

2024

Solutions Book



ASO Safety Solutions

Solutions at a glance



Introduction

“The right solution for any application”



Helmut Friedrich - CEO

For you as our customer, we see ourselves as “partner in performance”, a strong consultant and supplier at your side. We meet problems with solutions, difficulties with simplification, and challenges with results. Because ASO delivers far more than just mere products: ASO creates added value. As a dialog and development partner, we ask the right questions to develop the best possible product together with our customer.

Solutions at a glance



SENTIR edge

safety contact edges

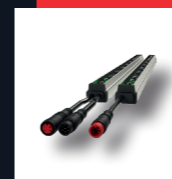
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ELMON

safety relays / signal transmission

10



LISENS grid

light curtains

11

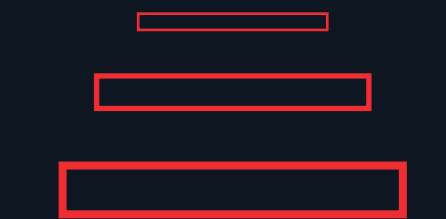
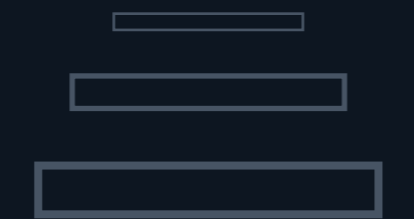
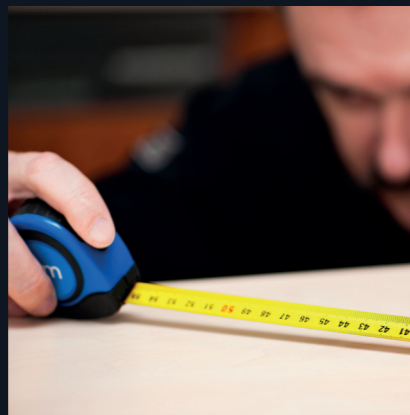


DRICO

drive controls

12

SENTIR edge[®] - Solutions



Integriertes System

So close

Freezing cold

Let it burn

Oily affair

Diving deep

Overhead doors often need buffers to avoid permanent compression of the safety edge. Usually these are mounted sideways the edge but for this special project ASO's engineers created an integrated solution of a buffer that finds itself within the hollow chambers of the safety edge. In addition, data cables run through the edge to allow the connection of additional parts on the door (e.g. slack rope switches).

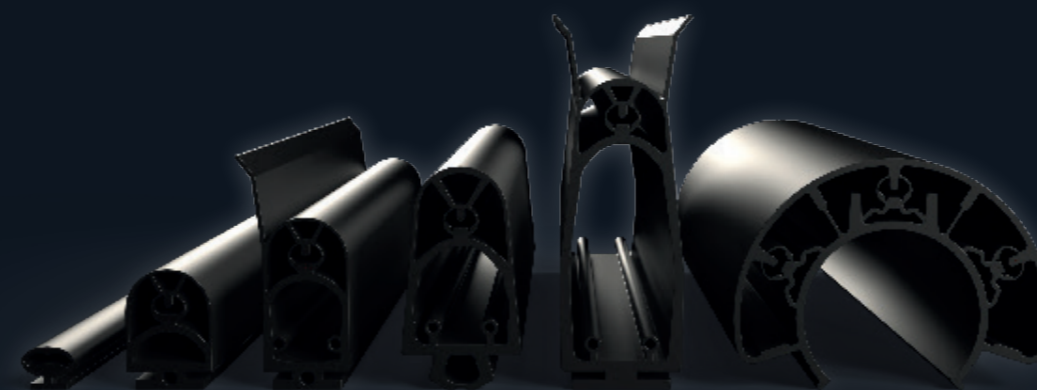
Sometimes it is just a matter of millimeters. In this case the customer was convinced of the self-assembly system already, but the standard height of the edge was a couple millimeters above allowable size due to required space for the folding process of his gate. So the customer now gets his own contact profile from ASO including customized assembly kits with adapted end caps.

Cold environments challenge every part of a door or gate. Our edges also have to work under these conditions, for example in very northern parts of our globe. In order to comply with regulatory values, we can equip just the upper part of our safety edges with a softer material.

Fire protection doors and gates have to withstand high temperatures as well as direct flame exposure. To withstand this challenge, the majority of ASO's safety edges can be produced with fire retardant material.

