



ZEUS 4.0

INTELLIGENT. FAST. EFFICIENT.

ZEUS 4.0

Durable. Strong. Secure.

Zeus 4.0 is our most intelligent swepro anti-static bar. The very high needle density of the bar allows for an especially fast and precise discharge of electric charge from surfaces. This has a positive effect on the production processes: In addition to increasing production speed and preventing malfunctions, depending on the application, it is also possible to reduce scrap and increase product quality.

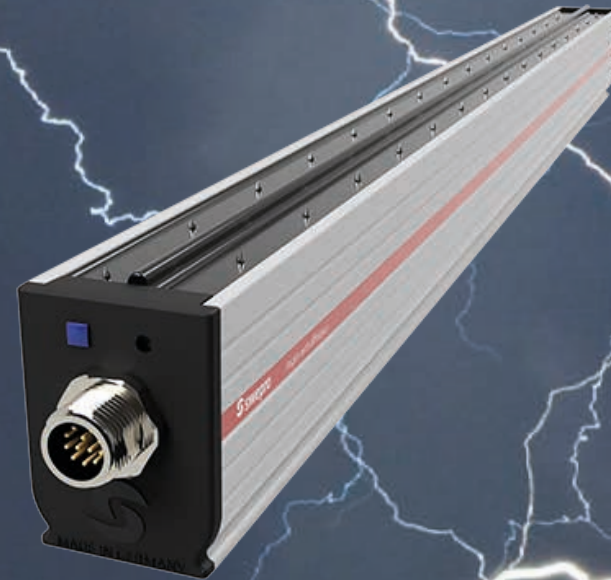
Zeus 4.0 offers extensive possibilities for communication, monitoring and reporting. The series was specifically designed for intensive industrial use.

Find out more about Zeus 4.0 in this launch brochure:

- Benefits
- Product series
- Technical data
- Application areas

Convince yourself of Zeus 4.0 from swepro.

Zeus 4.0 - Passion made in Germany.





**INCREASED
WORK SAFETY**



**INCREASED
PRODUCTION SPEED**



**IMPROVED
CONTROL &
MONITORING**



**INTELLIGENT
COMMUNICATION**



**LESS
PRODUCTION
SCRAP**



**INCREASED
PRODUCT QUALITY**



**LESS
INCIDENTS**



**REDUCED
COSTS**

Intelligent communication

With different systems

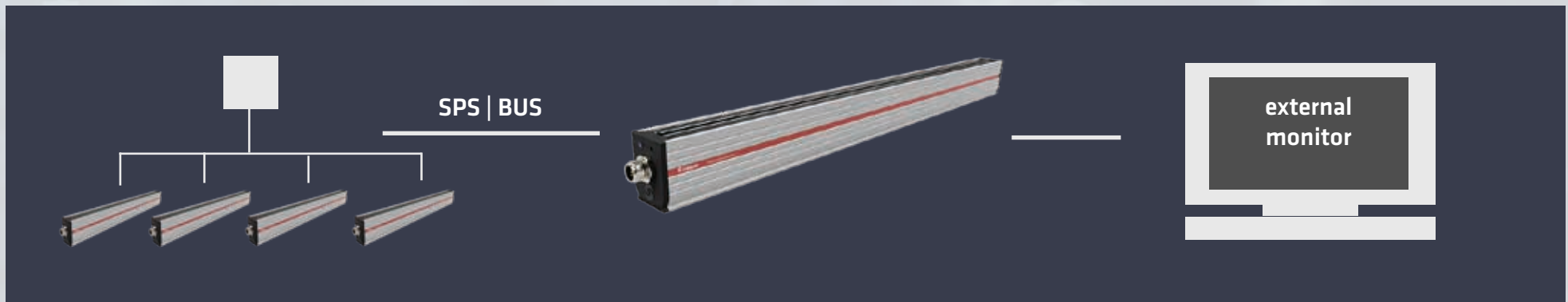
Zeus 4.0 offers versatile communication possibilities.

