

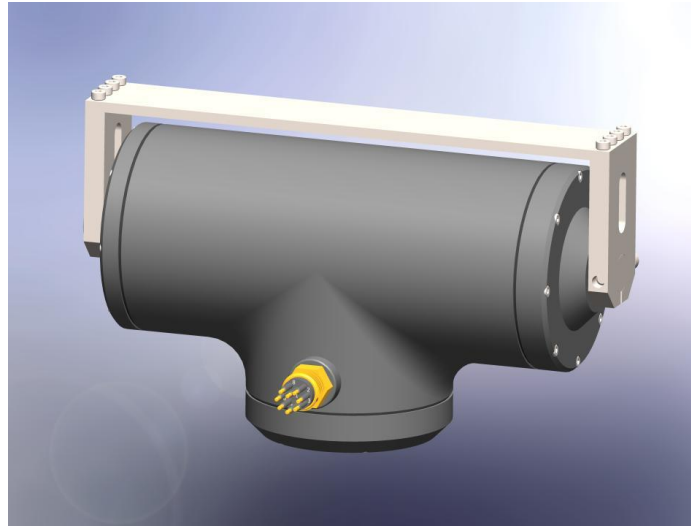


# OceanTools

## TT180

### Underwater Tilt Unit

The **OceanTools TT180** is a *rugged and compact* tilt unit with absolute positional feedback and low backlash harmonic drive, designed for a wide range of subsea and underwater applications.



## Overview

The **TT180** may be controlled via RS232, RS485 or by switching  $\pm 24\text{VDC}$  for upward and downward tilt. The unit offers **absolute positional feedback** rather than relative positional feedback, and remembers its tilt position – even after being powered down.

The unit is manufactured using extremely high quality components including brushless DC motor, low backlash harmonic drive and heavy duty bearings on the output shaft.

A simple-to-use graphical user interface is supplied free of charge with the **TT180** unit to allow control from a PC or laptop and allow command and display of parameters such as positional feedback, limit end-stops, etc.

Multiple units may be connected to a single RS485 twisted pair and a single 24VDC power supply.

## Key Features

- 3000m rated, oil compensated, compact and rugged
- High accuracy  $1^\circ$  absolute positional feedback
- Telemetry or voltage control



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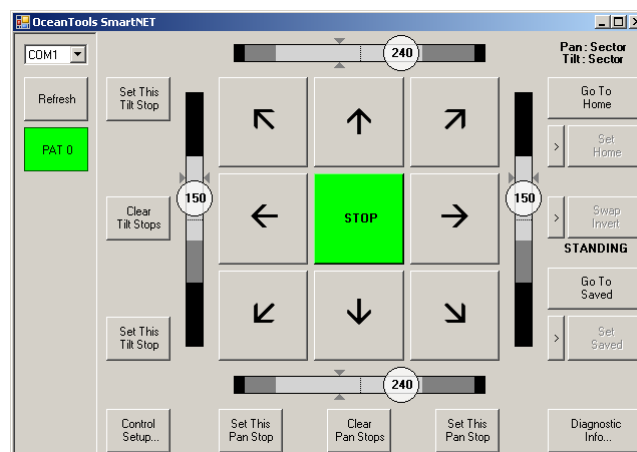
Specifications	
Tilt range	180°
Maximum output speed	5°/sec
Feedback resolution	1°
Voltage input	24VDC
Maximum current	1.0A @ 24VDC
Quiescent current	60mA @ 24VDC
Safe working load	10kg
Output torque	up to 6Nm
Gear backlash	34 arcmin
Standard connector	MCBH8M

Dimensions	
Height	180mm
Width	280mm
Depth (excl connector)	100mm
Weight in air	5kg
Weight in water (est)	2kg

Environmental	
Depth rating	3000m
Operating temperature	-20°C to +50°C
Housing material	Delrin and Stainless Steel

## Related Products

The **PT330** pan & tilt supports simultaneous movement in pan and tilt axes, with the same control options (RS232, RS485 or ±24VDC) and absolute positional feedback as the **TT180**. Multiple units may be controlled using the same control software via a single RS485 twisted pair.



Product datasheets, GA drawings, case studies and other supporting documents are available to download from [data.oceantools.co.uk](http://data.oceantools.co.uk)  
All specifications are subject to change without notice. E&OE.

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