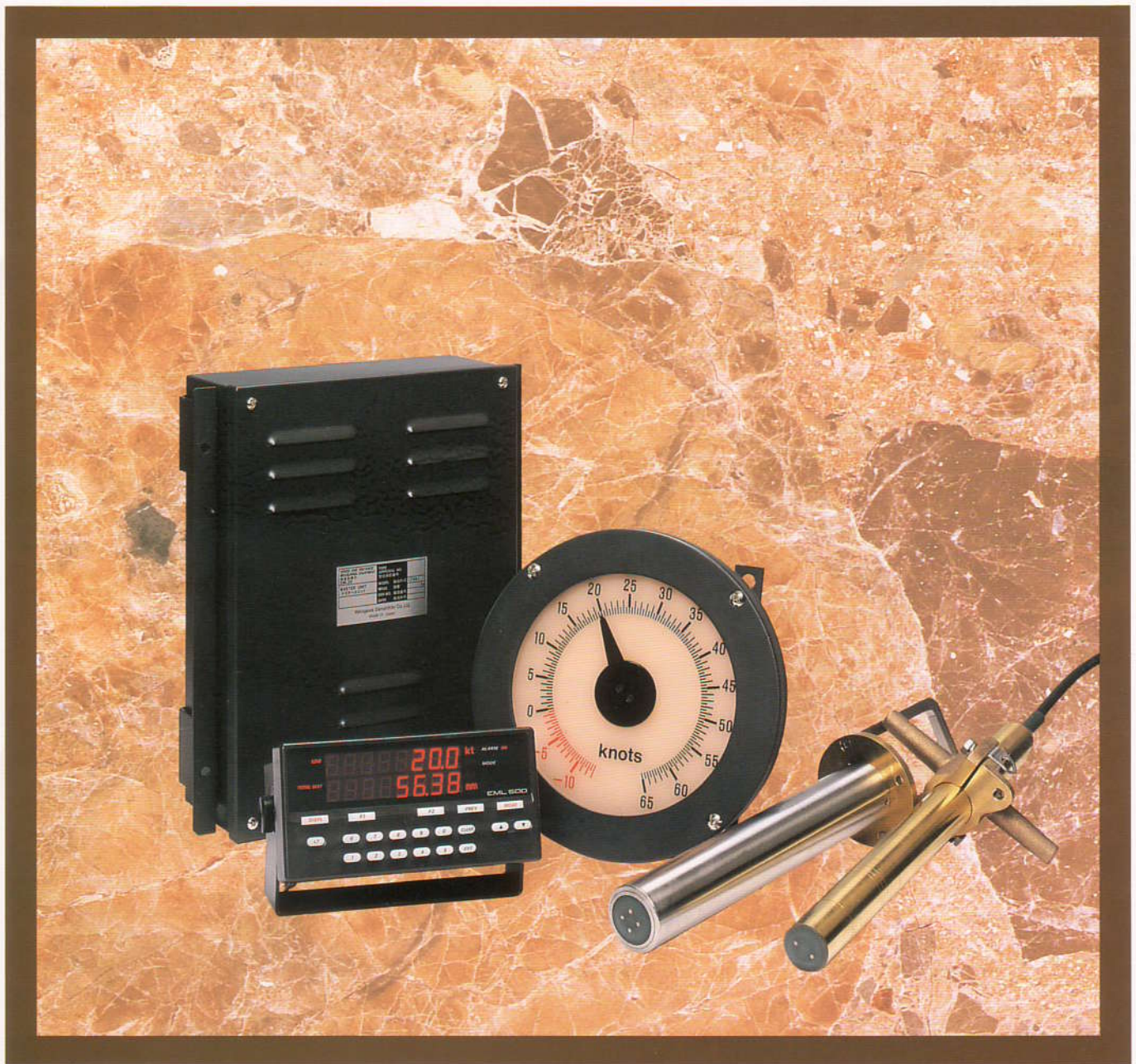


YOKOGAWA 

# ELECTROMAGNETIC LOG

EML500 Series



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).

