Problem info

Problem type: Transient Electric (integration time: 1 s.)
Geometry model class: Axisymmetric
Problem database file names:

- Problem: *TElec1.pbm*
- Geometry: *Telec1.mod*
- Material Data: *Telec1.dtv*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

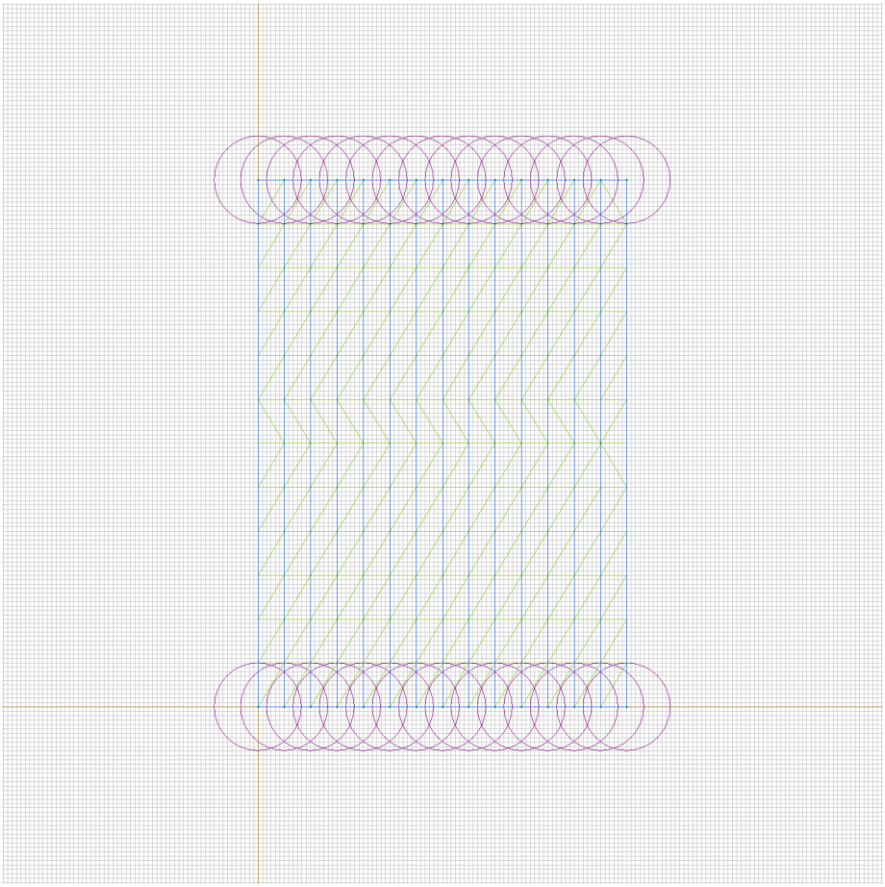


Table 1. Geometry model statistics

	With Label	Total
Blocks	1	14
Edges	2	43
Vertices	0	30

Number of nodes: 195.

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)

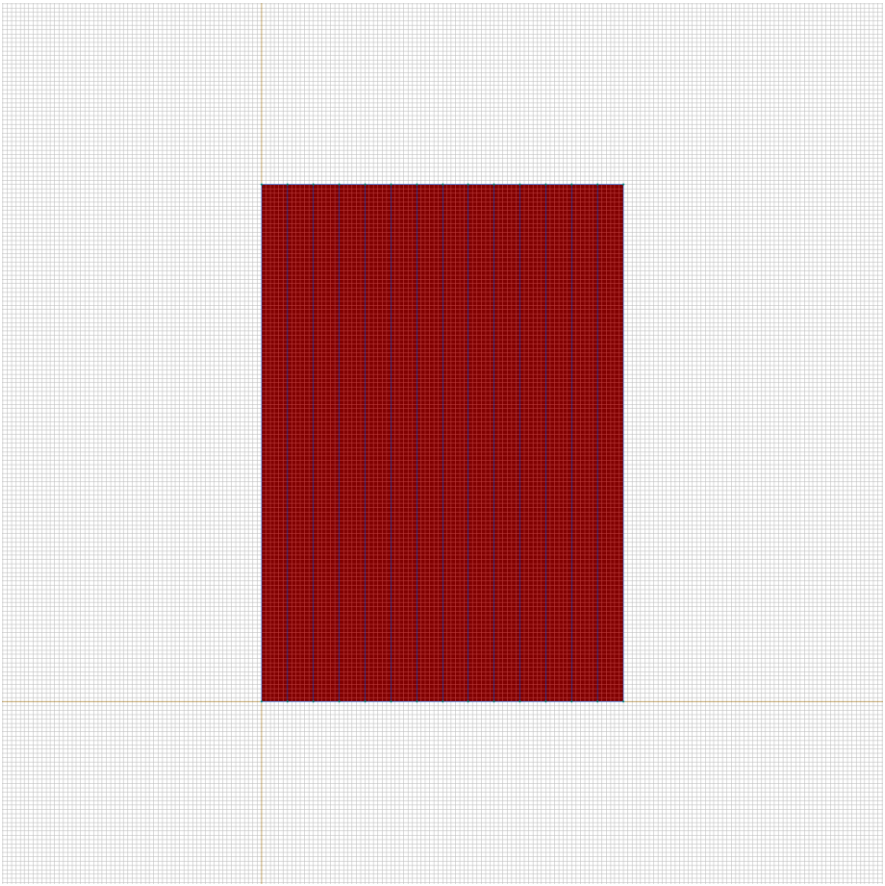
Blocks:	Edges:	Vertices:
• dielectric •	• U+ • U- •	

