# MINITILT

# **Motion Sensor**

The Teledyne CDL MiniTilt is an OEM, surface or subsea pitch and roll sensor. It provides an accuracy of 0.05 degrees in both axes over the full 360 degree range. The unit can be provided in a surface or subsea (3,000m or 6,000m rated) package or can be supplied in an accurately machined mounting frame for OEM applications.

The MiniTilt is highly compatible with existing pitch and roll sensors. It uses a bank of 6 internal option switches to provide a total of 32 different output data formats.

The zero point can be factory set to any position. This allows for unusual mounting arrangements where the MiniTilt can be placed horizontally rather than vertically. The zero point can be set to any mark on the 360° angle so even offset mounting arrangements can be handled.



## **PRODUCT FEATURES**

- High accuracy (0.05°) low cost
- 3000m depth rated
- 6000m optional

- Full 360 degree range
- Gyro heading input
- 32 data strings options







## **TECHNICAL SPECIFICATIONS**

| Performance        | Data output                    | RS 232 and current loop                 |  |
|--------------------|--------------------------------|---|--|
|                    | Baud rate                      | 9600 (other rates available on request) |  |
|                    | Parity                         | None                                    |  |
| 8 Pin Connector    | 1 Vin (5 – 30VDC)              | Range 360°                              |  |
| (Burton or Binder) | 2 GND                          | Range 360°                              |  |
|                    | 3 CL Hi (output)               | Resolution 0.01°                        |  |
|                    | 4 CL Lo (output)               | Accuracy 0.05°                          |  |
|                    | 5 RS 232                       | Calibration points 128 (per sensor)     |  |
|                    | 6 RS 232                       |   |  |
|                    | 7 CL Hi (gyro input)           |   |  |
|                    | 8 CL Lo (gyro input)           |   |  |
|                    | Temperature coefficient        | 0.003°                                  |  |
|                    | Repeatability                  | 0.03°                                   |  |
|                    | Hysteresis                     | 0.05° (average)                         |  |
|                    | Noise                          | 0.01°                                   |  |
|                    | Frequency response             | 0.4 seconds (typical)                   |  |
|                    | Voltage                        | 3 – 50VDC                               |  |
|                    | Current consumption            | <10mA (@12VDC typical)                  |  |
|                    | Temperature range operating    | -30°C to +55°C                          |  |
|                    | Storage                        | -30°C to +65°C                          |  |
|                    | Surface and underwater housing | 85mm diameter                           |  |
|                    |                                | 104mm high                              |  |
| Dimensions         | Mount details                  | M4 65mm x 65mm – 4 holes                |  |
|                    | Weights in air/water           | 1.15kg/0.55kg                           |  |
|                    | Dimensions (no connector)      | 104mm x 87mm                            |  |
|                    | Weight of transit case         | 1.5kg                                   |  |
|                    | Dimensions of transit case     | 240 x 180 x 170mm                       |  |

COMPANY WITH
MANAGEMENT SYSTEMS
CERTIFIED BY DNV
= ISO 9001 =
= ISO 14001 =

Specifications subject to change without notice.
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