

## Static Control Discharging/Charging



**eltex** electrostatic  
innovations

[www.eltex.de](http://www.eltex.de)

**4** YEARS  
EXTENDED  
WARRANTY

**MADE  
IN  
GERMANY**

### Get the best out of your systems with Eltex.

Never have efficiency and reliability been more important than they are now. Eltex helps you get electrostatic under full control – from start to finish. Preventing electrostatic charging means reliable processes. Whether in charging, discharging or grounding – targeted use of electrostatics guarantees process reliability. And Eltex knows what is most important, with individual, industry-specific solutions for your company that you can rely on for the long run.

**A wide variety of requirements exist for efficient and sustainable charging and discharging products. Eltex has a wide variety of components in its product line which, assembled into modules, offer a solution for any problem.**

With individually configurable systems, Eltex finds solutions for specific problems – however tricky they may be. From flat film production to tube and bag production. From rewinding and wrapping to cleaning, ionizing and molded part manufacturing, Eltex has it covered, and the Eltex experts develop customized solutions for you.

**Eltex solutions are used in numerous industries: plastics, converting, printing, packaging, automation, chemicals, pharmaceuticals and many others. Visit our application examples:**  
> [www.eltex.de/en/Applications](http://www.eltex.de/en/Applications)



VARIO discharging products consist of a separate AC power supply unit for connecting one or more Eltex discharging components.



For the SINGLE products, the voltage generation (power supply unit) is integrated into the bar.



## DISCHARGING

### Discharging bars

Efficient Discharging bars providing a solution for every problem.

**rexBAR R60L**



**blueBAR R50**



**slimBAR R47**



**SMART DISCHARGING SYSTEM  
SDS**



**ionSTAR RX3**



**passivBAR RG52**



**exBAR EXR5C**



## > Ion blower nozzles

Modular Ion blower nozzles to discharge and clean a wide variety of surfaces.



## > Cleaning systems



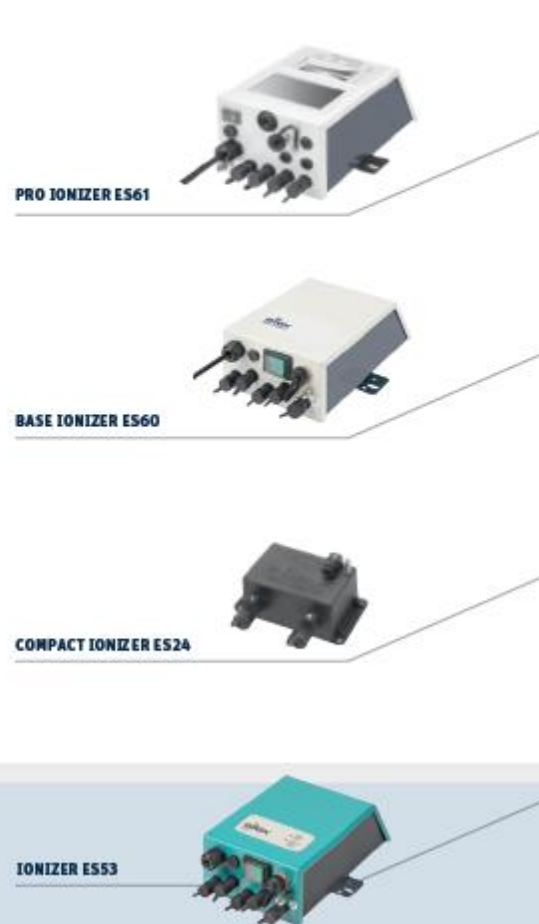
## > Ion blower guns

Flexible Ion blower guns are suitable for the manual cleaning tasks.



## > Power supplies

Efficient Power supplies for the powering of discharge components.



## > Charging bars

Robust Charging bars for targeted charging.



Charging bar R130



Charging bar R120



Point charging bar R23ATR

## > High voltage generator

Powerful Generators for all charging applications.



POWER CHARGER PCSC with touchscreen



POWER CHARGER PCSC with membrane keypad

## > Eltex Connected Control ECC



### Easy operation, clear functions

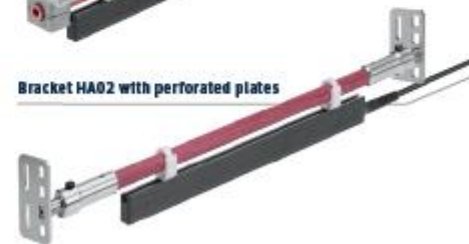
The Innovative software for convenient monitoring and central control of all Eltex products with CANopen® Interface. Connected devices can be grouped according to functions and machines, and their current system states can be displayed in an overview. The ECC is available in a software, built in or casing version and is our answer to your Industry 4.0 requirements.

## > Brackets for bars

Bracket HA01 with clamping pieces



Bracket HA02 with perforated plates



## Electrostatic grounding Systems/Components



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innovations

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## ▶ Electrostatic grounding – safety for production systems and employees

**Did you know that uncontrolled electric discharges are one of the most frequent causes of explosions and fires – and thus the third largest hazard source for your employees?**

Protect people and production systems with electrostatic grounding systems from Etxex. Etxex grounding systems provide greater safety when handling slightly flammable and explosive substances. In real-life applications, we often see inadequate grounding. Sometimes, the consequences of this can be fatal. We would be glad to provide advice or carry out an on-site assessment of your production system.

