

Instructions Induction loop design tool:

Specified induction loop:

Room: 10x12 meters

Loop coordinates:

x1,y1 = 0,0

x2,y2 = 0,12

x3,y3 = 10,12

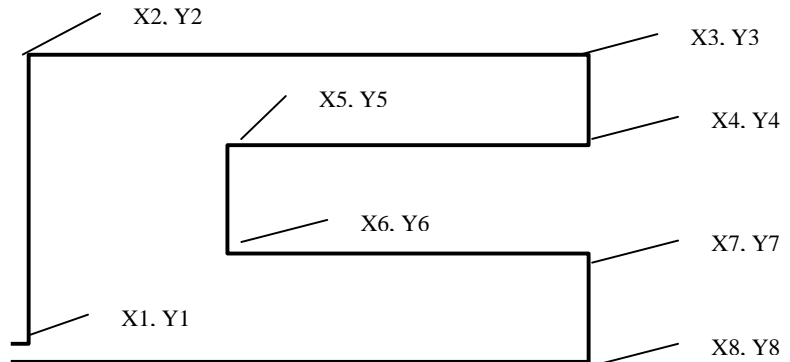
x4,y4 = 7,12

x5,y5 = 7,6

x6,y6 = 4,6

x7,y7 = 4,12

x8,y8 = 0,12



Import data into the induction loop tool:

Fill the room dimensions (1)

Fill in the listening height (2)

Fill in the number of windings (3)

Fill in the number of corners made with the loop (4)

Fill in the number of calculated values (5)

Press the “vertex” key and fill in the vertex position of each corner.

Vertex positions (6)

Press “calculate values (7) to get a calculated field.

Field or numeric values

1 – room dimensions

5 – Calculation grid

7 – Start calculation

3 – Number of windings

4 – Number of vertexes

6 - Vertex positions

Inductive loop calculator v1.1

Date: 21-7-2008

Project name: Budapest01

☐ Dual loop

☐ Quadrature

☒ Field strength in mA/m

☐ Show negative values

Calculate field strength in an area

Start corner X: 0 Y: 0

End corner X: 10 Y: 12

Grid resolution X: 20 Y: 24

Calculate

Bosch Security Systems

Loop 1

Current: 1,2 Amperes

Listening height: 1,2 meter

Number of windings: 1 winding(s)

Number of vertices: 8 points

Edit vertices

Vertex co-ordinates of loop 1

Enter XY co-ordinates in meters:

Vertex	X	Y
Vertex 1	0,36	0,36
Vertex 2	16,64	0,36
Vertex 3	16,64	1,45
Vertex 4	1,45	1,45
Vertex 5	1,45	2,45
Vertex 6	16,64	2,54
Vertex 7	16,64	3,27
Vertex 8	0,36	3,27
Vertex 9	0,36	0,36

OK

8 – Amplifier power

2 – Listening height

Import data in Excel:

Results are show into a text formatted view.

Signal values should be between 90 and 140 mA (blue values) or from 5-7 if the field strength is not selected

To get a graphical field overview, you can copy the area data values to Excel.

The data needed should look like:

[illegible]

Select the calculated area data values from the text file and copy these values to a txt file on your desktop. Rename the extension of the .txt file to e.g. .dta

Open MS-Excel and open the .dta file.

Excel will ask for the format, but its own guess most of the time fits.

Once the data is imported, you are able to view this data into a chart. (take a 3D chart)

The calculated filed shall look like:

