Problem info

Problem type: DC Conduction
Geometry model class: Axisymmetric
Problem database file names:

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

Results taken from other problems:

- *none*

Geometry model

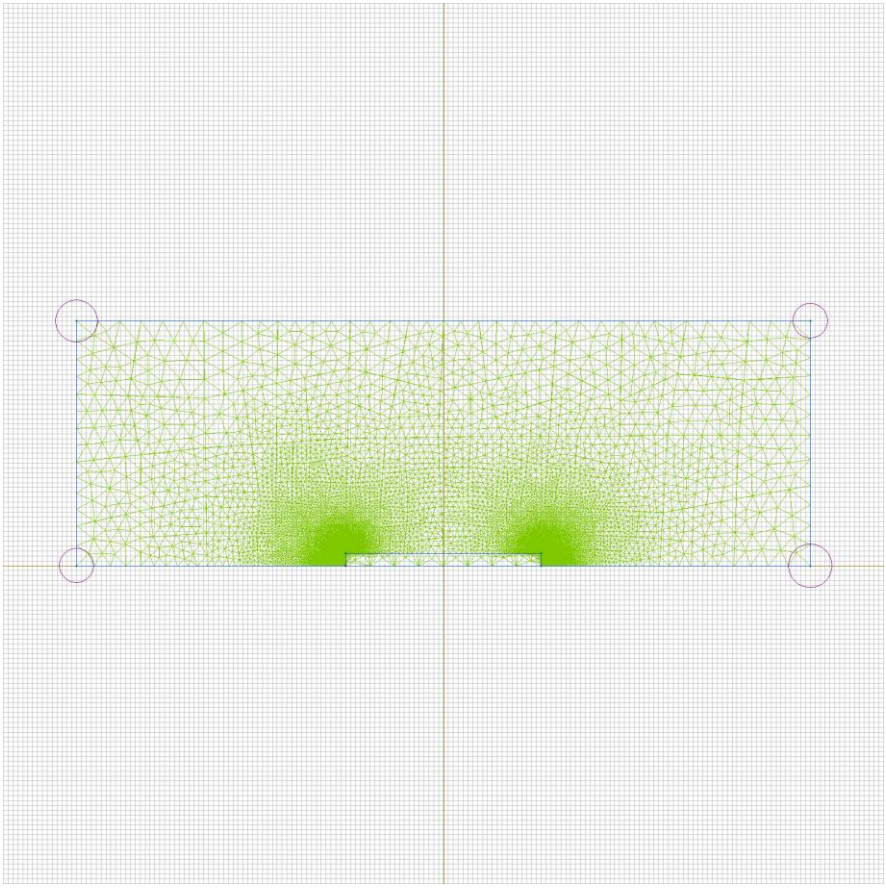


Table 1. Geometry model statistics

	With Label	Total
Blocks	2	2
Edges	4	9
Vertices	0	8

Number of nodes: 16265.

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)

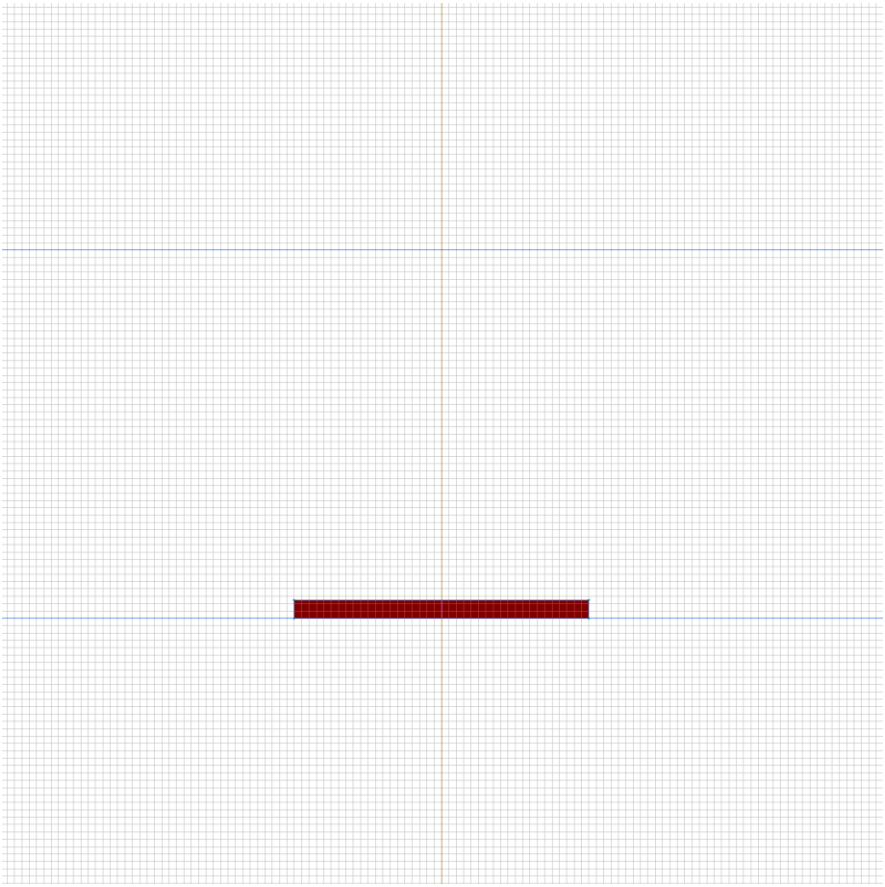
Blocks:	Edges:	Vertices:
• Conductor • Aire •	• Exterior • Positivo • Eje • Negativo •	

