



Renowned in Industry for High Reliability

Fully Electric (no messy hydraulic oil)

Corrosion Resistant Stainless Steel and Polypropylene Construction

Unique, Simple, Reliable Drive System

ROV Latching System

Telescopic Frame for ROV Tool Skids

Focal Slip-Ring (Optical/Copper)

250 metre Nominal Tether Capacity (more for smaller tethers)

Accurate Spooling

Available in 2 Sizes

Benefits

A large proportion of recorded ROV downtime is attributed to TMS failures. So if you talk with the users of Sub-Atlantic TMS systems, the one thing they will tell you are that they are extremely reliable. They are fully electric and utilise a unique system that drives the main drum and traction wheel using a single motor whilst maintaining cable tension and accurate spooling. The stainless steel main frame is telescopic, allowing of various sizes of under-slung tool skids to be fitted to the ROV. For deep-water operation, the TMS can be supplied with a high voltage transformer fitted for conversion of the ROV power. Currently, they are available in two sizes to suit small to medium ROV systems.

Tether Management System Specification

General

Two sizes are currently available, Type 1 and Type 2 depending on the size of the ROV. Each size is suitable for 250 metres tether capacity based on the tether dimension shown below. Greater lengths are possible with smaller tether diameters. The TMS has been designed to be simple to maintain. Tether changes are fast and simple features like captive screws on removable components prevent operator frustration.

Performance/Dimensions

		TYPE 1	TYPE 2
Height	mm	1632 to 2032	1925 to 2405
	inches	64.3 to 80.0	75.8 to 94.7
Length	mm	1609	1951
	inches	63.3	76.8
Width	mm	1074	1200
	inches	42.3	47.2
Opening Height	mm	640 to 1040	850 to 1330
	inches	25.2 to 40.9	33.5 to 52.4
Opening Length	mm	1050	1440
	inches	41.3	56.7
Opening Width	mm	810	936
	inches	31.9	36.9
Tether Capacity	metres	250 @ 19mm	250 @ 25mm
	feet	820 @ ¾"	820 @ 1"
*Weight in Air	kg	580	665
	lbs	1278	1466
*Weight in Water	kg	420	490
	lbs	926	1080

* Weight without ROV, tether or lead ballast fitted

Depth Rating: 2000 metres 8202 feet

Standard depth rating is based on electronics bottle and lights that can be supplied deeper rated as an option.

Frame

The frame is manufactured from grade 316L stainless steel to give a long service life and eliminate the need for painting. All other materials are polypropylene. The frame has been designed in accordance with DNV Codes and can accommodate an additional 1000 kg approx. of lead ballast for deep-water applications. The frame is rated for a maximum gross weight of 2-Tonnes including the ROV. The frame is telescopically extendable to allow the ROV opening height to be adjusted to accommodate under-slung tooling and/or increased buoyancy heights. The open design allows good access to the ROV whilst in the TMS.

Drive System

This innovative system developed at Sub-Atlantic incorporates a cable drum and a traction wheel. Both the drum and the

traction wheel are driven by a single electric motor (CTE-02 thruster motor) through a special traction gearbox that maintains the cable tension on the drum and pushes the cable from the TMS. The self-locking nature of the system means that cable tension is maintained when power is switched off. This drive system is proven to be extremely simple and reliable.

Control System

The TMS electronics bottle includes an RS485 telemetry system and power supplies, etc. The telemetry is identical to that used on Sub-Atlantic ROVs giving spare capacity for future upgrade. For deep-eater applications, fibre optics can be supplied.

When supplied with a Sub-Atlantic vehicle, the topside controls are included in the ROV controller, otherwise a dedicated control panel is provided which includes a line insulation monitoring (LIM) system.

Tether Connections

The tether can be connected to the TMS by either a plug or by a gland into the rotating junction box, which is actually the hollow main drum shaft. The plug method allows fast change of spare tether. The gland method should be when fibre optic tethers are required.

Spooling

Accurate spooling is achieved using a level-wind shaft system driven directly from the main drum with a stainless steel chain. Changing the level-wind shaft chain sprocket accommodates different tether sizes.

ROV Latch/Depressor

The TMS includes an electric actuator that depresses a rubber lined horizontal bar down on top of the ROV to prevent movement during launch and recovery.

Camera and Lighting

The TMS includes two individually switchable 250-Watt lamps located at the rear facing forward. A wide-angle monochrome camera, also located at the rear provides a view of the ROV during re-entry and also the spooling on the main drum.

Options

- For deep-water applications, fibre optic transmission can be supplied and high voltage transformer and LIM system for ROV.
- Lead ballast can be supplied up to a gross TMS/ROV weight of 2-Tonnes.
- We will consider manufacturing specials and different sizes to customer requirements including top hat styles for work-class ROVs using our unique, reliable drive system.
- Lock-latch available



All specifications are subject to change in line with Sub-Atlantic's policy of continual product improvement

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