SPECIFICATIONS OF CURRENT INDICATOR
CI-68

1 TRANSCEIVER

1.1	Frequency	244 kHz
1.2	Tracking mode	Ground tracking, Water tracking, Nav-aid, Automatic, External
1.3	Ship's speed	
	Measurement range	Fore-aft: -10.0 to 30 kn, Port-stbd: -9.9 to +9.9 kn
	Accuracy	Within ±1% or 0.1 kn, whichever is the greater
	Direction	All directions (360°) in one-degree steps
	Measurement depth	3-300 m (ground tracking mode), Actual depth depends on installation method and underwater conditions.
1.4	Tide	
	Speed	0.0-9.9 kn
	Accuracy	Within 0.2 kn
	Direction	All directions (360°) in one-degree steps
	Number of layers	5
	Measurement range	2-150 m Up to about 75% of depth. The depth must be greater than 22 m in the ground tracking mode and greater than 40 m in the water tracking mode using short pulse and greater than 70 m using long pulse. Actual range will vary depending on installation and underwater conditions.
1.5	Other functions	Bottom tide tracking, Alarm output, Interference rejecter, Demonstration mode
1.6	Adjustment	Ship's speed, Tide, Installation angle (bearing, trim, heel), Course error, Draft, External KP

2 DISPLAY UNIT

2.1	Display	VGA (640x480 dot)
2.2	Contents	Ship's speed, Course, Drift angle, Tide (5 layers), Tide differential (2 layers), Setting depth, Heading, Position, Echo level, Water temperature
2.3	Display mode	Tide vector, Graph, Course plot, Ship's speed, Text, Echo monitor

3 INTERFACE

3.1	IEC 61162, NMEA	IEC 61162-1 Ed. 2, IEC 61162-2, NMEA 0183 Ver-1.5/2/0/3.0
	Input sentences	DBT, DPT, GGA, GLL, HDT, HDM, HDG, MTW, RMA, RMC, VTG ZDA,
	Output sentences	CUR, VBW, VDR, VHW, VLW, VTG
3.2	CIF	4800 bps, 7 bits, 2 parity, FURUNO original format

	Input sentences	System time, Measuring position, Heading, Depth, Water temperature
	Output sentences	Tide data for 1st layer, tide-measured speed, depths for multi-layers
3.3	Current indicator data	RS-232C, 4800 bps, 7 bits, 2 parity Date and time, Position, Speed, Current indicator, Reverberation level, Speed calibration, Angle calibration, Alarm output, others

4 POWER SUPPLY

4.1	Transceiver unit	100/110/115-120/200/220/230/240VAC: 3-1.5A, 1 phase, 50/60 Hz
4.2	DC-AC inverter (TR-2451, option)	24VDC, 20A max.

5 ENVIRONMENTAL CONDITIONS

5.1	Ambient temperature	
	Transducer	-5°C to 35°C
	Other units	-15°C to 55°C
5.2	Relative humidity	95% or less (+40°C)
5.3	Degree of protection	
	Transceiver/Monitor unit	IPX0
	Control unit	IPX2 (panel), IPX0 (chassis)
	Junction box	IPX4
	Transducer	IPX8

6 COATING COLOR

6.1	Control/ Monitor unit	N3.0 (panel), 2.5GY5/1.5 (chassis)
6.2	Transceiver unit	2.5GY5/1.5