Detailed information about each label is listed below.

Labelled objects: block "Conductor"

There are (1) objects with this label

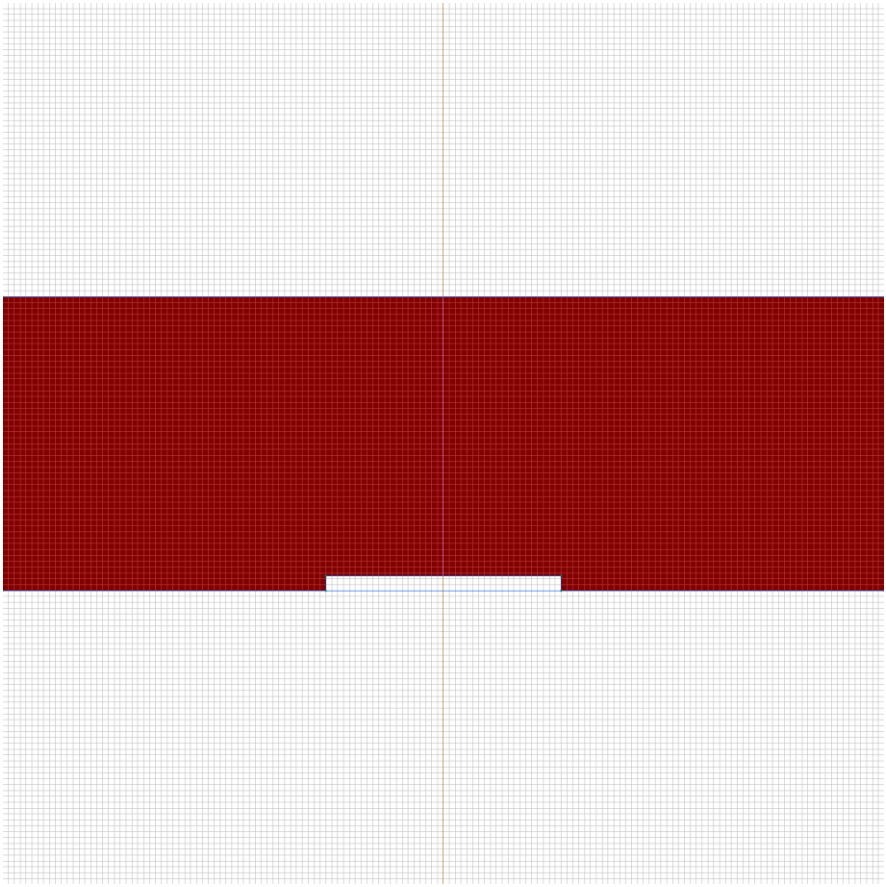
Electrical conductivity: sigma_x=100 S/m, sigma_y=100 S/m
Reference temperature: T=-273.15 K



Labelled objects: block "Aire"

