



KONGSBERG



TWC
cC-1

cC-1 Taut Wire Controller

Raw measurements from the taut wire position-reference system are subjected to a series of computational algorithms to compensate for distortions of the wire. The TWC cC-1 simulates the behaviour of the wire in the water using a physical model, the TWC cC-1 measurements (angle, tension and length) and the vessel's pitch, roll and heading information. Two effects are estimated in the physical model:

- Drag forces acting on the wire as the vessel moves
- Wire sag at large deviations from the vertical

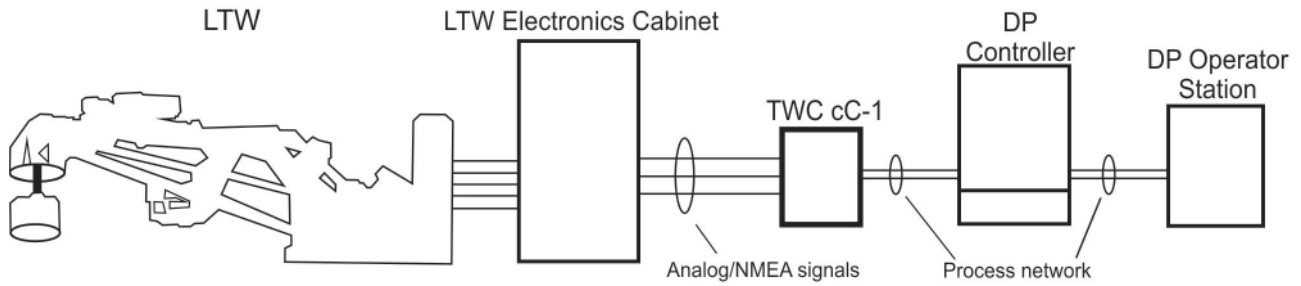
These effects are particularly strong when working in deep water, so the use of the TWC cC-1 is highly recommended when the DP operations are being conducted in sea-depths exceeding 150 metres.

APPLICATION

Improves the accuracy of the positional information from a Light weight Taut Wire (LTW) position reference system transmitted to a Dynamic Positioning system (DP).

Features

- Application software runs on an RCU
- Position accuracy improved to 1% of the water depth compared to 2% or 3% for raw measurements
- Stability of positional data enhanced by reducing oscillating effects
- Wall-mounted cabinet
- Dual LAN communications with DP controller
- Analog interfaces to LTW
- NMEA interface to LTW
- All service access from front door
- Built-in Test (BIT) facilities and error reporting system on the operator stations



TECHNICAL DATA

Standard applied	The equipment is designed to conform to the IEC 60945 standard
CE Marking	All equipment satisfies the relevant EU directives
Accuracy	Typically, the positional accuracy is better than 1% of the water depth, assuming negligible sea currents
Dimensions	Height: 800 mm Width: 600 mm Depth: 250 mm Weight: 40 kg
Electrical	Input voltage: 115/230 VAC (+10% to -15%) or 24 VDC (+30% to -25%). Frequency: 50 to 60 Hz Power consump.: 140 VA max. 285 W typical 140 W Loop power: max. 175 W typical. 70 W
Environmental spec.	Ambient temp. operational: -15 deg C to 55 deg. C storage: -25 deg. C to 70 deg. C Ambient humidity: operational: up to 100% rel. humidity (non-condensing) storage: up to 100% rel. humidity (non-condensing) Heat dissipation: Maximum: 110W Typical: 70 W Acoustic noise: <40 dB (A) at 1 m
Model	Unit name: TWC cC-1 Article no.: 319821 cC-1 Taut Wire Controller