Elastomers and oil usually do not harmonize very well. But machine doors often get in contact with oils and chemical reactions of the compound is the consequence. To avoid any destruction by oils, this project required new material admixtures by the customers application.

Water and moisture are the enemy of any electronics. In this case a gate close to a river was flooded several times a year at rainy days, which goes far beyond the usual requirements for a safety edge. The necessary solution was a safety edge that is able to dive instead of sinking. So for this application we raised protection rating up to IP 68.



SENTIR edge[®] - Solutions



100% Recyclable material
40% less Packaging
35% less CO2 emission

Savings in packaging

In order to reduce packaging without compromising transportability and storability a task force was formed. A team of employees and customers analyzed and the customer's product-specific requirements. Combined with the customer's suggestions and requests, this led to a 40 percent reduction in packaging.

The green edge

Continuous improvements of our products belong to our daily work. And so do packaging improvements. We increased the safety edge's maximum delivery length and amount each pallet. This means up to 35% less CO² emissions thanks to less transport space required. In addition, we reduce packaging material by around 40%, a saving that we are happy to pass on to our customers. This reinforces our approach to the sustainability of our safety edges, which are made of 100% recyclable TPE material.



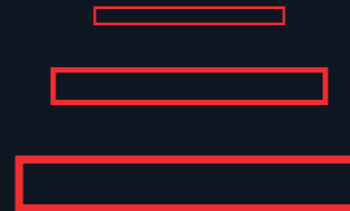
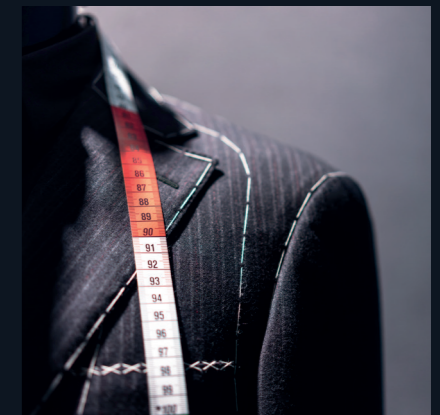
"As a global supplier, we are aware of our shared ecological responsibility. Ensuring a sustainable supply chain is part of our daily business"

SENTIR edge[®] - Solutions

Own carrier profile?

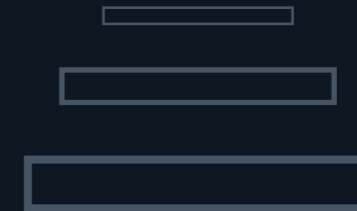
No problem if existing products do not meet the requirements. Mounting base changes of each SENTIR edge profile is a challenge we face frequently. Thanks to own extrusion lines and inhouse tool construction, partly even tool making,

almost every type of safety edge can be customized. Several customers already equipped their doors and gates with customized solutions designed by ASO.



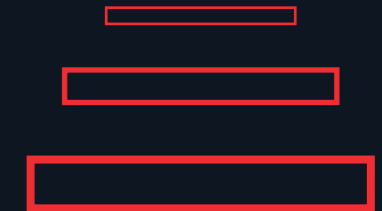
Force limited drive

DC-driven motors commonly use hollow rubber edges to move the gate within the permissible force limits. Every edge running from our extrusion lines can also be produced without any switching element. Some of our customers even use the same safety edge with and without integrated switching chamber.



Wraparound

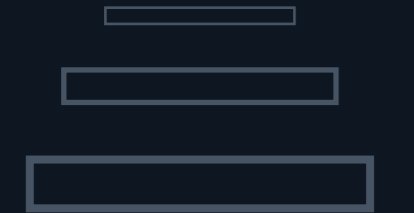
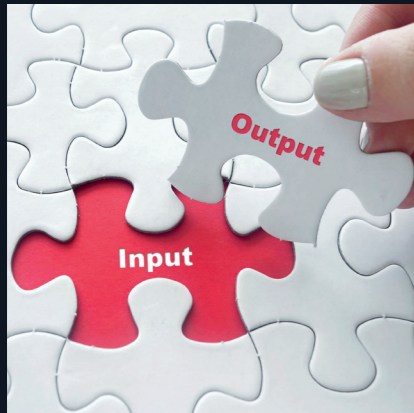
The ingeniously simple solution for in this case a 180 degree protection on sliding or swing gates in the USA! The large switching angle is achieved through 3 integrated switching chambers. The extremely hard profile base allows direct screwing to the frame profile. This unique solution is 100% developed and produced in-house by ASO and is available for round and square gate posts.