Some Etxex grounding products are available in our online shop:  
▶ <https://shop.eltex.de/en>



Smart electrostatic grounding helps you avoid risks. We explain how in a concise explanatory video:  
▶ [www.eltex-grounding.de](http://www.eltex-grounding.de)



When handling flammable substances, uncontrolled electrostatic discharges can have fatal consequences. In industry and production, they are one of the most frequent causes of explosions and fires when flammable substances are moved.

The sources of error in electrostatic grounding are often not visible to the naked eye. Incorrect grounding attempts often give production employees a false sense of security. Tragically so, because this increases the risk of an explosion or fire.

### Why is electrostatic grounding so important?

Electrostatics occurs when solid or liquid surfaces rub against each other. For example, when pumping explosive media through a pipeline. Ions of one potential (+) are deposited on the inside pipe wall, while ions of the opposite potential (-) are distributed in the medium being moved.



As a result of the movement, the charge carriers on the inner wall of the tube are separated from those in the moving medium. The latter becomes charged – and when it flows out of the tube, it releases the charge uncontrollably into the collection container. If this container is not grounded, it acquires an electrostatic charge. If you then move this container close to grounded machine part, there will be a sudden flow of charge. The resulting discharge spark can ignite the existing gas/air mixture and thus cause a fire or explosion.

**It is imperative to avoid this effect and the risk it incurs.**

## Overview of grounding systems

Electrostatic grounding provides greater safety in these industries:

- Chemicals/Pharmaceuticals/Life Science
- Filling plants
- Paint shops
- Printing plants
- Any operations that handle explosive materials (liquid, solid or gaseous)

Grounding with electrostatic systems is particularly beneficial in the following applications:

- Loading and unloading tanker trucks
- Explosion protection in production
- Securing big bags
- Filling and emptying containers
- Process assurance



## Active grounding systems

Safe monitoring through continuous measurement of the ground connection

Using their intrinsically safe electrical circuit, Eitex grounding systems monitor and control the entire ground connection between an object (tanker vehicle, container, etc.) connected to the ground contactor and the equipotential bonding conductor. If a flawless, safe and reliable ground connection is detected, depending on the ground monitoring device, an optical signal can be output or the process can be enabled. This ensures safe and reliable dissipation of any electrostatic charges.

The Eitex ground contactors, rewinding cable reels and grounding cables ensure a stable and fault-free connection between the object to be grounded and the active ground monitoring device.

TERRASMA RT for grounding systems is the smart way to get started with Industry 4.0 in this area. The system can be coupled with the multifunctional Eitex Connected Control (ECC) unit. This enables intelligent networking and convenient monitoring of workflows. A quick glance at the graphic interface of the ECC shows which grounding units are active or inactive. And, above all, tells you whether the systems are working without faults. This enables you to work safely, reliably and without risks.

In manual processes that are not integrated into the process monitoring, the battery-operated Eitex TERRALIGHT ground monitoring system provides safety and reliability. It checks whether the ground contactor is conductively connected with the object to be grounded, whether the object has a sufficient conductivity and whether it is itself connected to the equipotential bonding conductor. This makes it possible to prevent dangerous electrostatic charges reliably without major installation effort.

Features	Smart Grounding Solution TERRASMA RT	Active Grounding Solution TERRALIGHT	Passive Grounding Solution
Supply voltage	24 – 48 V DC +/- 20% or 100 – 240 V AC	batteries	–
Process release	1/ 2 / multiple	–	–
Number of objects that can be monitored	1/ 2	1	–
Type of objects	conductive / dissipative	conductive	conductive
Object detection	fixed threshold value / adjustable	fixed threshold value	–
Communication	potential-free contacts / CANopen® / Modbus TCP	–	–
Cable gland material	brass / stainless steel	brass / stainless steel	–
Remote monitoring / networking	via CANopen® / fieldbus in connection with ECC	–	–

## Test Device

With the TERRATEST TERRA-TU, the capacitive/resistive switching thresholds of all Eitex grounding devices can be checked quickly and easily in conjunction with the Eitex grounding clamps used.



## > Ground monitoring devices



Smart Grounding  
Solution



Active Grounding  
Solution

## > Passive Grounding

### Simple electrostatic grounding without monitoring

Available in different versions, the passive Eltex ground clamps are used to dissipate electrostatic charges without monitoring. The Eltex cable reels are the ideal accessories for the passive ground clamps and ensure safe storage of the ground cable and clamp. When using the passive ground clamps, make sure that the grounding point selected for connection complies with the relevant standards and directives with regard to the grounding resistance.

Passive Grounding  
Solution

## > Grounding clamps



TERRACLAMP TERRA-C



TERRACLIP 70AK



TERRACLIP 70HK



TERRACLAMP TERRA-C/P



TERRACLIP 70PK



TERRACLIP 700K

## > Cable reels/grounding cables



TERRACORD 601KR/AW

TERRACORD 601KR/DW



TERRACORD KG/B5

TERRACORD KG/BN



TERRACORD 601KR/EW

TERRACORD KG/G5

TERRACORD KG/GN