MAS10 DATASHEET

NAVTECH **RADAR**

High-definition radar, built for marine automation

SUMMARY

With a 2Hz refresh rate, a 1000m detection range, and centimetre-level resolution, Navtech Radar's MAS10, is the perfect complement to a marine perception system.

This latest sensor is designed with a 16° vertical beam to achieve reliable operation in choppy waters.

Revolutionising marine autonomy with high-resolution W-band radar

Introducing MAS10 from Navtech Radar, a breakthrough in marine autonomy. Using 76-77GHz FMCW radar technology, it offers exceptional 360° situational awareness, detecting small targets like buoys and kayaks, in all weather conditions. With a 2Hz refresh rate, 1000m range, and cm-level resolution, MAS10 ensures fast, reliable detection in congested waters. Integration is simplified by open SDK access, and support for multiple data outputs. We complement X-band radars with short-range, high-resolution detection. Embrace the future of safe marine navigation with the MAS10 radar.

TECHNICAL SPECIFICATIONS - MAS10-1002-T

Performance

Operating frequency	76-77GHz
Range bin length	0.155m
Beamwidth (azimuth)	1.8°
Beamwidth (elevation)	+/-8° (16° total)
Instrumented range	1000m
Field of view	360°
Azimuths/rotation	400
Rotation rate	2Hz (0.5s)

Format

Output	Timestamped azimuth with FFT
Control interface	TCP/IP Gigabit ethernet
Time synchronisation	NTP/PTP

Physical

Diameter	312mm
Height	320mm
Weight	9.3 Kg
Power consumption	24W (24VDC)
Max wind speed	100 knots
Ingress protection	IP67
Operating temperature	-20 to 60°C

Regulatory

Safe working distance	0.06m from dome

Compliance

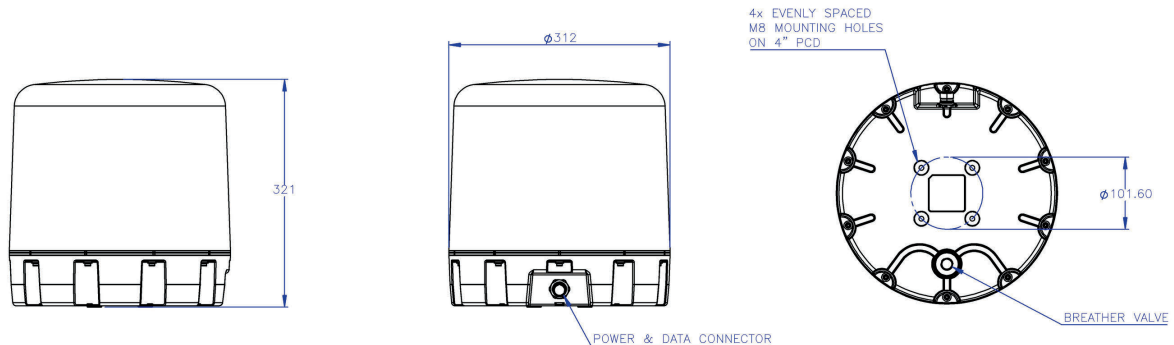**Navtech complies with the following ISO standards**

ISO 9001:2015 Quality
ISO 27001 Information Security
ISO 20000 IT Service Management
ISO 45001 Health and Safety
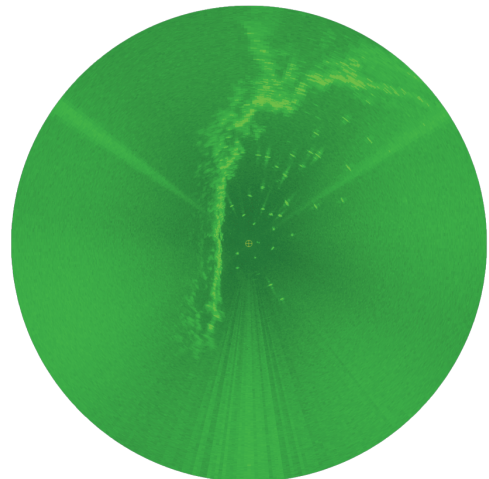ISO 14001 Environmental
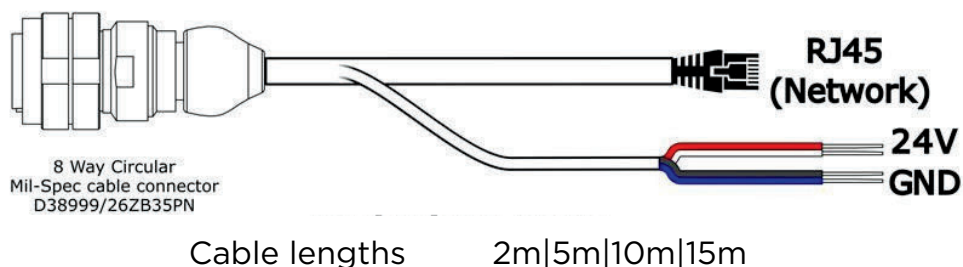
INTEGRATION

Dimensions

φ312

321

4x EVENLY SPACED
M8 MOUNTING HOLES
ON 4" PCD

φ101.60

POWER & DATA CONNECTOR

BREATHER VALVE

Software integration

Format

Colossus
ASTERIX CAT240
Pointcloud

Tracking

Cambridge Pixel
SPx Server

SDK

C++
.NET
Python
ROS, ROS2

Cable options

RJ45
(Network)

24V
GND

8 Way Circular
Mil-Spec cable connector
D38999/26ZB35PN

Cable lengths   2m|5m|10m|15m

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