SBE 38 Configurations

Housing	Connector	Communications	Miscellaneous (factory use)
1 – 10,500 m (titanium)	1 – XSG	0 – RS-232	x
	2 – MCBH	1 – RS-485	

Example: 38.120x is an SBE 38 with 10,500 m housing, MCBH connector, and RS-232 communications. See table below for description of each selection:

PART #	DESCRIPTION	NOTES
38	**DIGITAL OCEANOGRAPHIC THERMOMETER -** Standard measurement range (-5 to +35 C), certified stability of 0.001 C in six months. Includes 10,500 m titanium housing, real-time RS-232C or RS-485 interface, 2.4 m data I/O cable, Seasoft software, & complete documentation.	SBE 38 has no memory or internal batteries. SBE 38 is frequently integrated as a remote temperature sensor with an SBE 21 or 45 thermosalinograph, to provide sea surface temperature. It can also be integrated as a secondary temperature sensor with an SBE 16plus, 16plus-IM, 16plus V2, 16plus-IM V2, 19plus V2, or 25plus CTD.
SBE 38 Connector Selections — MUST SELECT ONE		

38.11xx	**XSG connector on instrument and data I/O cable PN 801376**	**Wet-pluggable connectors may be mated in wet conditions. Their pins do not need to be dried before mating. By design, water on connector pins is forced out as connector is mated. However, they must not be mated or un-mated while submerged. Wet-pluggable connectors have a non-conducting guide pin to assist pin alignment & require less force to mate, making them easier to mate reliably under dark or cold conditions, compared to XSG/AG connectors. Like XSG/AG connectors, wet-pluggables need proper lubrication & require care during use to avoid trapping water in sockets.**
38.12xx	**Wet-pluggable (MCBH) connector on instrument and data I/O cable PN 801263**	 **XSG connector on left, Wet-pluggable (MCBH) connector on right**

SBE 38 Communications Selections— MUST SELECT ONE

38.1x0x	RS-232 serial interface	Sea-Bird supplies SBE 38 wired to match selected serial interface option. However, SBE 38 can be user-configured for other serial interface by modifying wiring from SBE 38's bulkhead connector to PCB & reprogramming SBE 38 to match wired configuration.
38.1x1x	RS-485 (half duplex ONLY) serial interface	Two-wire, RS-485 interface provides communication with individual SBE 38 or with all SBE 38s attached to RS-485 interface. This allows for coordination of sampling among many instruments. However, note that half-duplex communication is one-direction at a time (i.e., you cannot send commands & receive data at same time).
SBE 38 Spares & Accessories		
801376	Data/Power interface cable, RMG-4FS to DB-9S & 9V battery snap, 2.4 m (DN 32604)	These cables are compatible with SBE 38 if 38.11xx (XSG connector) selected. ● 801376 is included with standard shipment; listing here is spare. ● 801385 & 801355 have twisted wire leads in place of battery snap, & can be used in place of 801376.
801385	Data/Power interface cable, RMG-4FS to DB-9S & red/black twisted wire leads, 2.4 m (DN 32277)	

801355	**Data/Power interface cable, RMG-4FS to DB-9S & red/black twisted wire leads, 20 m (DN 32277)**	
801263	**Data/Power interface cable, Wet-Pluggable, MCIL-4FS to DB-9S & 9V battery snap, 2.4 m (DN 32490)**	**These cables are compatible with SBE 38 if 38.12xx (MCBH connector) selected.** ● **801263 is included with standard shipment; listing here is spare.** ● **801206 & 801476 have twisted wire leads in place of battery snap, & can be used in place of 801376.**
801206	**Data/Power interface cable, Wet-Pluggable, MCIL-4FS to DB-9S & red/black twisted wire leads, 2.4 m (DN 32366)**	
801476	**Data/Power interface cable, Wet-Pluggable, MCIL-4FS to DB-9S & red/black twisted wire leads, 25 m (DN 32366)**	
17031	**4-pin pigtail cable, RMG-4FS with lock sleeve, 2.4 m (DN 30581)**	**For applications where not connecting directly to computer.**

20200	USB to Serial Port Adapter, FTDI UC232R-10 (connects computers with USB ports to RS-232 instruments)	Many newer PCs & laptop computers have USB port(s) instead of RS-232 serial port(s). USB serial adapter plugs into USB port, & allows a serial device to be connected through adapter. Multi-port adapters are available from other companies; see Application Note 68.