

The Series R50/R51A 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.

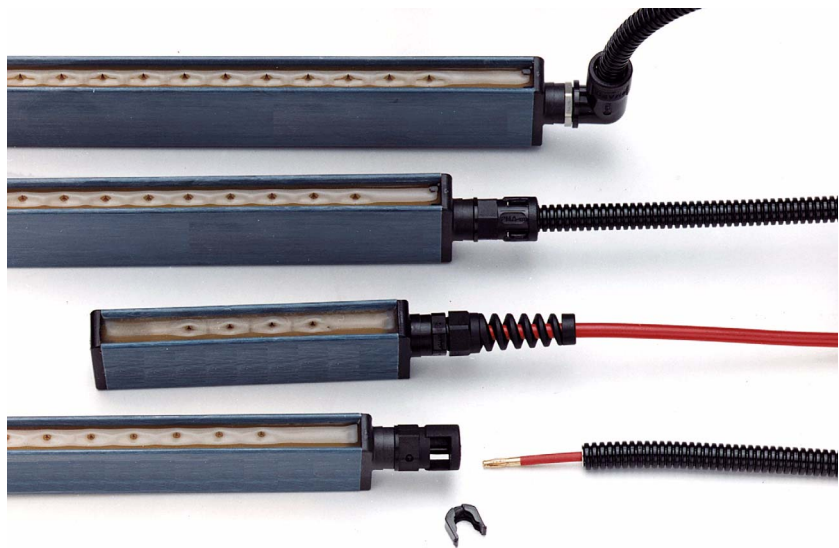
Due to differences in the surface charge profiles on different materials, charges with both polarities are provided by the discharge bars. The corona section with its optimized geometrical configuration ensures ultimate discharging efficiency.

Discharging can be supported by the L50 air profile.

The advantages of the R50/R51A 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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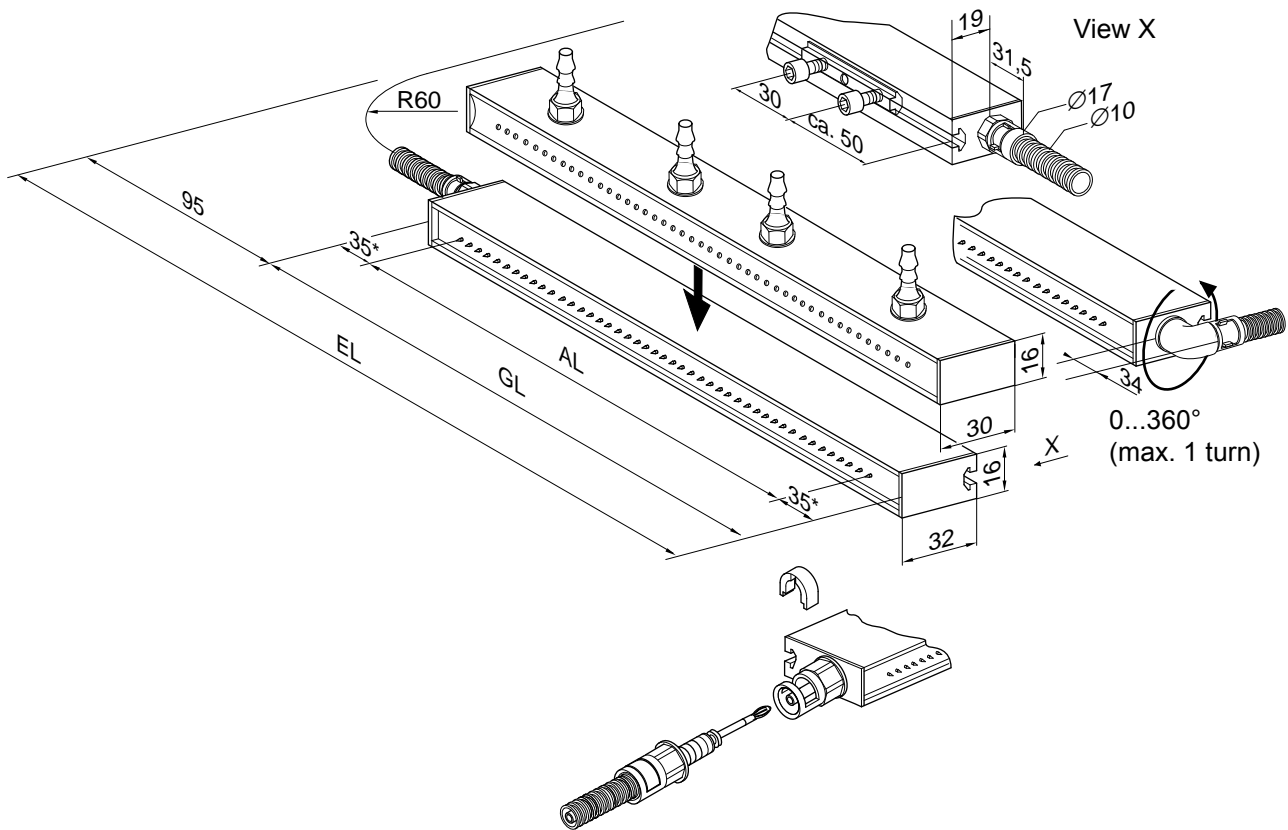
Series R50/R51A Discharge Bars for AC Operation

