

# Wärtsilä ELAC VE 5900 Upright

Upright version of naval echo sounder system for submarines and surface vessels



The high-end naval echo sounder system Wärtsilä ELAC VE 5900 has been especially designed to meet the requirements of submarines and surface vessels. The upright version proves the outstanding modularity of the naval echo sounder that guarantees a perfect adaption into new buildings or existing designs.

The ELAC VE 5900 is the latest model of the VE series with hundreds of systems sold and in service on submarines all around the world. Continuing this good tradition, this latest digital version of the ELAC VE 5900 meets all relevant military specifications in terms of shock, vibration, temperature, humidity, EMI and noise – to name only a few. This distinguishes the ELAC VE 5900 from other available systems.

## One system, many advantages

The SEB 5900 Upright version is specially designed for a form fit replacement of the aging predecessor MP 59 (Control and Display Unit of the ELAC VE 59).

Especially in limited spaces like a submarine, the upright design describes a perfectly fitting solution. So the existing footprint of the MP59 could be reused and only small adaptations are necessary to replace the MP59 with the SEB 5900 Upright version.

Additional to the SEB 5900 a connection box is available to replace the SEE 9 (sometimes part of the VE 59 system) to reused existing inboard cabling.

Most of the used transducers of the ELAC VE59 system are still supported by the ELAC VE 5900 system and also available as spare parts to guarantee a long life support.



## ELAC VE 5900 Upright – Form fit replacement with a special ELAC VE 5900 version

- Form fit replacement of the ELAC VE 59 system
- Most of the existing transducers are supported
- Existing interfaces and additional sensors can be reused
- Same functions as the ELAC VE 5900.

# System overview

## Designed to meet defence standards

### Configured for your needs

The control and display unit SEB 5900 combines transceiver electronics, processor, power supply, interfaces as well as control and display components. Setup and operation are performed from this unit.

Wärtsilä ELAC Nautik offers a huge transducer variety for the system. The choice depends on the required depth performance and the installation in the submarine. The installation design support offered by our engineers guarantees an optimum performance of the chosen setup.

The pre-defined interfaces support the integration of the echo sounder system into the ship's navigation data management system. The blanking interfaces avoid interference with other active or passive systems onboard. Optional components, such as SVT sensors, pressure sensors, digital slave displays or graphical readouts further enhance the system.

Wärtsilä ELAC Nautik also provides a wide range of special tools and test equipment (STTE), adapted to different requirements, ranging from onboard maintenance to depot level maintenance or training facilities.

## Specifications and technical data

### Wärtsilä ELAC VE 5900 Upright at a glance

Technical data	
Frequencies	12 / 12.5 / 30 / 50 / 200 / 400 / 1,000 kHz (other frequencies available upon request)
Max. scale settings	0 - 500 / - 1,000 / - 3,000 / - 6,000 / - 10,000 m
Units (selectable)	Metres, fathoms, feet
Display	10.4" VGA TFT
Interfaces	NMEA 0183, RS422, Ethernet
Power supply	230 V AC, 50 / 60 Hz 115 V AC, 50 / 60 Hz
Power consumption	≤ 210 VA

Environmental qualifications	
Shock	acc. to. DIN EN 60068-2-27
Vibration	acc. to. DIN EN 60068-2-27
Protection	IP 44 with housing
EMC	acc. to. MIL-STD-461F

Range	Transducer						
	LSE1 84	LSE 141	LSE 313	LSE 136	LSE 180	LEG 50	LEG 28
[m]							
0 - 10	×	×	×	×	×	-	-
0 - 25	×	×	×	×	×	+	○
0 - 50	×	×	×	×	×	+	○
0 - 100	×	×	×	×	×	+	○
0 - 250	-	×	×	×	×	+	○
0 - 500	-	-	×	×	×	+	○
0 - 1,000	-	-	-	×	×	+	○
0 - 3,000	-	-	-	-	×	+	-
0 - 6,000	-	-	-	-	-	+	-
0 - 10,000	-	-	-	-	-	+	-

× for water depth and diving depth  
 ○ for diving depth only  
 + for water depth only  
 - not available