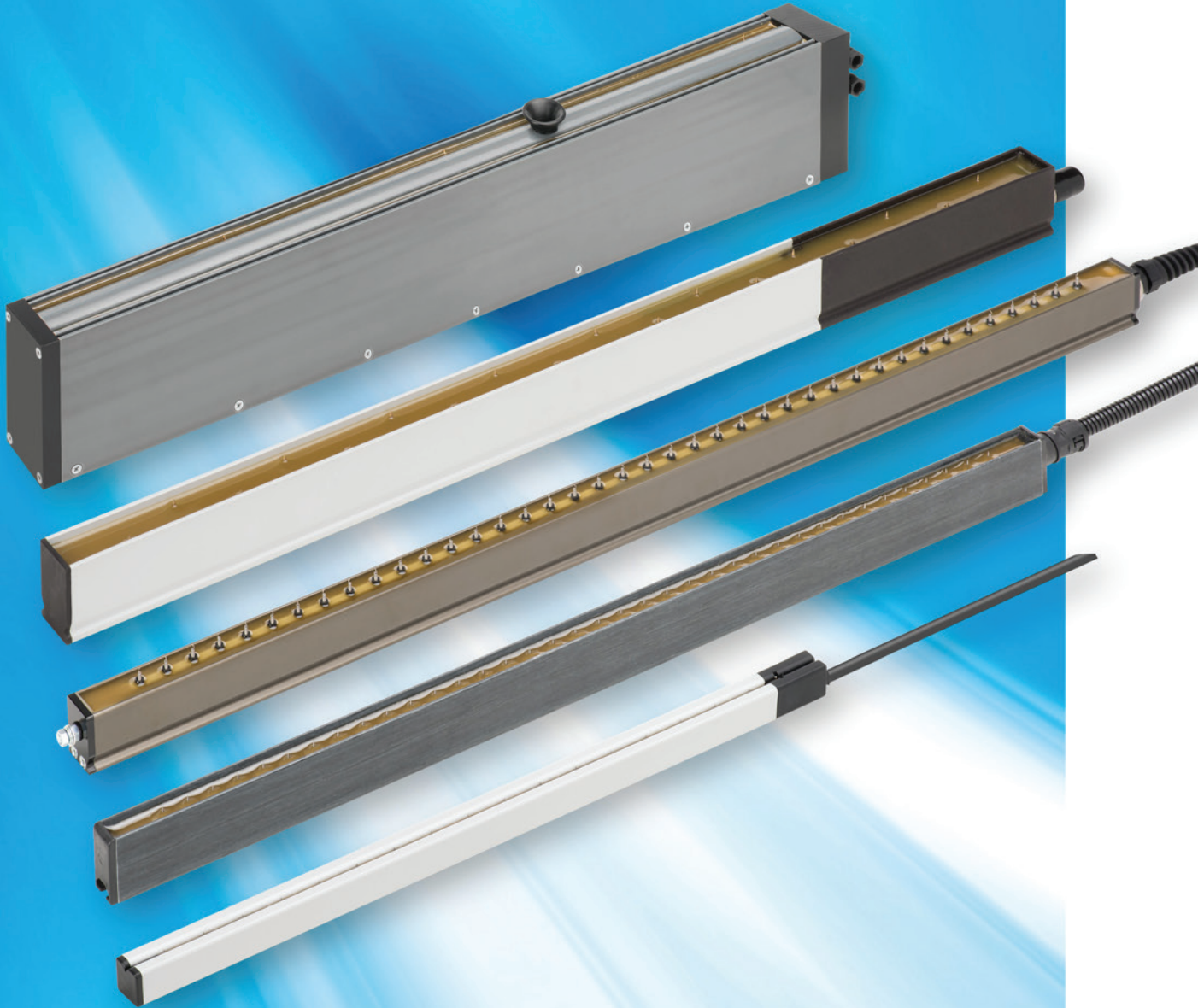


DISCHARGING



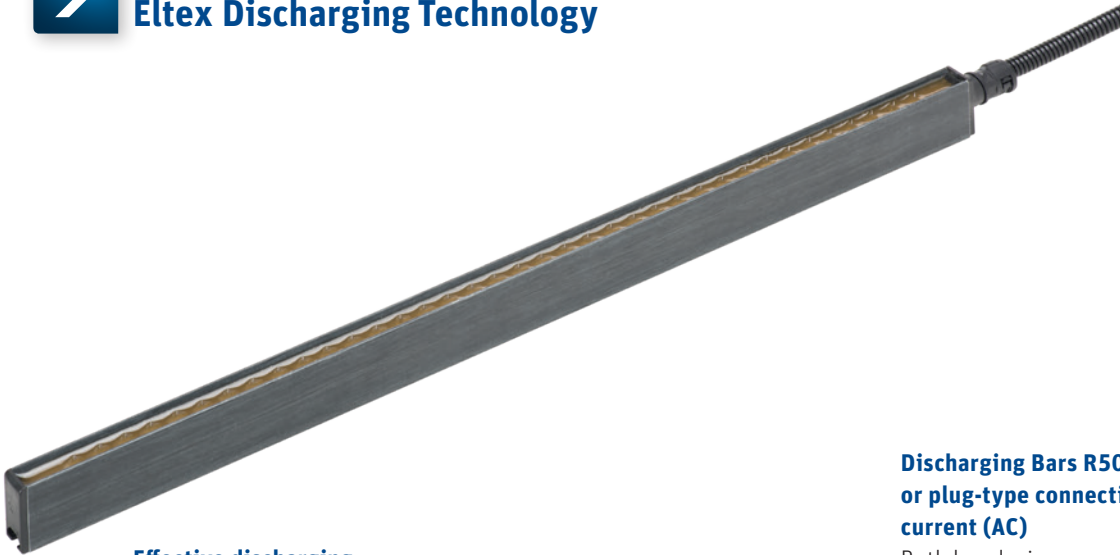
eltex

electrostatic
innovations



Discharge Technology

Safe, precise, perfect Eltex Discharging Technology



Effective discharging at highest machine speeds

The discharging bar R50/R51A generates a much higher active discharging power than previous technologies: the insulated array of ground conductors enhances the electric field at the active tips and so improves the production and speed of charge carriers, providing substantially more positive ions and free negative electrons than conventional bars. Simultaneously, the bars have a high passive discharging performance. The decoupled emission tips guarantee excellent discharging efficiency and make the bars absolutely short-circuit- and shock-proof.

Discharging Bars R50/R51A with fixed or plug-type connection for alternating current (AC)

Both bar designs are available in active lengths of up to 3,915 mm. They are operated with 5 kV alternating current at 50 – 60 Hz.



Air Profile L50

The air profiles which can be combined in any array substantially help to increase the discharging range and therefore the depth effect.



