

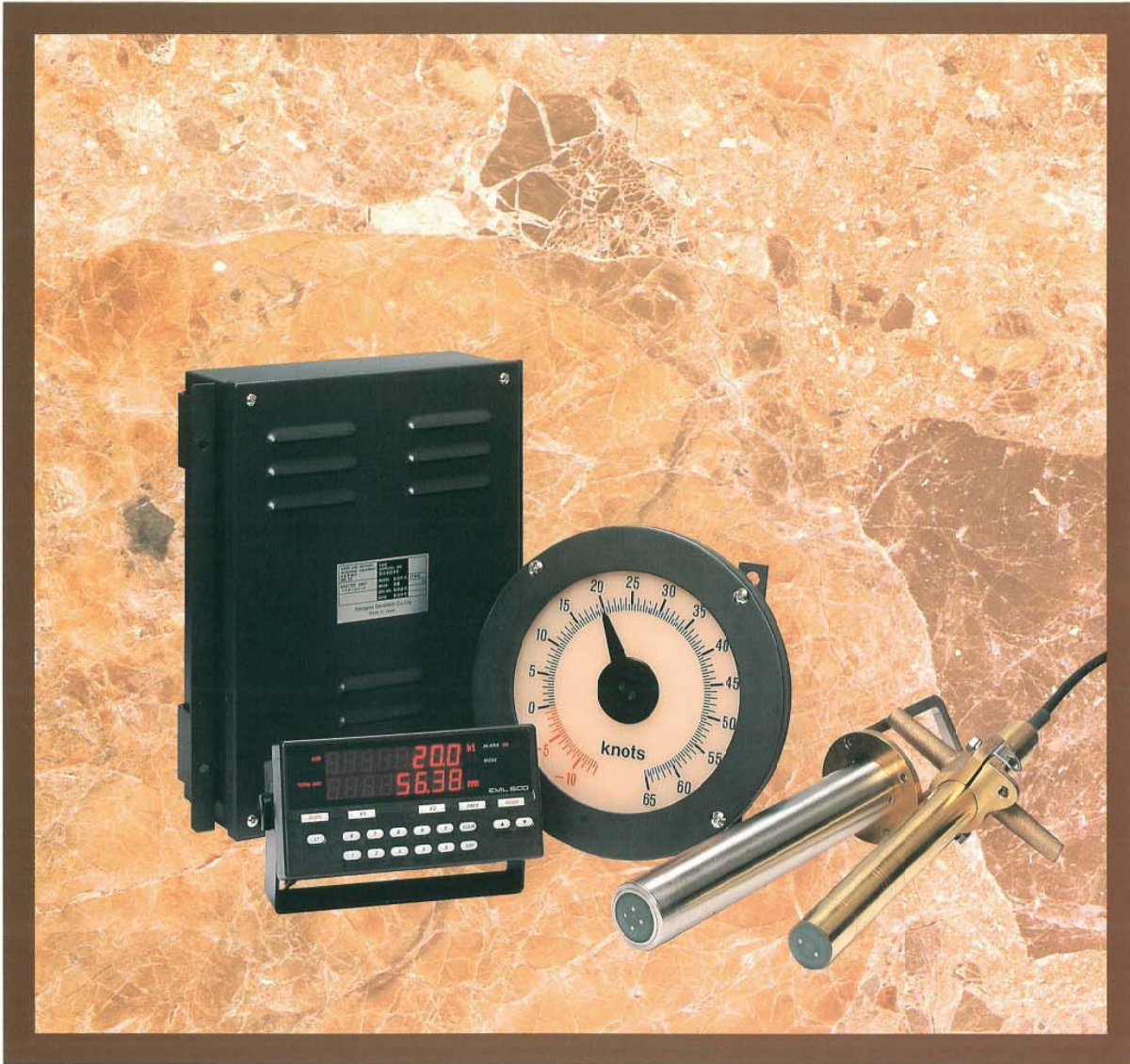
YOKOGAWA 

ELECTROMAGNETIC LOG

EML500 Series



ISO 9001-1994
Marine Equipment



SAFE NAVIGATION

Yokogawa Denshikiki Co., Ltd.

