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RADIO ZEELAND DMP

SOLIDSCAN RIVIERRADAR



27 Inch RADAR Display Specificaties



| | |
|--------------------------------------|--|
| Matching standards | IEC 60945, IEC 61174 (ECDIS), IEC 60936 (Radar), IEC 62.288 (Navigation), IEC 62.388 (Radar) |
| Overall dimensions | 414 (W) x 342 (H) x 78 (D) mm |
| Resolution | Max 1024 x 1280 pixels |
| Light intensity | 350 cd/m2 (typ) |
| Numbers of colours | 16.7 million depending on graphics card |
| Viewing angle | ±89° |
| Supply voltage | 18-36 VDC (DFK-MSTB 2,5/ 3-GF-5,08) |
| Power consumption | Approx. 33W |
| Enclosure protection | IP42 (From Front) |
| Operating/Storage temperature | -15/+70° C, -15/+ 70° C (+5/+158° F, +5/+158° F) |
| Dimming range | 0-100% |

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RADAR

| Antenna | | Power consumption | |
|---|--------------------|-------------------------------|--------------------------------|
| Antenna Size | 6 ft | Peak power output | 110 W |
| Antenna Type | Slotted Array | Power consumption (Typical) | 95 W |
| Polarization | Horizontal | Power consumption (Standby) | 28 W |
| Beamwidth (Vertical) | 25° | Power consumption (Max) | 195 W |
| Beamwidth (Horizontal) | 1.32° | Display features | |
| Rotation Speed (rpm) | 12, 24, 36, 48, 60 | Orientations Modes | H-UP, STAB H-UP, C-UP, N-UP |
| Max Wind Speed | 100Kn | Stabilization Modes | Ground, Sea |
| Weight | 12 Kg | Motion Modes | True, Relative |
| Transceiver | | Target tracking | 100 Targets (Auto or Manual) |
| Max Range Scale | 36 km | AIS | 4000 Displayed, 6000 Processed |
| Rotation Speed (rpm) 12, 24, 36, 48, 60 | Past Positions | Off, 1-30 mins | |
| Power connection | 1 | Vectors | Off, 1-30 mins |
| Data Connection | 1 CAT6 | Trails | Off, 1-30 mins |
| Transmitter Frequencies (Mhz) | 9370, 9400, 9430 | Acquisition Zones | 2 |
| Receiver Characteristics | Linear | PI Lines | > 10 PI lines |
| Receiver Noise | < 5 dB | Range Scales (Range Rings) km | 100 m - 32 km |
| Peak Power Output | 110 W | | |
| Weight | 16 Kg | | |

INTERFACING

| | |
|-----------------------|---|
| Ethernet Ports | 3 PoE (10/100/1,000 Mbits/s) |
| IEC-61162-450 Enabled | Yes |
| Buzzer Output | 2 Bare-ended wires (via accessory cable) |
| Serial Port Inputs | 8 Configurable Opto-Isolated |
| Serial Port Outputs | 6 Configurable ISO-Drive™ Isolated |
| Alarm Output | 1 Alarm output relay (N/) and N/C contacts) Activated on System Fall or Specific Alert ID |
| LAN | 10/100BaseT, automatic polarity detection |

Data sentences

| | |
|----------------|--|
| Input | ACK, ACN, ALR, DBT, DPT, DTM, GGA, GLL, GNS, HBT, HDG, HDT, MWV, RMC, ROT, RTE, SRP, THS, VBW, VDM, VDO, VHW, VLW, VTG, WPL, ZDA |
| Data sentences | |
| Output | ACK, ALC, ALF, ALR, ARC, DBT, DPT, EVE, GLL, GSA, GST, GSV, HBT, OSD, RSD, SRP, TLB, TTD, TTM, VHW, VTG |



Superieure radarprestaties

Flexibele integratie in ieder stuurhuis

De Solidscan Solid State Black Box Radar is ontworpen voor maximale vrijheid in installatie.

Dankzij de separate black box, data aquisition box, bediening en twee verschillende soorten monitoren biedt het systeem eindeloze mogelijkheden voor installatie op elk schip. Of het gaat om nieuwbouw of retrofit, voor de Solidscan rivierradar is altijd een plaats te vinden

Solid-state technologie voor betrouwbaarheid en lage onderhoudsbehoefte

Dankzij de moderne solid-state radarzender is Solidscan klaar voor langdurige inzet. De technologie zorgt voor snelle beschikbaarheid, stabiele prestaties en een lagere onderhoudsbehoefte dan traditionele radarsystemen met magnetrontechnologie. Dat betekent meer operationele zekerheid en minder stilstand.

