Problem info

Problem type: Electrostatics
Geometry model class: Axisymmetric
Problem database file names:

- Problem: *Inductor_elec.pbm*
- Geometry: *Inductor_elec.mod*
- Material Data: *Inductor_elec.des*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

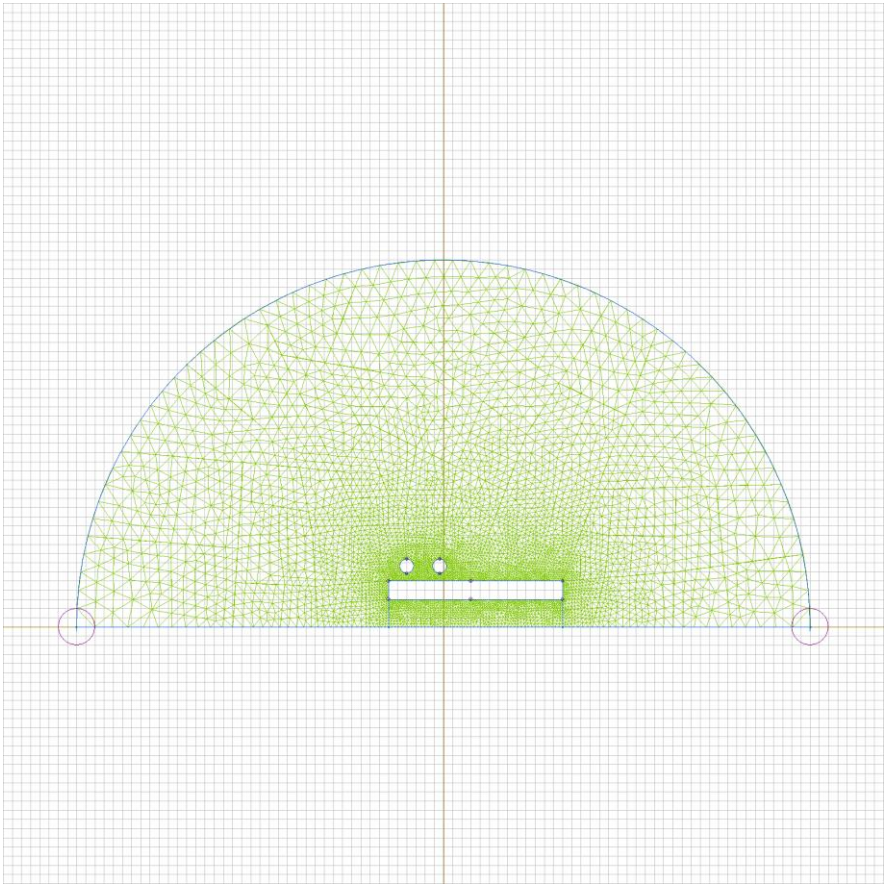


Table 1. Geometry model statistics

	With Label	Total
Blocks	1	5
Edges	3	16
Vertices	0	14

Number of nodes: 4946.

Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

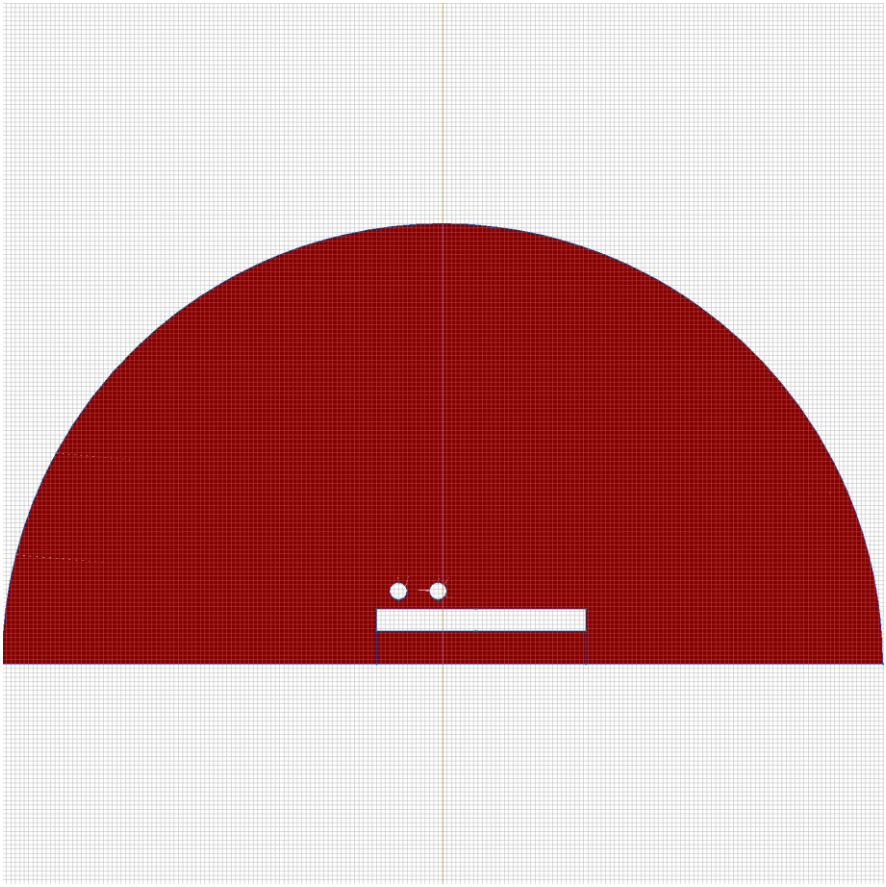
Blocks:	Edges:	Vertices:
• air •	• conductor • tube • no field •	

Detailed information about each label is listed below.

Labelled objects: block "air"

There are (2) objects with this label

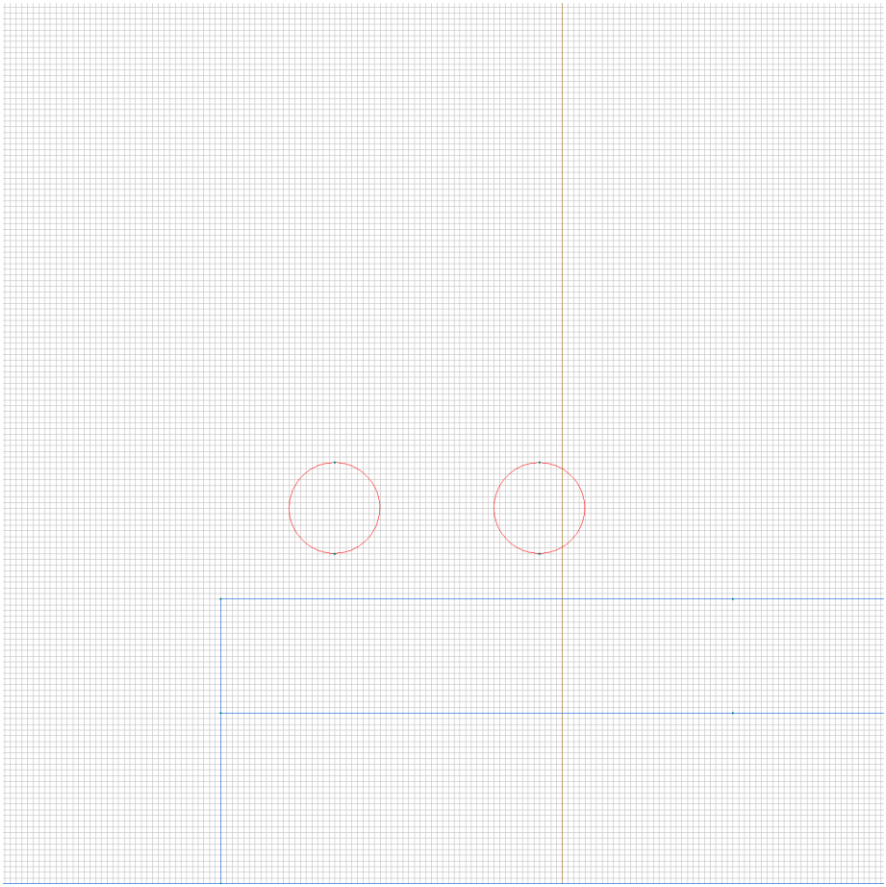
Relative electric permittivity eps_x=1, eps_y=1