Series ES51 Power Supply

Power supply for AC discharging devices

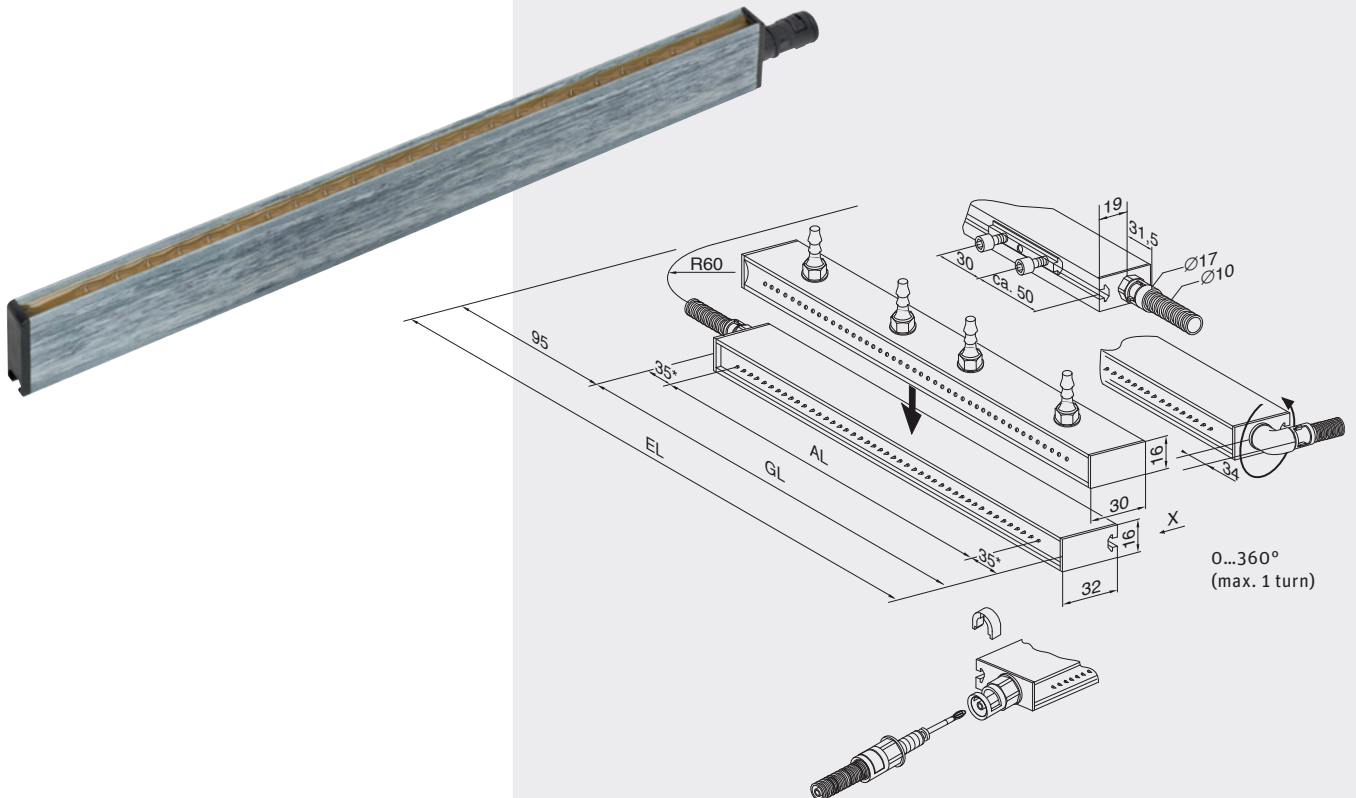


Discharging Bar R50

Technical specifications

Electrode (bar) element	glass-fibre-reinforced plastic GRP
Encapsulation material	polyurethane, UL-94 V-0
Emission tips	stainless steel
Installation material	plastic sliding nuts
Operating ambient temp.	0...+80°C (+32...+176°F)
Ambient humidity	max. 70% RH, non-dewing
Dimensions	profile: 16 x 32 mm, max. length: 5.980 mm,
Weight	approx. 0.75 kg/m
Operating voltage	max. 5 kV AC, 50/60 Hz
High voltage supply	via Eltex power supplies
High voltage connection	high voltage cable encapsulated, axial or radial (rotatable by 360°) lead-out
Short-circuit current/tip	max. 0,046 mA
Contact protection	according to EN 61140
UL approval	File No. E227156 (max. 6 kV AC, 50/60 Hz)

Dimensions



Overview and dimensions of the R50/R51A discharge bar and the L50 air profil
 EL = Installation length, AL = active length, GL = total length