Bulletin 80B80T04E
3rd Edition

EML500 series, electromagnetic log With

The EML500 series of electromagnetic logs is the most recent release from Yokogawa Denshikiki Co., Ltd., adding to the more than 8,000 widely-acclaimed electromagnetic logs manufactured by the company since 1962. The EML500 series, both user-friendly and packed with the latest technology, is ideal for a wide range of vessels, from large ships through to small vessels, and high-speed ships.

Dual-axis sensor

A dual-axis sensor (option) measures not only the longitudinal speed, but also the transverse speed.



Master indicator



dual-axis flash-mountable sensor

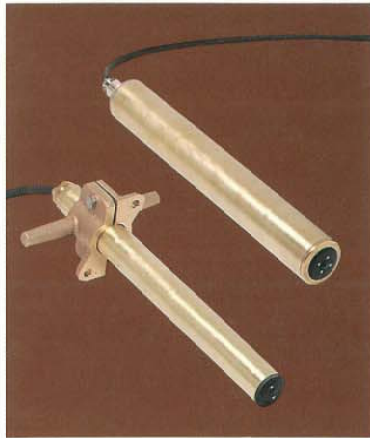
Flash-mountable sensor

The sensor, just 48 or 70 mm in diameter, can be flash-mounted below the bottom plate of the vessel, thus making the EML500 series suitable even for high-speed vessels.



Preamplifier built into the log sensor

The preamplifier built into the sensor outputs the current signal and enables less noisy speed signals to be transmitted over long distances, thus eliminating restrictions on the distance between the sensor and the master unit.



Back up by GPS

The EML500 can receive for back up signals (NMEA-0183) from external speed sensors such as the global positioning system (GPS).

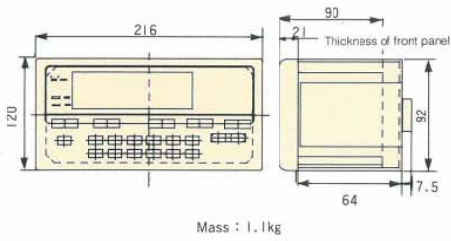
Versatile external outputs

The following outputs are available as standard specifications:

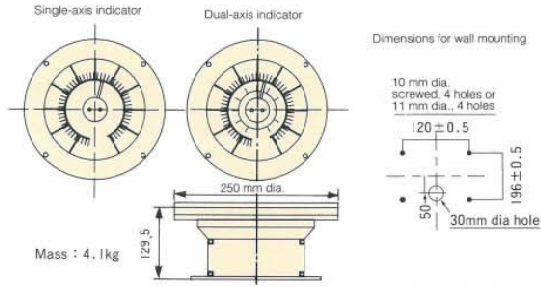
Pulse output	200 P/nm	10 circuits
Analog output	4 to 20 mA	4 circuits
	0 to 5 V	2 circuits
Digital output	NMEA-0183	2 circuits
Alarm output	Contact	2 circuits

Outline Dimensions

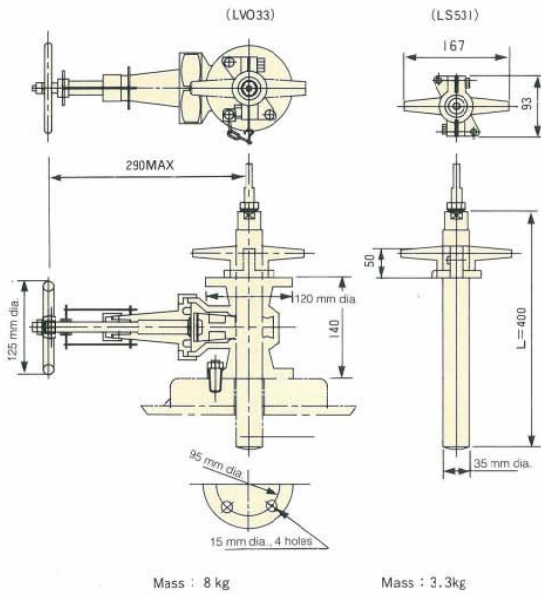
Master indicator LR523 (flash-mounted type)



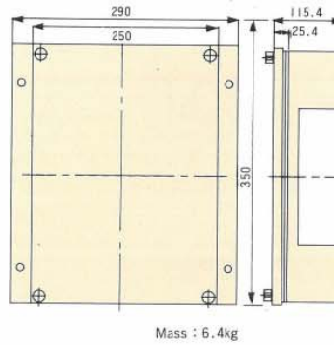
Speed indicator (wall-mounted type)



