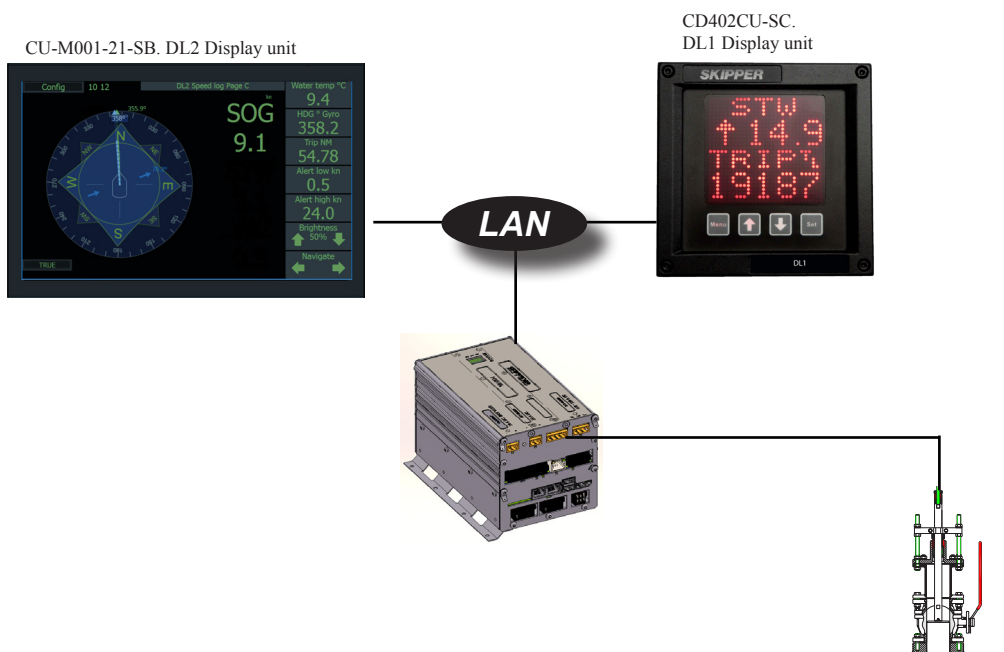


SKIPPER DL21



Navigational Doppler speedlog for vessels >50.000GT



The DL21 Speed Log is designed for ships over 50.000 GT with simultaneous and independent measurement of speed through water and speed over ground to comply with the requirements of MSC.334(90), amendments to performance standards for devices to measure and indicate speed and distance.

The SKIPPER DL 21 is working on the Doppler principle, providing Speed through water (STW) and Speed over ground (SOG) in 2 axis.

SKIPPER Electronics manufacture marine electronics for the merchant fleet as well as the fishing fleet, based on experience, research and tradition. Our products are known worldwide for reliability, sophistication and good value for money.

Features:

- 1 x Sensor with 2 independent Doppler speed logs. DL1 +DL2**
- 1 x Electronic unit with all required I/O + new IBS ready LAN communication.**
- 2 x Display units. DL2 (SOG) with touch screen + DL1 (STW) Compact display.**

The DL21 present the critical parameters on 2 independent screens and can be interfaced with bridge systems and repeaters. The DL 21 can also present distance traveled, depth and water temperature.

Doppler technology is commonly considered the gold standard of speed measurement as it measures remotely, (away from the effects caused by the vessel itself) and once installed, it operates even with considerable organic growth on the transducer.

The DL 2 can measure the speed of the vessel through the water in depths more than 3m, and Speed over ground in depths from 2m to 150 m.

The sensor is mounted in a 100mm Sea Valve.

