

Name

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Exercise - VIBRATION SENSORS

Measurements of the beam vibrations with electrodynamic sensor DGA 101:

1. Type **DGA 101** **$k = 30 \text{ mV/mm s}^{-1}$**

No.	T	f	ω	U	v	k_f	v_{real}	x_{real}	a_{real}
	ms	Hz	rad/s	mV	mm s^{-1}	-	mm s^{-1}	mm	ms^{-2}
1									
2									
3									

2. Simultaneous measurements of vibrations with electrodynamic and laser sensors:

Type **DGA 401** **$k = 30 \text{ mV/mm s}^{-1}$**

No.	T	f	ω	U	v	k_f	v_{real}	x_{real}	a_{real}
	ms	Hz	rad/s	mV	mm s^{-1}	-	mm s^{-1}	mm	ms^{-2}
1									
2									
3									

Type **PDV 100** **$k = 25 \text{ mm s}^{-1}/\text{V}$**

No.	T	f	ω	U	v	x	a
	ms	Hz	rad/s	mV	mm s^{-1}	mm	ms^{-2}
1							
2							
3							

Calculations:

Compare velocity values at simultaneous measurements with electrodynamic and laser sensors:

Conclusions and remarks:

Characteristics of sensors DGA 101 and DGA 401