The DC bar series ZEUS has a Serial RS232 interface, which can be used for communication with the DC bars. Thanks to the CANopen and BUS couplers, several power supplies can be easily integrated into an existing control system and the performance data can be transmitted.

Zeus 4.0 will communicate with all common networks. Controlling will also be possible through an external monitor.

EtherNet/IP

PI
PROFIBUS - PROFINET



Monitoring & Controlling

DIGITAL - extensive, accessible from anywhere.



Digital allows the bar to be monitored closely.

The performance and functionality of the bar can be monitored from anywhere. This is possible through the simple integration into your existing control system and communication with common networks like ProfiBus, ETHERNET IP and Profi Net. Several bars from the Zeus 4.0 series can be integrated and monitored. The additional effort for monitoring the bars is therefore minimal. You can also easily integrate the bar data into your reporting.

VISUELL - simple, direct.



The built-in multicolor LED display provides an easy and direct control of the functioning of Zeus 4.0, the display is located on the end of the bar. Through this visual element, the user is always informed on site without any effort about the status of the bar (e.g. Blue blinking = operating mode).

The user is able to immediately take appropriate measures, e.g., cleaning the emitter tips, when they detect deviations from the desired mode.

Increased work safety

Touch safe



Zeus 4.0 is touch safe. Thanks to its special design, the emitter tips can be touched without the risk of electric shock. The safety of Zeus 4.0 is considerably increased.

Nevertheless, we at swepro strongly advise against touching the bar during operation in order to avoid any risk.

Prevent electrical shocks



Zeus 4.0, when installed and operated in the right places, sustainably minimizes the risk of production-related electric shocks. Particularly affected are friction-intensive production steps as well as processes with different materials. By targeted discharge of these surfaces, a charge imbalance is avoided and touching, for example, wound-up film rolls, is made possible without danger.

27% more efficient discharge*

Very high needle density

Zeus 4.0 has a particularly high needle density in comparison to its predecessor model and the common competing products, meaning more emitter tips (needles) on the same line length.

This is only possible thanks to the **patented voltage equalization** from swepro. Without it, such a high needle density would lead to disturbances in functionality. With this development, swepro has been able to sustainably increase the performance of the new line series.



*compared. to the predecessor model

100% Made in Germany



IDEA & CONCEPT

With Zeus 4.0, we have realized our idea of an especially powerful and intelligent antistatic strip.

The idea was born through the close collaboration with our various industrial customers and our commitment to continuously develop our products.

DEVELOPMENT

Our developer team as well as a team of external experts have researched and developed the bar for two years.

Practically, the development was accompanied by internal tests, long-term test series and intensive feedback loops from selected industrial customers.

PRODUCTION

Like all our anti-static products, the Zeus 4.0 series is also produced in our own production facility at our headquarter in at the Neuss (Germany) site.

This allows us to produce in a resource-saving manner and maintain our high quality standards of swepro Ionic products.

Your benefits

YOUR BENEFITS

FEATURES OF ZEUS 4.0

Increased work safety

- Direct: Touch-safe Emitter Tips
- Indirect: Precise Discharge Thanks to Very High Needle Density

Increased production speed

- Precise discharge thanks to very high needle density
- Smoother operatio

Improved control & monitoring

- Digital: Connecting to an external Monitor or Connecting to an existing System
- Visuell: LED display (error message, need for cleaning).

Improved control & monitoring

- Feedback: Integrated Serial RS232
- CANopen communication protocol
- Communication with networks (Profibus, ETHERNET IP, Profinet) via fieldbus system IO-Link EtherNet/IPEtherCAT (Anybus can translate this)

Less scrap

- Precise discharge thanks to very high needle density
- Uninterrupted operation
- Prevention of undesired adhesions

Increased product quality

- Precise discharge thanks to very high needle density
- Prevention of unwanted adhesions
- Precise discharge due to very high needle density

Fewer breakdowns

- Prevention of unwanted adhesions
- Smooth running

Specifically designed for intensive, industrial use

- Easy assembly
- Different lengths of bar
- Different distances achievable

Suitable for intensive, industrial use

- High product quality e.g.: Glass-fiber reinforced plastic profile
- Made in Germany (concept, development, production)

