

DST110 *Depth/Speed/ Temperature Triducer*

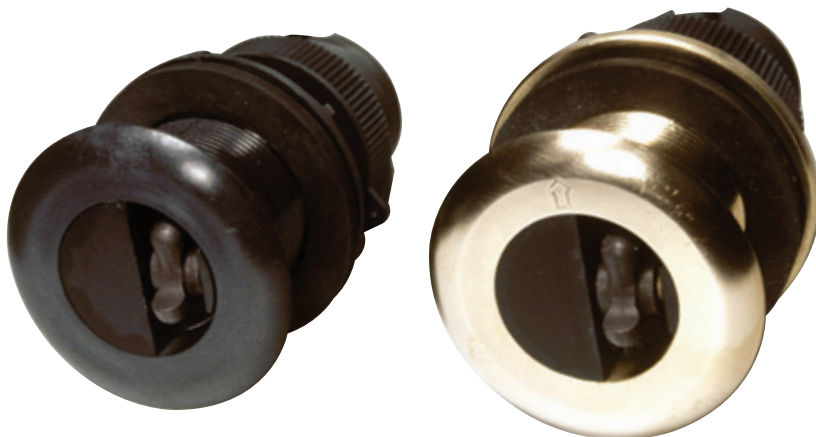
Maretron's DST110 Smart™ Retractable Depth/Speed/Temperature Transducer delivers precise digital depth, accurate speed and exact water temperature even at speeds above 40 knots - all with no programming or calibration necessary.

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 $\pm 1.0^\circ\text{C}$ 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.

Products

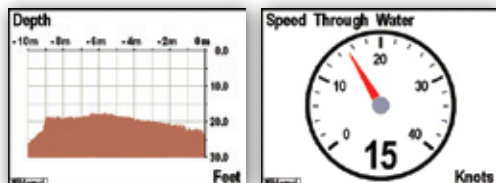
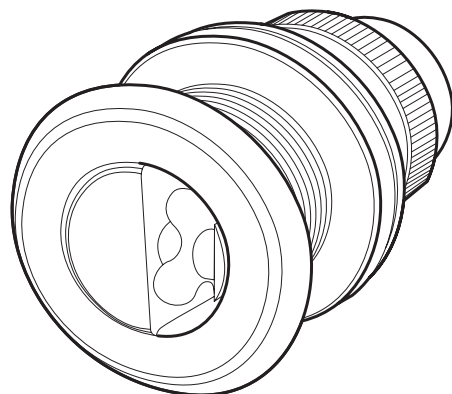
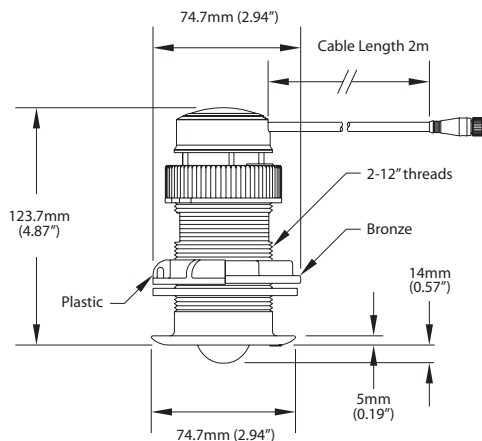
PART NUMBER	DESCRIPTION
DST110-01	Depth/Speed/Temperature Triducer® (100 Meter Depth)
M33-100	Bronze Housing Kit for DST100/DST110
M33-495-01	Stainless Steel Housing Kit for DST100/DST110
33-398-04PW	Spare Paddle Wheel Kit



The DST110's plastic, bronze, or stainless steel housing 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 tailored. This prevents damage to the sensor and reduces fouling growth.

Maretron's 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.





DSM250 Screen Shots



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Specifications

Parameter	Value	Comment
Depth Operating Frequency	235 kHz	Wide Beam Angle
Beam Width	10° x 44°	
Minimum Depth	0.6 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	
Speed Sensor	Paddlewheel	No Calibration Required
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°	

Certifications

Standard	Comment
NMEA 2000® Standard	Level B+
Maritime Navigation and Radiocommunication Equipment & Systems	IEC 61162-3
Maritime Navigation and Radiocommunication Equipment & Systems	IEC 60945
FCC and CE Mark	Electromagnetic Compatibility

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 = 50 mA)
Reverse Battery Protection	Yes	Indefinitely

Mechanical

Parameter	Value	Comment
Size	2.94" Dia. X 4.91" Tall (75mm Dia. X 125mm Tall)	Including Mounting Flanges
Weight	12 Oz. (340 g)	
Mounting	Lexan/Bronze/Stainless Steel	Bronze/Stainless Steel Optional
Hole Diameter for Mounting	2" (51 mm)	

Environmental

Parameter	Value
IEC 60945 Classification	Submerged
Degree of Protection	IP 68
Operating Temperature	-10°C to 40°C
Storage Temperature	-30°C to 70°C
Vibration	2-13.2Hz @ ±1mm, 13.2-100Hz @ 7ms/2 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