

# TECHNICAL SPECIFICATIONS

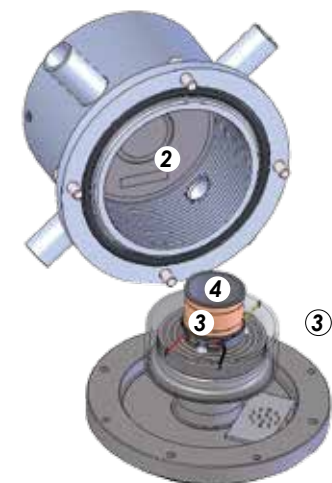
## TRANSDUCER BLOCK

Bandwidth (f <sub>-3dB</sub> )	Pressure output: 0,01 - 27 Hz Pressure derivative output: DC - 27 Hz
BLDR* [0,02 ; 4] Hz	117 dB @ f< 1,6 Hz / 109 dB @ f= 4 Hz
Self-noise	0.13 mPa/√Hz @ 1 Hz < 10 dB under LNM
Resolution [0,02 ; 4] Hz	1,75 mPa <sub>RMS</sub>
Default sensitivity (Adjustable gain)	Pressure output: 20 mV/Pa Pressure derivative output: 2 mV/Pa.s <sup>-1</sup> Calibration output: 6 V/Pa
Auxiliary outputs:	
• Temperature sensor	[-40 ; + 110]°C, 10 mV/°C, ±0,2°C
• Atmospheric pressure sensor	[150 ; 1150] hPa, 1 mV/hPa offset stability: 0,25% full scale / uncertainty: 1,5% full scale

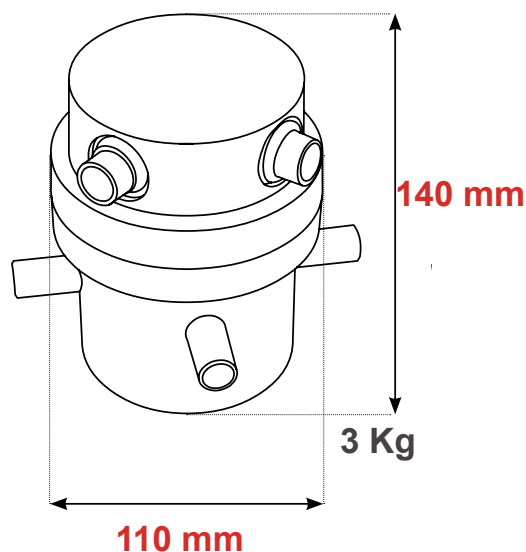
\* Band Limited Dynamic Range

## ANALOG HOOD

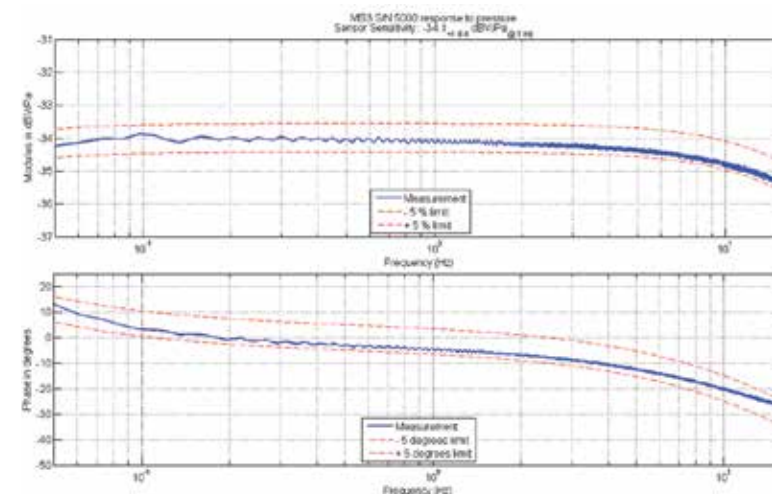
Output range	24 V pp
Output type	Differential (symmetric)
Output impedance	2 × 50 Ω
Dynamic range	Output P (Pa): ±min (12000 [Pa/s]/2.π.f[Hz] ; 1200[Pa]) Output dP: ±12000 (Pa/s)
Power requirements	12 V DC (7-20 V) - 120 mW



- ① Pressure sensitive element:  
aneroid capsule  
(bellows sealed under vacuum)  
Transducer: magnet② and coil③  
velocity transducer  
④ calibration coil