COST REDUCTION

Technical Data

ZEUS 4.0

Name	SI DC Zeus 4.0
Voltage	
Voltage supply	SI DC- PU (article no.: 945000) or power supply unit(24V; 10 Watt) with an M12 connector
Operating voltage	24 V DC \pm 10%
Earthing	It is absolutely necessary to connect the negative pole of the supply voltage to protective earth (PE). Otherwise, the bar may be damaged.
In the case of the SI DC-PU, it is already integrated into the power supply unit. Article No.: 945000	230 V
Short-circuit voltage / emission tip / earth:	Max. 70 μ A bei \pm 8 kV DC
Available in preassembled condition	Available in pre-assembled condition
Connections	M12 connector 12-pole
Protection class	IP66
Output	
Output Voltage	With 24V DC max. \pm 8KV (positiv und negativ)
Current between emitter and earth	Max. 70 μ A at 7 kV DC

Environment	
Temperature	Min. 0°C...+50°C (+32°F...+122°F)
Storage temperature	Min. 0°C...+80°C (+32°F...+176°F)
Material speed	Max. 8 m/sec
Operating distance	10-500 mm
For use in	Industrial applications
Protection class	IP66



















LED -Display	
Blue (flashing interval)	Frequency setting
	5 Hz 1x flashing .-. .
	10 Hz 2x flashing .-- .
	20 Hz 3x flashing .--- .
	30 Hz 4x flashing .---- .
50 Hz 5x flashing .----- .	
Red flashing	Overloaded (in fault mode) ...----...

Mechanical	
Effective length	465-3000 mm [L]
Dimensions	45 x 30 x (L) [H X B X L]
Weight	1,9 kg/m
Housing	Glass fibre reinforced plastic
Mounting options	Groove stones or mounting bracket
Emitter tip distance	1/30 mm (positiv zu negativ 15 mm)
Air connection	n/a

18 different lengths

Easy integration into your production line

Zeus 4.0 is available in 18 different lengths. All strips can be mounted either using a flexible grooved stone or externally using an additional holder. The operating distance ranges from 10 - 500 mm. This flexibility allows for a very easy installation in a variety of production lines and machines.

	Item-No	Length (mm)	
	1	945100	465
	2	945101	615
	3	945102	765
	4	945103	915
	5	945104	1065
	6	945105	1215
	7	945106	1365
	8	945107	1515
	9	945108	1665
	10	945109	1815
	11	945110	1965
	12	945111	2115
	13	945112	2265
	14	945113	2415
	15	945114	2565
	16	945115	2715
	17	945116	2865
	18	945117	3000

Structure & Characteristics

- 1 M12 power connection (including serial interface)
- 2 Multi-colored LED display for visual monitoring
- 3 Manual Frequency Switch
- 4 Patented Voltage Equalization Emitter Tips
- 5 High quality and powerful components
- 6 Glass Fiber Reinforced Plastic Housing for Heavy Industrial Use
- 7 18 different lengths





Industries & Applications

Versatile applications of the ZEUS 4.0 Anti-Static Bar



Chemistry & Petrochemistry



Mechanical Processing



Machine & plant engineering



Pharmacy



Plastic industry



Non-woven fabrics & Textiles



Printing / Paper & Packaging industry



Beverage industry



Wood industry



Electro industry



Food industry



Automotive & Vehicle Manufacturing



CHEMISTRY & PETROCHEMISTRY

- > Process optimization at high speeds
- Filling processes at silos
- > Protection against electric shocks
- > Preparation before changing granules
- > Sorting and conveying processes



PHARMACY

- > Optimizing process at high speeds
- > Ionizing blisters
- > Ampoule pre-cleaning
- Sorting tablets
- > Unloading medicines



MECHANICAL PROCESSING

- > Sorting and conveying processes
- > Discharge during polishing
- Removal of chips
- > Protection against electric shocks
- > Discharge during grinding of metal surfaces
- > Prevention of contamination



