



## Taut Wire System (TWS)

A peripheral DP reference sensor suitable for varied subsea vessel applications in up to 400 metre water depth

### Applications

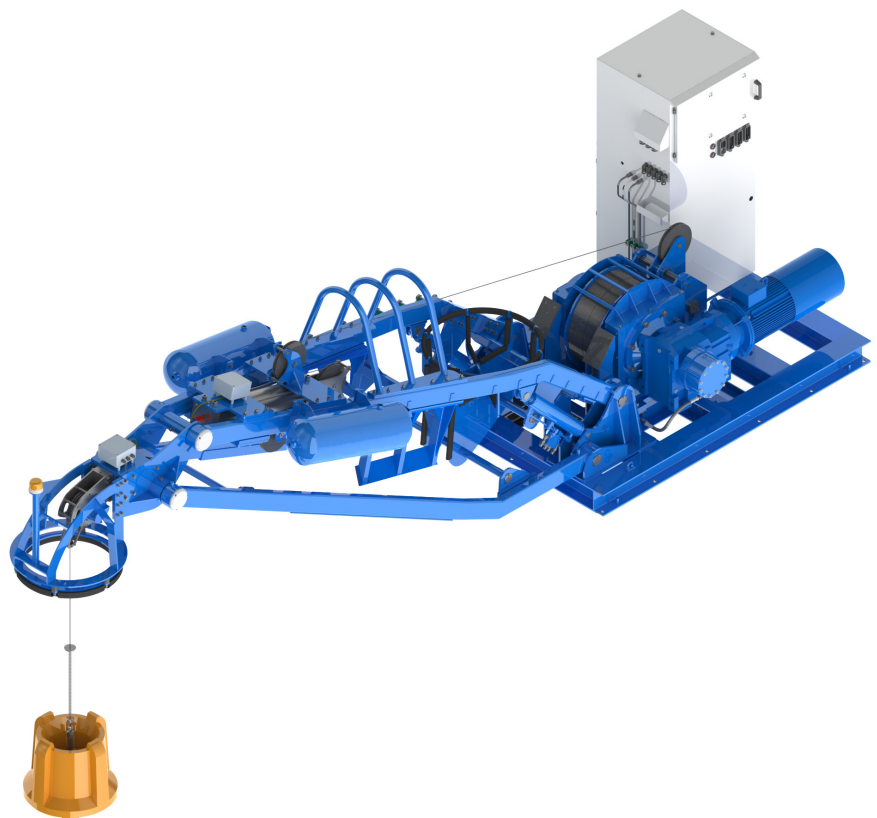
Dive support vessels  
Multi-purpose work vessels  
Construction vessels  
Intervention vessels  
Semi-submersibles

### Features

The unit is SIL2 certified and all external sensors are in stainless steel for operation in harsh environments  
The SIEMENS motor on the unit is tropicalised for use in any climate  
The breaking resistor is sized accordingly for continuous use of mooring mode  
The TWS unit does not require any air supply  
Advanced SIEMENS drive technology finitely controls the wire tension

Ashtead Technology's Taut Wire System (TWS) is designed to be an independent DP peripheral sensor that will operate in water depths up to 400 metres water depth and to integrate into a range of DP consoles. Once deployed, the system will provide continuous, uninterrupted data. It can be used in close proximity to installation and also in open water locations. The TWS system is ideally suited to DP equipped multi-purpose work vessels, DSVs, construction / intervention vessels and semi-submersibles operating up to 400m water depth deploying a hydraulic powered boom and cable winch.

The system proposed comprises the deck-mount Taut Wire unit with 500m of 4.9mm anti-spin wire and 460 kilos depressor weight, an external local control cabinet, an instrument cabinet, a bridge remote control panel, set of system manuals and basic field spares kit. The 460kg depressor weight is now offered as a standard weight and replaced a 360kg weight for a better performance in certain harsh conditions.



# Taut Wire System (TWS)

## Specifications



### System dimensions & weight

Inboard ( L x W x H)	2.20 x 1.60 x 3.75m
Outboard (L x W x H)	6.20 x 1.60 x 1.90m
Outboard reach	3.55m
Weight	Approximately 3,000 kilos

### Wire

Diameter and length	4.9mmØ x 500m (laid to drum - on-board level-wind system)
Velocity	Approx. 2m/sec
Constant tension control	150 – 300 kilos
Breaking strain	Wire rope breaking strain approx. 2,000 kilos

### Depressor weight

460kg depressor weight is standard (optionally 360 kg)

### Selectable outputs

- Hardwired analogue/digital
- Serial comms (custom strings to suit client needs)
- Ethernet comms (custom strings to suit client needs)

### Supply requirements

- 3-phase 440Vac approx. 50A
- Single phase 220Vac approx. 20A
- The newly revised Taut Wire System does not require any pneumatic air supply

Operator controls	Operator indicators	Panel mounted touch screens provide
High speed control push button	Weight landed indicator	In depth taut wire information
Emergency stop	System fault Indicator	System calibration
Local/Remote control switch	Emergency stop indicator	Maintenance
System reset/Acknowledge		Remote control
Manual operation at local control panel		
Fully integrated operational safety features		
Remote operator control panel		

### Built-in safety features comprising

- No boom arm movement allowed from the bridge remote control console
- User setting to slow weight down prior to touch-down – prolongs wire life
- Proximity sensors to prevent weight being pulled into gimbal head on retrieval
- Emergency stop button accessible on each system component

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