Horizon-HD

Helideck MRU

Vectory sensor systems

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Horizon HD Helideck MRU

The Vectory Sensor Systems Horizon-HD is a Helideck Motion Reference Unit (MRU) tailored for meeting the requirements set out in CAP 437 “Standards for offshore helicopter landing areas”.

Perfect for the job

The Horizon-HD MRU has been designed especially for CAP 437, so the accelerometers and gyros employed within are especially selected to give the optimal performance in Helideck applications. The algorithms have also been tuned especially for this. All the way down to the output strings from the gyros, which outputs heave rate that mentioned specifically in CAP437.

No recalibration necessary (“Install and forget”)

CAP437 specifically states, that the roll and pitch angles should be relative to the true horizon. One problem with traditional MRUs is that the accelerometers that are used to measure the tilt angles suffer from long-term drift.

One of the main advantages of the Horizon-HD over regular motion sensors is the negligible long-term drift in pitch and roll, which means that this recalibration of the sensor is not necessary. This avoids the costly affair of having to return the sensor for periodic recalibration every 1-2 years, which can result in downtimes for the Helideck Monitoring System. It is an “install and forget” sensor, which require no recalibration once installed.

High accuracy roll and pitch

The Horizon-HD fuses raw data from a triad of high-accuracy accelerometers and gyros using an advanced Extended Kalman Filter to output accurate measurements of roll, pitch, heave and heave rate.

High accuracy heave and heave rate

The Horizon-HD has both heave and heave rate outputs. CAP437 uses heave rate as the limiting factor, so the heave rate output from the Horizon-HD could be used directly. Using the heave rate output, instead of using the heave output, and calculating the heave rate from this, results in a much more stable reading, and higher accuracy.

Several output formats possible

The Horizon-HD supports RS232, RS485 and RS422 outputs as standard. Feel free to contact us, using the form on the right, if you require another output format, such as Ethernet. We would be happy to implement your interface requirements in our sensor.

Vectory Sensor Systems

Web: www.vectory.com
Email: info@vectory.com

Horizon-HD MRU

Accuracy:

- Heave: 5 cm / 5%
- Heave rate: 0.1 m/s
- Dynamic roll and pitch: 0.1° absolute
- Roll and pitch repeatability: 0.1°

Ranges:

- Rotation rate: +/- 200 deg/s
- Acceleration: +/- 3 g
- Roll and pitch: +/-10°

Voltages:

- Input: 9 - 60VDC (<2W)

Connectivity:

- 2 Serial ports (RS232/422/485 selectable)
- Ethernet optional

Housing:

- IP68 and 3000m depth rated subsea housing

Output strings:

- PVEC-URAD, TSS1, MiniTilt, custom.

Specifications subject to change without further notice

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