortfall in the discharge of the amounts due to the Company.

5.3 The Customer's obligations under Sections 6, 7, 9, 10, 11, 13, 14, 16 will survive any termination of this Order.

**6. Security Interest:**

6.1 As security for the timely payment and performance of all Customer's indebtedness to the Company, the Customer hereby grants to the Company a first -priority security interest in the Products following delivery thereof to the Customer ("Collateral"). Such Interest shall remain in force until payment in full of the entire purchase price for the Products and any other amounts due to the Company by the Customer.

6.2 If so requested by the Company, the Customer shall deliver to the Company, in form and substance satisfactory to the Company, and duly executed as required by the Company, financing statements and other security interest per-fection documentation in form and substance satisfactory to the Company, duly filed under the UCC in all jurisdictions as may be necessary, or in the Company's opinion, desirable, to perfect the Company's security interest and lien in the Collateral, in order to establish, perfect, preserve and protect the Company's security interest as a legal, valid and enforceable security interest and lien, and all property or documents of title, in cases in which possession is required for the perfection of the Company's security interest.

**7. Indemnity:**

7.1 The Customer agrees to defend, indemnify and hold the Company (and its agents, representatives, employees, officers, related companies, successors and assigns, and customers) harmless from all claims, demands, actions, damages, and liabilities (including attorney's fees and consequential and incidental damages) arising out of any injury (including death) to any person or damage to any property in any way connected with any act or omission of the Customer, its agents, employees, or subcontractors.

**8. Force Majeure:**

8.1 The Company shall not be liable to the Customer or any other person for any failure or delay in the performance of any obligation under this Agreement due to events beyond its reasonable control, including, but not limited to, fire, storm, flood, earthquake, explosion, accident, acts of the public enemy, wars, riots and public disorder, sabotage, strikes, lockouts, labor disputes, labor shortages, work slowdown, stoppages or delays, shortages or failures or delays of energy, materials, supplies or equipment, transportation embargoes or delays, acts of God, breakdown in machinery or equipment, and, except as otherwise set forth in this Agreement, acts or regulations or priorities of the federal, state or local governments.

8.2 When the event operating to excuse performance by the Company shall cease, this Agreement shall continue in full force until all deliveries have been completed.

**9. Intellectual Property:**

9.1 The Customer acknowledges the Company and its affiliates are the owners of the brands, trademarks, designs, patents, copyrights and other intellectual property relating to the Company's Products, and that no right or license is conveyed by the Company to the Customer to manufacture, have manufactured, modify, import or copy such products. The Customer agrees that it will reference brands of the Company or its affiliates only in connection with the use or sale of Products delivered to the Customer hereunder, and not in connection with the sale of any other product, except as separately authorized by the Company in writing.

**10. Patent Indemnity:**

10.1 If a Product delivered by the Company to the Customer becomes or, in the Company's opinion, may become the subject of any claim, suit or proceeding for infringement of any patent, the Company may at its option and expense (i) obtain for the Customer the right to use, lease or sell the Product, (ii) replace the Product, (iii) modify the Product, or (iv) remove the Product and refund the purchase price paid by the Customer less a reasonable amount for use, damage or obsolescence. The Company will not be liable for any infringement arising from any modification of a Product, from any combination of a Product with any other product(s), or from the use of a Product in practicing a process or unintended applications. The Company's total liability to the Customer will not, under any circumstances exceed the purchase price paid for the allegedly infringing Product. The Customer agrees, at its expense, to protect and defend the Company against any claim of patent infringement arising from compliance with the Customer's designs, specifications or instructions and to hold the Company harmless from damages, costs and expenses attributable to any such claim.

**11. Confidentiality:**

11.1 The Customer agrees that all drawings, prints and other technical material which the Company may provide to the Customer, whether prepared by the Company or by third parties under Agreement to the Company, contain data which embody trade secrets and confidential know-how of commercial value to the Company or third parties under Agreement to the Company. The Customer agrees (a) to keep such information confidential; (b) that it will not disclose such information to any other person, corporate division or entity; (c) will not use such information except in connection with the Products supplied hereunder; and (d) will not sell, lease, loan or permit any other person, corporate division or entity to use such information for any purpose, without the Company's prior written consent. Nothing herein shall restrict the use of information generally available to the public.

**12. Export Control:**

12.1 This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States or other countries that may be imposed on the parties from time to time. Each party agrees that it will not export, directly or indirectly, any technical information acquired from the other party under this Agreement or any Products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the appropriate agency or other governmental entity in accordance with applicable law.