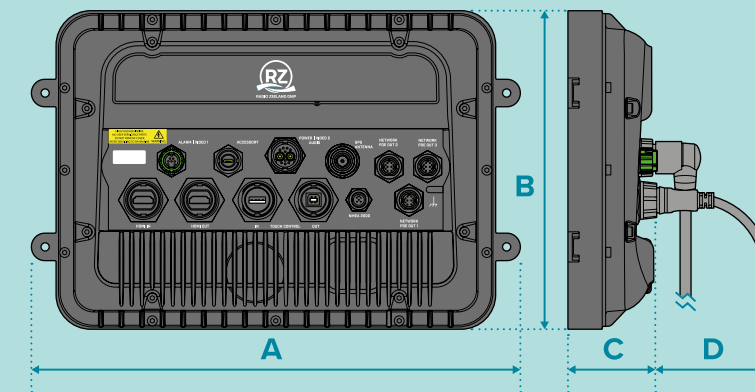
Speciaal ontwikkeld voor de commerciële riviervaartsector

Of het nu gaat om werkbotten, rivier cruiseschepen of andere professionele toepassingen: Solidscan is gebouwd voor intensief dagelijks gebruik. Het systeem ondersteunt schippers met een helder radarbeeld, betrouwbare detectie en intuïtieve bediening onder de meest veeleisende omstandigheden.

Haarscherpe detectie, ook in de meest uitdagende omstandigheden

De solid state RADAR technologie van Radio Zeeland DMP Solidscan levert een helder en gedetailleerd radarbeeld waarmee objecten, kustlijnen, boeien en andere vaartuigen beter te onderscheiden zijn dan bij iedere andere traditionele radar. Ook bij druk verkeer, slecht zicht of uitdagende weersomstandigheden zorgt het systeem er met behulp van CHIRP pulscompressie en bundelverscherping voor dat ook de kleinste essentiële details kraakhelder worden weergegeven.

Solidscan Black Box afmetingen



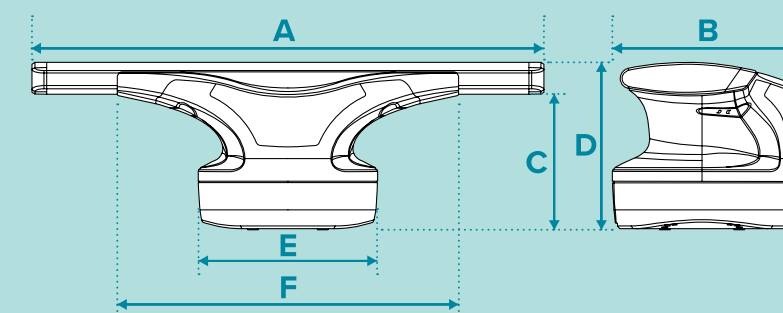
| | |
|----------|----------------------|
| A | 356.46 mm (14.03 in) |
| B | 232.16 mm (9.14 in) |
| C | 65.00 mm (2.56 in) |
| D | 101.00 mm (3.98 in) |

Solidscan Black Box specificaties

- HDMI output for monitor connection
- Hexacore (6-core) processor
- 64 GByte internal solid state storage, for user data
- Fanless design
- USB input for control
- Integrated 3 port Ethernet switch
- External memory card reader connection, via RCR-SDUSB card reader
- Waterproof to IPx6, IPx7 (suitable for above or below decks installation)

| | |
|------------------------------|-----------------------------|
| Dimensions | 356,5 x 232,2 x 61 mm |
| Weight | 2 kg |
| Supply voltage | 12/24 V DC, 8-32 V DC range |
| Power consumption | Approx. 72-77 W |
| Environmental rating | IPX6 / IPX7 waterproof |
| Operating temperature | -25°C to +55°C |

