

The R120 / R121A charging bar is a universal electrode for supply voltages of 15 kV. The insulated assembly can generate voltages of up to 60 kV. You can use it for charging surfaces for the purpose of tacking, adhering or locking.

The 15 mm grid of the emission tips guarantees a good charge and field distribution, the variable active lengths of the charging bars allow them to be adapted to your specific in-process conditions and requirements.

The charging bar is mainly used where production processes and cycles run faster and with less interference if the materials used (such as films, foils, papers, etc.) adhere to each other.

The parallel configuration of two or more bars allows surface-covering charging or operating the unit at high web speeds.

The electrodes are operated with the appropriate high voltage generators supplied by Eltex.

The electrode is robust and, thanks to its small dimensions, can be easily installed even in tight and inaccessible spaces.

Technical Information



FC0027Y

R120/R121A Charging Bar

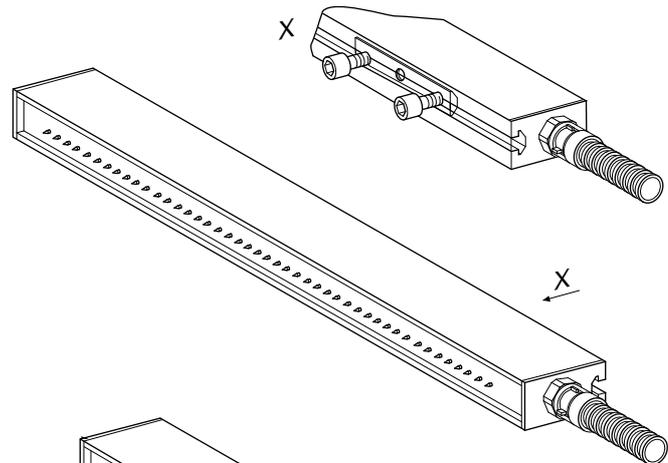
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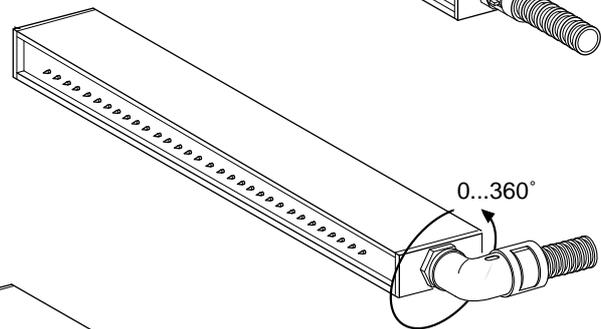
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Overview

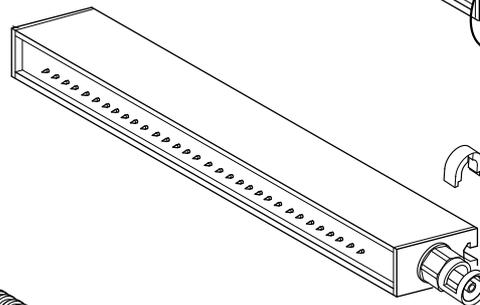
R120/A
with axial connection,
integrated and encapsulated cable



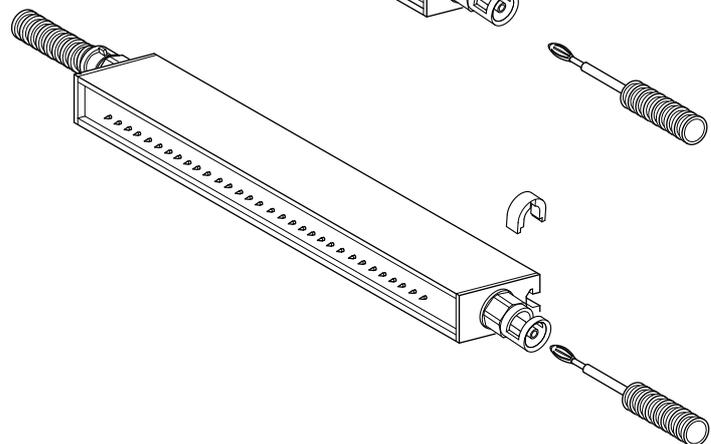
R120/W
with radial connection,
integrated and encapsulated cable



R121A
with axial connection,
detachable cable



R121A
with two axial connections,
detachable cable



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Technical specifications

Electrode (bar) element	glass-fibre-reinforced plastic GRP
Encapsulation material	polyurethane, UL-94 V0
Emission tips	special alloy
Installation material	plastic or metal sliding nuts
Operating ambient temperature	0...+60°C (+32...+140°F)
Ambient humidity	max. 60% RH, non-dewing
Dimensions	profile: 16 x 32 mm, max. length 3,985 mm, see figure
Weight	approx. 1 kg/m
Operating voltage	max. 15 kV to max. 60 kV, depending on insulation
Operating current	max. 1 mA per meter of active bar length
High voltage supply	via Eltex high voltage generators series KNH18*, KNH34*, KNH35*, KNH64* and KNH65* (* if required limit max. output voltage to 15 kV)
High voltage connection	prefabricated high voltage cable in plastic tube with plug for the high voltage generator, length 1...99 m (standard length 5 m)



Operating voltage

The charging bar is generally operated with high voltage between 5 and 15 kV, with adequate insulation with up to 60 kV.

The current must not be allowed to exceed 1 mA per meter of active charging bar length.

