

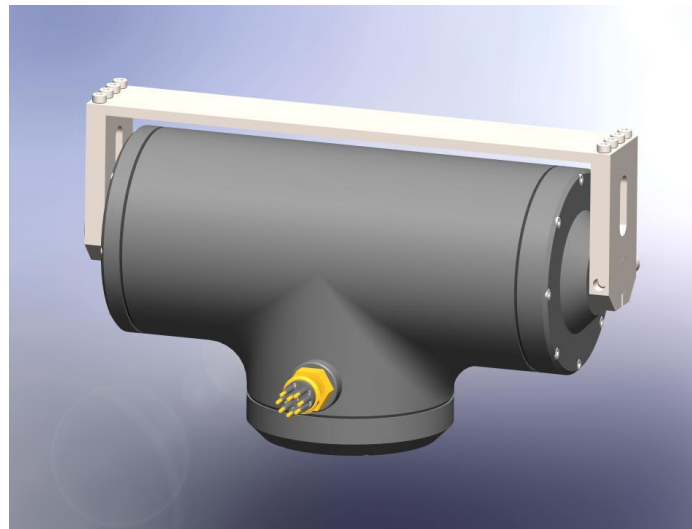


# OceanTools

## 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.

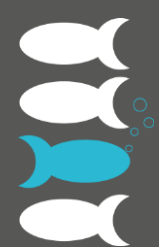
The unit is manufactured using extremely high quality components including brushless DC motor, low backlash harmonic drive and heavy duty bearings on the output shaft.

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° absolute positional feedback
- Telemetry or voltage control



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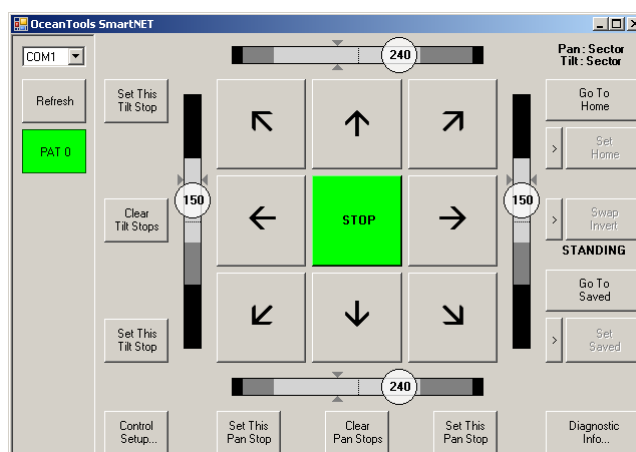
| Specifications       |              |
|----------------------|--------------|
| Tilt range           | 180°         |
| Maximum output speed | 5°/sec       |
| Feedback resolution  | 1°           |
| Voltage input        | 24VDC        |
| Maximum current      | 1.0A @ 24VDC |
| Quiescent current    | 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   |

| 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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