



The RAS-2-10 combines a dual axis (pitch and roll) inclinometer sensor with a remote readout unit that can simultaneously indicate both angles up to a maximum of $\pm 10^\circ$ with a resolution of 0.01° . A separate RS232 output also allows the angle data to be monitored or logged.

Features

- Dual axis measurement
- Simultaneous readout of both X and Y (pitch and roll) axes
- $\pm 10^\circ$ measurement range
- 0.01° display resolution
- $\pm 0.05^\circ$ accuracy
- Sensor sealed to IP67
- Display sealed to IP65
- IP67 sealed cables and connectors
- Can be supplied with cable lengths up to 100m
- Extremely rugged, designed for use in tough environments.
- RS232 output for monitoring or data logging



Product Description

The Sensor Unit : For ruggedness and to ensure good sealing, the housing is machined from a solid aluminium block. The sensor is a high precision MEMS device, which is interfaced through an onboard processor. This stores calibration data and converts the output into a digital format to send to the display unit.

The Cables : The cable from the sensor to the display is a 6mm screened cable. The connectors are military spec IP67 bayonet locking type. The second cable from the display is a two core power cable with a red and black core to connect to the power supply +ve and ground respectively. The third cable is an RS232 interface cable from the display unit, terminated in a 9 pin D connector (for direct connection to a PC serial port). Standard cable lengths are 10m for all 3 cables but other lengths can be specified at the time of ordering.

The Display : The display unit is extremely rugged and is machined from a single piece of Aluminium. It has two 20mm LED displays and will simultaneously display the X and Y axis output. The ABS/REL button switches between absolute and relative measurement mode, and the CAL button allows the absolute zero position to be re-calibrated. There are three sealed locking connectors, one for the sensor unit, one for the RS232 output and the other to connect to an external power source. These are supplied with caps so they can be sealed when not in use.

Specifications

Part Number	RAS-2-10
Range	$\pm 10^\circ$ - Dual Axis
Resolution	0.01°
Accuracy	$< \pm 0.05^\circ$ (at 20°C)
Display Refresh	0.5 seconds
Supply Voltage	8-36V (DC)
Operating Current	$< 120\text{mA}$ (@12V)
Cable Length	1-100m (specify with order)
Dimensions	
Sensor	88 x 88 x 45mm (w x d x h)
Display	150 x 126 x 34mm (w x d x h)
Weight	
Sensor	330g
Display	1050g
Operating Temp	-40 to 85°C
Sealing	
Sensor	IP67
Connectors	IP67
Display	IP65