

S2C M 30/60

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		30-60 kHz
CONNECTION	TRANSDUCER BEAM PATTERN		nearly hemispherical
	ACOUSTIC CONNECTION		up to 31.2 kbit/s
	BIT ERROR RATE		less than 10^{-10}
	INTERNAL DATA BUFFER		1 MB, configurable
	INTERFACE OPTIONS ¹⁾		Ethernet or RS-232
POWER	INTERFACE CONNECTORS		1 connector - SubConn® Metal Shell Series
	CONSUMPTION ²⁾	Stand-by Mode	2.5 W
		Listen Mode	5 - 285 mW
		Receive Mode	0.8 W
		Transmit Mode	80 W (adjustable)
PHYSICAL	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
	DIMENSIONS ³⁾	Housing	Ø 63 mm x 235 mm
		Total length	310 mm
	WEIGHT dry/wet	Delrin	1190 / 460 g

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

²⁾ 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.

³⁾ 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 vertical, slant and horizontal channels

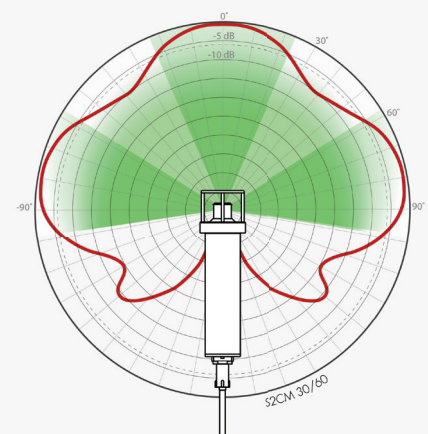
Communication and positioning for AUVs and ROVs

Size- and weight-sensitive applications

Fast data transfers in adverse conditions

CONFIGURATION OPTIONS AND MODULAR EXTENSIONS

HOUSING	DELTRIN	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



Transducer directivity pattern

⁵¹ 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.

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