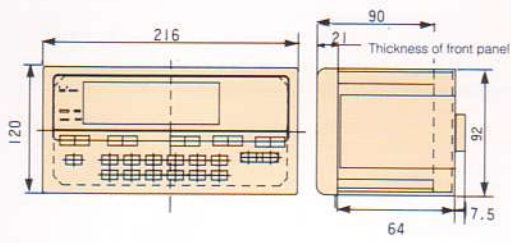
## Versatile external outputs

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

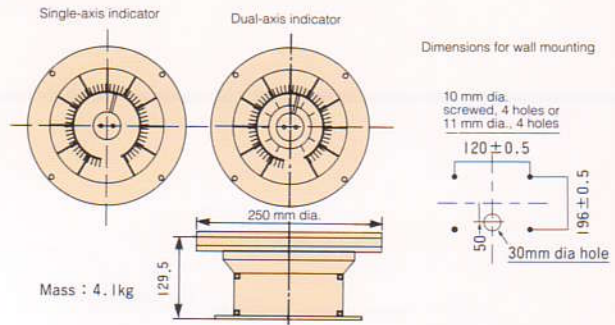
# Outline Dimensions

Master indicator LR523 (flash-mounted type)



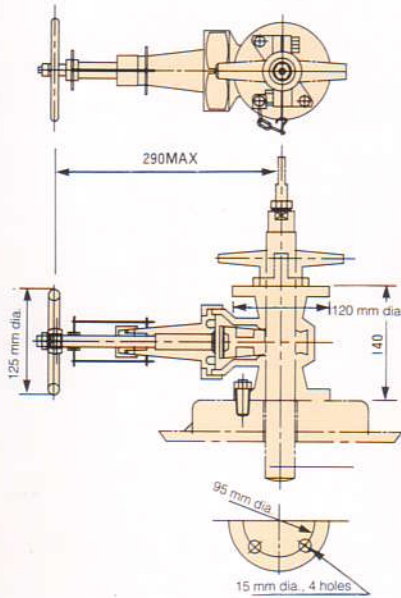
Mass : 1.1kg

Speed indicator (wall-mounted type)



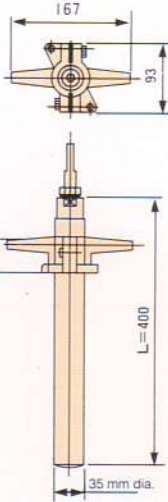
Mass : 4.1kg

Valve/sensor (single-axis)  
(LVO33)



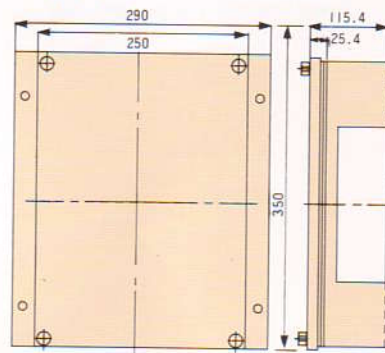
Mass : 8 kg

(LS531)



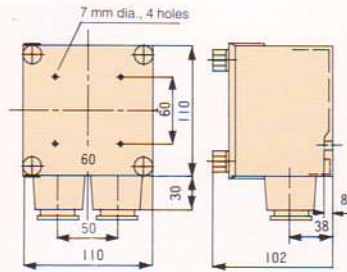
Mass : 3.3kg

Master unit LT501 (flash-mounted type)



Mass : 6.4kg

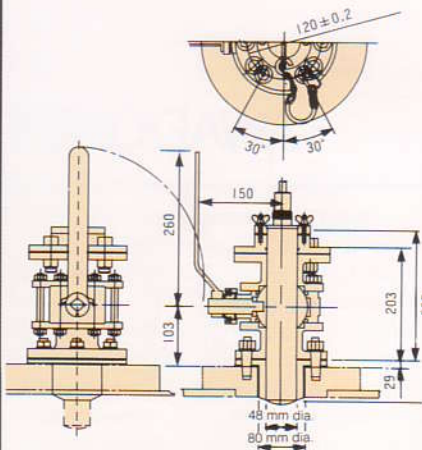
Junction box LN052



Mass : 0.8kg

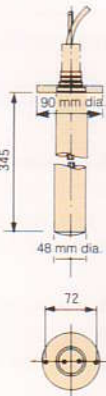
Dual-axis (single-axis)

Valve (LV052)



Mass : 25kg

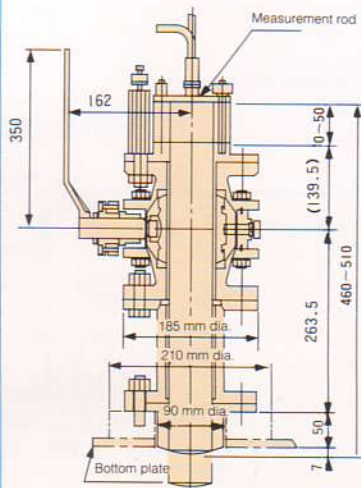
Sensor (LS542)



Mass : 2.8kg

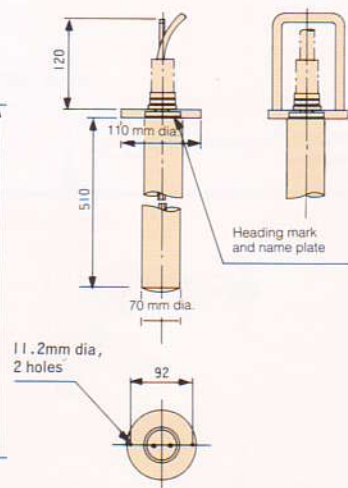
Single-axis (dual-axis)

