

LPHA long period horizontal sensor

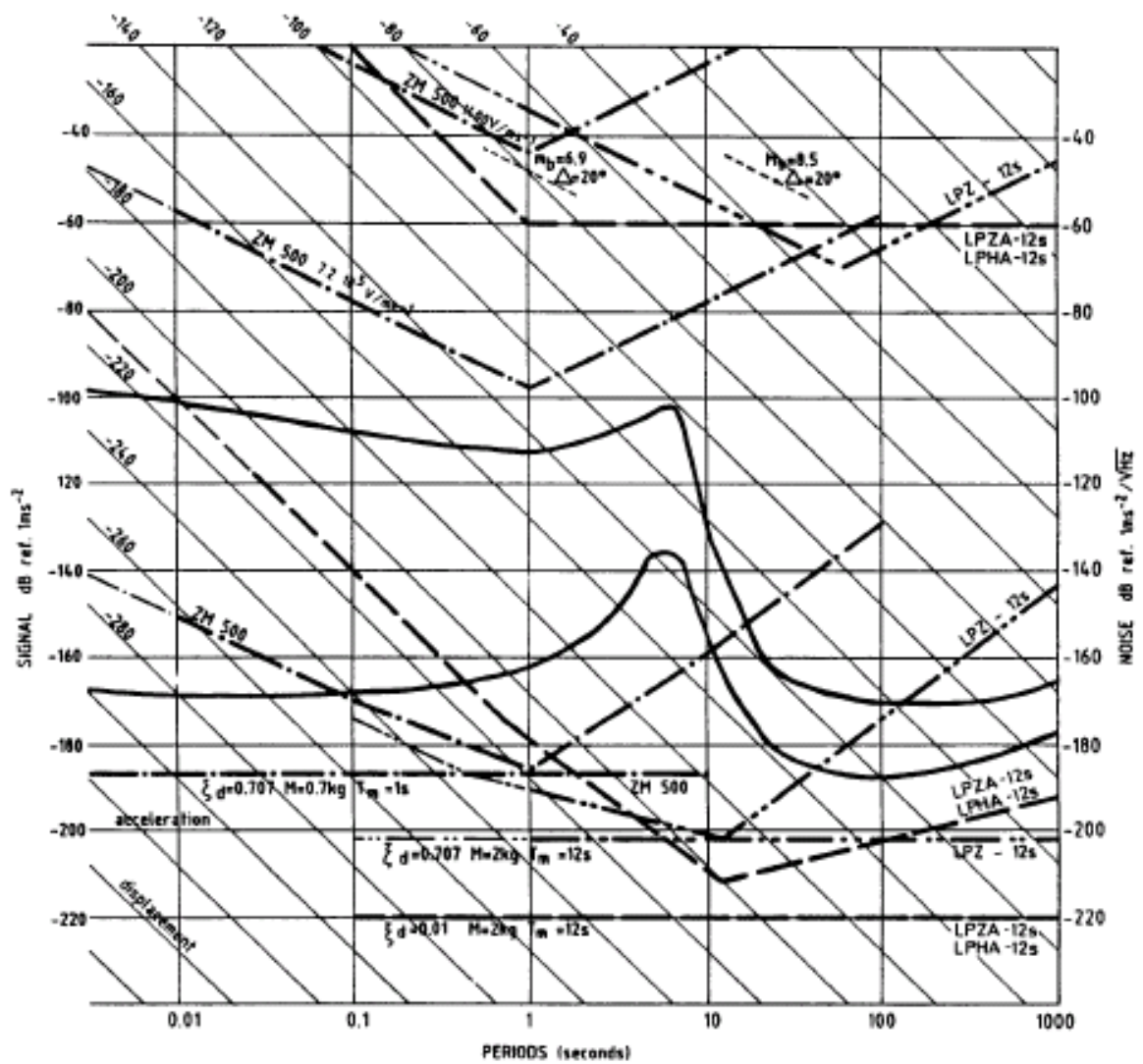


Operating characteristics (with ESTEREL unit interface)

Mechanical natural period :	$T_0 = 12 \text{ s}$
Mechanical damping:	< 0.05
Feed back actuator:	Magnet and coil
Calibration coil:	$220 \Omega \pm 40 \Omega$
ESTEREL unit Output:	
- <i>type</i>	2 outputs, Single ended
- <i>maximum level</i>	24 Vpp. into 10 K Ω load
- <i>integrator board available</i>	Velocity or displacement configuration
Power requirements (with ESTEREL unit):	Nominal $\pm 12 \text{ V}$

