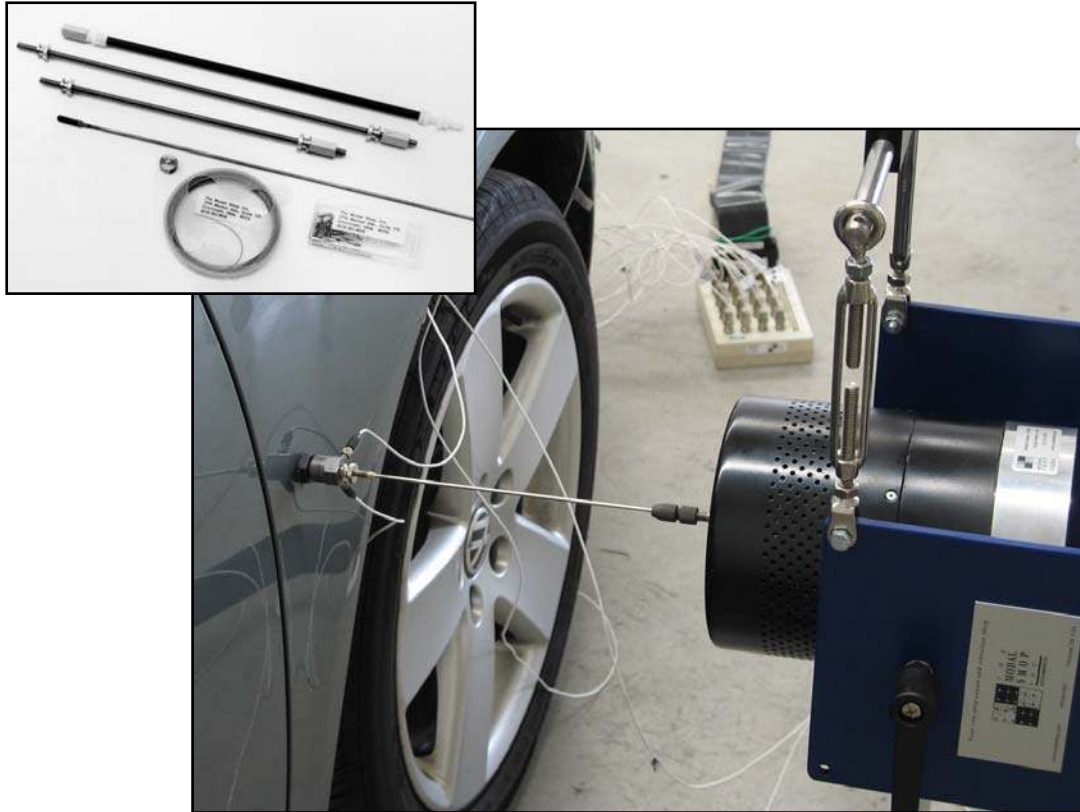


## EXCITER STINGERS 2100 SERIES



### TYPICAL APPLICATIONS:

- Modal analysis
- Ground Vibration Testing
- Body-in-white testing
- Structural / acoustic testing

### BENEFITS:

- Provides convenient excitation connection
- Alleviates need for alignment accuracy
- Reduces force sensor measurement error
- Isolates fragile exciter armatures
- Adapts to different mounting threads

Hochwertige Messtechnik und Beratung aus einer Hand



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*"Simplifying with Smart Sensing Solutions"*