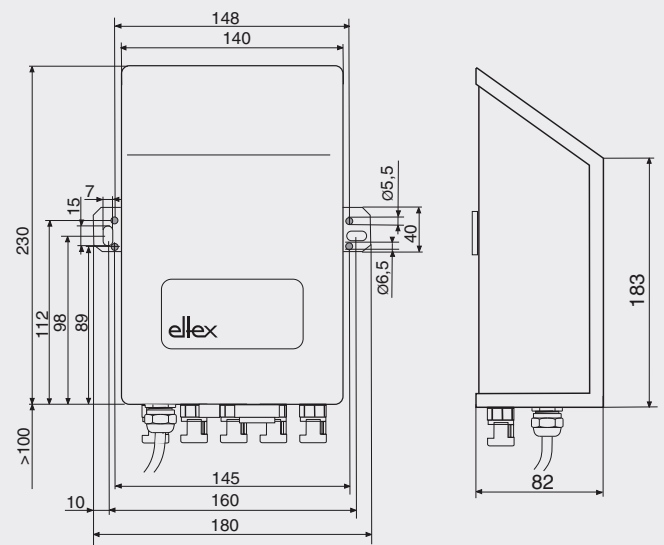


Power Supply ES51

Technical specifications

Supply voltage	230 V AC 50/60 Hz; 115 V AC 50/60 Hz
Power input	80 VA maximum
Output voltage	5 kV AC; ES51/K: 3.5 kV AC
Loading capacity	depending on length of bar and length of high voltage cable
Output current	max. 6.2 mA at 5 kV
Operating ambient temperature	ES51: 0...+60°C (+32...+140°F); ES51US: 0...+40°C (+32...+104°F)
Storage temperature	-20...+80°C (-4...+176°F)
Ambient humidity	max. 80% r.h., non-dewing
Function and malfunction signals (optional)	2 floating contacts, max. 250 V AC/1 A or 24 V DC/0.5 A loading capacity green (high voltage active) or red (malfunction) LED in front
Mains power cable	approx. 2.5 meters with earthing-pin plug, national version
Fuse (primary circuit)	see name plate
Ground link	grounding terminal on housing
High voltage connections	5x, plug-type
Enclosure	sheet metal steel with wall bracket
Protection class	IP 54, EN 60529
Dimensions	230 x 140 x 82 mm (H x W x D) (see Fig.)
Weight	approx. 4 kg
UL approval	File No. E227156

Dimensions



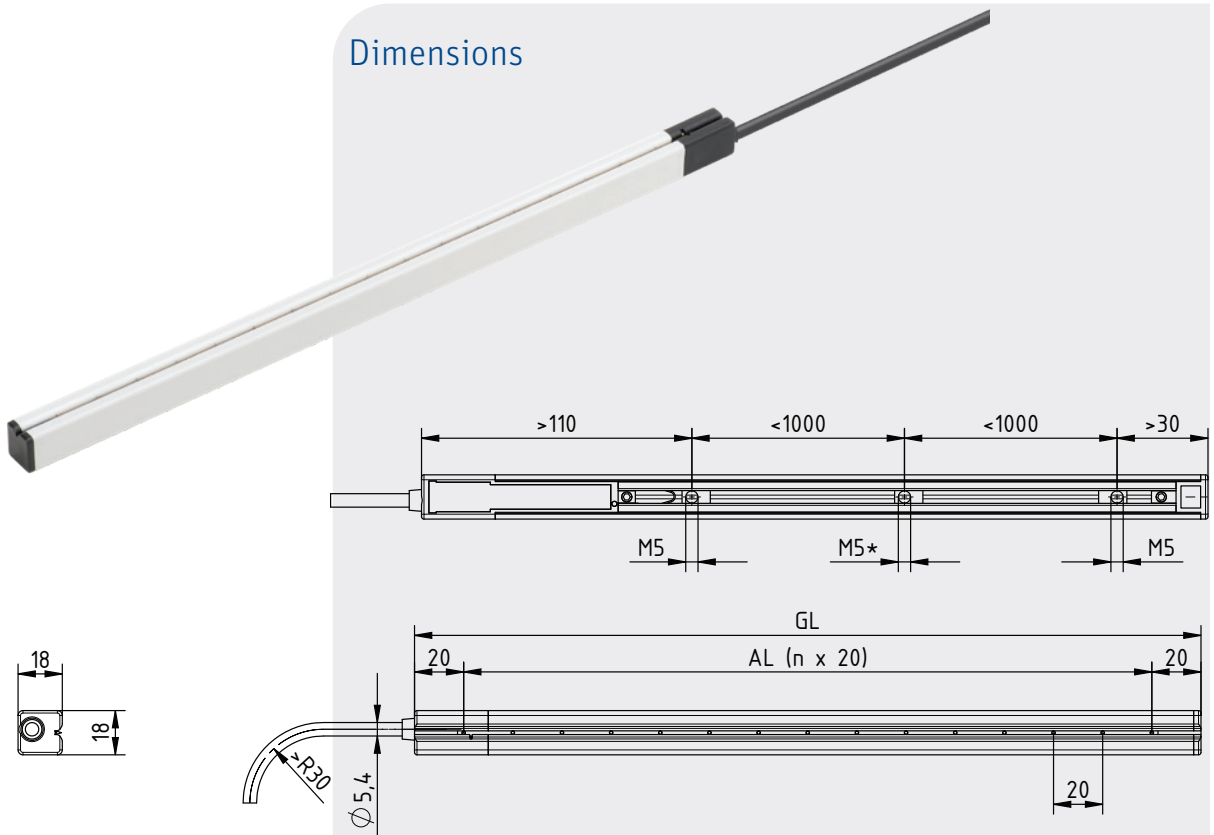


Discharging Bar R47

Technical specifications

Electrode (bar) element	glass-fibre-reinforced plastic GRP
Carrier section	aluminium
Encapsulation material	stainless steel
Installation	via movable sliding nuts M5 in the carrier section
Ambient operating temp.	0...+70°C (+32...+158°F)
Ambient humidity	max. 70% RH, non-dewing
Dimensions	profile: 18 x 18 mm, active length 1,860 mm maximum
Weight	approx. 0.5 kg/m
Operating voltage	max. 5 kV AC, 50/60 Hz
High voltage supply	via Eltex power supplies
High voltage connection	high voltage cable encapsulated, axial lead-out
Short-circuit current	0.5 mA
Contact protection	according to EN 61140

