S2CR 7/17

S2C Technology: reliable data transmissions with up to 6.9 kbit/s

Advanced data delivery protocol

Hemispherical beam pattern, optimized for vertical and slant channels

Depth rated long-range device

TECHNICAL SPECIFICATIONS

GENERAL		
OPERATING DEPTH	Delrin	200 m
	Aluminium Alloy	1000 m
	Stainless Steel	2000 m
	Titanium	6000 m
OPERATING RANGE		8000 m
FREQUENCY BAND		7 - 17 kHz
TRANSDUCER BEAM PATTERN		hemispherical

CONNECTION		
ACOUSTIC CONNECTION		up to 6.9 kbit/s
BIT ERROR RATE		less than 10^{-10}
INTERNAL DATA BUFFER		1 MB, configurable
HOST INTERFACE [1]		Ethernet, RS-232 (RS-485/422*)
INTERFACE CONNECTOR		up to 2 SubConn® Metal Shell 1500 Series

POWER		
CONSUMPTION	Stand-by Mode	2.5 mW
	Listen Mode [2]	5 - 285 mW
	Receive Mode [3]	0.8 W
	Transmit Mode	3 W, 2000 m range
		10 W, 4000 m range
		40 W, 8000 m range
		45 W, max. available
POWER SUPPLY [4]		External 24 VDC (12 VDC*) or internal rechargeable battery*

PHYSICAL		
DIMENSIONS [5]	Housing	Ø 113 mm x 260 mm
	Total length	420 mm
WEIGHT dry/wet	Delrin	4700/600 g
	Aluminium Alloy	4160/1560 g
	Stainless Steel	8000/5800 g
	Titanium	7780/5180 g

1

APPLICATIONS

Reliable long-range communication

Communication link for deep-sea AUVs and ROVs

Seafloor observatories

Underwater acoustic sensor networks

CONFIGURATION OPTIONS

HOUSING	DELRIN	Plastic non-magnetic corrosion-resistant housing for short-term deployments, depth rating 200 m	
	ALUMINIUM ALLOY	Light metal housing for short-term deployments, depth rating 1000 m	
	STAINLESS STEEL	Robust metal, suitable for long-term deployments in harsh environments, depth rating 2000 m	
	TITANIUM	Corrosion resistant, suitable for long-term deployments in harsh environments, depth rating 6000 m	
INTERFACE	1 CONNECTOR	RS-232 [1] or	
		Ethernet	
	2 CONNECTORS	RS-232 + RS-232 or	
		RS-232 + Ethernet	
MODULES	WAKE-UP MODULE [2]	RS-232 interface	✓
		Ethernet interface	✗
		RS-232 + RS-232 interface	✓
		RS-232 + Ethernet interface	✗

OPERATING CONDITIONS

TEMPERATURE	Operating	0°C - +60°C
	Storage	-4°C - +60°C
MAXIMUM SHOCK		20g, 11 ms half sine
MAXIMUM VIBRATION		frequency range 5 - 150 Hz, 5 - 25 Hz: ±2mm; 25 - 50 Hz: 5g

[1] One RS-232 Interface can be replaced with a RS-422 interface. More interface configurations available by special request. Contact EvoLogics for more information.
[2] The Wake Up Module turns the rest of the device on if it detects incoming acoustic signals or incoming data on the host interface. Once the device completes receiving or transmitting data, it switches itself off.