



# ARTEMIS

## The longest-range microwave local position reference sensor

Artemis is a microwave position reference sensor for use in long range marine Dynamic Positioning (DP) applications. The position is determined by measuring the absolute distance and the relative angle between two Artemis stations. It is typically used in the offshore operation of offloading and transportation of oil between shuttle tankers and FPSOs. Mk6 builds on over 30 years of Artemis pedigree, combining proven microwave antenna tracking techniques with a new innovative Dashboard and commissioning tool.

### Benefits

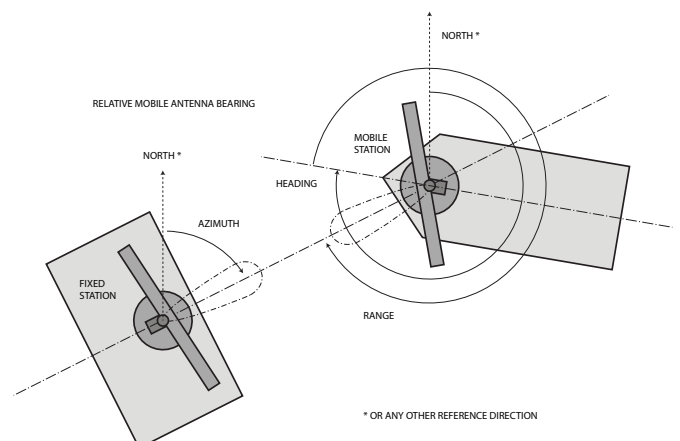
- Operating range up to 10km
- All weather operation
- Automatic beacon and sensor acquisition
- Overcomes GNSS scintillation
- Interchangeable antennae and antenna units
- New Dashboard control
- Stations and beacons compatible with legacy Mk4 and Mk5 systems



### Typical Applications

Artemis is suitable for applications which use fixed structures such as:

- Platform, Offshore and Multi-Purpose Supply Vessel Operations
- Shuttle tanker loading
- Hydrographic and seismic survey
- Track and ship-follow
- Pipe and cable laying
- Dive support



# Main data

Mobile and Fixed Station

Frequency			
Frequency band	9200 - 9300 MHz		
Four fixed, user-selectable frequency pairs	Pair	Mobile Station	Fixed Station
	0	9200 MHz	9230 MHz
	1	9300 MHz	9270 MHz
	2	9230 MHz	9200 MHz
	3	9270 MHz	9300 MHz
*Automatic frequency control on Mobile Station			

Azimuth Measurement		Connections	
Range	360°	Power supply cable	3 x 1.5mm <sup>2</sup> with screen; outside diameter 7 - 13mm
Display resolution	0.01° (0.001° for entering reference azimuth)	Ethernet cable	STP (Shielded Twisted Pair) outside diameter 4.5 - 10mm; connector RJ45 units with an EOR board have a 10MB connection
Data update rate	0.25s	Keypad cable	STP (Shield Twisted Pair) outside diameter 4.5 - 10mm
Overall absolute accuracy	0.02° standard deviation	Overall absolute accuracy	0.02° standard deviation

Distance Measurement		Dimensions and Weights	
Range	10m – 10,000m	Power supply cable	3 x 1.5mm <sup>2</sup> with screen; outside diameter 7 - 13mm
Display resolutions	0.1m	Ethernet cable	STP (Shielded Twisted Pair) outside diameter 4.5 - 10mm; connector RJ45 units with an EOR board have a 10MB connection
Data update rate	0.25s	Keypad cable	STP (Shield Twisted Pair) outside diameter 4.5 - 10mm
Overall absolute accuracy	1m standard deviation	Overall absolute accuracy	0.02° standard deviation

Power Requirements	
Supply voltage	230 VAC 50/60 Hz
Power consumption	75 W

Environmental Conditions	
Temperature operating range	-20 °C to +55 °C
Storage temperature range	-40 °C to +70 °C
Weather protection antenna and Antenna Unit	IP66 (exposed conditions)
Safety	Machinery Directive 2006/42/EC
	EMC Directive 2004/108/EC
	Low Voltage Directive (LVD) 2006/95/EC
Resistance to corrosion	Suitable for salt water environment

## Artemis Beacon

General Specifications			
Frequency Band			
Four fixed, user-selectable frequency pairs	Pair	Mobile Station	Fixed Station
	0	9200 MHz	9230 MHz
	1	9300 MHz	9270 MHz
	2	9230 MHz	9200 MHz
	3	9270 MHz	9300 MHz
Radiated power	100 mW max	100 mW max	100 mW max
Polarisation	Vertical	Vertical	Vertical
Range			
With omni directional antenna type AT-120	10m – 2,500m		
With semi omni directional antenna type AT-010	10m – 5,000m		
With horn antenna type ATH-010A	15m – 1,000m		
Supply voltage	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz

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Guidance Marine empowers vessels with advanced sensor technology, delivering unmatched precision, safety, and control, even in the most challenging marine environments.



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