SE-DCB-110 Pulsed DC Antistatic Bar – 11 kV

Long-range static elimination at 100 – 600 mm — 11 kV pulsed DC, 24 V DC supply, no HV transformer



KEY DATA

Ionization output voltage
11 kV pulsed DC

Ionization range
100 – 600 mm

Ordering length
300 – 4500 mm in 100 mm steps

Overview

The FÖGE SE-DCB-110 is a compact, high-power 11 kV pulsed DC antistatic bar designed for long-range static elimination in demanding industrial environments. Operating directly from a 24 V DC supply (SE-PSU-24-C-M12, sold separately), it generates its 11 kV ionization voltage internally — eliminating external high-voltage transformers, HV cabling and the safety zones they require. With an effective working distance of 100 – 600 mm, it is the right choice for film winding and unwinding, labelling and converting lines, injection mould entry areas, robotic installations and any application where the bar must be positioned well away from the target surface.

Key features

- 11 kV pulsed DC ionization — generated internally from 24 V DC; no external HV transformer or HV cabling
- Effective working distance 100 – 600 mm — for long-range applications
- Orderable from 300 mm to 4500 mm in 100 mm steps
- 24 V DC supply (21 – 28 V) — connects to the SE-PSU-24-C-M12 adapter (sold separately)
- No compressed air required — passive ionizing bar
- Shockless design — tungsten emitter pins, safe for operators
- Balanced alternating pulsed DC — fast, complete neutralisation of positive and negative charges
- Integrated LED status indicator
- M12 connector for a 4-pin M12 cable — cable ordered separately
- IP65 industrial-grade, impact-resistant housing for continuous-duty production

Technical specifications

Product code	SE-DCB-110-xxxx (length in mm, e.g. SE-DCB-110-0600 = 600 mm)
Power supply (sold separately)	SE-PSU-24-C-M12 (220 V AC to 24 V DC)
Ionization type	Pulsed DC — shockless
Pin current (safety)	< 250 µA
Ionization output voltage	11 kV pulsed DC
Operating voltage	24 V DC (21 – 28 V) · 0.5 A max.
Ionization range	100 – 600 mm *

Ordering length	300 – 4500 mm in 100 mm steps
Emitter pin material	Tungsten — extremely long lifetime
Polarity	Alternating pulsed DC — balanced ion output
Connector	M12 — use a 4-pin M12 cable (order separately)
Status indicator	Integrated LED — power, ionization and fault status
Operating temperature	0 – 50 °C
Max. humidity	70 % rH, non-condensing
Protection class	IP65 (with connector)
Housing	Industrial-grade, impact-resistant
EMC compliance	2014/30/EU — EMC Directive
Electrical safety	2014/35/EU — Low Voltage Directive

* Ionization range measured under standard conditions (20 °C, 50 % rH). Effective range may vary with ambient humidity, temperature and line speed.

Which product to choose — SE-DCB-110, SE-DCB-90 or SE-DCA-110

All three products operate from 24 V DC with no external HV power unit.

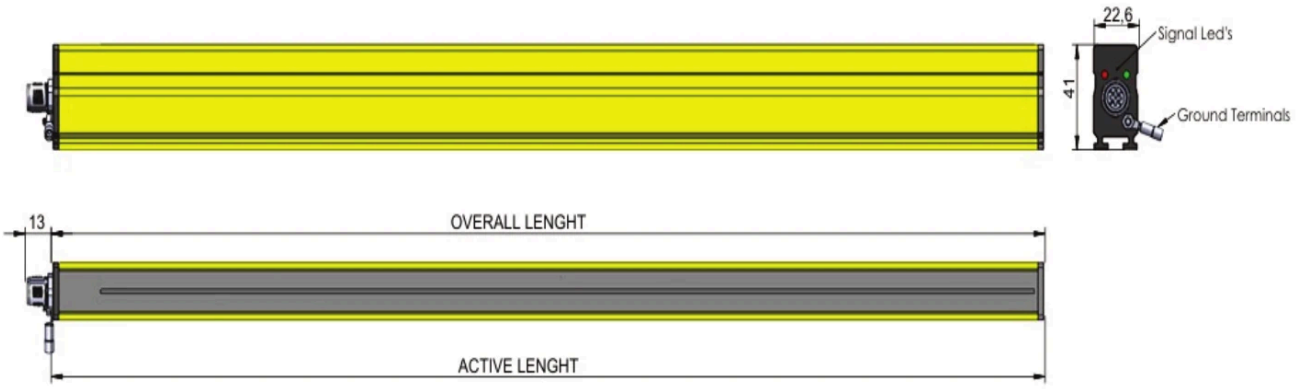
	SE-DCB-110	SE-DCB-90	SE-DCA-110
Voltage	11 kV pulsed DC	9 kV pulsed DC	11 kV pulsed DC + air
Working distance	100 – 600 mm	25 – 200 mm	Up to 1000 mm
Air required	No	No	Yes — min. 2 bar
Length range	300 – 4500 mm	300 – 4500 mm	300 – 2000 mm
Best for	Film winding, labelling, converting, robotics — long range, no air	Conveyors, bins, printing — short to medium range, no air	Winding, moulds, conveyors — maximum range where compressed air is available

