

The Series R50/R51 discharge bars are designed for the active discharging of disruptive static charges which develop in production processes. The bars are operated with an alternating voltage of 5 kV or 8 kV at 50...60 Hz and are designed for discharging moving surfaces.

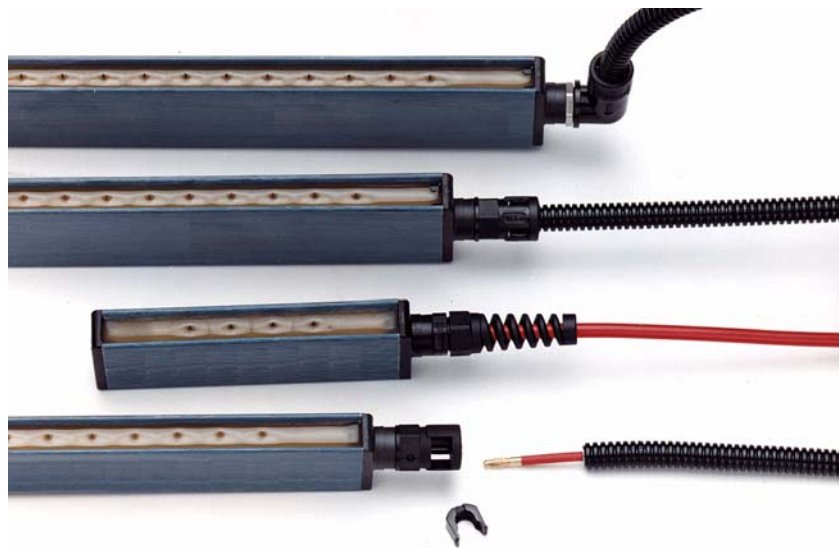
Due to differences in the surface charge profiles on different materials, charges with both polarities are provided by the discharge bars. The corona section with its optimized geometrical configuration ensures ultimate discharging efficiency.

Discharging can be supported by the L50 air profile.

The advantages of the R50/R51 discharge bars:

- ultimate discharge range and hence enhanced depth effect
- high active discharge power through isolated ground conductors
- high safety standards through passive discharging power with deactivated power supplies
- safety through function and malfunction monitoring
- flexible installation
- no health hazards from electric shocks when making contact with the tips