Labelled objects: edge "conductor"

There are (4) objects with this label

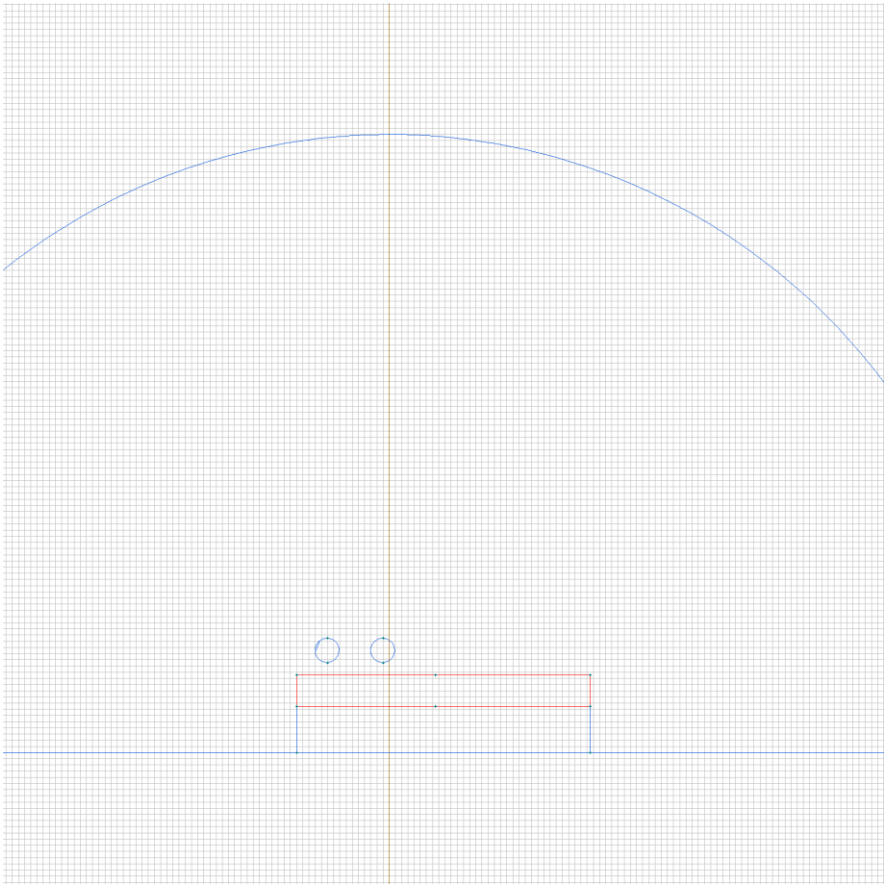
Voltage U=100 [V]



Labelled objects: edge "tube"

There are (6) objects with this label

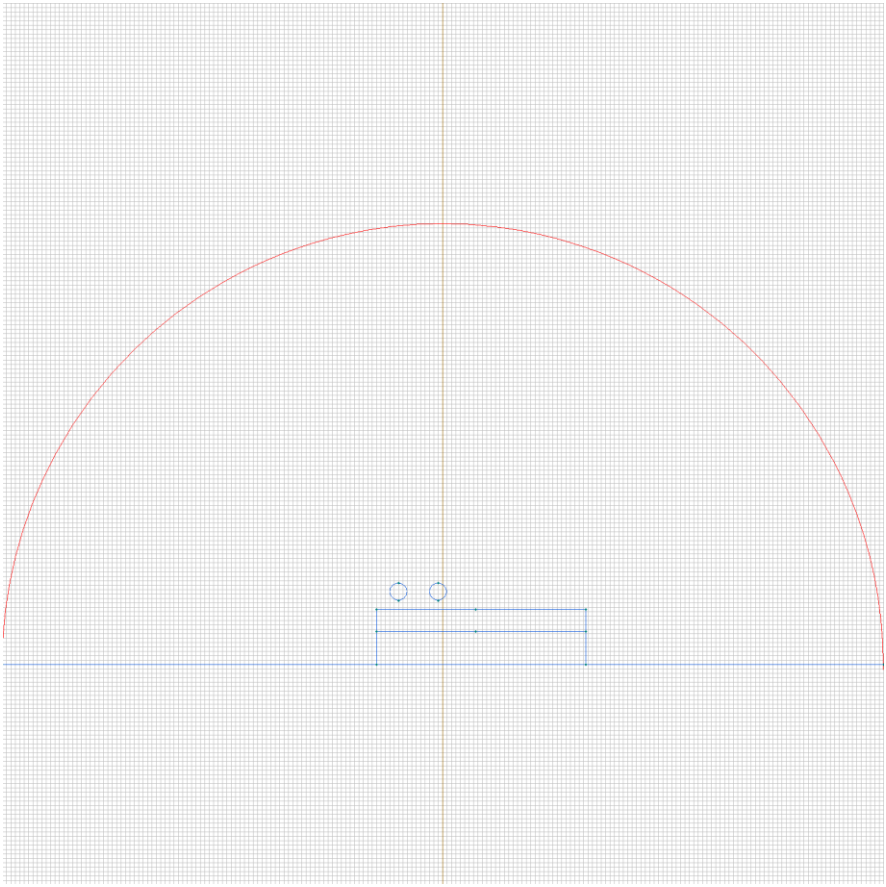
Voltage U=0 [V]



