

## S2C M 48/78

UNDERWATER ACOUSTIC MODEM



The M-series offers all the benefits of S2C communication technology in a compact design: the "mini" modems are smaller and lighter than the standard R-series devices.

The "mini" models feature a fully-fledged S2C engine and are compatible with R- and T-modems of the same type.

S2C M "mini" modems deliver a great performance in most challenging conditions and offer several configuration options to meet the needs of a particular application. S2C M is a great fit for AUVs and ROVs where seamless integration of hardware and software components is critical.

GENERAL	OPERATING DEPTH	Delrin	200 m
		Stainless Steel	2000 m
		Titanium	2000 m
	OPERATING RANGE		1000 m, depends on operating conditions
	FREQUENCY BAND		48-78 kHz
	TRANSDUCER BEAM PATTERN		horizontally omnidirectional
CONNECTION	ACOUSTIC CONNECTION		up to 31.2 kbit/s
	BIT ERROR RATE		less than $10^{-10}$
	INTERNAL DATA BUFFER		1 MB, configurable
	INTERFACE OPTIONS <sup>1)</sup>		Ethernet or RS-232
	INTERFACE CONNECTORS		1 connector - SubConn® Metal Shell Series
POWER	CONSUMPTION <sup>2)</sup>	Stand-by Mode	2.5 W
		Listen Mode	5 - 285 mW
		Receive Mode	0.8 W
		Transmit Mode	55 W (adjustable)
	POWER SUPPLY	External	24 VDC (12 VDC)
		Internal	Rechargeable Li-Ion battery, 18 V 3.5 Ah 60.3 Wh, with integrated BMS and charger
PHYSICAL	DIMENSIONS <sup>3)</sup>	Housing	Ø 63 mm x 235 mm
		Total length	310 mm
	WEIGHT dry/wet	Delrin	1120 / 330 g

<sup>1)</sup> One RS-232 Interface can be replaced with a RS-422 interface. Contact EvoLogics for more information!

<sup>2)</sup> Power consumption for RS-232 interface. Add 500 mW if an Ethernet interface is installed. Add 300 mW if the Wake-Up Module is installed.

User-configurable Listen Mode is only available with a Wake-Up module installed. Power consumption in Listen Mode depends on Listen Mode settings.

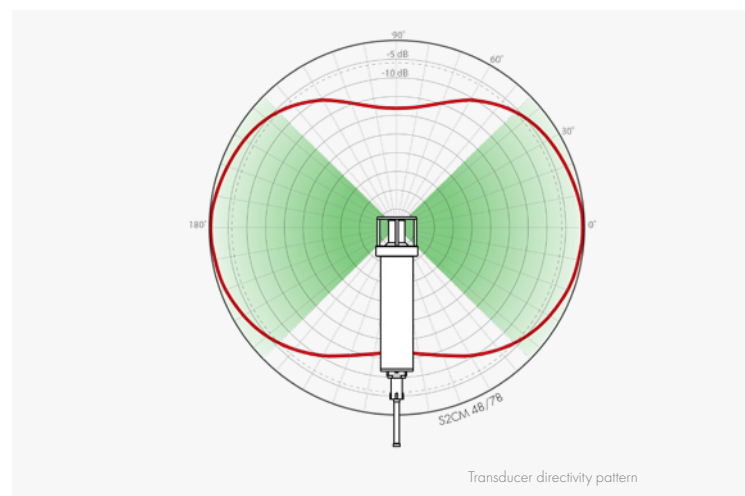
<sup>3)</sup> Dimensions of a Delrin housing without internal battery, other builds are slightly larger. Contact EvoLogics for more information on device dimensions and weights!

### APPLICATIONS

- Fast short and medium range transmissions in horizontal channels
- Communication and positioning for AUVs and ROVs
- Size- and weight-sensitive applications
- Fast data transfers in adverse conditions

### CONFIGURATION OPTIONS AND MODULAR EXTENSIONS

HOUSING	DELFIN	Plastic non-magnetic corrosion-resistant housing for short-term deployments, depth rating 200 m
	STAINLESS STEEL	Robust metal, suitable for long-term deployments in harsh environments, depth rating 2000 m
	TITANIUM	Corrosion resistant housing, suitable for long-term deployment in harsh environments, depth rating 6000 m
POWER	1 INTERFACE CONNECTOR	RS-232 or Ethernet
	EXTERNAL POWER SUPPLY	External DC source 24 V or 12 V
	INTERNAL POWER SUPPLY	Built-in Li-Ion rechargeable battery 18 V 3.5 Ah 60.3 Wh, with integrated BMS charger
MODULES	WAKE-UP MODULE not compatible with Ethernet	Power saving - turns on the device once it detects incoming data or acoustic signals, turns off after transmission/reception complete  ✓ RS-232 interface    ✗ Ethernet interface
	CABLE-MOUNTED TRANSDUCER	Separated transducer for easier system integration. Standard cable 1.5 m
	OEM VERSION	Version without housing: transducer and electronics for system integration



<sup>51</sup> The Wake Up Module is only compatible with RS-232 interface! It is not compatible with Ethernet or RS-422. 2-interface Wake Up Module version reacts to incoming data on two serial interfaces.

<sup>61</sup> The Power Switch is only compatible with RS-232 interface! It is not compatible with Ethernet or RS-422.