Dimensions



AL = active length 1860 mm max.

GL = total length

*M5 depending on length

number of sliding nuts M5: AL of 120 – 1000 mm: 2 pieces

AL of 1020 – 1860 mm: 3 pieces

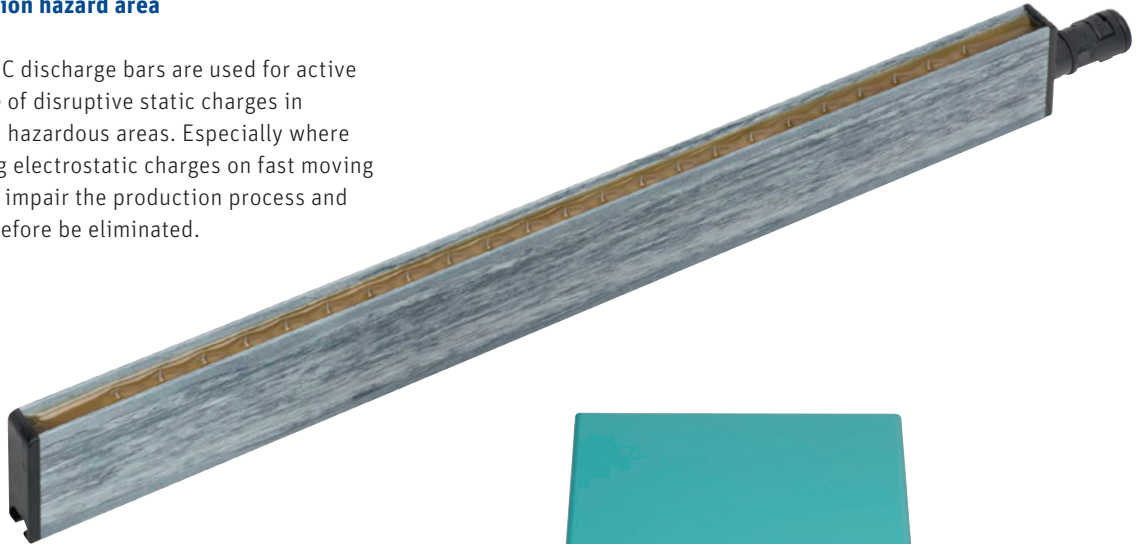
max. allowable distance between the sliding nuts: 1000 mm



Active discharge in Ex-areas

Discharging bar EXR5C for active discharging in explosion hazard area

The EXR5C discharge bars are used for active discharge of disruptive static charges in explosion hazardous areas. Especially where disturbing electrostatic charges on fast moving materials impair the production process and must therefore be eliminated.



Features

- ultimate discharge range and hence enhanced depth effect
- high active discharge power through patented isolated ground conductors
- high safety standards through passive discharging power with deactivated power supplies
- safety through function and malfunction monitoring
- continuous assembly slotting for flexible installation



Series ES53 Power Supply

Power supply for the AC powered Eltex discharge components for the Ex-zone.

Features

- plug-type high voltage outputs
- stable 5 kV AC output voltage
- protection class IP 54 design
- function and pollution monitoring of the bar with floating signal contacts (optional)
- small dimensions
- easy installation

All Eltex systems for Ex-zones are Ex-approved in compliance with Directive 94/9/EC (ATEX 95) and therefore comply with the latest European regulations.

