Acoustic specification of the DL Sensors 21.6.2022

DL850S – SKIPPER version

The DL850 sensor has three elements spaced at 120° at an angle 30 degrees from the vertical-

Resonant Frequency and Impedance	Housing type	Band width, %	Beam width 3db, deg	Transmit/Rec eive Response, dB// uPa/ Volt @ 1m	Impedance plot near resonant frequency or Impedance and Conductance plot for Doppler sensors	Beam pattern plot
270 kHz Z=190-210 Ohm;	SKIPPER DL-2 housing	12-14	270kHz 8-9 deg;	270kHz TVR= 168- 169 (SFU water tank; measured on 3 element sensor)		270 kHz

DL2S

The DL2S sensor has a transducer pointing ahead and to starboard (0° and 90°). Tilted at 30 degrees from the vertical

The DL2 also uses a second frequency in the range of 850kHz-950kHz

Each element has the following specification

Resonant	Housing	Band	Beam width	Transmit/Rec	Impedance plot	Beam pattern plot
Frequency	type	width,	3db,	eive	near resonant	
and		%	deg	Response,	frequency	
Impedance				dB// uPa/ Volt	or	
				@ 1m	Impedance and	
					Conductance plot	
					for Doppler sensors	
270 kHz	SKIPPER	12-14	270kHz	270kHz	Impedance	Ch1 – 270kHz
	DL-2				600	
7=160-210			8-9 deg:	TVR= 168-	330	0
0 hm;			000000,	160	450	30 ⁴ N ¹
Unin,				109	300	1 de la compañía de l
				dB//µPa/V	200	20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
				@1meter	1.5 2 2.5 3 3.5 4 ×10 ⁸	(A A A A
				(0)		.60 ¹ -50 -40 -30 -20 -10-30 eB
				(Skipper	3	
				water tank;	25	ch2 27044-
				measured	15	
				on 2		
				element	0 1.5 2 2.5 3 3.5 4 ×10 ⁸	
				element		
				sensor)		
						¢ 3 ²
						et
900kHz		12-14	2.3 - 3.0	900kHz	Impedance	SELL water tank:
SUCIAIL			deg	5001012		measured on 2
Z=75-90				TVR= 171-		element sensor
Ohm				172		July 20, 2015
Onn					m / f /	July 50, 2015
				ав//µРа/v	n and the second s	
				@1meter	NG E EL 9 91 E 115 " .nt ²	
				(Skinner		
				(Skipper	Conductores	
				water tank;	Conductance	
				measured	T	
				on 2		
				element		
				concor)		
				Sensor)	and the second s	
					83 8 55 5 45 10 105	

DL1S

The DL1 sensor has 2 beams fwd and aft (0° and 180°) each tilted at 30 degrees from the vertical.

Resonant	Housing	Band	Beam	Transmit/Receive	Impedance plot	Beam pattern plot
Frequency	type	width,	width	Response,	near resonant	
and		%	3db,	dB// uPa/ Volt @	frequency	
Impedance			Deg	1m	or	
					Impedance and	
					Conductance plot	
					for Doppler sensors	
710kH	SKIPPER	12-14	710kHz	715 kHz	Impedance	
	DL-1					NA
Z=100 Ohm	housing		7-8 deg;	TVR= 171.2- 171.4 dB//μPa/V @1meter		
				(SKIPPER water tank; measured on 2 element sensor)	conductance	