Electrical connection — M12

Pin	Function
1	+24 V DC
2	Not used
3	24 V– (GND)
4	Fault output

Use a 4-pin M12 cable. The device connector has 5 pins; the centre pin is reserved for factory programming and is not used by the 4-pin cable. Pin 2 is not used. Pin 4 provides a fault output signal for external fault indication. Do not connect or disconnect while power is applied.

Dimensional drawing

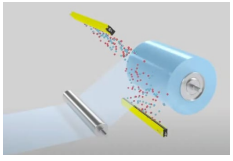


Dimensional drawing of the SE-DCB-110 pulsed DC antistatic bar: profile 22.6 × 41 mm, 13 mm connector end, signal LEDs and ground terminal, overall and active length

Complete system — what you need

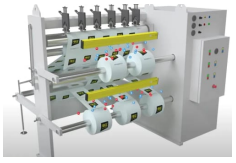
SE-DCB-110 bar (specify length)	Order in the required length (300 – 4500 mm, 100 mm steps). Example: SE-DCB-110-0600 = 600 mm
SE-PSU-24-C-M12 power supply	220 V AC to 24 V DC adapter — required · sold separately
4-pin M12 cable	Industrial M12 connection cable — length to suit installation · sold separately
Mounting brackets (optional)	Standard and custom brackets — contact FÖGE for options
Maintenance kit (optional)	FÖGE Antistatic Maintenance Kit — cleaning tools and spare tungsten emitter pins

Application examples



Film Winder / Rewind Station (Dual-Bar Setup)

Winding and rewinding continuous webs of plastic film, paper, foils, or textiles into safe, static-free finished rolls.



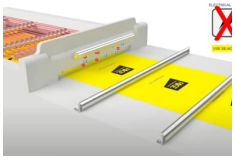
High-Speed Web Handling / Converting Line

Total static neutralization for continuous webs during high-speed printing, coating, laminating, or general roll-to-roll converting operations.



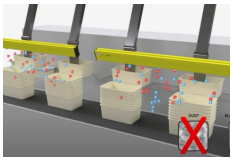
Blown Film Extrusion Line (Take-off / Collapsing Section)

Safely neutralizing the extremely high, dangerous static charges generated during the high-stress extrusion, cooling, and collapsing phases of blown plastic film manufacturing.



Cross-Cutting / Sheeting Machine (Web to Sheet)

High-speed cross-cutting, sheeting, or guillotine cutting of continuous plastic film, paper, or foil webs into individual sheets.



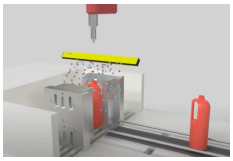
In Mould Labeling Application

Transporting, separating (de-nesting), or stacking empty plastic containers, tubs, or trays on a packaging or filling line.



Foam Plate Extrusion & Thermoforming Line (Food Industry)

High-speed extrusion and forming of foam plates, egg cartons, meat trays, and take-away food containers.



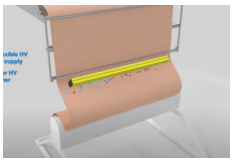
Stretch Blow Molding (SBM) / Injection Blow Molding

Ensuring precise alignment and mold protection during the high-speed production of plastic bottles, containers, and chemical carboys.



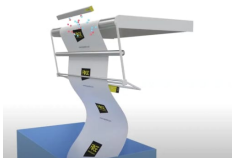
Medical Injection Molding (Collection & Sorting)

Cleanroom injection molding for medical components such as petri dishes, syringe barrels, test tubes, and IV connectors.



Textile Warping / Beaming Machine

High-speed warping, beaming, and sizing processes in the production of synthetic and blended textiles.



Textile Carding / Web Delivery

Fiber web control and sticking prevention in carding, combing, and non-woven textile manufacturing.

Product information and ordering: sales@fogegmbh.com · +49 9372 9809477 · foge-antistatic.com