There are (1) objects with this label

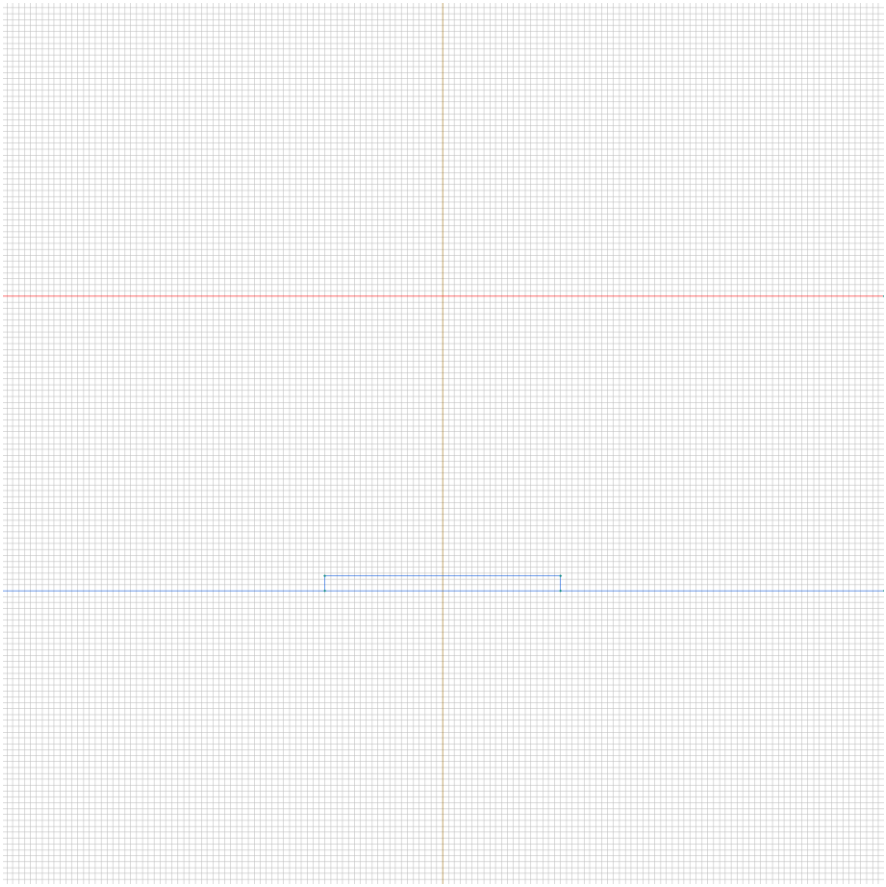
Electrical conductivity: sigma_x=1E-20 S/m, sigma_y=1E-20 S/m
Reference temperature: T=-273.15 K



Labelled objects: edge "Exterior"

