

**Furuno sees**



**what you don't**



**TS-337A OMINI TRAWLSONAR**

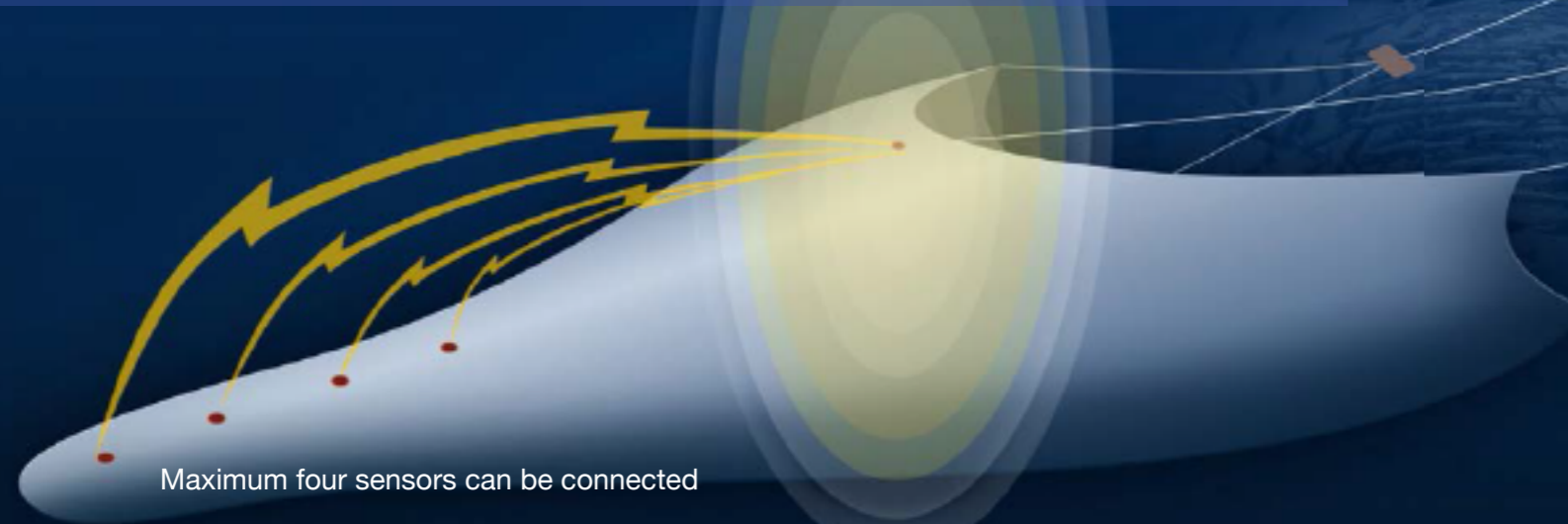
Nominated to the Nor Fishing innovationprice!



## The key to successful fishing!

In order to find fish, sonar and echosounder are two fundamental equipments in the fishing industry, when the trawlsonar is one of the most important component for a successful fishing!

With up to 4 pcs. of catch sensors, CS-400 can be connected to the trawl sonar to get complete overview of the current catch. With catch sensors you can follow the filling rate into the trawl and it can be hauled up in at the right time. The signals from the CS-400 are transmitted wirelessly to the trawl sonar. CS-400 is also compatible with other 3rd part systems in the market.



Maximum four sensors can be connected

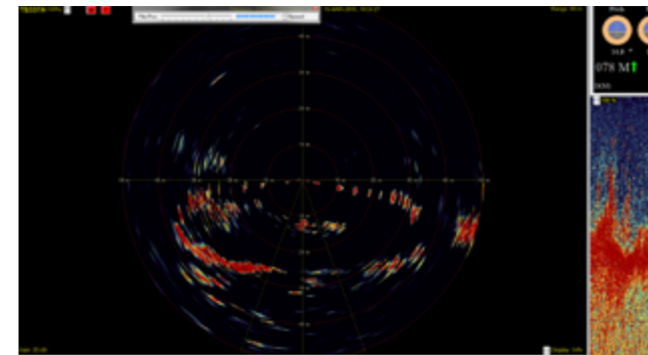


CS-400 sensor

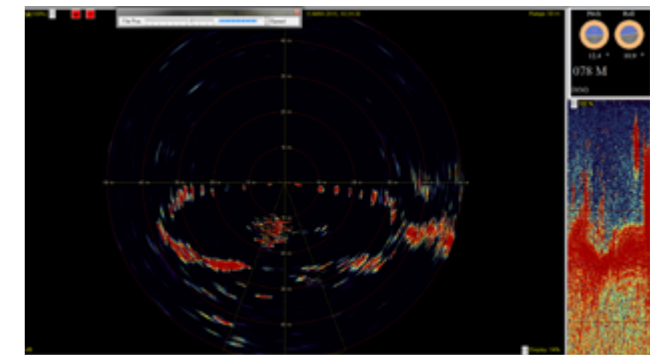
### Features:

- Full monitoring of net opening and fish echoes for each transmission
- 240 beams scan 360 degrees in vertical direction for each transmission
- Vertical transmission update every 0,8 sek.
- Echo Sounder presentation with beam adjustment
- Adjustable beam width of the echo sounder
- Depth/temp and net behaviour (pitch and roll)
- Trawlheading presentation (Underwater Unit)
- Graphical presentation of net depth and temperature
- Two screen option of vertical scanning and echo window
- Own zoom window of echo images
- NMEA output of headrope and footrope
- Four catch sensors (option) can be mounted on the cod-end to monitor the filling rate
- All operations done from menu on Display
- No moving mechanical parts in Underwater Unit
- Robust design and high reliability