Valve (LV071A)



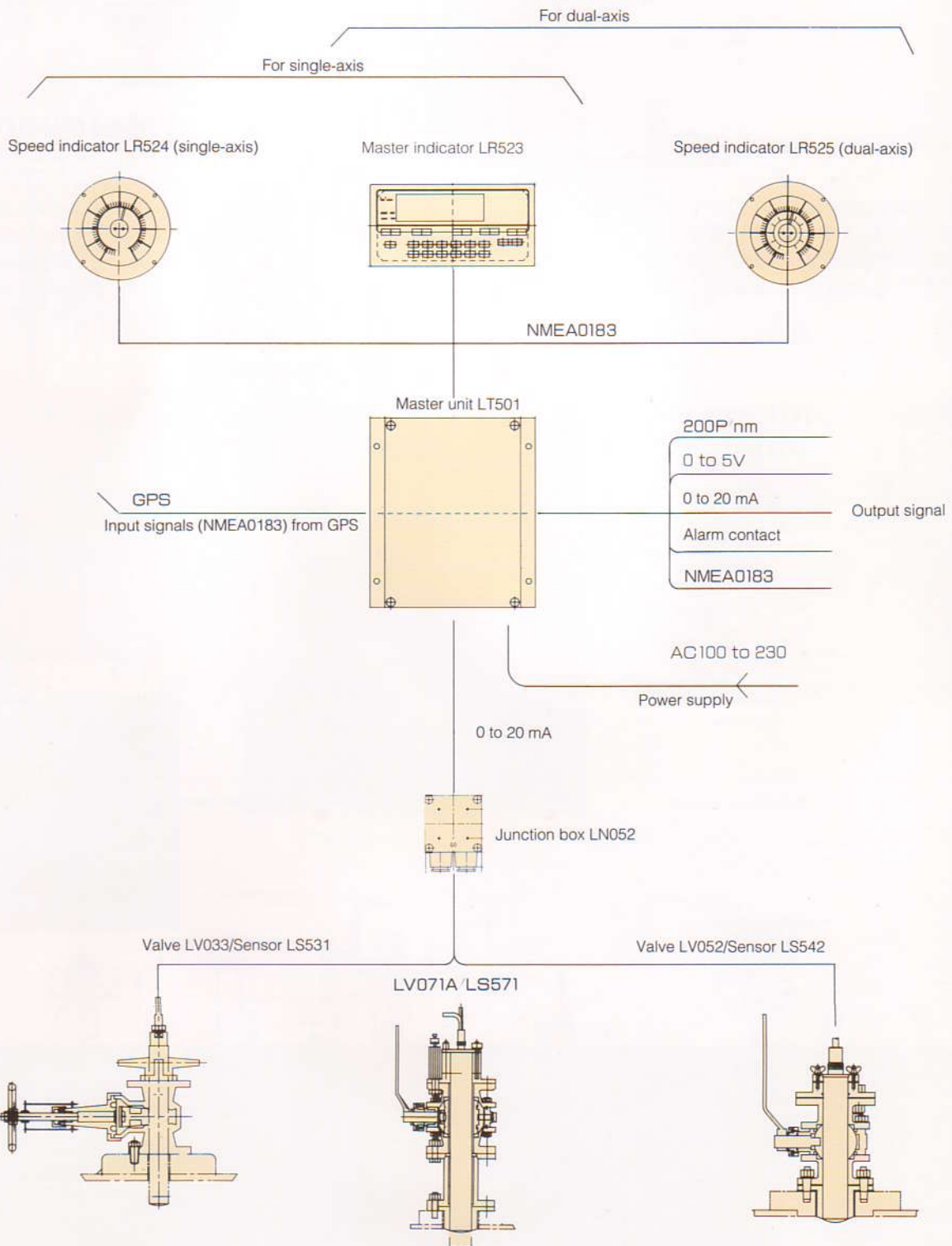
Mass : 43kg

Sensor (LS571)



Mass : 6.0kg

# 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 Current: 0 to 20 mA or 4 to 20 mA	2ch 4ch
	Pulse	200P/nm photo-coupler output, 5.5 V, 5 mA 200P/nm contact output, 30 V, 1 A, 100 ms ON width	8ch 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 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** 

Yokogawa Denshikiki Co., Ltd.

URL : <http://www.yokogawa.co.jp/YDK/>



**Caution:** Please read the manual before using this product.

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