

Artemis Mk IV

The Artemis Mk IV is an accurate, single-user, microprocessor based, CWV microwave position fixing system of range bearing type. The typical working range is 10m-30,000m (line of sight).

The system comprises two identical stations, one configured as the fix station, and sited at a known fixed point and the other, a mobile station, is installed on the vessel or vehicle to be positioned. Each station comprises an Artemis Basic Unit (ABU), a tracking antenna type AO10, and either a Basic Operating Panel (BOP), or an Extended Operating Panel (EOP).



TECHNICAL SPECIFICATION

FREQUENCY

Frequency	band 9.2 - 9.3 GHz
Four fixed, user selectable frequency pairs	MOBILE FIX 9200 - 9230 MHz (pair 0) 9300 - 9270 MHz (Pair 1) 9230 - 9200 MHz (pair 2) 9270 - 9300 MHz (pair 3)
Automatic frequency control at Mobile station	

DISTANCE MEASUREMENT

Range	10 - 30,000m
Display resolution	0.01 or 0.1m
Data update rate	0.25 sec
Accuracy (short term)	< 0.1m standard deviation
Overall absolute accuracy accounting for temperature effects, atmospheric conditions and counter clock stability	1m standard deviation

AZIMUTH MEASUREMENT

Range	0 - 360 degrees
Display resolution	0.01 or 0.1 degree
Data update rate	0.25 sec
Inherent accuracy	± 0.003 degree
Overall accuracy	0.02 degree standard deviation

ANTENNA

Horizontal beamwidth	Approx 2 degrees @ -3 dB
Vertical beamwidth	Approx 22 degrees @ -3 dB Approx 40 degrees @ -10 dB
Horizontal side lobes	< -32 dB
Gain	Approx 28 dB
Radiated microwave energy	Approx 100mW
Polarisation	Vertical

TRACKING CHARACTERISTICS

Maximum tracking speed	15 degrees / sec
Maximum tracking speed with angle error within limits of specification	2 degrees / sec

DATA I/O PORTS

Peripheral I/O port current loop, max. 9600 Bd	Serial RS232C / RS423A or 20 mA
Host I/O port max. 9600 Bd	Serial RS232C / RS423A or 20 mA
Independent auxiliary data channel max. 1200 Bd	Serial RS232C / RS423A or 20 mA
Max. cable length all data ports	RS232C 15 metres RS423A 400 metres 20 mA current loop 300 metres

POWER REQUIREMENTS

DC supply voltage	24V (16-40V) Reverse voltage and over-voltage protection Low voltage indication
Power consumption	Approx 40W

ENVIRONMENTAL CONDITIONS

Temperature range	
Operational	-20 to +55 degrees Celsius
Storage	-30 to +70 degrees Celsius

WEATHER PROTECTION

Antenna and Basic Unit	IP66 (exposed conditions)
Operating panels	IP64 (splash proof)

Note: Dynamic Positioning Services reserve the right to amend this specification without prior notice.