Solidscan Scanner afmetingen

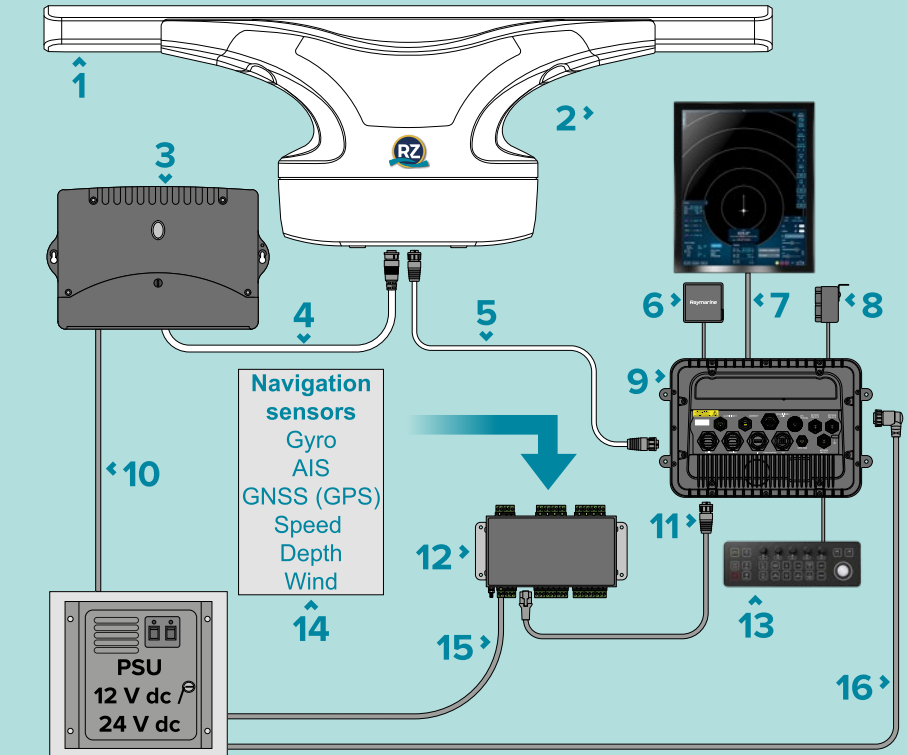


| | |
|----------|--------------------|
| A | 1945 mm (76.57 in) |
| B | 388 mm (15.28 in) |
| C | 271 mm (10.67 in) |
| D | 335 mm (13.19 in) |
| E | 360 mm (14.17 in) |
| F | 686 mm (27.00 in) |

Solidscan Scanner specificaties

| | |
|------------------------------|---|
| Antenneformaat | 6 ft / 1,95 meter |
| Gewicht top unit | 16 kg |
| Maximale bereik | 32 km |
| Minimaal bereik | 100 meter |
| Draaisnelheid | 12, 24, 36, 48, 60 RPM |
| Opstarttijd | 40 seconden |
| Standby naar zenden | < 5 seconden |
| Voeding | 12 / 24 VDC |
| Gemiddeld verbruik | 70 Watt |
| Zendfrequentie | 9370 / 9400 / 9430 MHz |
| Ontvangertype | Lineair |
| Ontvangruis | < 5 dB |
| Waterdichtheid | IPX6 |
| Bedrijfstemperatuur | -25°C tot +55°C |
| Maximale windsnelheid | 100 knopen |
| Standaard | IEC 62388 (Ed. 2.0) (Commerciële Radar) |

Systeemconfiguratie



- 1 Cyclone Pro radar scanner with 6 ft antenna — Detects targets by transmitting microwaves and generating a picture on the screen using the microwaves that are reflected from objects.
- 2 Type approved monitor — Displays the video output from the Black Box.
- 3 VCM100 — The radar scanner's Voltage Control Module (VCM) provides power to the radar scanner.
- 4 Radar power cable — Connects the radar scanner to the VCM100.
- 5 RayNet to RayNet cable (white) — Transfers data from the radar scanner to the Black Box.
- 6 External card reader — The external card reader is used to backup and restore user data and settings.
- 7 HDMI output cable — Used to output the Black Box's video output to a high resolution monitor.
- 8 Alarm buzzer — The alarm buzzer is used to provide an audible alert of a situation requiring the user's attention. The alarm buzzer is mandatory for the Pathfinder Black Box system, as the display does not include a built-in buzzer or speaker.
- 9 Pathfinder Black Box — The navigation processor that processes data from externally connected devices and outputs it as a video feed to a monitor, providing situational and navigational awareness.
- 10 VCM power cable — A cable is required to provide power to the VCM100 (NOT supplied).
- 11 RayNet to RJ45 cable — Transfers data from the DCU to the display.
- 12 Pathfinder DCU (Data Collection Unit) — Collects data transmitted by externally connected devices and transmits the data over Ethernet, so that it can be shown on the display.
- 13 Pathfinder Trackball — Used to control the display and interact with its user interface.
- 14 External sensors — External sensors are connected to the DCU's NMEA 0183 inputs.
- 15 DCU power cable — A cable is required to power the DCU (NOT supplied).
- 16 Power cable — The cable is used to power the Pathfinder Black Box.