NEW GENERATION SONAR

PHS 32 is a new generation high-performance search and attack sonar system for use on board ships of 200 tons and upwards. It fits in with any ship's design, since either a retractable or a fixed hull outfit can be incorporated. Alternatively it can be integrated with a towing system to provide a variable depth capacity.

PHS 32 is a strongly software-oriented sonar system, which makes use of advanced signal processing techniques (FFT-processor) and a built-in microcomputer. The system has excellent control, display and target tracking characteristics.

PHS 32 is operational on several ships.

MAIN FEATURES

- 360° simultaneous surveillance
- variety of operational modes
- latest technology and digital processing techniques
- one man operation with lightpen control
- bright and continuous presentation by use of display memories
- automatic tracking of up to 4 targets
- automatic testing and fault location facilities
- compact and lightweight
PERFORMANCE

Modes of operation:
- OMNI (omnidirectional)
- TRDT (tribeam ripple directional transmission)
- LP (long pulse)
- MCC (wide vertical beam operation to maintain close contact)

LISTEN (passive mode)
- Pulse length: 12.5 - 250 - 1000 μsec LP: 400 μsec (CW/FM)
- Number of transducer staves: 30
- Number of preformed beams: 60
- Number of transmission frequencies: three

- Own doppler correction on all 60 beams
- Target doppler speed measurement: -40 to +40 kt
- Notch filter: 0-15 kt adjustable
- Number of range scales: 5
- Range accuracy: ±0.5 to 2% of full scale range
- Range gate length: 1/16 of range scale
- Bearing accuracy: 1° 15' 15" with computer
- Vertical beam width: 12°20" with computer
- Autotrack capability
- Time bearing history (listen)
- 4 targets simultaneously
- 20 minutes

DOME

SIGNAAL can supply a tailor-made dome to house the transducer. This dome is a ribless glass-reinforced polyester (GRP) construction.

VARIABLE DEPTH TOWING SYSTEM

PHS 32 can be delivered in Variable Depth Configuration. The hull-mounted transducer and the variable depth transducer can share one set of onboard electronics, offering both capabilities to one ship.

INSTALLATION DATA

POWER REQUIREMENTS (approx.)

Sonar cabinets:
- 115 V 400 Hz 3-phase: 2.7 kVA continuous
- 115 V 60 Hz 1-phase: 0.4 kVA continuous (heating)
- 440 V 60 Hz 3-phase: 0.9 kVA nominal
  1.9 kVA peak*

* This low value is achieved by a built-in power buffer-unit.

DIMENSIONS AND WEIGHTS

<table>
<thead>
<tr>
<th>Depth</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>mm</td>
<td>mm</td>
<td>kg</td>
</tr>
<tr>
<td>Sonar console</td>
<td>1125</td>
<td>873</td>
<td>1810</td>
</tr>
<tr>
<td>Transmitter</td>
<td>710</td>
<td>938</td>
<td>1904</td>
</tr>
<tr>
<td>Duplexer and amplifier</td>
<td>300</td>
<td>600</td>
<td>1050</td>
</tr>
<tr>
<td>Transducer array</td>
<td>150</td>
<td>730</td>
<td>740</td>
</tr>
<tr>
<td>Relay and transducer matching box</td>
<td>350</td>
<td>1000</td>
<td>850</td>
</tr>
</tbody>
</table>

*These dimensions include shock mounts and mounting rings.

DESIGN AND CONSTRUCTION

The design and construction of the equipment is based on current British and U.S. military standards for shipborne equipment.

VARIABLE DEPTH TOWING SYSTEM

Deck space required: 7.30 x 2.12 m
Height above deck: 3.0 m
Total System weight: 8000 kg

FIXED FAIRED DOME

Width (mm): 1100
Length (mm): 2600
Height (mm): 1100

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