Trabajo practico semana 2 grupo 5

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Ejercicio 3:

Ejercicio 3 (ejemplo)

Determinar el **alcance**, **exactitud** y **precisión** de cada uno de los modelos de sensores de presión que se muestran en el catálogo.

Model		PSE570	PSE573	PSE574	PSE575	PSE576	PSE577
Fluid	Applicable fluid	Gas or liquid that will not corrode the materials of parts in contact with fluid					
Pressure	Rated pressure range	0 to 1 MPa	–100 to 100 kPa	0 to 500 kPa	0 to 2 MPa	0 to 5 MPa	0 to 10 MPa
Accuracy	Analog output accuracy (Ambient temperature of 25°C)	±1.0% F.S.			±2.5% F.S.		
	Repeatability (Ambient temperature of 25°C)	±0.2% F.S.			±0.5% F.S.		

Alcance:	1 - 0 = 1 [MPa]	100 - (-100) = 200 [KPa]	500 - 0 = 500 [KPa]	2 - 0 = 2 [MPa]	5 - 0 = 5 [MPa]	10 - 0 = 10 [MPa]
Exactitud:	1% de 1 [MPa] $\frac{1 * 1}{100} = 0.01$ ±0.01[MPa]	1% de 200[KPa] $\frac{1 * 200}{100} = 2$ ±2 [KPa]	1% de 500[KPa] $\frac{1 * 500}{100} = 5$ ±5 [KPa]	2.5% de 2 [MPa] $\frac{2.5 * 2}{100} = 0.05$ ±0.05 [MPa]	2.5% de 5 [MPa] $\frac{2.5 * 5}{100} = 0.125$ ±0.125 [MPa]	2.5% de 10[MPa] $\frac{2.5 * 10}{100} = 0.25$ ±0.25 [MPa]
Precisión:	0.2% de 1 [MPa] $\frac{0.2 * 1}{100} = 0.002$ ±0.002 [MPa]	0.2% de 200 [KPa] $\frac{0.2 * 200}{100} = 0.4$ ±0.4 [KPa]	0.2% de 500 [KPa] $\frac{0.2 * 500}{100} = 1$ ±1 [KPa]	0.5% de 2[MPa] $\frac{0.5 * 2}{100} = 0.01$ ±0.01 [MPa]	0.5% de 5[MPa] $\frac{0.5 * 5}{100} = 0.025$ ±0.025 [MPa]	0.5% de 10[MPa] $\frac{0.5 * 10}{100} = 0.05$ ±0.05 [MPa]