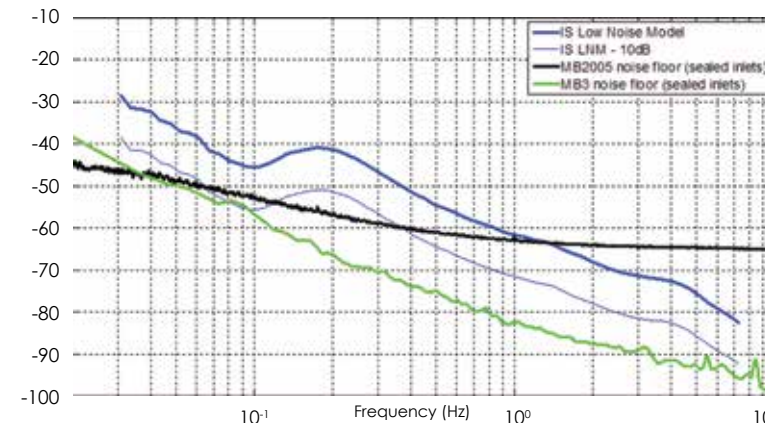
# SENSOR SENSIBILITY RESPONSE



theoretical response (amplitude ± 5%, phase ± 5%)

## SELF NOISE

Low instrumental noise < 10 db under LNM



# ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-20°C to + 50°C
Storage temperature	-30°C to + 70°C
Seismic sensitivity	< 30 Pa/m.s-2
Sealing	CEI 60529-IP67 (with acoustic inlets sealed)
Shock / Drop	NF EN 60721-3-1, 2M1 (free fall, impact, shock)
Transport	NF EN 60721-3-2, 2M3 (vibration)
EMC	NF EN 55024 classes A & B (immunity) NF EN 55022 class B (emission)



## ASSOCIATED PRODUCTS:

12 V POWER CABLE

SENSOR TO DIGITIZER CABLE

MAGNET ADJUSTMENT CABLE

MAGNET WRENCH

BATTERY NP12-12 YUASA

**MB3d Hood:** is compatible with the Transducer block. This hood is a 24 bit low consumption digitizer with 1GB memory.

It is delivered with Dionisos software dedicated to data download and sensor monitoring

### Packaging:

ScrewPack for 1 unit

Transport case for 6 units



### CONTACT US

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MB3a data-sheet : © Seismo Wave (V.2.0-April 2015)

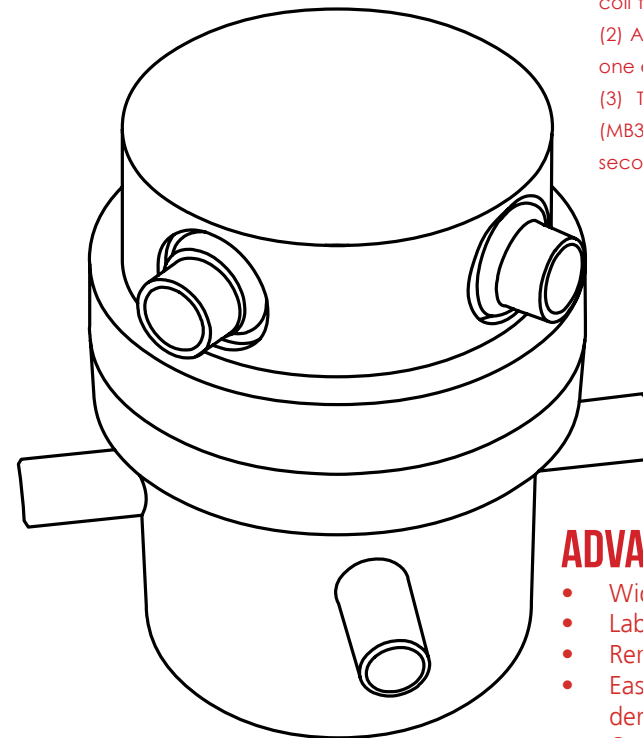


# MB3a

## INFRASOUND SENSOR

## WITH REMOTE CALIBRATION CAPABILITY

- (1) an aneroid capsule coupled with a magnet & coil transducer (bellows sealed under vacuum).
- (2) A secondary coil wrapped around the main one ensures remote calibration capability.
- (3) Two versions are proposed. One analog (MB3a) compatible with usual digitizers. The second one is digital (MB3d)



## ADVANTAGES

- Wide dynamic range
- Lab calibrated (Calibration certificate)
- Remote calibration (sine, pulse or MLS)
- Easily set in pressure output or pressure derivative output mode
- Outside temperature and absolute pressure sensors included
- On site easily adjustable according to the altitude