## Technical Information



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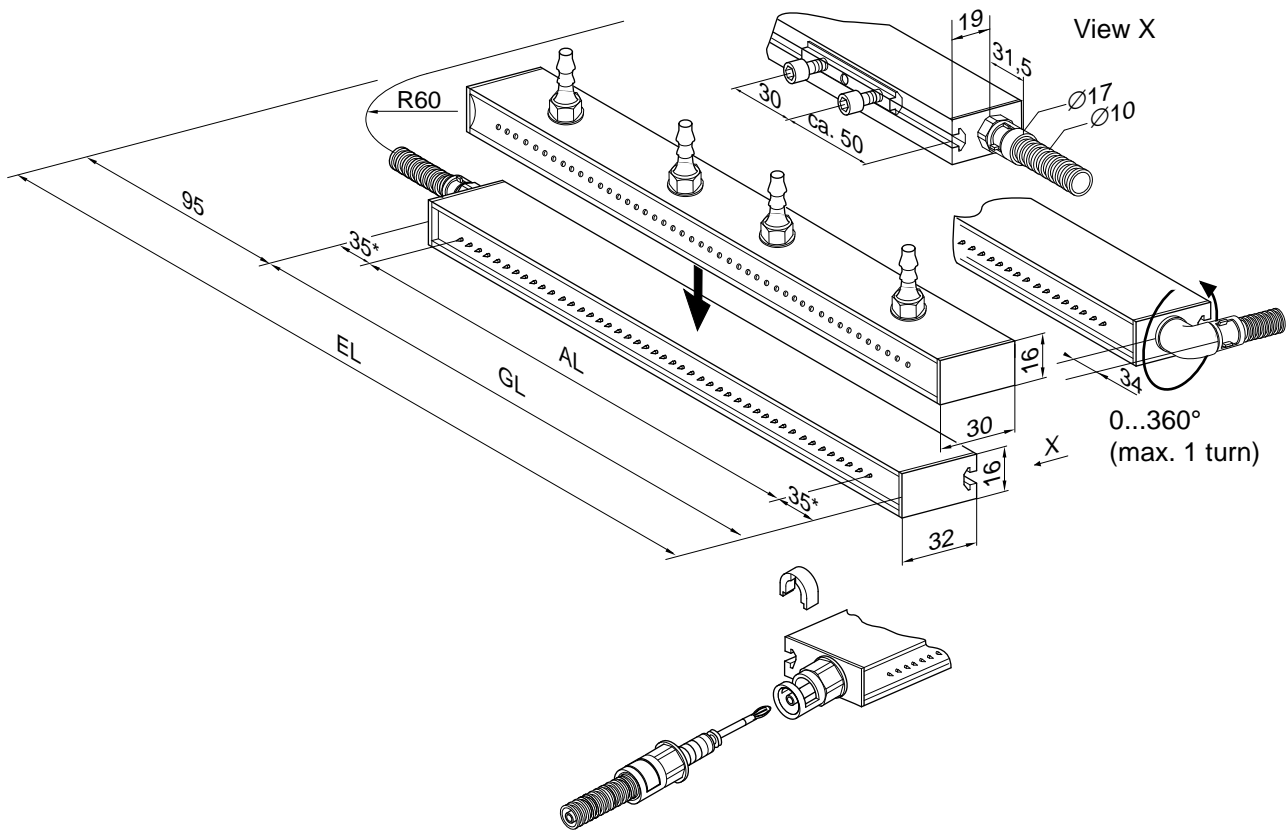
### Series R50/R51 Discharge Bars for AC Operation

#### Air Profile L50

TI-en-2016-1111



## Dimensions



Overview and dimensions of the R50/R51 discharge bar and the L50 air profil  
 EL = Installation length, AL = active length, GL = total length

\* R51: 40 mm

### R50 discharge bar:

fixed connection of the h.v. cable, axial and radial design,  
 radial connection rotatable by 360°,  
 max. active length: 3,915 mm,  
 grip spacing of tips: 15 mm

### R51 discharge bar:

detachable connection of the h.v. cable, axial design only,  
 optional: bilateral connection for serial linking of several bars,  
 max. active length: 3,915 m,  
 grip spacing of tips: 15 mm

### L50 air profile

for surface cleaning support,  
 axial, radial or side access air connection,  
 max. length: 3,990 mm,  
 air outlet nozzles 90° or 28°



## Technical specifications R50/R51

Electrode (bar) element	glass-fibre-reinforced plastic GRP
Encapsulation material	polyurethane, UL-94 V-0
Emission tips	special alloy
Installation material	plastic sliding nuts
Operating ambient temperature	0...+80°C (+32...+176°F)
Ambient humidity	max. 70% RH, non-dewing
Dimensions	profile: 16 x 32 mm, max. length R50: 3985 mm, R51: 3995 mm
Weight	approx. 0.75 kg/m
Operating voltage	R50: max. 8 (5) kV AC, 50/60 Hz; R51: max. 5 kV AC, 50/60 Hz
High voltage supply	via Eltex power supplies
High voltage connection	R50: h.v. cable encapsulated, axial or radial (rotatable by 360°) lead-out, integral component of the bar, specify cable length and power supply R51: exchangeable h.v. cable, axial lead-out, optional: 2 connections for serial link-up of several bars, high voltage cable must be ordered separately, specify cable length and power supply
Short-circuit current/tip	max. 0.046 mA
Contact protection	according to EN 61140
UL approval (R50)	File No. E227156 (max. 5 kV AC, 50/60 Hz)



