

## ABSTRACT

## HYDROPHONE CABLE CONSTRUCTION

An acoustic sensor module (10), contains groups of single sensor elements (11) within a fluid-tight enclosure (12). The enclosure (12) is bounded by a reinforced hosewall (13) and module end caps (14) at either end of the module (10). The sensors (11) are mounted in the centre of the enclosure using tubular foam spacers (15); smaller cylindrical foam spacers (16) fill the central space between sensors. Radial stiffness is provided to the spacers (15) by thin annular rings (17) held in location by fine strength cords (18). Thin flexible wires (19) connect the sensor elements (11) of each group to the pre-amplifying/multiplexing electronic package (20), the connecting leads (21) therefrom being brought out to the outer surface through a division between spacers (15). Data and power cables (22) are spirally wrapped around the outer diameter, with an over-wrap of fine fibre or plastic tape (23) to lock them into position. The connecting leads (21) to the electronic packages (20) are then spliced into their respective data/power cables (22). An inner jacket of flexible, low density, acoustically damping thermoplastic material (24) is then extruded over the assembly described above, encapsulating the data/power cables (22) and also enclosing strength members (25).

Figure 2

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This Sheet Has Been Replaced

