

STR SEASONIC DIVER SYSTEM



The STR SeaSonic Diver's Operated Acoustic Flooded Member Detection System is a bespoke development providing the optimal accuracy and reliability attainable for acoustic flooded member detection. The system draws from experiences gained with the field proven STR SeaGamma FMD system. Unlike the STR SeaGamma system the STR SeaSonic system does not require the use of ionising radiation, this aids safety and transportation. SeaSonic employs a unique ultrasonic transducer design which reduces the requirement for member cleaning compared to some other techniques.

The Diver Operated system is provided in the form of a hand-held unit which is both lightweight and ergonomic. The STR SeaSonic Diver Operated system arrangement is supplied with a diver's one-hundred-and-ninety-centimetre

quick release extension lanyard, one-hundred-metre umbilical and twenty metre deck cable.

The STR SeaSonic is particularly well suited for use on very large member sizes not supported by gamma radiation systems. It is equally well suited to inaccessible or very small members where gamma-based systems have restricted access as the hand-held gun requires access to one surface of the member only.

Much like the STR SeaGamma, the STR SeaSonic system is provided with highly comprehensive software allowing job planning, data acquisition, display, recording and report generation. The reports generated can be easily compiled along with SeaGamma reports should both systems be used during the inspection campaign.

KEY FEATURES

- Minimised Member Cleaning Requirement
- No ionising radiation source required
- Flooded member diameters 0.15-10m
- Wall thicknesses 1mm upwards
- Fully Integrated Diver Gun
- Low Voltage Power and Comms via Robust Umbilical
- Intuitive easy to use Graphical User Interface
- Low Voltage DC / Mains AC Vessel Supply

STR SEASONIC DIVER SYSTEM

STR SEASONIC DIVER'S GUN SYSTEM	
DETECTOR TYPE	Pulsed Ultrasonic Acoustic Transceiver
FREQUENCY	1.125MHz
RESOLUTION	Auto / user selectable pulse length <1mm+
BEAM WIDTH	Conical 3° Approx.
INPUT SUPPLY VOLTAGE	18 to 56V DC
INPUT SUPPLY POWER	4W Typical
COMMUNICATIONS	Opto-Isolated RS232 & RS485
DEPTH RATING	3000m operational
OPERATING TEMPERATURE	0°C to 45°C
HOUSING MATERIAL	Black acetal polymer
CONNECTOR	Diver Gun Housing: MCBH8M
DIMENSIONS (mm)	Diver Gun Housing: 270L x 224H x 75W (plus connectors). Transducer: 40L x 31D @ head
WEIGHT (kg)	Diver Gun Housing c/w transducer: 2.0kg in air / 0.93kg in water
CIRCUIT PROTECTION	Reverse polarity protection, under-voltage lockout, over-voltage protection, self-resettable thermal fusing on all inputs/outputs. Internal fault monitoring, temperature and voltage reporting to user software.
MEMBER DIMENSION LIMITS	0.15m - 15m

STR SEASONIC PORTABLE SURFACE MODULE	
INPUT SUPPLY VOLTAGE (DC)	9 to 36V DC (via Bulgin PX0736/S)
INPUT SUPPLY VOLTAGE (AC)	80 to 264V AC (via Bulgin PX0730/P)
INPUT POWER REQUIREMENT	4W
COMMUNICATIONS TO SENSOR	RS485 115.2kbps
COMMUNICATIONS FROM GPS	RS232 2.4-115.2kbps
SENSOR POWER	27V DC
OPERATING TEMPERATURE	0°C to 45°C
DIMENSIONS (mm)	489x185x392
WEIGHT (kg)	6kg
FORMAT	Portable Peli case housing, with laptop in lid cavity.

All information contained in this brochure may be subject to change without prior notice.