Its all yours

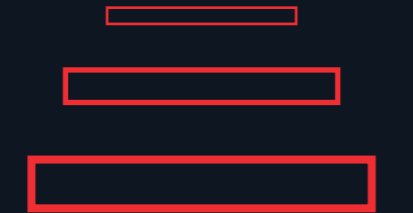
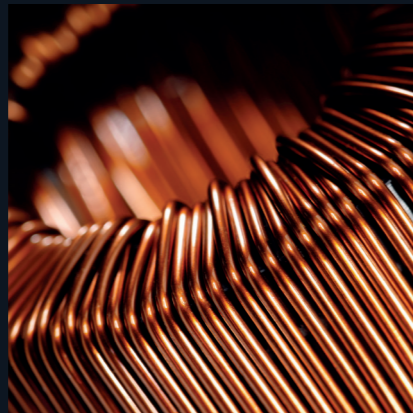
You need a special shape or outer appearance? For more than 35 years we develop and produce a high number of individual safety edge profiles for several manufactures of doors and gates according to their requirements.

ELMON® - Solutions



Adapted Output

Existing conditions or application-specific requirements often pose challenges for hard- and software. To solve this project, a two-channel switching device with originally two independent sensor circuits had to be adapted. No problem thanks to ASO's in-house development and production. The customer thus received a relay that always delivers synchronous signal at the 2 outputs with 2 independent input signals to accomplish maximum efficiency paired with highest safety.



Customized hardware

Inductive Signal transmission for gates is a very common technology, used for a reliable and maintenance free communication. But when modern gate constructions need integrated designs, a standard solution sometimes has to be adapted. Several ASO-Partners use an own customized design of coil cores by ASO within their ELMON inductive system to allow special wiring or custom design.



Inverted Signal

Monitoring devices are often designed to meet standard requirements and users have to arrange their application in accordance to device performance. To allow flexibility and individualized usage at some points this is not enough. Therefore, ASO's Solution was to integrate an inverted signal into one of our relays to cover the customers' requirements. Due to in-house development and production, this could also be realized within shortest time.

LISENS grid® - Solutions

LISENS grid



Fade out light

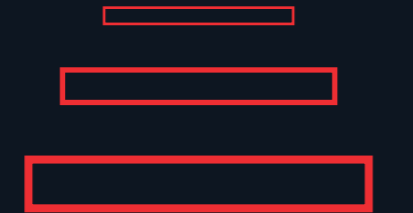
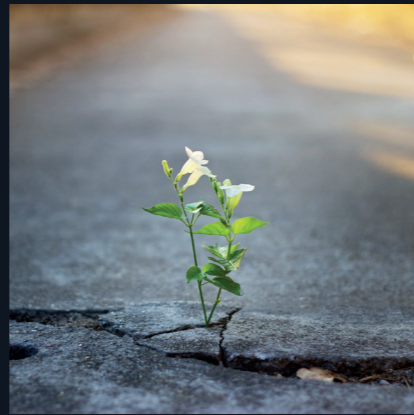
Depending on the application-specific space conditions within the door frame, it is sometimes necessary to implement a blanking of light curtain diodes depending on the door position. ASO's light curtains are equipped with a blanking function which can be activated or deactivated during wiring.



X in a row

Some applications require a different distance between each light beam. Thanks to own development and manufacturing ASO is able to customize each light curtain and adapt the amount of light diodes to secure the door up to a maximum level.

DRICO® - Solutions



Frosty surrounding

Ready, set, GO

So much, yet so little

Doors for cold storages require enormous performance of every single part. For this project every component of the drive control was analyzed and each material was selected to match with the application requirements. To round off the service package for the customer, the drives and controls are supplied pre-assembled.

Customized parameter settings of ASO's drive control allow for a quick and individual configuration of a tailored solution. Thanks to in-house development, preset and customized software setups are available quickly.

Even wide market offer not always provides a suitable solution. In this case roller shutters in automated loading systems required an individual configuration design of the DRICO drive control in order to secure the machine's efficiency. A challenge we were able to overcome thanks to the flexible configuration options of our drive controls.

AC/DC – Ride on

In this project a connection board already used by the customer led to a customized solution for a DC-driven sliding gate. Due to the positive experiences with our DRICO drive control it was only a question of adapting the power unit to make it usable for this DC-drive as well. In another project a modification for barriers is already in progress.





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