INSPEC International Limited
56 Leslie Hough Way
Salford, Greater Manchester
M6 6AJ, United Kingdom

Tel: +44 (0) 16 1737 0699
Email: equipment@inspec-international.com

Insertion loss test equipment

Description

This system is designed to facilitate measurement of the insertion loss of earmuffs, as specified in EN 352 Parts 1 and 3, when used with an acoustic test fixture.



The system includes an acoustic duct, fitted with a suitable loudspeaker and uses a plane progressive wave derived from pink noise filtered through one-third octave bands. An acoustic test fixture, including a ½" microphone, cable preamplifier and separate sound level calibrator is also required (refer separate product sheet).

The signal generating and sound level measuring system is fully programmed and controlled by software (computer not included).





Also provided is a directional microphone, which is used with the same signal generating and sound level measuring system, to check the directionality of the sound field.

A suitable test site is required in which to locate the equipment.

The equipment may be bench mounted or an optional support is available separately.

Services required

110/230 volts AC, 50/60Hz, mains electricity

The rig is designed to operate in the conditions specified by the relevant standards listed below.

Storage conditions should be restricted to 5 to 35°C and <85%RH.

Computer requirements:

Processor	Intel Core i5 8th Gen or newer or AMD Ryzen 5 3rd Gen or newer
Ram	4GB
Free drive space	2GB
Operating system	Windows 10 or 11
Other software	Microsoft Office 2016 or newer or Office 365 (Only Excel required)

Continued on page 2

Insertion loss test equipment (continued)

Approximate dimensions & weights

Item	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
Acoustic duct	3300	700	700	210
Electronic rack	500	350*	450	21

(*plus another 100mm for the cables)
An extra metre of free space is required at the right-hand end of the duct.

Relevant standards

EN 352-1
EN 352-3
EN 13819-2, clause 4.1.2