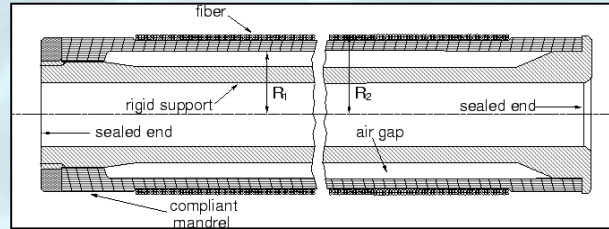
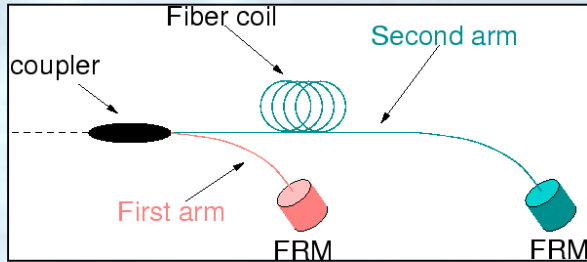
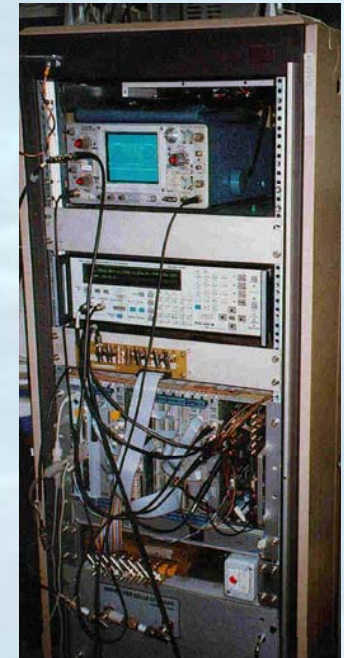
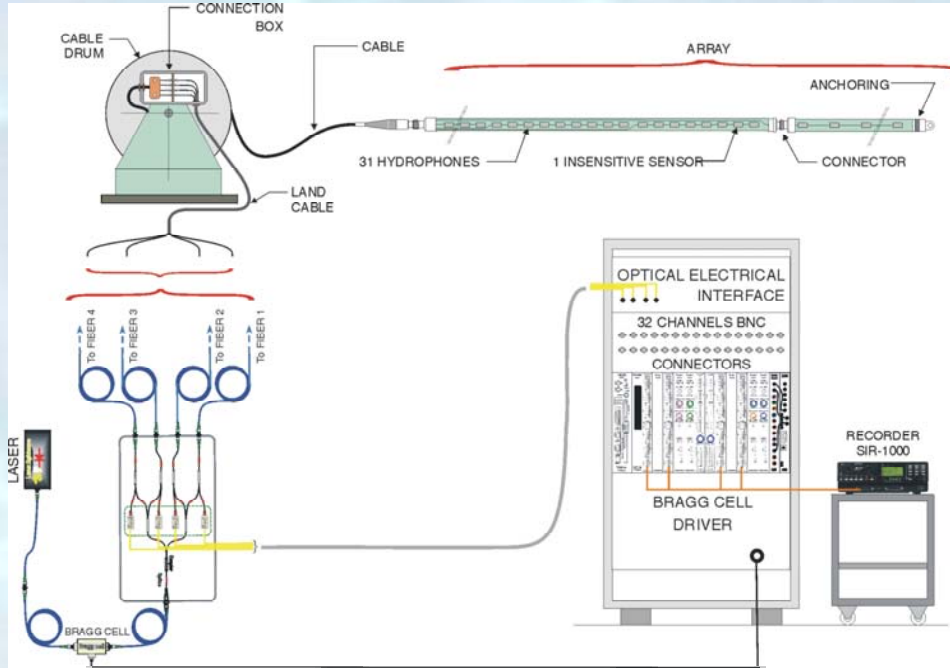


