

## TAUT WIRE – Z RANGE

### LIGHTWEIGHT TAUT WIRE DP REFERENCE SENSOR

#### System Specification

##### Description

Designed for use as a deck mounted DP reference system on vessels of opportunity or as a permanent installation, the SMT TW-1.1 system gives very accurate measurements of a vessel's movement referenced against the position of a 400kg depressor weight on the seabed. A constant tension electric driven winch positions the depressor weight on the seabed, using a full vector controlled variable speed drive for precise adjustments. Small vessel movements in all axes are measured by a gimbal head sensor and measurements are sent to the DP system via a programmable logic controller. A compact footprint, mobilisation ready design and multi-interface outputs means the TW-1.1 system is the Taut wire system of choice.

##### Features

- Compact & lightweight design (lower transport costs)
- Fits inside a standard ISO shipping container.
- Quick and easy mobilization
- Local and bridge control stations as standard (9" wide aspect full colour touch HMIs)
- 500m Water Depth range (700m cable installed on drum)
- Integrated control panel on skid base
- No air requirements
- Fail safe electric safety brake
- Both direct and converted angles can be used
- Multi interface output options available including:
  - Analogue/digital (4-20mA +10/-10V, 0-10V)
  - Serial string NMEA (RS422 or 485)

##### Options

- RS232 Serial
- Multiple spare parts packages
- Maintenance care cover
- Extended warranties



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Dimensions		Electrical Requirements	
Footprint	2.2 x 1.55m	Main supply	400-460 VAC 3-phase 50/60 Hz
Stored height	2.3m		45A feeder
Max height while deploying	2.8m		Approx. 13.5kW load
Overboard reach	3m		
Approx. weight	2300Kg	Aux control supply (UPS)	200-240 VAC
			single phase 50/60 Hz
			feed 300W

Environmental	
Temperature Deck Equipment	
• Storage	-25 to +70° C
• Operational	-25 to +50° C – no ice*
Temperature Bridge Equipment	
• Storage	-25 to +70° C
• Operational	-20 to +50° C
Ambient Humidity Operational	0 to 100% non-condensing
Relative Humidity Storage	0 to 100% non-condensing
Ingress Protection	
• Deck equipment	IP56
• Bridge equipment	IP55
Acoustic Noise	
• Mooring	Less than 60 dBA at 1m
• Heave / Lower	Less than 80 dBA at 1m

## Table of Accuracy - Water Depths and Angles

	Current 0 m / s		Current 0.5 m / s	
	10 Degrees	20 Degrees	10 Degrees	20 Degrees
100m	0.5 m	1.2m	2.7m	3.3m
200m	1.7 m	2.2m	10.5m	12.6m
300m	3.3 m	5.5m	22.0m	27.0m

Quoted figures are for reference only and do not factor in environmental conditions.

\* Ice on the deck equipment must be removed before the equipment is operated