Physical characteristics

Basic dimensions :	
- <i>cylindrical</i>	Diameter 400 mm, height 400 mm
- <i>weight</i>	30 Kg
Field use:	
- <i>moving arm mount operation</i>	On site
- <i>period and mass centering adjustment by moving foot</i>	
- <i>depressurized case</i>	Vacuum level $< 10 \text{ mbar}$ (DN10 plug)
Environmental characteristics:	
- <i>in use temperature</i>	$-10 \text{ to } +40 \text{ }^\circ\text{C}$
- <i>waterproof case</i>	
- <i>rugged for wet and salt saturated atmosphere (IP68 guaranteed)</i>	



Noise figures and dynamic range for some seismometer

LPH Poles and zeros

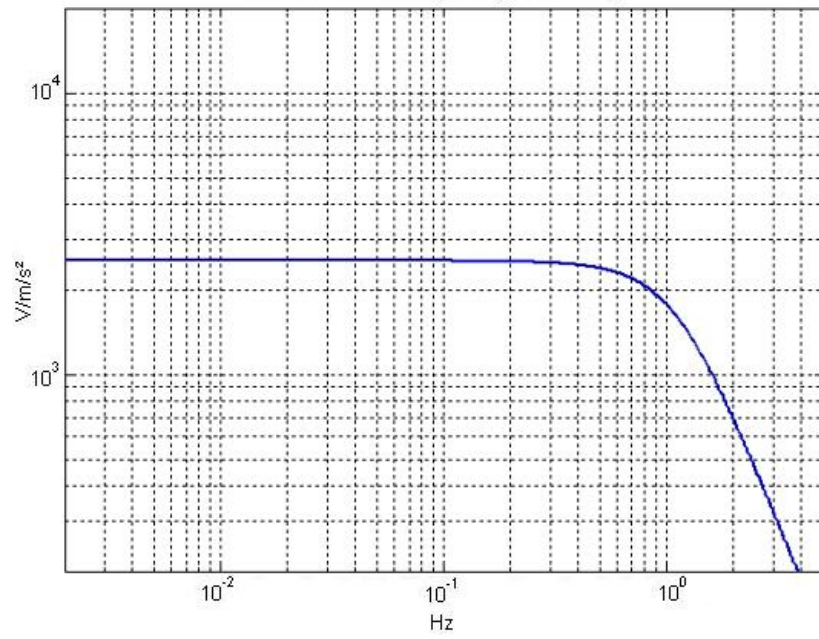
type	Actual	image	Unit
Pole*	-466.17	475.58	V/m.s ⁻²
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Pole*	-4.54	4.43	V/m.s ⁻²
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* normalization frequency = 20 s, normalization factor @ 20 s = 1/0.0031

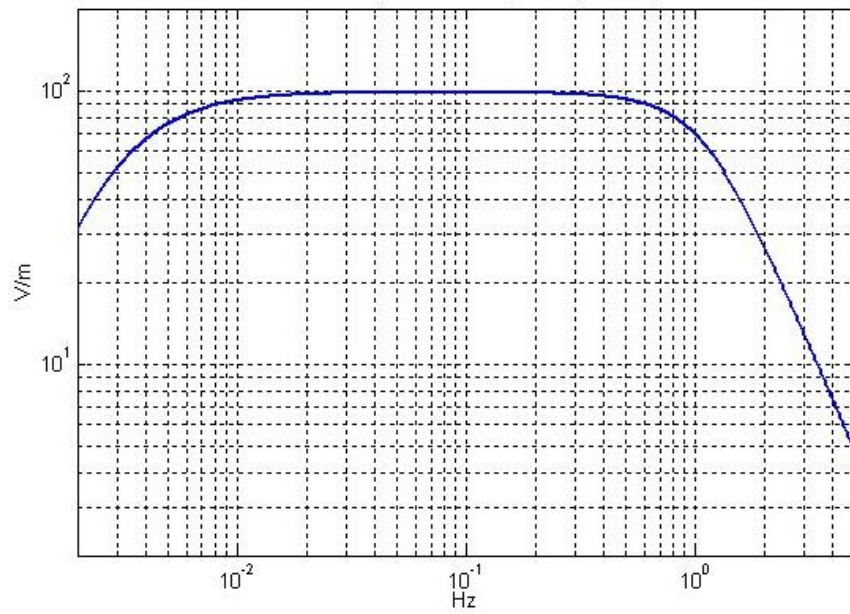
ESTEREL Poles and zeros (60 s velocity integrator)

type	Actual	image	Unit
Pole*	-0.1047	0	V/V
Pole*	-0.0063	0	V/V
Zero*	0	0	V/V

LP Acceleration response (2533 V/m/s²)



LP 400s Displacement response (100 V/m)



LP 60s Velocity response (10 000 V/m/s)