PRINTING / PAPER AND PACKAGING INDUSTRY

- > Sorting and conveying processes
- > Folding and stacking processes
- > Prevention of pollution
- > Unloading for blow and thermoforming
- > Optimization of printer results
- Protection against electric shocks
- > Unloading for winding and cutting processes



MACHINE & PLANT ENGINEERING

- > Optimizing processes at high speeds
- > filling processes at silos
- > Protection against electric shocks
- > Preparation before changing granules
- > sorting and conveying processes



PLACSTIC INDUSTRY

- > Optimization of processes at high speeds
- > Unloading of plastic parts
- > Sorting and conveying processes
- > Protection against electric shocks
- > Unloading processes for labeling
- > Prevention of pollution



NON-WOVEN FABRICS & TEXTILES

- > Sorting and conveying processes
- > Avoiding fiber and dust deposits
- > Winding processes e.g. on cutting machines
- > Cutting processes e.g. on non-wovens
- > Unloading of grommets and combs



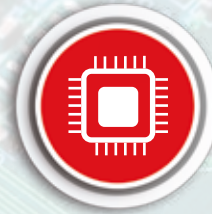
BEVERAGE INDUSTRY

- > Sorting & Conveying Processes
- > Avoiding Dust Accumulation
- > Process Optimization
- > Unloading Processes for Labeling



WOOD INDUSTRY

- > Process optimization
- > Avoiding chips and dust deposits
- > Protection against electric shocks
- > Sorting and conveying processes



ELECTRO INDUSTRY

- > Optimization of process flow at high speeds
- > Sorting and conveying processes
- > Cleaning of assembly points
- > Prevention of contamination
- > Unloading of components



FOOD INDUSTRY

- > Sorting and conveying processes
- > Protection against electric shocks
- > Discharge processes for labeling
- > Prevention of contamination
- > Process optimization
- > Discharge during cutting processes
- > Discharging during filling of powders



AUTOMOTIVE & VEHICLE MANUFACTURING

- > Sorting and conveying processes
- > Pollution prevention
- > Process optimization
- > Protection against electric shock