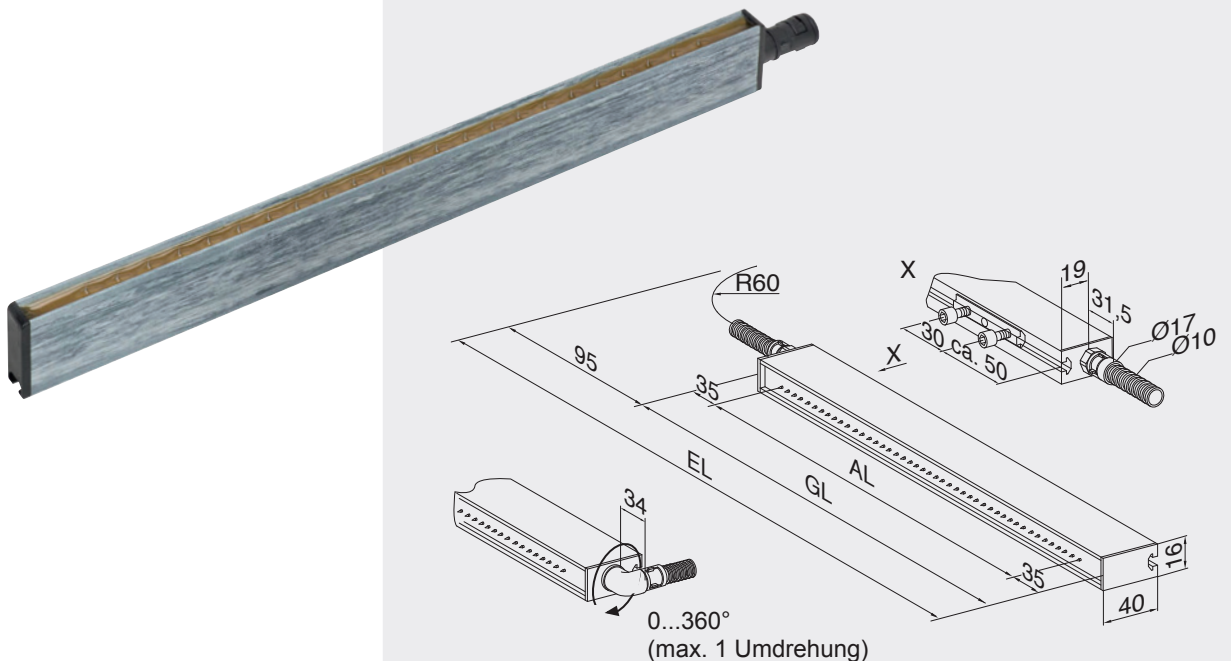


Discharging Bar EXR5C

Technische Informationen

Electrode (bar) element	glass-fibre-reinforced plastic GRP
Encapsulation material	polyurethane, UL-94 V-0
Emission tips	stainless steel
Installation material	plastic sliding nuts
Operating ambient temperature	0...+40 °C (+32...+104 °F)
Ambient humidity	max. 70% RH, non-dewing
Dimensions	profile: 16 x 40 mm, max. length 5,980 mm, see Fig.
Weight	approx. 0.8 kg/m
Operating voltage	max. 5 kV AC, 50/60 Hz
High voltage supply	via ES53/G.. or ES53/H.. or ES53/L.. Eltex power supplies
High voltage connection	h.v. cable encapsulated, axial or radial (rotatable by 360°) lead-out
Short-circuit current/tip	max. 0.046 mA
Contact protection	according to EN 61140
EX approval	BAS 98 ATEX 2179 X ⓧ II 2 G IIA T6 or ⓧ II 2 G IIB T6 if it is ensured that the possibility of the discharge pins being effectively connected together is avoided. ⓧ II 3 D T100°C if it is ensured that the tips of the bar point either horizontally or vertically downwards or at any angle between these two positions and that the flash power of the dust is >0.4 mJ.
UL approval (EXR5OUS)	Class I, Group D; Class II, Group G; Class III; File No. E81984