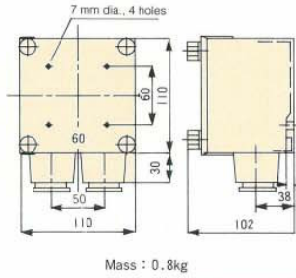
Valve/sensor (single-axis)



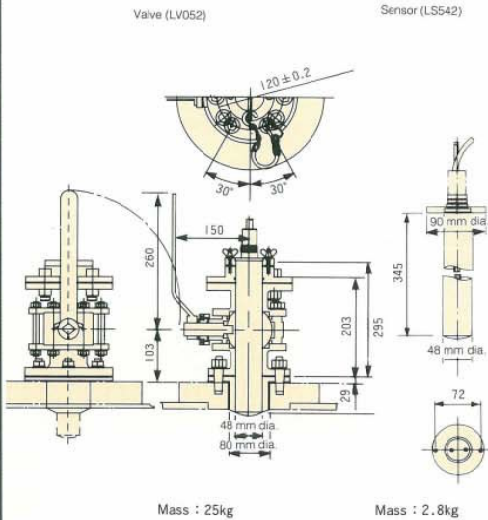
Master unit LT501 (flash-mounted type)



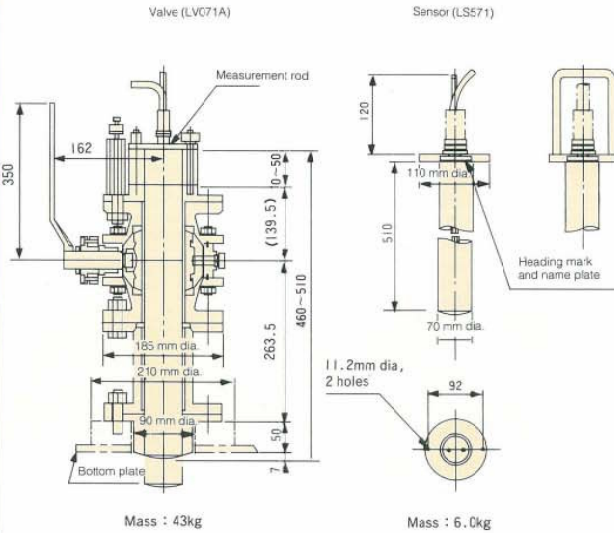
Junction box LN052



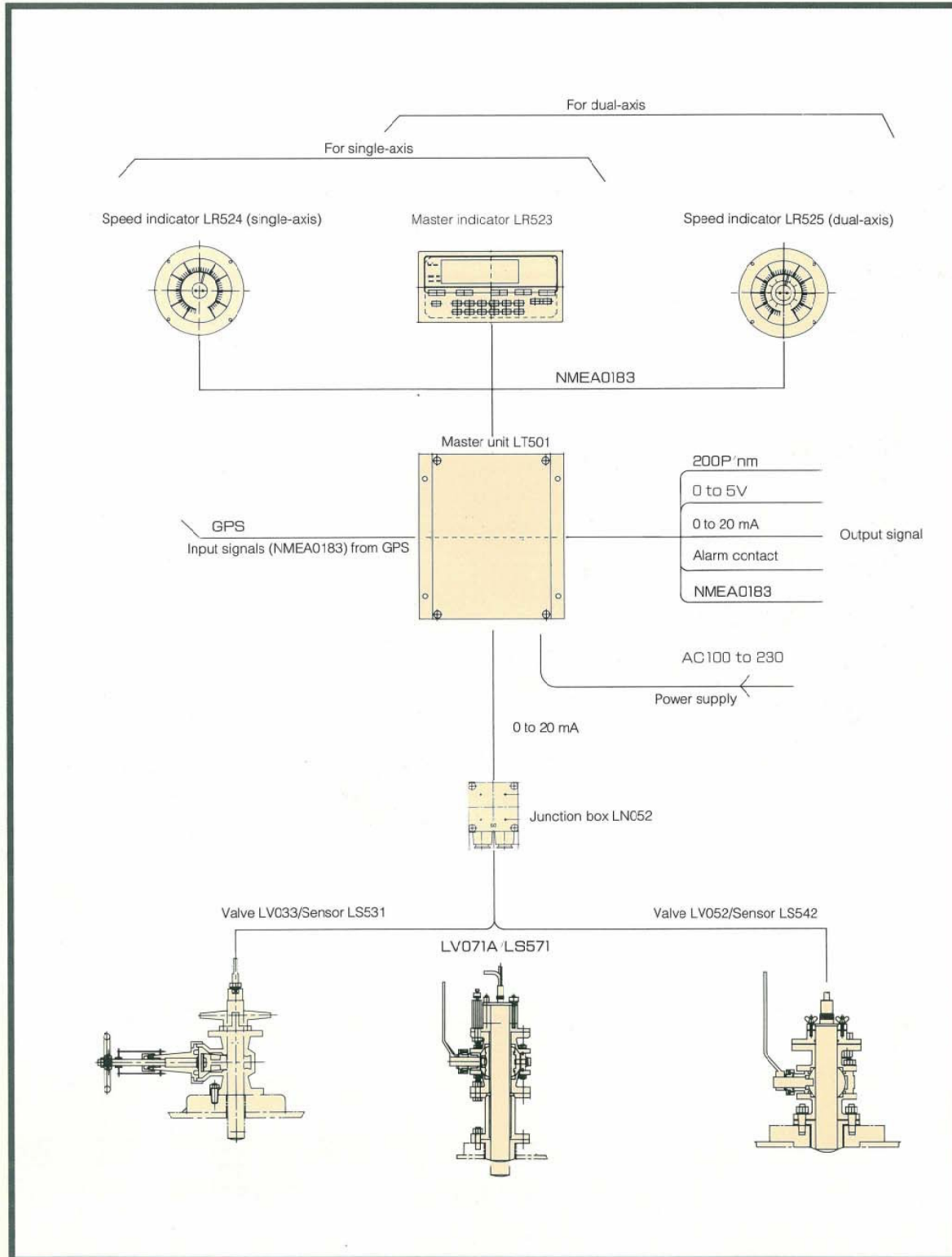
Dual-axis (single-axis)



Single-axis (dual-axis)



System Configuration



Specifications

Measurement range	Speed	-4 to 20 Kt -5 to 25 Kt -7 to 35 Kt -8 to 40 Kt -10 to 50 Kt -13 to 65 Kt		
	Distance	0 to 9999.99 nm		
	Direction	0 to 359° (for dual-axis)		
Accuracy	Speed	±0.15 Kt (for standard input signal) ±0.25 Kt (-10 to 50 Kt, -13 to 65 Kt)		
	Distance	The larger of ±0.05 nm/h or ±1%		
	Direction	±2.5° (for dual-axis)		
Response	Variable between 10 and 180 sec for 0 to FS input (0 to 90% response)			
Power supply	AC100/220V 50/60Hz			
Power consumption	Approx. 80 VA			
Input signal	NMEA-0183 (for back up signals from external speed sensors such as GPS) 1ch			
Output signal	Speed	Voltage: 0 to 5 V DC or 1 to 5 V DC	2ch	
		Current: 0 to 20 mA or 4 to 20 mA	4ch	
	Pulse	200P/nm photo-coupler output, 5.5 V, 5 mA	8ch	
		200P/nm contact output, 30 V, 1 A, 100 ms ON width	2ch	
	Speed alarm	Contact output NC or NO, 30 V DC, 1 A		2ch
System alarm	Contact output NC or NO, 30 V DC, 1 A		2ch	
Digital signal	NMEA-0183 (longitudinal speed and transverse speed) 2ch			
Environment	Ambient temperature	-15 to + 55°C (when operating) -20 to +60°C (when not operating)		
	Humidity	10 to 95% RH		
	Power variation	Voltage: ±10% Frequency: ±6%		
	Vibration	5 to 12.5 Hz ±1.6 mm		
		12.5 to 25 Hz ±0.38 mm		
Withstanding water-pressure	25 to 50 Hz ±0.1 mm			
Withstanding water-pressure	0.5MPa (at bottom valve and sensor)			
Standard	JG approved number:3795 DOT and NV applications in progress.			

YOKOGAWA 

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