Electric Charge in Manufacturing and Machinery

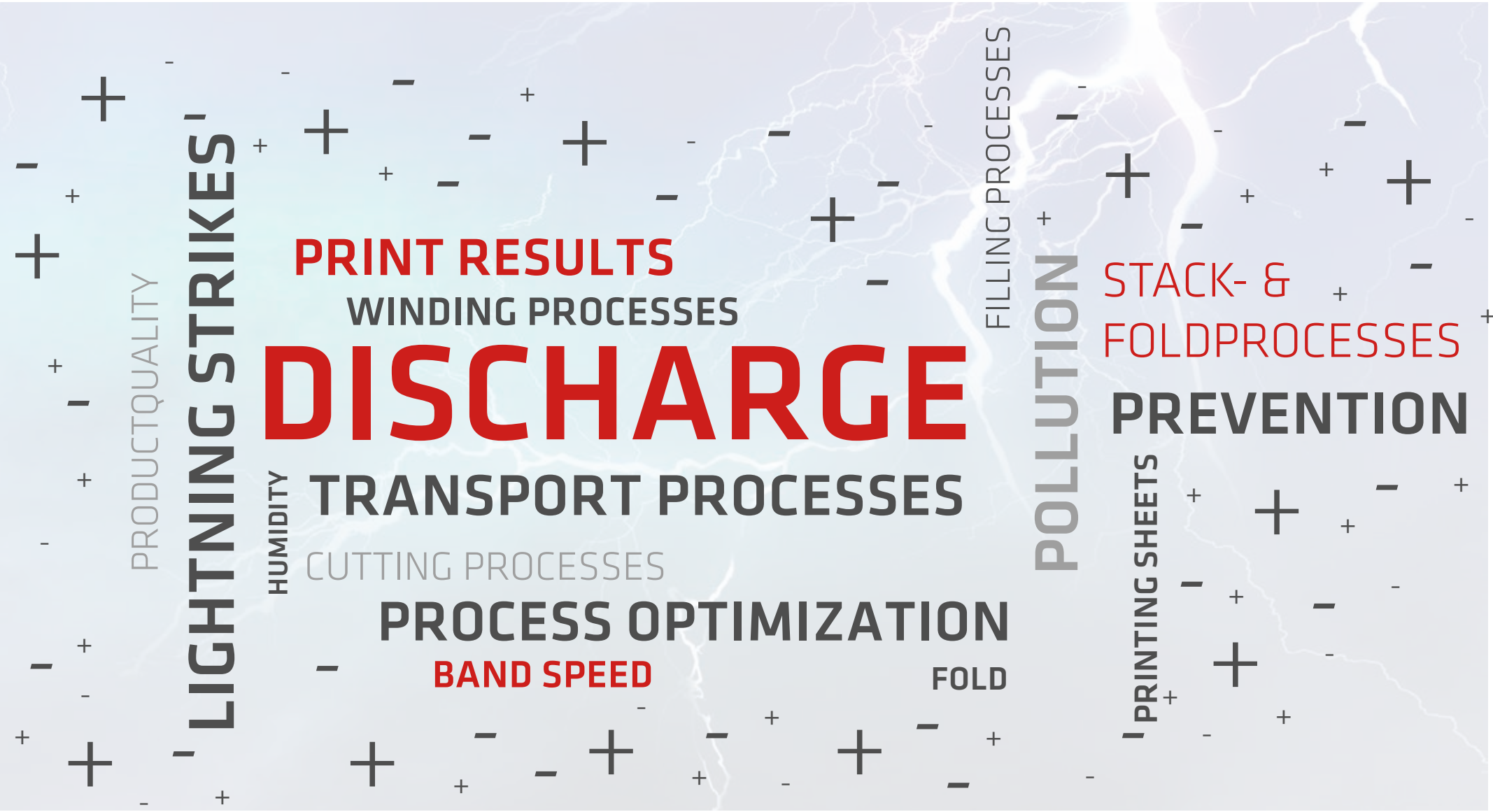
A largely unknown problem

In production lines and machines, disruptions in the flow often occur which cannot be clearly attributed to one cause at first glance. In a large number of cases, unintended electrical charges lead to these disruptions.

Indications of unwanted electrical charge:

- Electric shocks
- Fires & Sparks
- Dust adhesion
- Materials stick to each other
- High reject rate
- Only low tape speed achievable
- Many failures & disturbances





LIGHTNING STRIKES!

PRODUCT QUALITY

PRINT RESULTS
WINDING PROCESSES
DISCHARGE

HUMIDITY
TRANSPORT PROCESSES

CUTTING PROCESSES

PROCESS OPTIMIZATION

BAND SPEED

FOLD

FILLING PROCESSES

POLLUTION

STACK- & FOLD PROCESSES

PREVENTION

PRINTING SHEETS



FIGHT ELECTRIC CHARGE WITH ZEUS 4.0

SCHEDULE A CONSULTATION NOW.

+ 49 (0) 2131 / 75 22 100

ZEUS 4.0

ZEUS 4.0 try for free

Test under real working conditions

Almost all of our products can be tested under real conditions in your production for 14 days without any obligations. You don't have to worry about any administrative effort during the testing. If the product doesn't fit your application, we are happy to offer suitable alternatives. The products that are not needed can be picked up from you.

TRY IT FREE NOW:



+ 49 (0) 2131 / 75 22 100

Do you have questions or need individual advice?

WE ARE HAPPY TO HELP!

Monday to Thursday : 08:00 am - 17.00 pm
Friday: 08:00 am - 15.00 pm

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info@swepro.de
www.swepro.de



Arrange product test

Send a short email to:
info@swepro.de or call us:
+ 49 (0) 2131 / 75 22 100



Delivery

We will deliver the requested antistatic strips conveniently to your doorstep.

Try out non-committally

Convince yourself of our antistatic strips for 14 days.

Pick up

We will pick up the unused antistatic strips free of charge.





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