Air Profile L50

TI-en-2016-2002



Dimensions



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

* R51A: 40 mm

R50 discharge bar:

fixed connection of the h.v. cable, axial and radial design,
 radial connection rotatable by 360°,
 max. active length: 5,910 mm,
 grip spacing of tips: 15 mm

R51A discharge bar:

detachable connection of the h.v. cable, axial design only,
 optional: bilateral connection for serial linking of several bars,
 max. active length: 5,910 m,
 grip spacing of tips: 15 mm

L50 air profile

for surface cleaning support,
 axial, radial or side access air connection,
 max. length: 5,990 mm,
 air outlet nozzles 90° or 28°



Technical specifications R50/R51A

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...+80°C (+32...+176°F)
Ambient humidity	max. 70% RH, non-dewing
Dimensions	profile: 16 x 32 mm, max. length R50: 5,980 mm, R51A: 5,990 mm
Weight	approx. 0.75 kg/m
Operating voltage	R50: max. 8 (5) kV AC, 50/60 Hz; R51A: 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 R51A: 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	File No. E227156 (max. 6 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: 5,990 mm				
Weight	approx. 0.5 kg/m				
Air pressure	max. 3×10^5 Pa				
Air exit	90° or 28°				
Air Connection	DN 8 mm, air connection in axial or radial direction, or optional side-mounted				
Air consumption pro meter	typical value				
Air pressure [10^5 Pa]	0.2	0.5	1.0	1.5	2.0
Air consumption [Nm^3/h]					
L50/A	4.1	14.7	25.1	33.6	40.7
L50/B	3.3	11.3	17.7	24.9	31.1

Design variants

Standard Air connection L50/___N

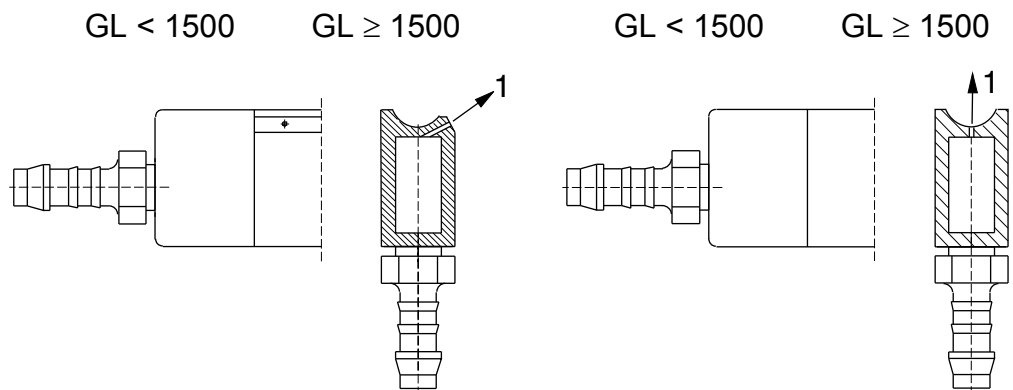


Fig. 1:
Sectional view,
air profile

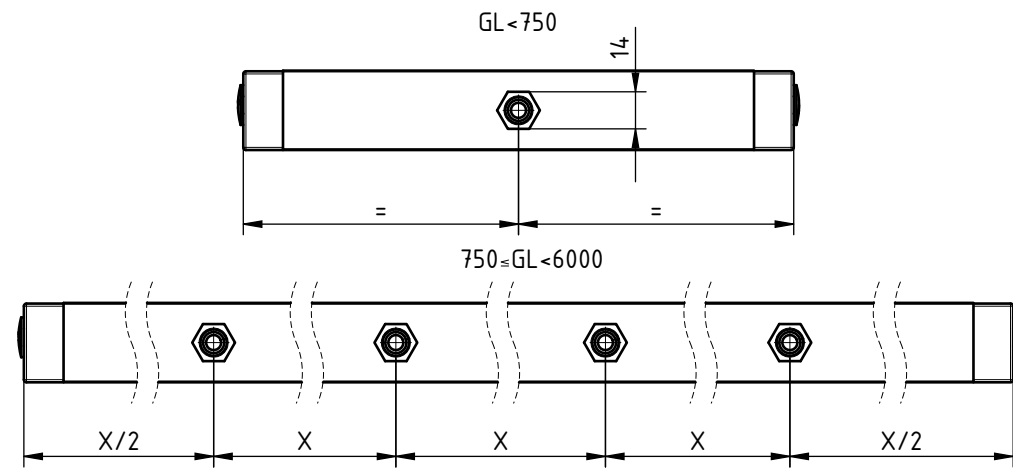
1 Air exit

Air profile with
angled air exit L50/A__N

Air profile with
vertical air exit L50/B__N

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



12076X3c_2y

GL	number of air connections	X ±5
$750 \leq GL < 2000$	2	GL/2
$2000 \leq GL < 3000$	3	GL/3
$3000 \leq GL < 4000$	4	GL/4
$4000 \leq GL < 5000$	5	GL/5
$5000 \leq GL < 5000$	6	GL/6

Also available with lateral air connections.



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