Abmessungen



EL = Installation length, AL = Active length, GL = Total length

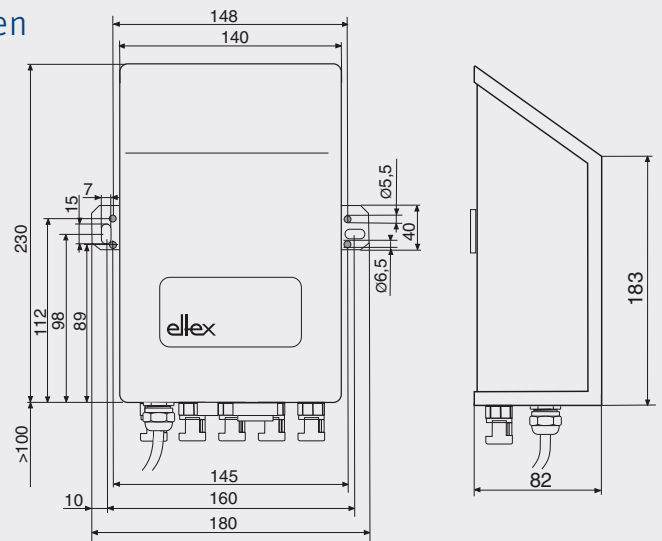


Power Supply ES53

Technische Informationen

Supply voltage	230 V AC 50/60 Hz, 115 V AC 50/60 Hz
Overvoltage category II	according to IEC-Norm 60664-1
Power input	80 VA maximum
Output voltage	5 kV AC
Loading capacity	depending on length of bar and length of high voltage cable
Output current	max. 6.2 mA at 5 kV
Operating ambient temp.	ES53: 0... +60°C (+32...+140°F) ES53US: 0... +40°C (+32...+104°F)
Storage temperature	-20...+80°C (-4...+176°F)
Ambient humidity	max. 80% r.h., non-dewing
Function and malfunction signals (optional)	2 floating contacts, max. 250 V AC/1 A or 24 V DC/0.5 A loading capacity, green (high voltage active) or red (malfunction) LED in front
Mains power cable	approx. 2.5 meters with earthing-pin plug, national version
Fuse (primary circuit)	see name plate
Ground link	grounding terminal on housing
High voltage connections	5 pcs., plug-type
Enclosure	sheet metal steel with wall bracket
Protection class	IP 54, EN 60529
EX approval	complying with the requirements of the power supplies for Ex discharge bar approval EXR5C/EXR50: BAS98ATEX2179X, and for protective resistor EXRV55 of ion blower head EXR55 and of ion blower pistol EXPR55: PTB00ATEX2071X, and for Ex discharge bar EXR5N: TÜV10ATEX7872X and TÜV10ATEX7937X and for ion blower pistol EXPR50: TÜV10ATEX7873X in connection with the power supplies ES53/G, ES53/H and ES53/I.
UL approval (ES53US)	File No. E227156
Dimensions	230 x 140 x 82 mm (H x W x D)
Weight	approx. 4 kg

