

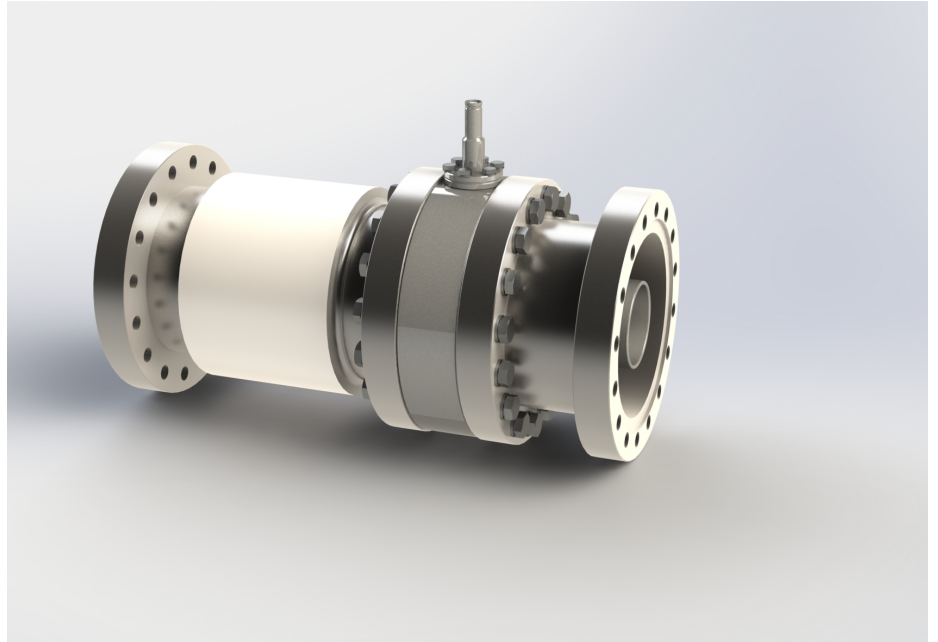
Transition Lens CF100, asymmetrical mount, stainless steel

921-S7-09-0000?-A-01

Electrostatic lenses are ion-optical elements used to guide and focus charged particle beams.

One of the most prominent representative is an Einzel lens which consists of three cylindrical electrodes. Focusing of the beam is achieved by applying a high voltage to the central electrode. In contrast to a classical Einzel lens, where the first and the third electrode are on same potential, at a transition lense the potentials of the first and third electrode can be different. Hence transition lenses can be use to guide the charged particles over a potential step in the beame guding system. The first element will be on beamline potential of the entrance beamline section and the third element will be on the potential of the exit beamline section. Charged particles passing the transition lens will change their kinetic energy by the amount of the potental step between the beamline section. The transition lens can be used in deceleration or acceleration stages.

Transition lenses can be used in broad pressure ranges, down to ultra-high vacuum conditions.



Einzel lens CF100, central mounted, stainless steel.

Special Features:

- asymmetrical design of electrode assembly based on intermediate flange solution
- stainless steel housing
- DN100 CF beamline interface flanges
- 1st electrode grounded on entrance beamline section
- 3rd electrode grounded on exit beamline section
- DN16 CF 10 kV SHV feedthrough connected to electrode
- 45 mm electrode inner diameter
- Overall length 274 mm

Optional Supplementing Devices:

- power supply for the lens voltage
- high voltage cable with 10 kV SHV connector
- DN100 CF insulator
- DN100 CF vacuum tube

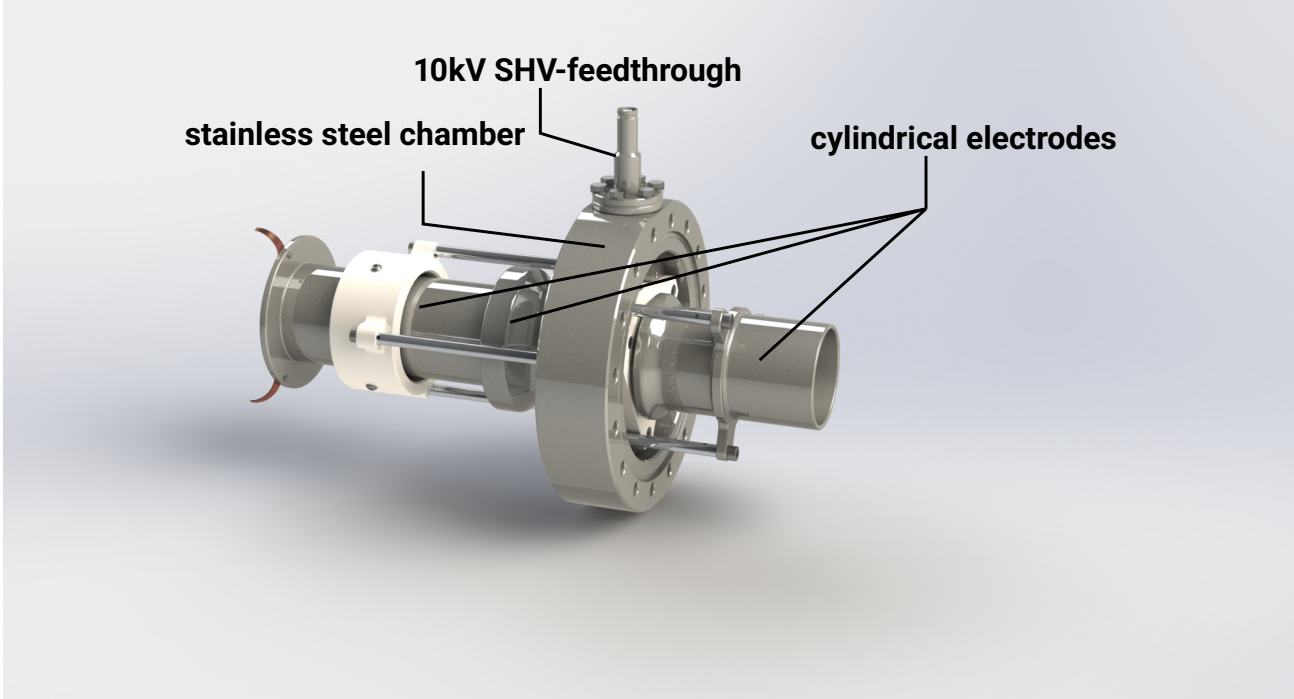
further reading:

- <https://www.dis-eng.de/products/charged-particle-beam-optics/electrostatic-lenses/>

Please do not hesitate to contact us for additional support.

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Cross section of the Transition lens CF 100, asymmetrical mounted, stainless steel

TECHNICAL DATA

maximum applicable lens voltage	±10 kV
pressure operating range	down to 1×10^{-10} mbar
beamline interface flange	2 x DN100 CF
high voltage feedthrough	DN16 CF
connectors	10 kV SHV connector
maximum beam width	45 mm
maximum bakeout temperature	150 °C
flange to flange distance	35 mm
length of lens system	276 mm
approx. box size (length x width x height)	150 mm x 276 mm x 195 mm

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