# MODEL 2100 SERIES

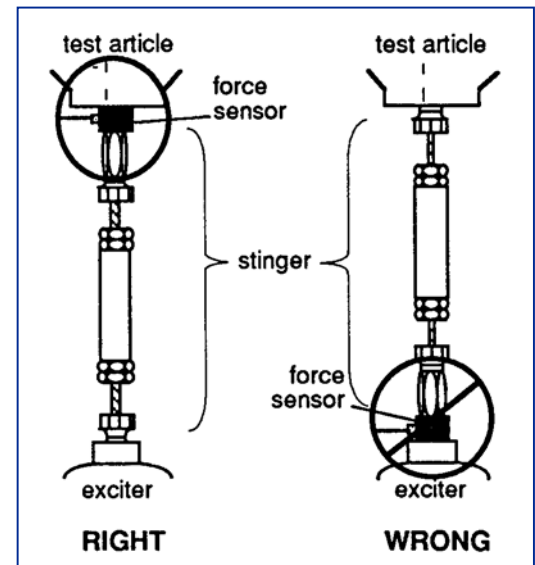
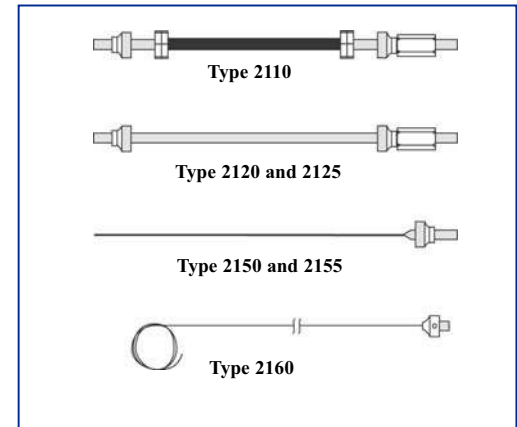
An excitation stinger consists of a thin, flexible rod, with attachment means at both ends. The stinger transmits forces in the stiff axial direction and flexes laterally to reduce input side loads to the structure. Reducing the side loading is important because the lateral structural inputs are not measured by a uniaxial reference force sensor. These forces, which enter a test structure and are not measured as input, add noise to the measurement process. Therefore, elimination or relocation of these lateral inputs improve the accuracy of the measurement.

The installation diagram shows that the force transducer should be rigidly fixed to the test article, and that the stinger should be placed between the exciter and the force transducer. This configuration is necessary to avoid problems with the inertial effects and resonant behavior of the stinger, which cause errors in measurement of the force. Some of the applied force will be absorbed because the stinger's mass must be accelerated to the desired vibration level. Furthermore, at a resonance of the stinger, the stinger will alter the transmission of force through it to the test article, resulting in dynamic decoupling of the exciter from the article. If you were to (incorrectly) place the force transducer between shaker and stinger, then the transducer would measure the force into your stinger and not the modified force seen by the structure. Installing the force transducer between the stinger and structure assures that the force measurement accurately represents input forces directly to the test structure.

The stinger also helps to isolate the exciter armature from the structure, lessening inadvertent shocks and possibly prevent damaging a fragile exciter armature. Likewise, the stinger can protect a fragile structure from large, inadvertent excitations.

### Related Products

288D01	Impedance Head
2050A	Lateral Excitation Stand
2100E11	Modal Shaker
2050E05	Shaker Amplifier
8030S	AirRide test structure support
8032S	AirRide test structure support



**Installation Diagram**

### SPECIFICATIONS\*

	2110GXX**	2120GXX	2125GXX	2150GXX	2155GXX	K2160G
Material	Threaded nylon rod w/support tube	Threaded stainless steel rod	Threaded stainless steel rod	Steel rod w/threaded end	Steel rod w/threaded end	Flexible steel piano wire
Dia./thread (in.)	10-32	10-32	1/4-28	0.0625	0.09375	0.028
Std Lengths (in.)	6, 9, 12	9, 12, 18	9, 12, 18	12	12	N/A
Load sensor attachment	10-32	10-32	1/4-28	10-32	10-32	10-32
Exciter attachment	10-32	10-32	1/4-28	Collet	Collet	Collet
Quantity	pack of 3	pack of 3	pack of 3	pack of 3	pack of 3	50 ft.

\*\* XX indicates stinger length (in.)

Example: To order a pack of 3 stingers in 9" Nylon, use model # 2110G09

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