Aegir57N



KONGSBERG



Aegir SSA (Subsea Situational Awareness) is a family of commercial sonar systems designed to provide continuous underwater awareness for maritime security, safety, navigation, and infrastructure protection applications. Developed by KONGSBERG, the Aegir family combines proven acoustic sensing technology with compact form factors, simplified integration, and flexible deployment options.

Compact matrix sonar for navigation and security

Aegir57N combines navigation and security in a compact matrix sonar that directs its acoustic beams towards selected areas rather than scanning in all directions. It provides detailed information about the water column and seabed, supporting forward-looking navigation in poorly charted waters and obstacle detection. For security applications, it can complement omnidirectional sonars by focusing surveillance on a specific approach or area. Its compact design and Ethernet interface allow straightforward integration on uncrewed surface vessels (USVs), fixed installations and other platforms where space is limited. Aegir57N has a maximum range of 2,500 metres. Actual detection range depends on the target and the current environment.

Unlike an omni sonar, a matrix sonar uses a fixed, square transducer with the elements placed in a rectangular matrix pattern. The advantage is a focused coverage area in the direction the transducer faces. With the transducer facing straight down, the sonar performs as a multibeam echo sounder. With the transducer facing forward, it can be used for navigation.

Built on KONGSBERG's long-standing sonar expertise, Aegir enables operators to enhance situational awareness below the waterline and supports safer navigation and informed operational decision-making. The sonar family is designed as a commercial off-the-shelf (COTS) solution suitable for civilian and governmental applications with large volumes and short delivery time.

Typical applications

- Navigation support and obstacle detection
- Forward-looking navigation in uncharted waters
- Focused surveillance of a specific approach or area
- Uncrewed and autonomous maritime operations, including USVs
- Fixed installations
- Protection of critical maritime infrastructure
- Seabed and water-column monitoring

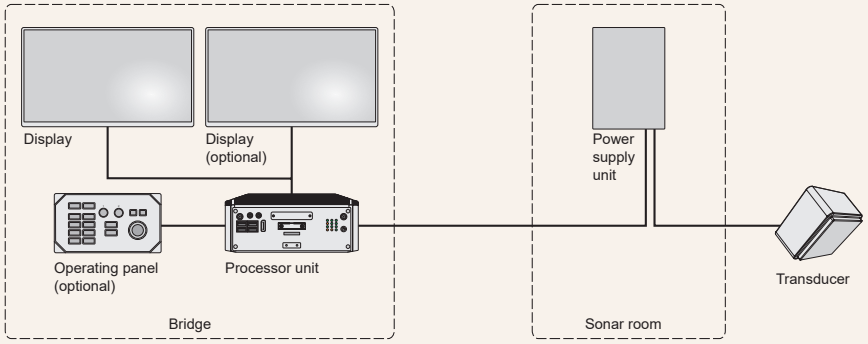
FEATURES

- Focused, high-resolution coverage of a selected sector, approach or area
- All transceiver electronics placed inside the transducer – fewer cables, less noise and easier installation
- Quadping ®: four simulataneous pings detect and follow targets throughout the water column
- Forward 3D bathymetry view
- Operating frequency selectable from 55 to 59 kHz in steps of 1 kHz
- Fully stabilized narrow beams and state-of-the-art signal processing for high definition and detection
- Store and recall sonar data; define and save your own user settings
- Flexible software with open integration approach (API) for maritime systems and platforms
- Optional AI-enabled virtual sonar operator

BENEFITS

- Improved underwater situational awareness
- Enhanced maritime safety and security
- Safer navigation in poorly charted waters through forward-looking obstacle detection
- Increased visibility around critical assets and infrastructure
- Complements omnidirectional sonars by focusing surveillance on a specific approach or area
- Compact size and simple installation for platforms with limited space
- Support for autonomous and remotely operated maritime operations

Generic vessel system drawing



Technical specifications

Aegir57N

Sonar

Operating frequency	55 kHz to 59 kHz
Range	25m to 2500 m
Hortizontal coverage	120°
Vertical beamwidth	6.5° on center axis
Transceiver channels	144
Pitch & roll stabilisation	±20°
Pulse types	CW, LFM (CHIRP), Auto
Modes	QuadPing®, Horizontal, Vertical, Plane, Inspection

Tilt function

Horizontal	-60° to +60°
Vertical	-60° to +60°
Plane	-5° to +90°
Inspection	-60° to +60°

Note: The tilt limits depend on the opening angle of the vertical beam. This means that you may not always be permitted to select the maximum specified tilt limits.

Transducer

Voltage	110/240 VAC, 24 DC
Consumption	150 VA
Inrush current at start-up	10A up to 10 seconds @24 VDC

Processor unit

Model	Hatteland HTB40K
Voltage requirement	24 VDC
Power consumption	75 W @ 24 VDC (max.)

Interface

Input	NMEA 0183, DBT, GGA, GGK, HDG, HDT, VTG, KM Binary
Output	TLL, API
Operating system	Windows
Supported languages	20
Serial interface I/O	Multiple ports available
Ethernet interface	Four ports available
Video output	Two Display Ports

Weight and dimensions

Transducer

Weight with cable (25 m)	25 kg
Dimensions	281×281×150mm

Environmental specifications

Operating temperature range	0 to +50°C
Storage temperature	-20 to +70°C
Relative humidity	5 to 95% relative, non-condensing

Specifications subject to change without any further notice.

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