KTS350 TECHNICAL DATA SHEET

NAVTECH
R A D A R

KTS350-X

Region
North America

Full range
1000m/ 3280ft

Field of view
360°

All conditions
In poor visibility

NO MAINTENANCE

Each ClearWay radar dish rotates at 4Hz inside the enclosure, meaning millions of rotations throughout its 10-year lifecycle. All radars incorporate ultra-reliable and zero maintenance direct-drive motor units, giving service-free operation for each device whilst installed at the roadside.
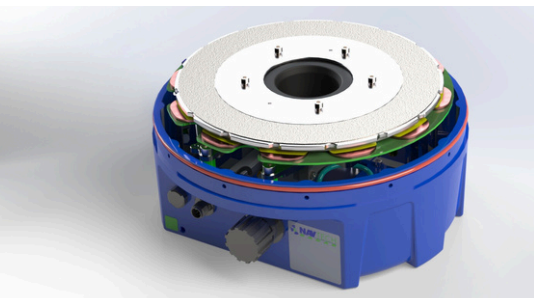
NEMA TS2 Section 2
FCC approved
Patented

ClearWay™

360° radar-based automatic incident detection

ClearWay is Navtech Radar's 360° radar-based incident detection and traffic data system that operates in all weather and lighting conditions, including in complete darkness. Navtech's reliable 360° scanning radars are coupled with intelligent tracking algorithms and sophisticated decision-making software to give you full situational awareness on your road when you need it the most. ClearWay has been deployed across the world in some of the most challenging conditions and is proven to make roads safer and improve journey times.

TECHNICAL SPECIFICATIONS - KTS350

TYPICAL SPACING	FREQUENCY	UPDATE RATE
500m/1640ft	34-35 GHz	4Hz

DIMENSIONS

Measurements	H545mm x D420mm - 21.5in x 16.5in
Weight	11kg / 24.2lbs

RADAR CHARACTERISTICS

Field of view	360°
Measurement rate	400 per rotation
Radius	500m / 1640ft
Full range (diameter)	1000m / 3280ft
Range resolution	17.5cm / 0.57in
	Beam shape
Horizontal	1.8°
Vertical	3.6°
Azimuth sampling	0.9°

CONNECTION

	Connectors
Power	M12 5 wire
Ethernet	IP67 connector - RJ45 CAT5e - 1 Gbps ethernet
Earth	M5 thread
Pressurisation valve	Yes
	Network
Speed	100/1000Mbps (configurable)
Bandwidth	<0.5Mbps per radar in normal operation ~38Mbps viewing full disc raw data (for commissioning only)
	Direct power variant
Voltage input	24V DC
Tolerance	21.6V to 26.4V
Consumption	30W (45W with heater activated)

ENVIRONMENT

Operating Temperature	-34ºC to +74ºC / -29.2ºF to +165.2ºF
Enclosure	UL50/50E
Weather	Fully functional in wind, rain, snow, fog, ice, humidity 0-100% condensing
Visibility	Full performance through fog and smoke
IP rating	IP67
Saline	BS EN 60068-2-52:1996 Test Kb Severity 3

ELECTRICAL AND RADIO

Radar frequency	34-35 GHz
Compliance	KC, FCC, ISED, NEMA TS2 Section 2

SOFTWARE

Protocols	TCP/IP, UDP, IPv4, HTTP, HTTPS, TLS1.2, SSH
Interface	Vertex via web browser
Authenticated access	Yes
Signed software	Yes - SHA512

SECURITY

Encrytion library	Botan
Authentication	Yes (password change or reset through admin account)
Account management	Password update only (3 inbuilt accounts)
Firewall / Access Control	Yes
SSH	Yes
Secure mode	Yes (closes port 80, only allows SSH with secure key, no UDP multicast)

ACCREDITATION AND COMPLIANCE

NEMA TS2	TS-2-2021 V03.08, Section 2
FCC	Yes

PATENTS

Patent	US Patent No. 10 522 893
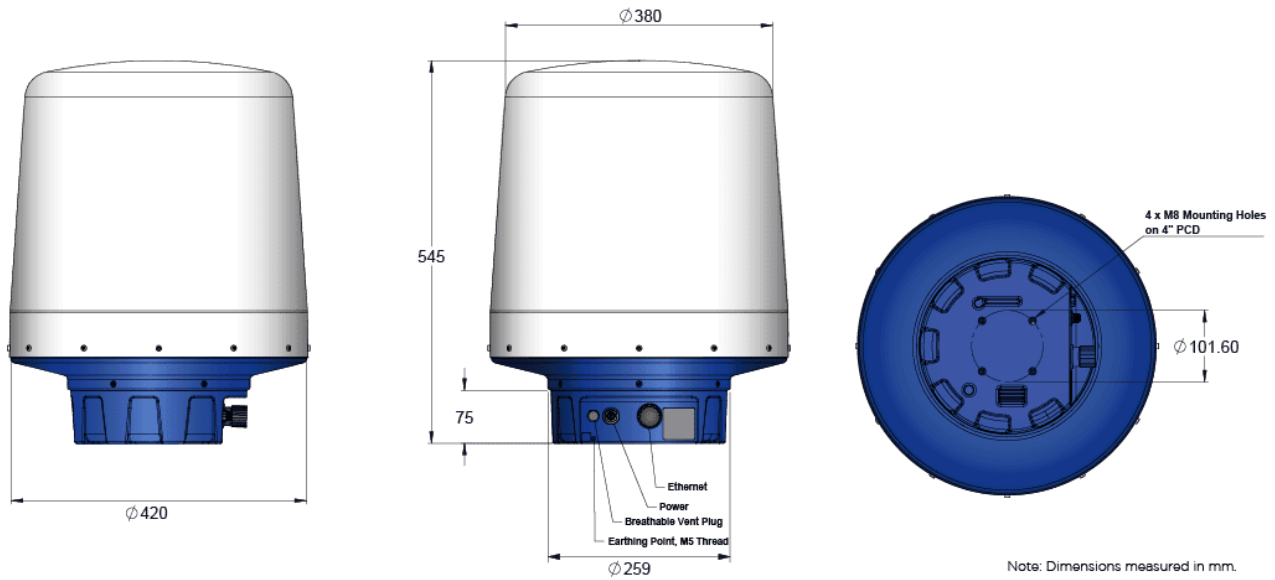
Ø 380

545

75

Ø 420

Ø 259

Ethernet
Power
Breathable Vent Plug
Earthing Point, M5 Thread

4 x M8 Mounting Holes on 4" PCD

Ø 101.60

Note: Dimensions measured in mm.

Navtech is awarded to 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

UKAS
MANAGEMENT
SYSTEMS
0065

TÜV NORD
TÜV UK Ltd.
ISO 9001

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Safety is everything.