



TAUT WIRE LIGHTWEIGHT TAUT WIRE DP REFERENCE SENSOR

The TW-1.0 Light Weight Taut Wire is a DP position reference system; which is designed for use as a deck-mounted sensor on surface vessels. The purpose of the unit is to provide accurate data of a surface vessel's movements with respect to the position of a depressor weight on the sea bed. A 4.9mm wire is maintained at a constant tension due to a 460Kg depressor weight on the sea-bed and an electrically driven winch operating in a heave compensation configuration. This is achieved using a full vector controlled variable speed drive. Vessel movements cause the tensioned wire to deviate from its initial angle; moving the gimbal head sensor which sends the updated signal to the DP system via the programmable automation controller.



KEY FEATURES

- Compact design (lower transport costs)
- Fits inside a standard ISO shipping container
- Low overall weight (Reduces transport cost)
- Quick and easy mobilization
- Competitively priced
- Short lead times
- Proven technology
- Operational depth up to 400 meters
- Up to 700 M of stored rope available
- Low stored and deploying height (more options on vessel installation)
- No air requirements
- No separate control panel
- 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 (RS232, RS422 or 485)
 - Ethernet (NMEA) all are available to suit any DP system philosophy
- Electric safety brake
- Local and bridge control stations as standard (9" wide aspect full colour touch HMIs)

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Dimensions:

Footprint:	2.2 x 1.55m
Stored height:	2.3m
Max height while deploying:	2.8m
Overboard reach:	3m
Approx. weight:	2300Kg

Electrical Requirements:

Main Supply:

400-460 VAC 3-phase 50/60Hz
45Amp feeder
Approx. 13.5kW load

Aux Control Supply (UPS):

200-240 VAC
single phase 50/60Hz
feed 300W

Options:

Multiple spare parts packages
Climate pack
Maintenance care cover
Extended warranty (up to 5 Years)

Environmental:

Temperature

Deck equipment

Storage:

Operational:

-25 to +70° C
-10 to +50° C
(with optional Climate
pack -20 to +65° C)

Bridge equipment

Storage:

Operational:

-25 to +70° C
0 to +50° C

Ambient humidity operational:

0 to 100%
non-condensing

Relative humidity storage:

0 to 100% non-
condensing

Ingress Protection

Deck equipment:

Bridge equipment:

IP56
IP55

Acoustic Noise

Mooring:

less than 60 dBA at 1 meter
distance

Heave/Lower:

less than 80 dBA at 1 meter
distance