Labelled objects: edge "no field"

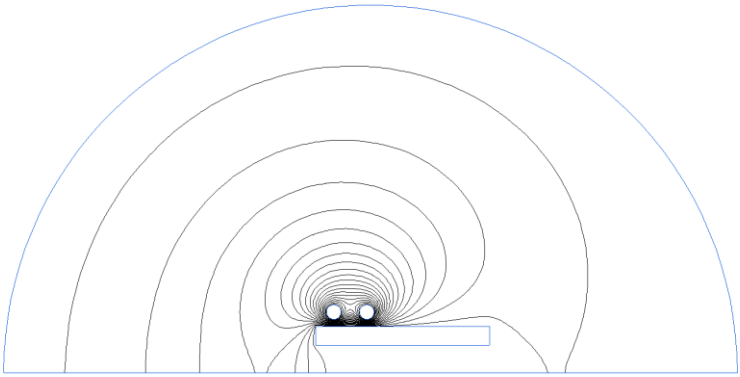
There are (1) objects with this label

Voltage U=0 [V]



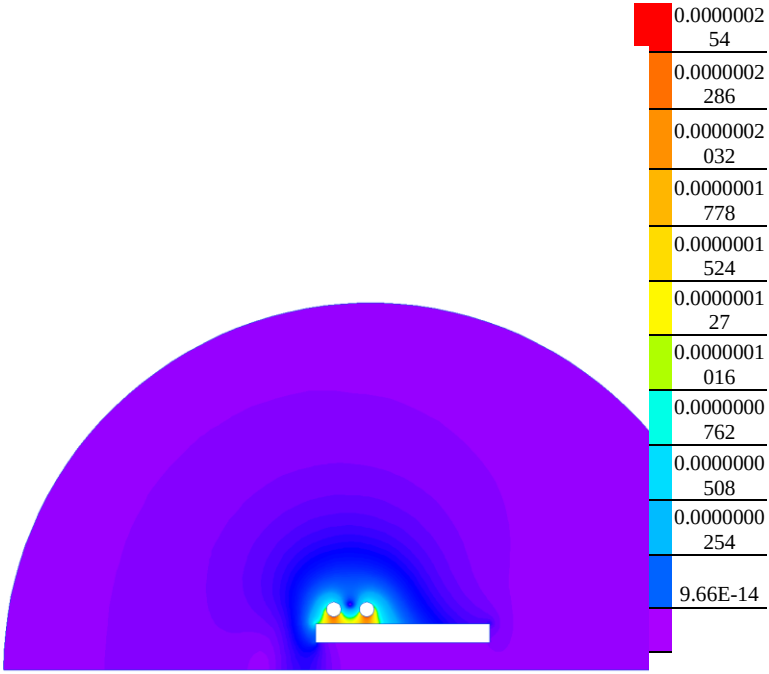
Results

Field lines



Results

Color map of Electric induction |D| [C/m2]



Nonlinear dependencies

No non-linear dependencies are used in this problem data