**13. Dispute Resolution:**

13.1 Any controversy or claim arising out of or relating to this Agreement, or the negotiation or breach thereof, shall be exclusively settled by arbitration in accordance with the International Arbitration Rules of the American Arbitration Association ("AAA"). The award shall be final and binding. Judgment upon the award rendered by the arbitrator or the arbitrators may be entered in any court having jurisdiction thereof. The arbitration shall be held in New York, New York, shall be conducted in the English language, and shall be conducted (i) if the amount in dispute is less than \$250,000, before a single arbitrator mutually agreeable to the Company and the Customer, or if no agreement can be reached, then selected by the AAA, or (ii) if the amount in dispute is \$250,000 or more, before three (3) arbitrators. The arbitrator(s) shall make detailed findings of fact and law in writing in support of his, her or their decision, and shall award reimbursement of attorney's fees and other costs of arbitration to the prevailing party, in such manner as the arbitrator shall deem appropriate. In addition, the losing party shall reimburse the prevailing party for reasonable attorneys' fees and disbursements, the costs of the arbitration (including but not limited to the fees and expenses of the arbitrator and expert witnesses) and the costs incurred by the prevailing party in successfully seeking any preliminary equitable relief or judicially enforcing any arbitration award.

**14. Governing Law:**

14.1 This Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey, without giving effect to principles of conflict of laws thereof or the UN Convention on Agreements for the International Sale of Products of 1980.

**15. Severability:**

15.1 If any provision contained in this Agreement is held to be invalid, illegal or unenforceable, such invalid, illegal or unenforceable provision shall be severed from the remainder of this Agreement, and the remainder of this Agreement shall be enforced. In addition, the invalid, illegal or unenforceable provision shall be deemed to be automatically modified, and, as so modified, to be included in this Agreement, such modification being made to the minimum extent necessary to render the provision valid, legal and enforceable. Notwithstanding the foregoing, however, if the severed or modified provision concerns all or a portion of the essential consideration to be delivered under this Agreement by one party to the other, the remaining provisions of this Agreement shall also be modified to the extent necessary to equitably adjust the parties' respective rights and obligations hereunder.

**16. Miscellaneous:**

16.1 In the event of a violation or threatened violation of the Company's proprietary rights, the Company shall have the right, in addition to such other remedies as may be available pursuant to law or this Agreement, to temporary or permanent injunctive relief enjoining such act or threatened act. The parties acknowledge and agree that legal remedies for such violations or threatened violations are inadequate and that the Company would suffer irreparable harm.

16.2 Each party will comply with all applicable laws, regulations, and ordinances, and the Customer will comply with the export and import laws and regulations in effect as of the date of shipment of the Products of any country involved in the transactions contemplated by the Agreement.

16.3 The parties hereto are independent contractors and nothing in this Agreement will be construed as creating a joint venture, employment or agency relationship between the parties. The Customer shall not be entitled to assign the rights and obligations of the Customer set forth in this Agreement without the prior written consent of the Company.

16.4 The failure by either party to enforce at any time or for any period any one or more of the Terms and Conditions herein shall not be a waiver of them or of the right at any time subsequently to enforce all Terms and Conditions of this Agreement.

16.5 This Agreement, including any Schedules attached hereto, contains the entire agreement of the parties with respect to the subject matter of this Agreement, and supercedes all prior agreements between them, whether oral or written, of any nature whatsoever with respect to the subject matter hereof. This Agreement is binding upon the parties hereto, their successors and permitted assigns. It can only be amended in writing which (i) specifically refers to the provision of this Agreement to be amended and (ii) is signed by both parties.

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grid

# ASO Worldwide



## Headquarters Europe

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**Fax** +49 2941 9793-299  
[www.asosafety.de](http://www.asosafety.de)  
[sales-eu@asosafety.com](mailto:sales-eu@asosafety.com)

## Headquarters USA

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350 North Frontage Road  
Landing, NJ 07850  
USA

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[sales-us@asosafety.com](mailto:sales-us@asosafety.com)

## Headquarters Asia Pacific

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[sales-cn@asosafety.com](mailto:sales-cn@asosafety.com)

## ASO France

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77470 Trilport

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**Fax** +33 1 6042 2350  
[www.asosafety.fr](http://www.asosafety.fr)  
[france@asosafety.com](mailto:france@asosafety.com)

## ASO United Kingdom

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Halesowen West Midlands,  
B63 2QT

**Phone** +44 1384 413366  
**Fax** +49 2941 9793-299  
[www.asosafety.co.uk](http://www.asosafety.co.uk)  
[england@asosafety.com](mailto:england@asosafety.com)

# ASO Partners Worldwide

## Europe

### Belgium

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Mrs. Geurs  
Duifhuisstraat 37  
B-3800 Sint-Truiden  
**Phone** +32 11 59 33 50  
www.ab-matic.be  
info@ab-matic.be

### Denmark

OEM Automatic KLITSO  
Mr. Holst  
Engholm Parkvej 4  
3450 Allerød  
**Phone** +45 48 10 64 81  
www.oemklitso.dk  
mikkel.holst@oemklitso.dk

### Germany

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