



The **EP-105c** Series instruments are designed as versatile, compact, lightweight, very rugged broadband seismic sensors. Unlike traditional seismometers, they are based on proprietary electrochemical transducer technology that provides many advantages over the conventional electromechanical seismometers. In particular, **EP-105c** noise curve is essentially flat starting from about 1Hz toward the longest periods. Each of the three identical sensor elements in **EP-105c** is equipped with an efficient electrodynamic force-balancing feedback.

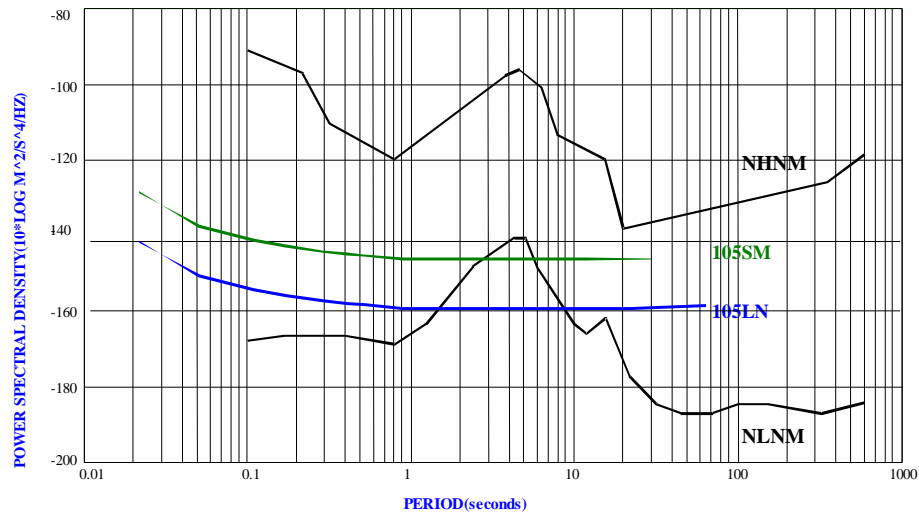
The instruments are offered in two application-dependent versions. The standard **EP105c-(LN)** is the reduced noise version. An optional model, **EP105c-SM** has a higher clip level and is used for strong motion applications. Both versions have the same dynamic range, which is shifted up by approximately 10db in the '**SM**' relatively to the standard '**LN**' version. The EP105c instruments have been recently re-designed and replaced similar **EP105** seismometers. The 'c' instruments are much more compact and weigh less than their predecessors while maintaining the same high performance characteristics. Also available are a single component version **EP105cU**, a very low power customized lightweight, compact ocean-bottom seismometer (OBS) **EP105c-OBS**, and a narrow (83mm diameter) borehole model **EP105c/BH**

The **EP105c** has an exceptionally rugged design and **DOES NOT** require mass lock or mass centering, special installation equipment, or technical installation procedures. The units are operational over a wide range of installation tilts. Optional inclinometers may be installed. The **EP105c** seismometers provide a low cost of ownership, **REQUIRING** no maintenance over the life of the instrument. Three and five-year extended warranties are available.

## EP-105c Specifications

PARAMETER	EP105c	EP105c-OBS
Operating principle	Force-balanced Proprietary Electrochemical Sensor <small>Ошибка! Закладка не определена.</small>	
Output signals	2 horizontal, 1 vertical; broad band, velocity flat response	
Standard output swing: Same, Low Power Version	$\pm 10$ V single-ended; ( $\pm 20$ V p-p)	See Low Power Version below
	$\pm(V_{cc}-1)$ single-ended; $\pm 2(V_{cc} - 1)$ p-p <sup>1</sup>	
Dynamic Range	135 dB	
Bandwidth	0.033 – 50 Hz	
Generator constant	Standard: 2000 V/m/s; Optional: 350 – 20,000 V/m/s	
Mass Lock	NONE REQUIRED	
Mass centering	NONE REQUIRED	
Maximum installation tilt	$\pm 12^\circ$	
Mechanical resonances	none	
Environmental	Waterproof, submersible (1m)	Vacuum tight to 0.5 atm
Temperature range	-12 to + 55 °C	
Housing material	Aluminum	Custom
Case diameter	155 mm	Custom
Case height	185 mm	Custom
Weight	5kg	Custom
Mounting connection	n/a	Custom
Power – Regular	9 – 14 Vdc; (Nominal 12Vdc); 28mA	
Power – Low power <sup>2</sup>	5 – 15 Vdc; 12mA @ 12 Vdc	
Connectors	14-pin circular	Custom

### NOISE CURVES



<sup>1</sup> Vcc is the external regulated power supply voltage.

<sup>2</sup> Low-power option requires external battery or a regulated power source.

Specifications subject to change without notice

US patent No.6,576,103

0606

625 N. Euclid Ave., Suite 404,  
St. Louis, MO 63108 USA  
Tel: 1-314-454-9977  
Fax: 1-314-454-9979

e- mail: sales@eentec.com Web Site: [www.eentec.com](http://www.eentec.com)