There are (3) objects with this label

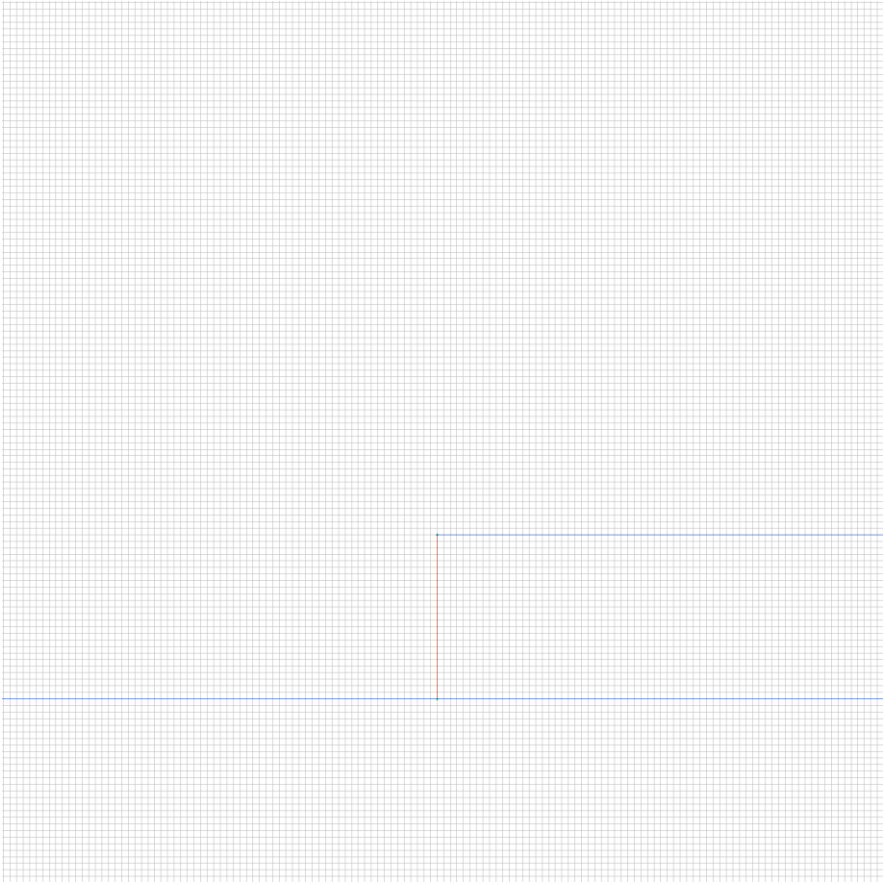
Voltage: U=0 V



Labelled objects: edge "Positivo"

There are (1) objects with this label

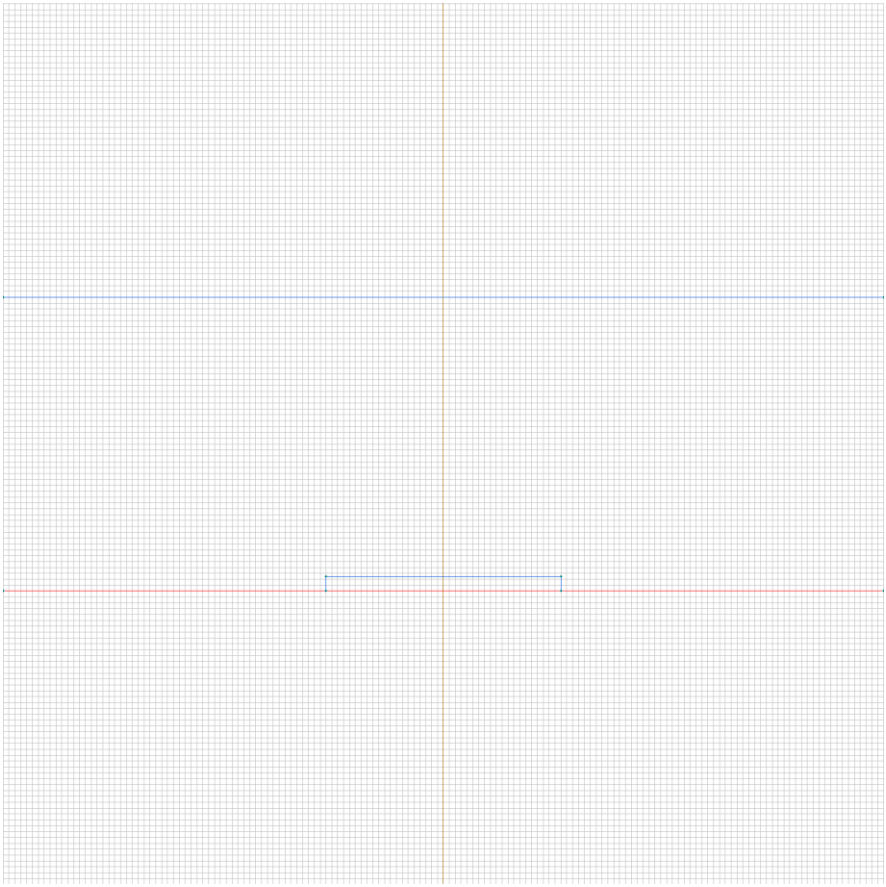
Voltage: U=1 V



Labelled objects: edge "Eje"