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DL21



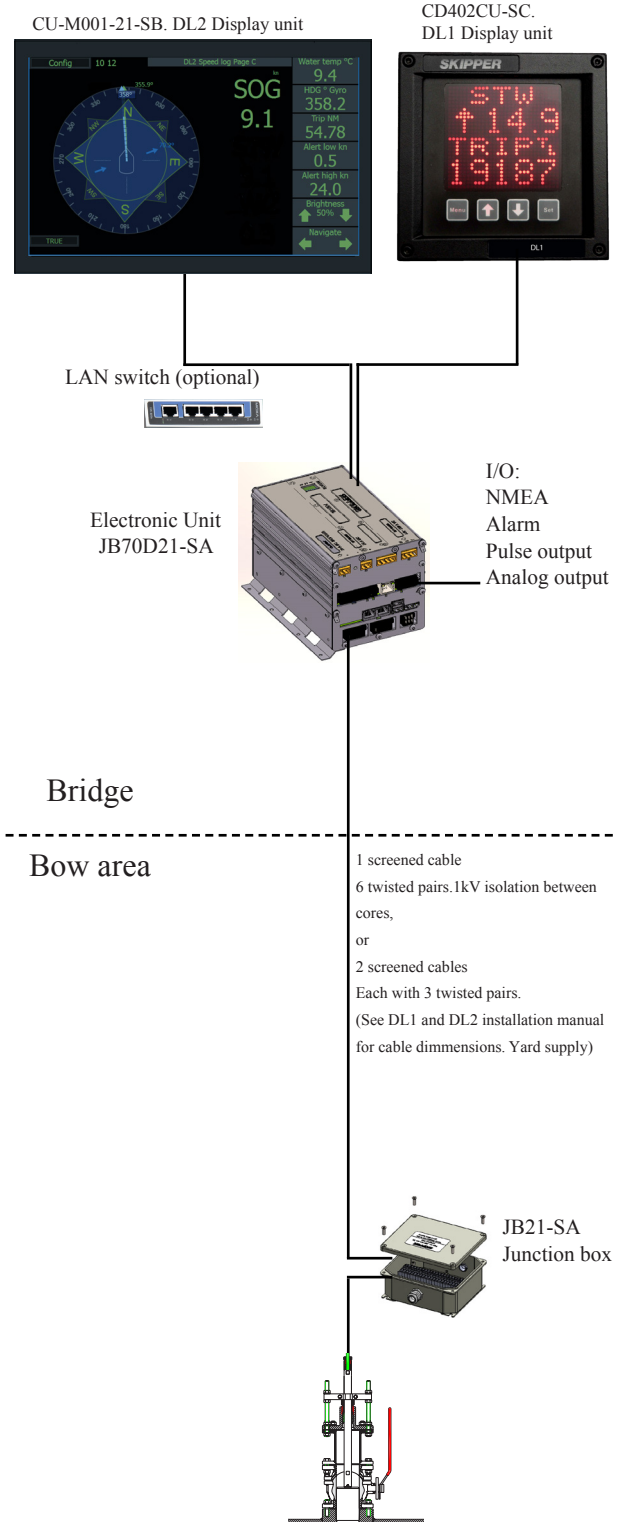
Navigation Doppler speedlog for vessels >50.000GT

Comply with the requirements of MSC.334(90), Amendments to performance standards for devices to measure and indicate speed and distance.

Specifications

	DL21	
	DL2 SOG 2-axis	DL1 STW 1-axis
Operating Frequency	270-284 kHz	700-730 kHz
Speed range	+/-50 knots Longitudal +/-50 knots Transversal	+/-50 knots
Bottom track	In depths 2m-150m	NA
Water track	NA	In depths >3m
SOG Aft transversal speed	Yes	NA
Accuracy (better than)	0.2 knots or 2% whatever greater	0.2 knots or 2% whatever greater
Temperature accuracy	<1 °C	<1 °C
Control unit	CU-M001-21-SB 9" Touch display 240*155mm. Ethernet	CD402CU -SA LED display. 144*144mm Ethernet
Electronic unit	JB70D21-SA Combined but electrically isolated SOG 2-axis and STW 1-axis. Dimensions: 115*115*180mm	
Com. with control unit	LAN	LAN
NMEA output	VBW, VLW, MTW, VHW, XDR, ALR, ALF, ALC, HBT, DPT, THS, HDT	VBW, VLW, MTW, VHW, XDR
NMEA input	ACK, ACN, DDC, VTG, ZDA, GGA ROT, PSKPRSTT (Trip reset)	DDC, VTG, ZDA, GGA, PSKPRSTT (Trip reset)
Pulse output	Yes	Yes
Analog output	No	Yes
Alert	High/low Speed alert, Power failure alert, system failure alert	High/low Speed alert, Power failure alert, system failure alert
Power supply	AC 115 - 230 V 50/60 Hz, and/or DC 24 V. Max 60W	DC 24V. Max 60W
Sensor	DL21SG-SA. combined but electrically isolated DL2 and DL1. 100mm	
Sea Valves	Single bottom, Double bottom	
IP rating	IP20 Control unit IP20 Electronic unit IPX7 Sensor unit	
Accessories	CD401MR-SB Multirepeater. IR300 Speed repeater(with aft speed), Dimming Control	
Classification	IMO	

Overview



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All product specifications are subject to change without notice

DL21 Doppler Sensor.
STW 1-axis sensor
SOG 2-axis sensor
Installed in 100mm Sea Valve