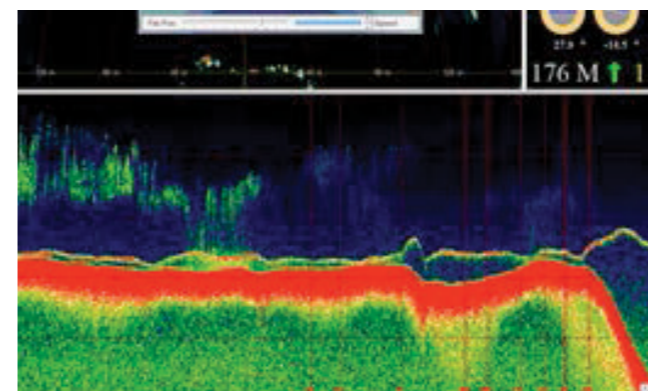
### Display Unit



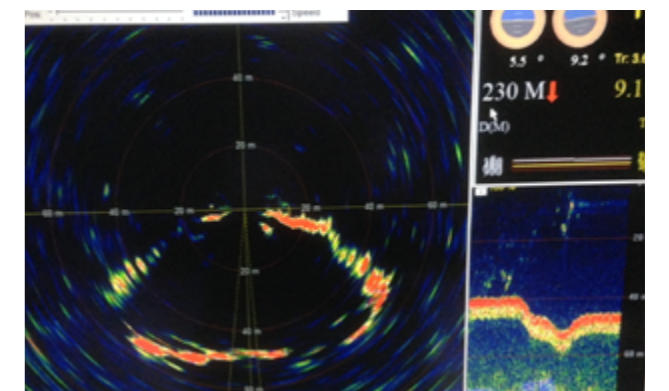
Fish coming in...



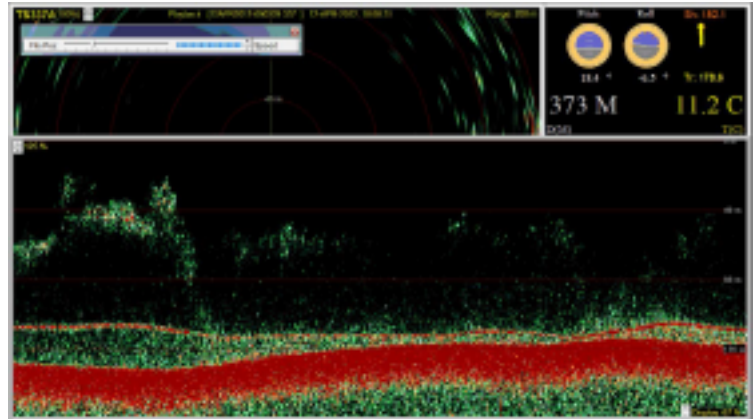
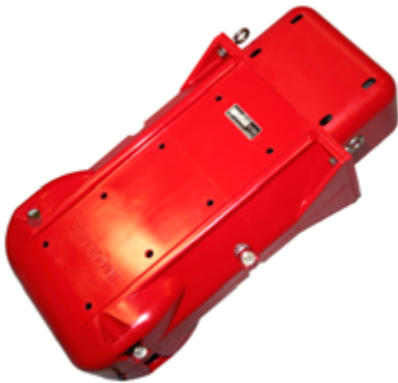
Fish targets on vertical scanning and echo window



Maximum echo sounder image



Clear view of the foot rope



240 beams scan 360 degrees in vertical direction for each transmission. New transmission update every 0,8 sec.

Clear view of the trawl foot rope. With update every 0.8 sec. you will have good control of the foot rope close to the sea bed.

## Specifications:

### GENERAL

Display	1280 x 1024
Display Mode	Beam Test or 360° image
Presentation Color of echogram	Full color (2 types of contrast selectable for day or night time operation), Green, Grey (normal/reverse)

### UNDERWATER UNIT

Operating Depth	2,000 m
Vertical Scanning Sonar	
Display mode	360°. Full picture scanning every 0,8 sec.
Echo Sounder	
Frequency	120 kHz
Ranges	10, 20, 30, 40, 50, 60, 80, 100, 150, 200, 250 m.
Temperature Sensor	
Measurement Range	- 5°C to +35°C
Dept Sensor	
Measurement Range	0 to 2,000 m
Pitch/Roll Sensor	+/-60°

### CATCH SENSOR CS-400

Operating Depth	2,000 m
Frequency	channel 1: 69.75/70.25 kHz, channel 2: 72.25/72.75 kHz channel 3: 74.75/75.25 kHz channel 4: 77.25/77.75 kHz
Power Supply	3 Alkaline batteries
Operating Time	1,500 h

### POWER SUPPLY

115/230 VAC

### EQUIPMENT LIST

**Standard:** 1 pcs underwater unit, 1 pcs processor unit, 1 pcs power/interface unit. Installation Material and Standard Spare Parts

**Option:** Catch Sensor CS-400

### Third Wire System

Winch system	Shipyards supply
Cable	Armored coax cable
Loop Resistance	100 ohm
Attenuation	20 dB, 100 kHz
Length	3,000 m