

DST110

Depth/Speed/Temperature Triducer

The DST110 Smart™ Retractable Depth/Speed/Temperature Transducer delivers precise digital depth, accurate speed and exact water temperature even at speeds above 40 knots.

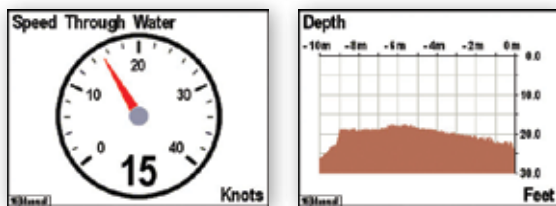
Its patented Smart™ Sensor technology, retractable and removable sensor, and NMEA 2000® network connectivity make the DST110 easy to interpret, easy to install and connect with other navigation equipment, and easy to maintain.

The DST110 measures precise water depth at 0.4m to 100m with a wide beam width and is tolerant to most deadrise angles. It reads water temperature from -10°C to +40°C at ±1.0°C accuracy and accurate speed from 1 to 50 knots. User customizable calibrations for speed and temperature allow you to adjust speed and temperature indications for your installation. At 235 kHz, it can be used with a fish finder as an ideal navigation tool for sport or commercial fishing vessels or with sailing vessels of all sizes.

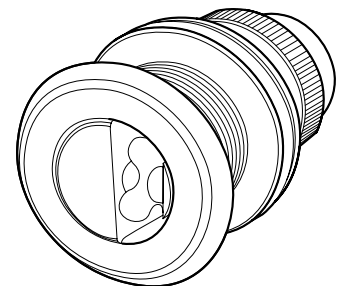
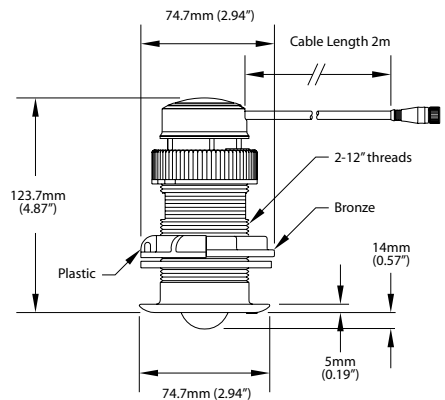
The DST110's plastic or bronze choices are compatible with any hull material. It includes a blank plug to replace its sensor unit when the vessel will

be docked for extended periods or trailored. This prevents damage to the sensor and reduces fouling growth.

The DST110 is CE compliant (IEC 60945) and is manufactured to the highest quality standards under ISO9K/2K procedures. Its compact, waterproof housing will provide years of reliable performance, making it the Smart™ choice in marine sensing.



DSM Series Screen Shots



Available accessories for the SSC300:



M33-100



33-398-04PW

PRODUCTS

| PART NUMBER | DESCRIPTION |
|-------------|---|
| DST110-01 | Depth/Speed/Temperature Triducer® (100 Meter Depth) |
| M33-100 | Bronze Housing Kit for DST100/DST110 |
| 33-398-04PW | Spare Paddle Wheel Kit |

SPECIFICATIONS

| PARAMETER | VALUE | COMMENT |
|------------------------------|----------------|---|
| Depth Operating Frequency | 235 kHz | Wide Beam Angle |
| Beam Width | 10° x 44° | |
| Minimum Depth | 0.4 meters | Deadrise Angle Tolerant |
| Maximum Depth | 100 meters | No Calibration Required |
| Depth Accuracy | ±20cm | 0.6 – 7 meters |
| | ±3% | 7 – 100 meters |
| Depth Tracking Speeds | Up to 50 knots | High Speed Bottom Tracking Capability |
| Depth Update Rate | 1 second | |
| Transmission Power | 100 Watts | 2% Duty Cycle |
| Speed Sensor | Paddlewheel | |
| Speed Range | 1 – 50 knots | Microprocessor Signal Processing Accuracy |
| Speed Update Rate | 1 second | |
| Water Temperature Range | -10°C to 40°C | Fast Response Time |
| Water Temperature Accuracy | ±1.0°C | No Calibration Required |
| Water Temperature Resolution | 0.01°C | |
| Deadrise Angle | ≤22° | |

NMEA 2000® PARAMETER GROUP NUMBERS (PGNs)

| DESCRIPTION | PGN# | PGN NAME | DEFAULT RATE |
|----------------------------|--------|--|------------------|
| Periodic Data PGNs | 128267 | Water Depth | 1 Time/Second |
| | 128259 | Speed (Water Referenced) | 1 Time/Second |
| | 130310 | Environmental Parameters (Water Temperature) | 2 Times/Second |
| | 130311 | Environmental Parameters (Water Temperature) | 2 Times/Second |
| | 130312 | Temperature | 0.5 Times/Second |
| | 128275 | Distance Log | 1 Time/Second |
| Response to Requested PGNs | 126464 | PGN List (Transmit and Receive) | N/A |
| | 126996 | Product Information | N/A |
| | 126998 | Configuration Information | N/A |
| Protocol PGNs | 059392 | ISO Acknowledge | N/A |
| | 059904 | ISO Request | N/A |
| | 060928 | ISO Address Claim | N/A |
| | 065240 | ISO Address Command | N/A |
| | 126208 | NMEA Request/Command/Acknowledge | N/A |

ELECTRICAL

| PARAMETER | VALUE | COMMENT |
|-------------------------------|---------------|--------------------------------|
| Operating Voltage | 9 to 32 Volts | DC Voltage |
| Power Consumption | < 200mA | Average Current Drain |
| Load Equivalence Number (LEN) | 4 | NMEA 2000® Spec. (1LEN = 50mA) |
| Reverse Battery Protection | Yes | Indefinitely |

MECHANICAL

| PARAMETER | VALUE | COMMENT |
|----------------------------|--|---------------------------------|
| Size | 2.94" Dia. x 4.87" Tall (74.7mm Dia. x 123.7mm Tall) | Including Flanges for Mounting |
| Weight | 12 oz. (340 g) | |
| Mounting | Lexan/Bronze/Stainless Steel | Bronze/Stainless Steel Optional |
| Hole Diameter for Mounting | 2" (51mm) | |

ENVIRONMENTAL

| PARAMETER | VALUE |
|--------------------------|--|
| IEC 60945 Classification | Submerged |
| Degree of Protection | IP68 |
| Operating Temperature | -10°C to 40°C |
| Storage Temperature | -30°C to 70°C |
| Vibration | 2-13.2Hz @ ±1mm, 13.2-100Hz @ 7m/s² per IEC 60945-8.7 |
| Water Immersion | per IEC 60945-8.9 |
| Corrosion (Salt Mist) | 4 times 7days @ 40°C, 95%RH after 2 hour Salt Spray Per IEC 60945-8.12 |
| Electromagnetic Emission | Conducted and Radiated Emission per IEC 60945-9 |
| Electromagnetic Immunity | Conducted, Radiated, Supply, and ESD per IEC 60945-10 |

CERTIFICATIONS

| PARAMETER | COMMENT |
|---|-------------------------------|
| NMEA 2000® Standard | Level B+ |
| Maritime Navigation and Radio Communication Equipment & Systems | EC 61162-3 |
| Maritime Navigation and Radio Communication Equipment & Systems | IEC 60945 |
| FCC and CE Mark | Electromagnetic Compatibility |