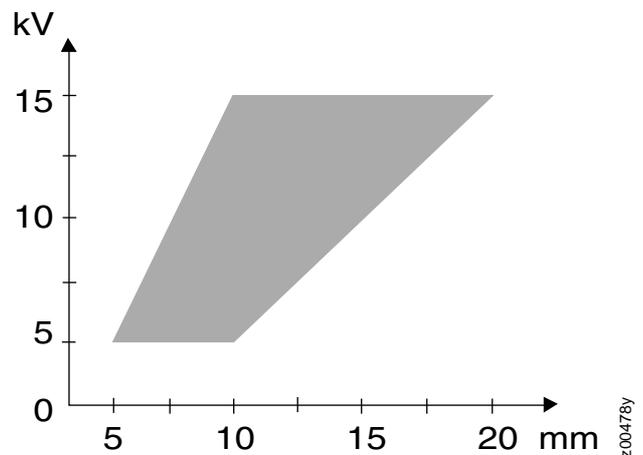
Example:

The active charging bar length is 515 mm.

Maximum rated current:

$1 \text{ mA/meter} \times 0,515 \text{ meter} = 0,515 \text{ mA}$

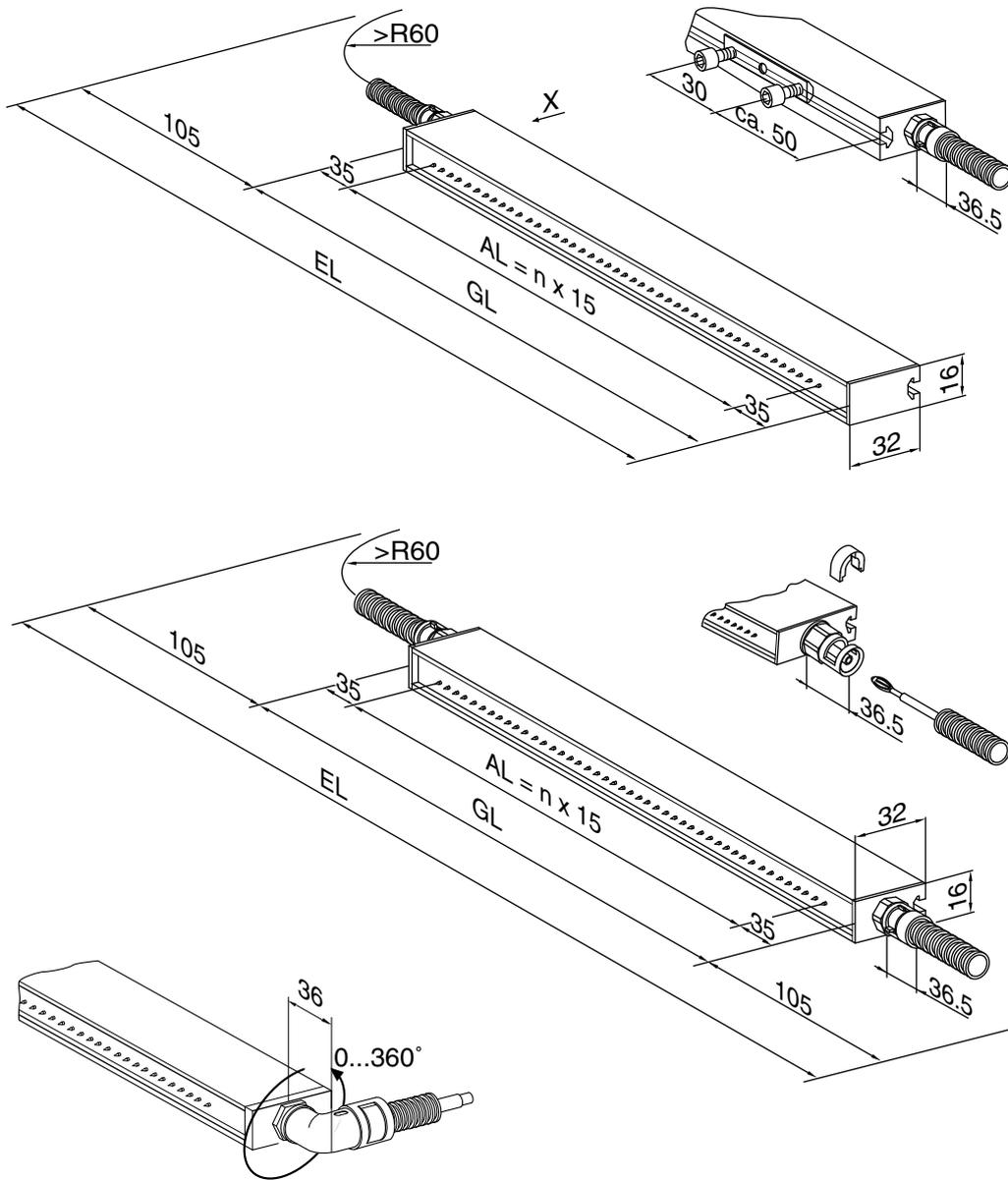
Figure: Working range of the charging bar as factor of voltage and distance.



Installation

The installation profile of the charging bar has a fluting. The sliding nuts are pushed into this fluting, and the charging bar is bolted to these sliding nuts.

Dimensions



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- AL = Active length
- GL = Total length
- EL = Installation length
- n = Whole number, depending on active length

Examples for calculating the active length:
 n = any number between 1 and 196, e.g. n = 150
 The active length is therefore AL = 150 x 15 = 2250 mm



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Eltex-Elektrostatik-Gesellschaft mbH
 Blauenstraße 67-69, D-79576 Weil am Rhein
 Telephone +49 (0) 76 21/ 79 05 - 230
 Fax +49 (0) 76 21/ 79 05 - 330
 eMail static-control@eltex.com
 Internet www.eltex.com