Abmessungen





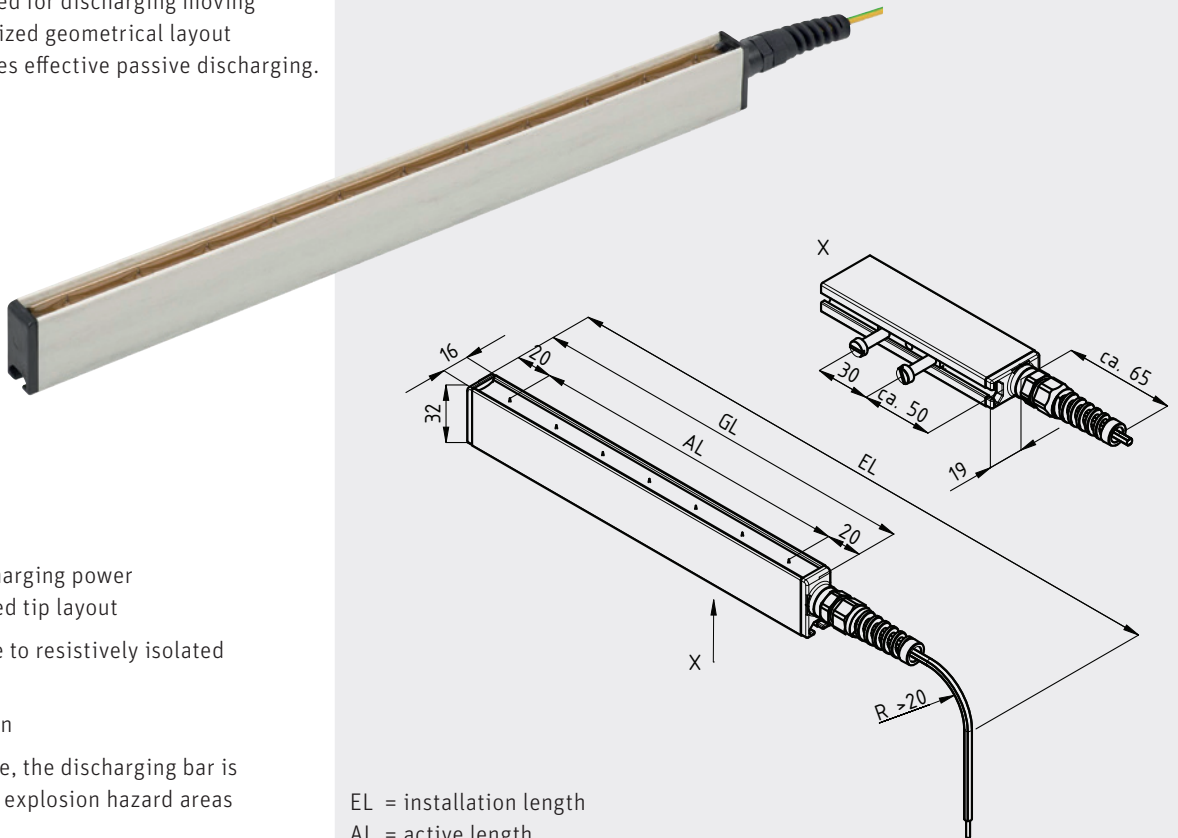
Discharging Bar RG52

Technical specifications

Electrode (bar) element	glass-fibre-reinforced plastic GRP
Encapsulation material	polyurethane, UL-94 V-0
Emission tips	stainless steel
Installation material	plastic sliding nuts
Operating ambient temp.	0...+80°C (+32...+176°F)
Ambient humidity	max. 70% RH, non-dewing
Dimensions	profile: 16 x 32 mm, max. length RG52: 5,980 mm, R51A: 5,990 mm
Weight	approx. 0.75 kg/m

Dimensions

The RG52 discharging bars are designed for the passive discharging of disruptive static charges which develop in production processes. The bars are designed for discharging moving surfaces. The optimized geometrical layout of the tips guarantees effective passive discharging.



Advantages

- > high passive discharging power due to an optimized tip layout
- > reliable safety due to resistively isolated grounding tips
- > flexible installation
- > as a passive device, the discharging bar is suitable for use in explosion hazard areas

EL = installation length
 AL = active length
 GL = totale length
 X = view



CombiBlow CB160 | CB161

Technical specifications

Supply voltage	230 V / 50 Hz
Power input	per ventilator: approx. 5 W
Volume flow	level I: approx. 80 m ³ /h per ventilator level II: approx. 150 m ³ /h per ventilator
Enclosure	anodized aluminium
Dimensions	(active length + 285) x 175 x 70 mm
Weight	active length 500 approx. 3 kg, active length 1000 approx. 5 kg active length 1500 approx. 7 kg, active length 2000 approx. 9 kg
Active length	160 up to 2000 mm
Ambient operating temp.	0...+50°C (+32...+122°F)
	Discharging bar R45 / R50 / R51A
Material / bar element	Encapsulation material PU
Emission tips	Stainless steel
Operating ambient temp.	R45: 0...+70 °C (+32...+158 °F) R50 / R51A: 0...+80 °C (+32...+176 °F)
Ambient humidity	max. 70% RH, non-dewing
Operating voltage	max. 5 kV AC, 50/60 Hz
High voltage supply	via Eltex power supplies
Contact protection	according to EN 61140

Operating with a combination of ionization and blown air, the Eltex CombiBlow CB16x delivers ultimate ionization performance over distances as large as one meter. The CombiBlow is robust and safe in design and construction and, with its built-in two-stage blower, needs no external compressed air connection. The appliance is available for working widths ranging from 160 to 2,000 mm. The CB16x is used specifically in film and foil winders and in injection molding, but it is also suitable for general use in other applications where ionization over larger distances is required.

- 1 Supply voltage 230 V / 50 Hz
- 2 High voltage connection for the discharging bar
- 3.1 Discharging bar R45 (CB160)
- 3.2 Discharging bar R50 / R51A (CB161)
- 4 Filter cartridge / Fan
per fan / 1 input filter with replaceable filter cartridges
- 5 twin-stage switch
- 6 LED
- 7 Fastening angle / fixing holes
- 8 Locking screw - angle of incidence continuously



Dimensions

