

09/12/2017

Calculos:

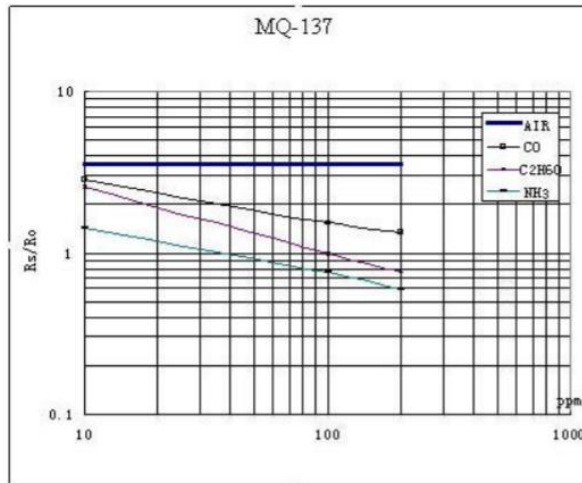


Fig.3 shows the typical sensitivity characteristics of the MQ-137 for several gases. in their: Temp: 20°C, Humidity: 65%, O₂ concentration 21% RL=47k Ω
Ro: sensor resistance in the clean air.
Rs :sensor resistance at various concentrations of gases.

$$y = mx + b$$

Donde:

y: X valor de

x: X valor de

m: Slope de la linea

b: Y intercepcion

Punto de la grafica (20,1.2) y (40,1)

$$m = [\log(y) - \log(y_0)] / [\log(x) - \log(x_0)]$$

$$m = \log(1/1.2) / \log(40/20)$$

$$m = -0.26303440583$$

ahora para (30,1.1)

$$\log(y) = m \cdot \log(x) + b$$

$$b = \log(y) - m \cdot \log(x)$$

$$b = \log(1.1) - (-0.26303440583) \cdot \log(30)$$

$$b = 0.42992639673$$

Donde:

en el aire

$$RS / R0 = 3.6$$

$$R0 = 2.19$$