Detailed information about each label is listed below.

Labelled objects: block "dielectric"

There are (14) objects with this label

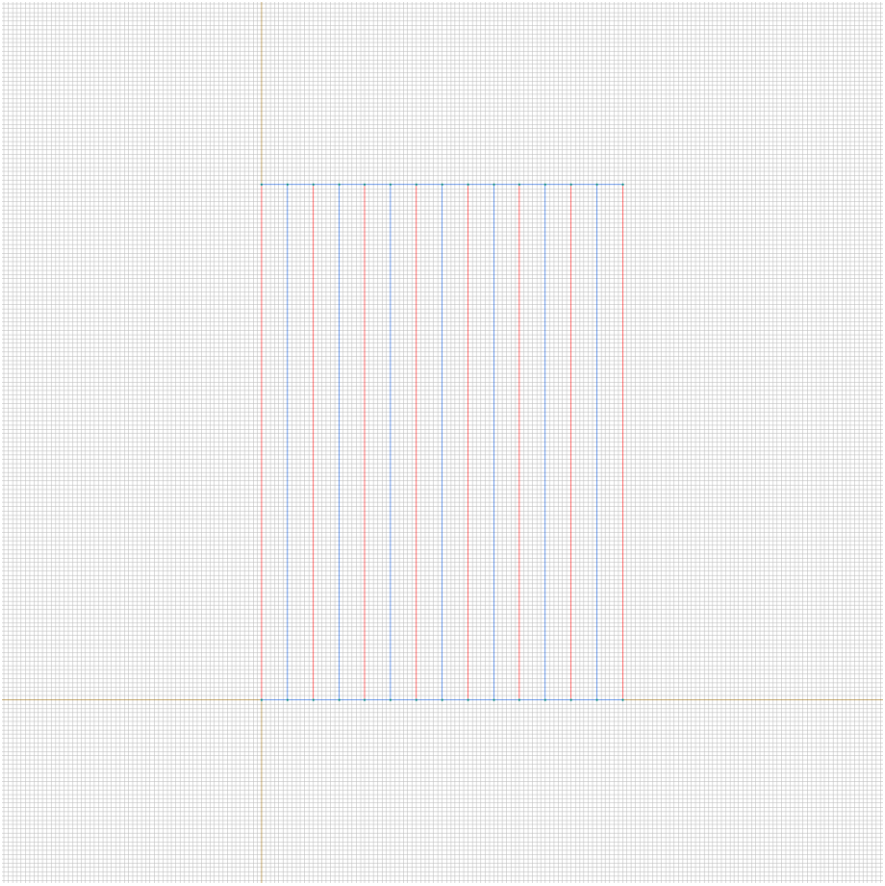
Relative electric permeability: eps=nonlinear (see Table 2 in the "Nonlinear dependencies" section)
Electrical conductivity: sigma_x=0 S/m, sigma_y=0 [S/m]



Labelled objects: edge "U+"

There are (8) objects with this label

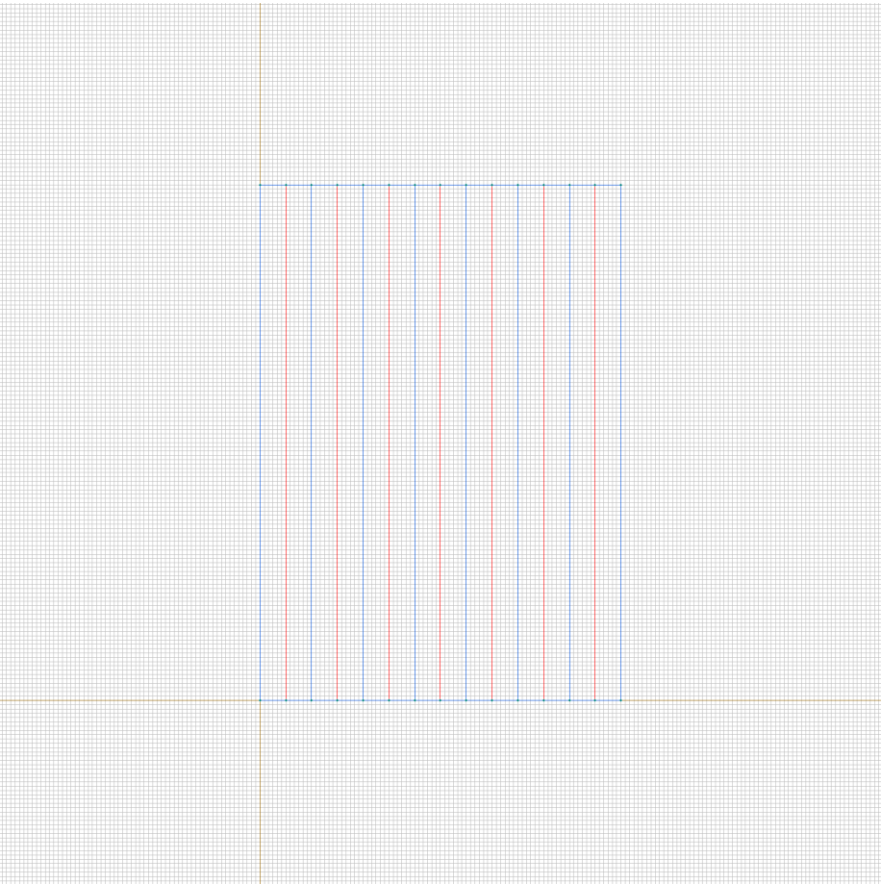
Voltage: U=240*t [V]



Labelled objects: edge "U-"

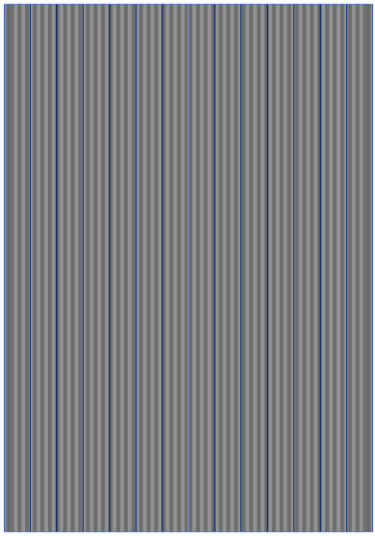
There are (7) objects with this label

Voltage: U=0 [V]



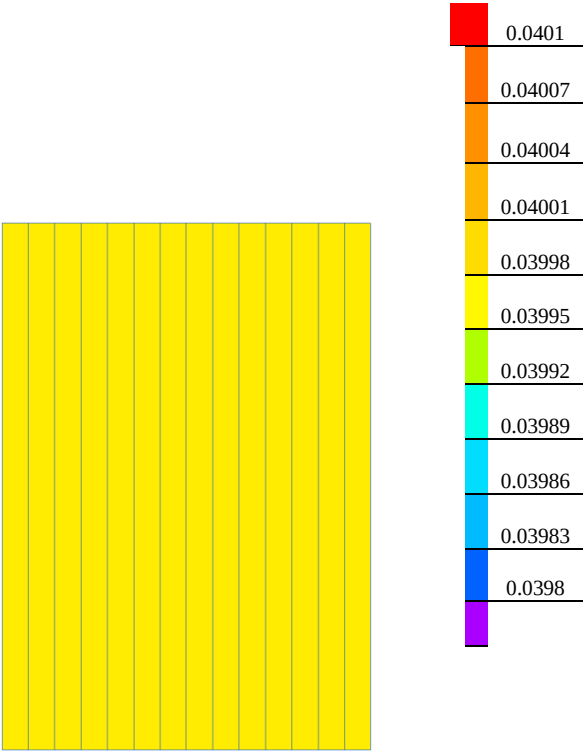
Results

Field lines



Results

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



Nonlinear dependencies

Table 2. Electric permittivity

E [V/m]	eps []
0	2000
15000	4000
30000	6600
51000	10500
60000	12000
74000	14000
90000	16000
120000	17500
150000	17200
180000	16500
240000	15000
270000	14200
360000	12200
510000	9000
550000	8400
600000	7700
800000	5800
1000000	4650
2000000	2340
4000000	1180
8000000	600