## Technical specifications L50

Profile element	glass-fibre-reinforced plastic GRP, UL-94 V-0
Assembly	attached to the bar with Velcro or adhesive tape
Operating ambient temperature	0...+80°C (+32...+176°F) with blown air
Dimensions	profile: 16 x 30 mm, max. length: 3,990 mm
Weight	approx. 0.5 kg/m
Air consumption	150...600 l/min per meter of air profile at 0.1...1 bar
Air pressure	max. 3 bar
Air exit	90° or 28°
Air Connection	NW 8 mm, air connection in axial or radial direction, or optional side-mounted

*Air connections in air channel L50 for different lengths*

# Design variants

## Standard Air connection L50/\_\_\_N

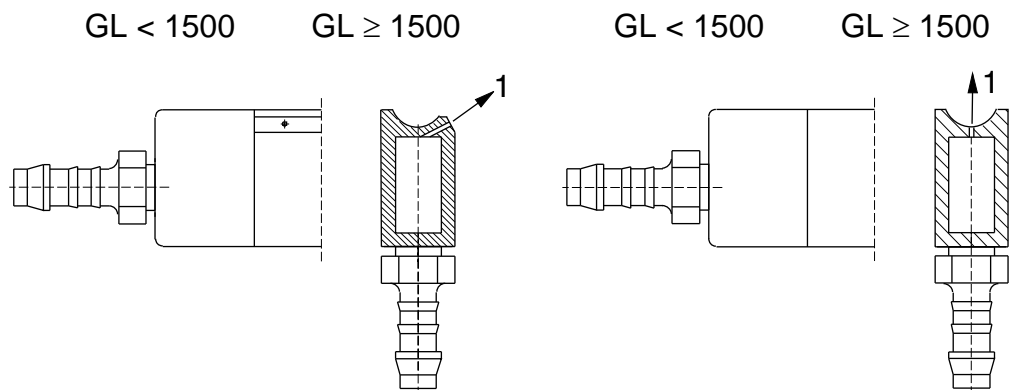


Fig. 1:  
Sectional view,  
air profile

1 Air exit

Air profile with  
angled air exit L50/A\_\_N

Air profile with  
vertical air exit L50/B\_\_N

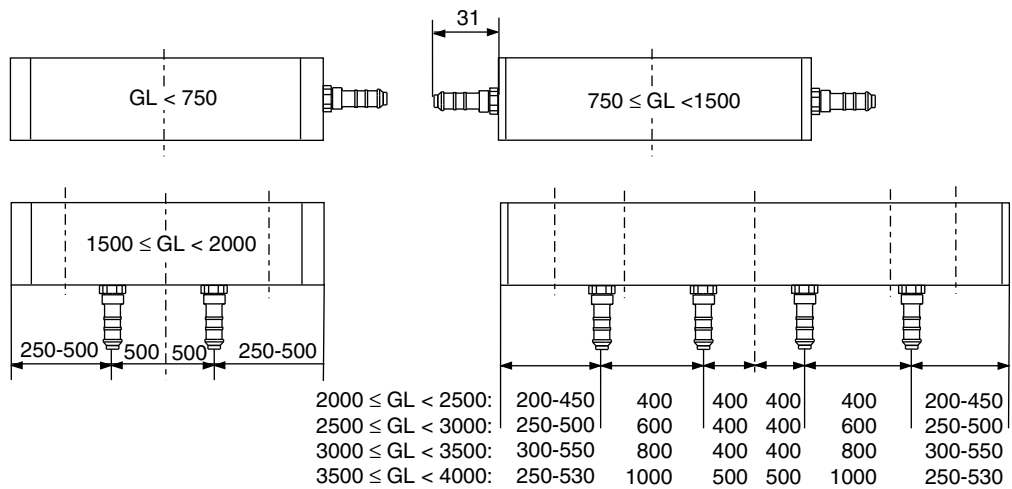


Fig. 2:  
Air connections for  
the different con-  
struction lengths

Also available with lateral air connections.



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