

# SS4 DoorSensor

Multifunctional

Increased battery capacity

Reduced charging time

Robust og innovative construction

More accurate distance measurements with speed of sound correction in relation to depth and sea temperature

5 year warranty



## SS4 DoorSensor

*An important factor in all kinds of trawling is having control of your trawl doors. Water flow, speed, depth, wire length, bottom conditions and under water currents will affect the performance of your doors and the trawl efficiency.*

## Functions available in the new SS4 Door Sensor

**DISTANCE:** Door distance, bottom & pelagic trawl

**DEPTH:** Door depth

**TEMPERATURE:** Sea water temperature

**TENSION:** Tension in trawl wires or sweeps

**ANGLE:** Door angle (roll & pitch)

**STABILITY:** Door stability (ScanFactor)

The sensors can be bought with one or several functions, and can be upgraded later via license.

## User benefits

- Adjust and control your rigging to gain optimal door spread
- Secure optimal and stable door distance during the haul independent of variations in depth, ground conditions, etc.
- Ensure door spread and avoid doors coming together or twisting during shooting
- Detect trawl or doors hooking on the bottom
- Adjust the warps to individually gain optimal and equal spread for door-clump-door
- See the results of changes to the rigging immediately
- Allows different rigging for different operations;

shallow or deep, slow or fast, rough or smooth bottom, flat or steep hillsides, different trawls, etc.

- Maximize door performance, so that the trawl fishes optimally with the least possible use of bunkers
- Detect damages, wear and tear to the doors immediately, repair and continue with optimal performance. Correct angle of the doors, will extend the doors life time and securing an even wear-off of trawl door shoes
- Observe if the doors are unstable or are about to lose bottom contact by monitoring the doors' stability

## Construction

The new design with double casting of the electronics provides 100% protection. Scanmar's newly developed super plastic drastically reduces damage to the sensor due to strokes, tension, or if doors get hooked on the bottom.

## Batteries & Charging

With new long lasting Lithium-ion batteries, charging is in many cases, no longer an issue. Many are able to keep the sensor on the door for the whole trip, and only charge when back from the fishing ground.

# Technical specification

## MEASUREMENTS OPTIONS

Distance	
Range	0-300 / 0-600 m
Accuracy	± 0.5% of value

### Angle

Roll angle	-90° to +90°
Pitch angle	-90° to +90°
ScanFactor Roll	0 to +20°
ScanFactor Pitch	0 to +20°
Accuracy	± 1°

### Depth

Range (full scale)	300/600/1200/1800 m
Accuracy <sup>1</sup>	1 m

### Temperature

Range	-5 to +30 °C
Accuracy	± 0.15 °C

### Tension

Range	12 ton
Accuracy	± 60 kg
Repeatability	± 30 kg
Overload	48 ton

## OPERATION

Mounting positions	Door
Mode	Master or Slave (standard)
Trawl	Single, double, triple
Update rate	3 to 20 sec
Operation time <sup>2</sup>	Up to 700 hrs (350 hrs typical)
Maximum depth	1500m continuously (2000 m for a short period) <sup>3</sup>

## BATTERY

Smart Battery	Li-Ion 10.8V / 7200 mAh
Charging time	Typ. 1.5 hour (QBC-X1)

## CONFIGURATION

FID, measurement type (telegram), mounting position, depth range and uplink & transponder transmit power.

## WEIGHT

In air	6.7 kg
In water	2.0 kg

## MAIN DIMENSIONS

Width	146 mm
Height	130 mm
Length	296 mm

## UPLINK

Frequency range	38.9–43.4 kHz
Source level <sup>4</sup>	170-191 dB //1uPa @ 1m
Source level medium power	186 dB //1uPa @ 1m
Beam width	55° (- 3dB)
Range to vessel <sup>5</sup>	Approx. 2500 m (max power)

## TRANSPONDER

Frequency	144 kHz
Source level <sup>6</sup>	168-193 dB //1uPa @ 1m
Beam width	60° (- 3dB)

## AVAILABLE ACCESSORIES & SPARE PARTS

Mounting kit trawl door	107705
Mounting kit bottom contact	108775
Battery pack Li-Ion	105982
Battery charger	QBC-X1

## ENVIRONMENTAL

Storage	-20°C to 55°C
Waste treatment of sensor according to WEEE-directive	

## APPROVALS,



*Note: All specifications are subject to change without prior notice.*

1 - If calibrated twice per year.

2 - Depends on power level, number of transmitting channels, telegram configuration and transmitting frequency.

3 - Operation below 1500 m, may however reduce the reliability and lifetime of the sensor.

4 - Programmable in 8 steps (1-8) by battery charger or PC.

5 - Depends on transmit power, acoustic conditions, ship noise, mounting and alignment of sensor and hydrophone.

6 - Programmable in 8 steps (1-8) by battery charger or PC.