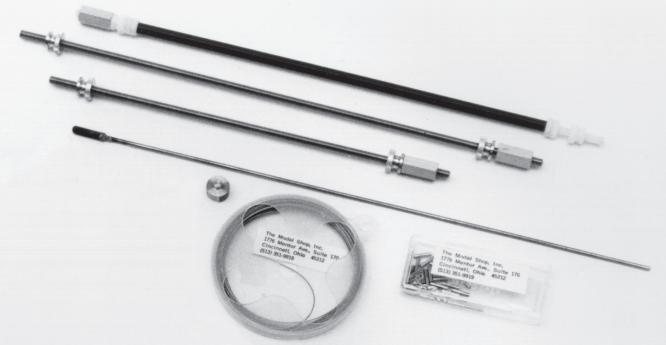
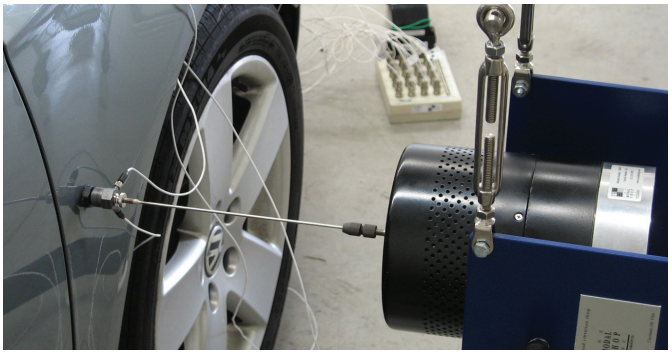
THE MODAL SHOP
AN AMPHENOL COMPANY





SERIES **2100**

EXCITER STINGERS

- Provide convenient excitation connection between shaker and structure
- Alleviates need for alignment accuracy
- Reduces force sensor measurement error
- Isolates fragile exciter armatures
- Adapts to different mounting threads

TYPICAL APPLICATIONS

- Modal analysis
- Ground vibration testing
- Body-in-white testing
- Structural testing

FOR ELECTRODYNAMIC SHAKERS

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 force transducer should be rigidly fixed to the test article and 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.

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.

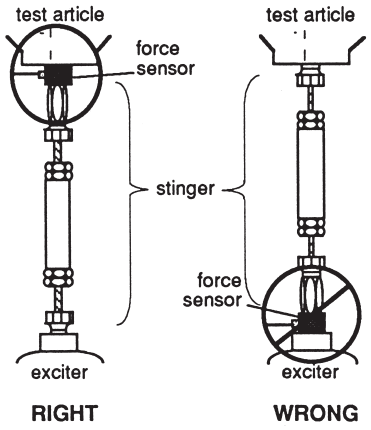
CE

SPECIFICATIONS

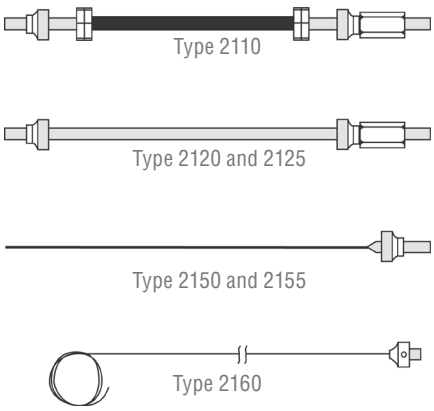
	2110GXX [1]	2120G12	2125G12	2150G12	2155G12	K2160G
Material	Threaded nylon rod w/ support tube	Threaded stainless steel rod	Threaded stainless steel rod	Steel rod w/ threaded end	Steel rod w/ threaded end	Flexible steel piano wire
Diameter/thread (in.)	10-32	10-32	¼-28	1/16	3/32	0.028
Std Lengths (in.)	6, 9, 12	12	12	12	12	N/A
Load Sensor Attachment	10-32	10-32	¼-28	10-32	10-32	10-32
Exciter Attachment	10-32	10-32	¼-28	Collet	Collet	Collet
Quantity	pack of 3	pack of 3	pack of 3	pack of 3	pack of 3	50 ft.

[1] XX indicates stinger length (in inches). Example: To order a pack of three 9-inch nylon stingers, use model number 2110G09.

Related Products	
288D01	Impedance Head
2050A	Lateral Excitation Stand
2060E	Modal Shaker
2100E23-400	Shaker Amplifier
8032S	AirRide Test Structure Support



Installation Diagram



Stinger Styles

THE MODAL SHOP
AN AMPHENOL COMPANY

10310 Aerohub Boulevard, Cincinnati, OH 45215 USA

modalshop.com | info@modalshop.com | 800 860 4867 | +1 513 351 9919