There are (3) objects with this label

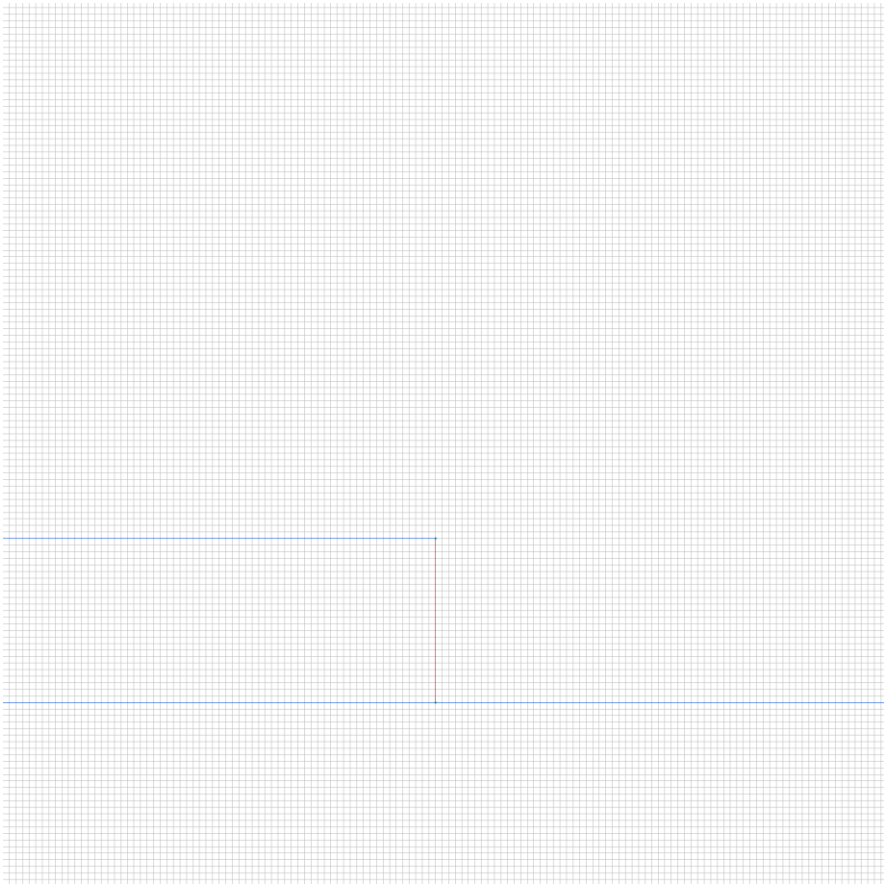
Normal current density: jn=0 A/m2



Labelled objects: edge "Negativo"

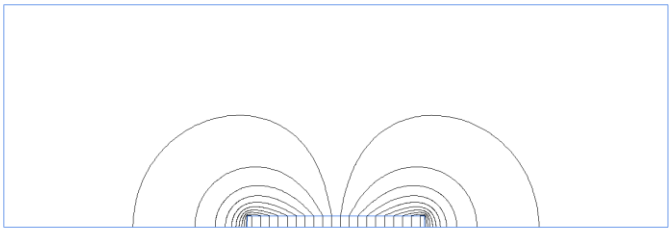
There are (1) objects with this label

Voltage: U=-1 V



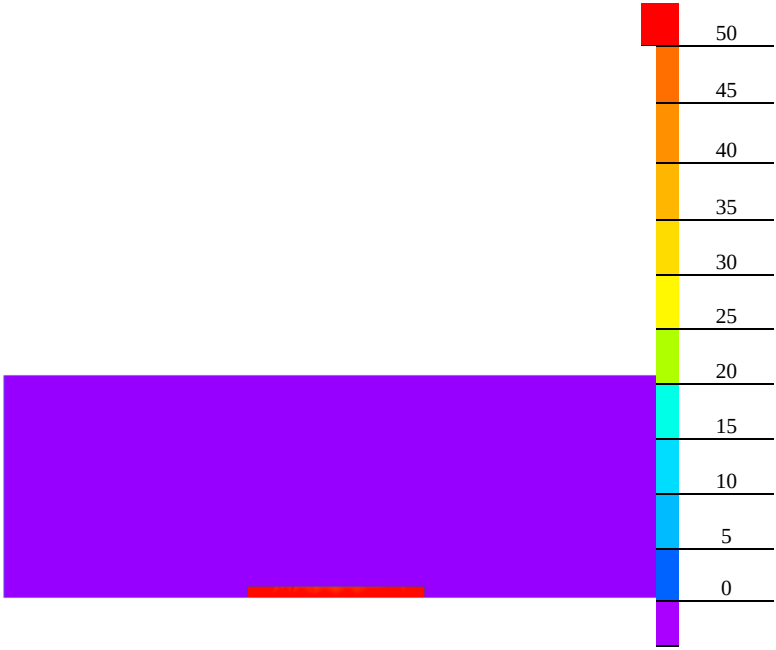
Results

Field lines



Results

Color map of Current density |j| [A/m2]



Nonlinear dependencies

No non-linear dependencies are used in this problem data