Il sistema RTP 10.6



$$\epsilon_{\phi\phi} = \frac{1 - \bar{\nu}^2}{\bar{E}} \frac{R}{t} P$$



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Sensibilità tipiche

$$\left. \begin{array}{l} \bar{E} = 14 \times 10^9 \text{ Pa} \\ \bar{\nu} = 0.4 \\ R = 15 \text{ mm} \\ t = 2 \text{ mm} \end{array} \right\} \Rightarrow \frac{1}{\Phi} \frac{\Delta\Phi}{\Delta P} = -310 \text{ dB re } 1/\mu\text{Pa} \Rightarrow +40 \text{ dB}$$

$$\text{Michelson (L = 50 m)} \Rightarrow \frac{\Delta\Phi}{\Delta P} = -133 \text{ dB re rad}/\mu\text{Pa} \approx 0.22 \mu\text{rad}/\mu\text{Pa}$$

Sea state zero $\approx 100 \mu\text{Pa}/\text{Hz}^{1/2}$ @ 1kHz

Demodulation noise $\approx 17 \mu\text{rad}/\text{Hz}^{1/2}$

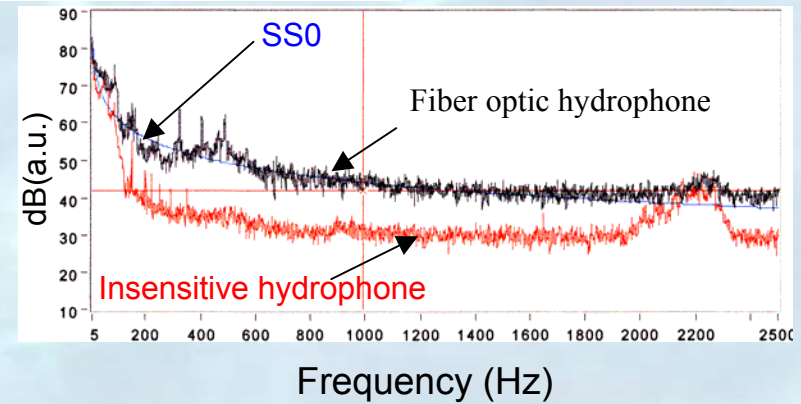
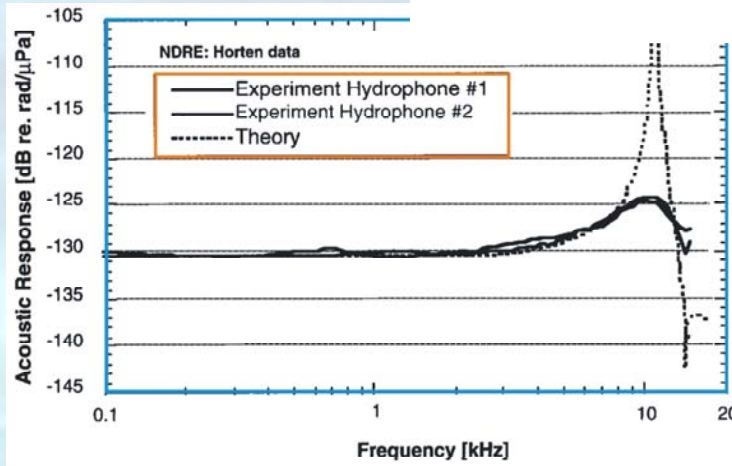


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Prestazioni: schema riassuntivo

Parameter	Requirement	Measured value
Hydrophone responsivity	>-130 dB re rad/uPa	>-130 dB re rad/uPa
Hydrophone bandwidth Transfer function	5 - 2500Hz Flat \pm 1dB	5 - 4000Hz Flat \pm 1dB
Cross talk	< -30dB	-35dB
Directivity	\pm 1dB	\pm 1dB
Spectral dynamic range @3kHz		114 dB
Relative phase between hydrophones	\pm 10°	\pm 5°
Total system noise	< SS0	< SS0
Operational/ survival depth Operational/ survival temp	300m/ 500m -5°C to 35°C/ -20°C to 50°C	confirmed in laboratory tests confirmed in laboratory tests



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