

# Dynascan® M250

[www.renishaw.com](http://www.renishaw.com)

## Specification

	Dynascan M250 (single head)	Dynascan M250 (dual head)
<b>Laser module</b>		
<b>Laser classification (BS EN 60825-1: 2007)</b> (21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser No. 50, dated 24 June 2007)	Class 1	Class 1
<b>Type</b>	InGaAs laser diode	InGaAs laser diode
<b>Wavelength (typ)</b>	905 nm	905 nm
<b>Accuracy*</b>	± 5 cm	± 5 cm
<b>Maximum energy per pulse</b>	0.461 µJ	0.461 µJ
<b>Beam divergence</b>	2.25 × 0.15 mrad	2.25 × 0.15 mrad
<b>Range resolution</b>	1 cm	1 cm
<b>Maximum range</b>	250 m	250 m
<b>Minimum range</b>	0.5 m	0.5 m
<b>Lens aperture size and location</b>	28 mm (location at front of module)	28 mm (location at front of module)
<b>Scanner field of view</b>	360°	360°
<b>Scanner angle resolution</b>	0.01°	0.01°
<b>Scan rate</b>	20 Hz (1200 rpm)	2 × 20 Hz (1200 rpm)
<b>Beam footprint at 50 m</b>	130.5 mm × 92.5 mm	130.5 mm × 92.5 mm
<b>Pulse measurement rate (points per second)</b>	36000	72000
<b>Physical data</b>		
<b>Power</b>	12 to 17 V dc 135 W	12 to 17 V dc 230 W
<b>Weight</b>	14.8 kg	23 kg
<b>Environmental</b>		
<b>Water and dust resistant**</b>	IP65	IP65
<b>Operating temperature</b>	-10 °C to +50 °C	-10 °C to +50 °C
<b>Storage temperature</b>	-40 °C to +85 °C	-40 °C to +85 °C
<b>Positioning system</b>		
<b>Positioning accuracy (RTK)</b>	2 cm	2 cm
<b>Pitch-and-roll accuracy (1σ)</b>	0.03°	0.03°
<b>Dual GNSS antenna heading accuracy (1σ) ***</b>	0.1°	0.1°
<b>Corrections</b>	Options to take corrections from various sources	Options to take corrections from various sources

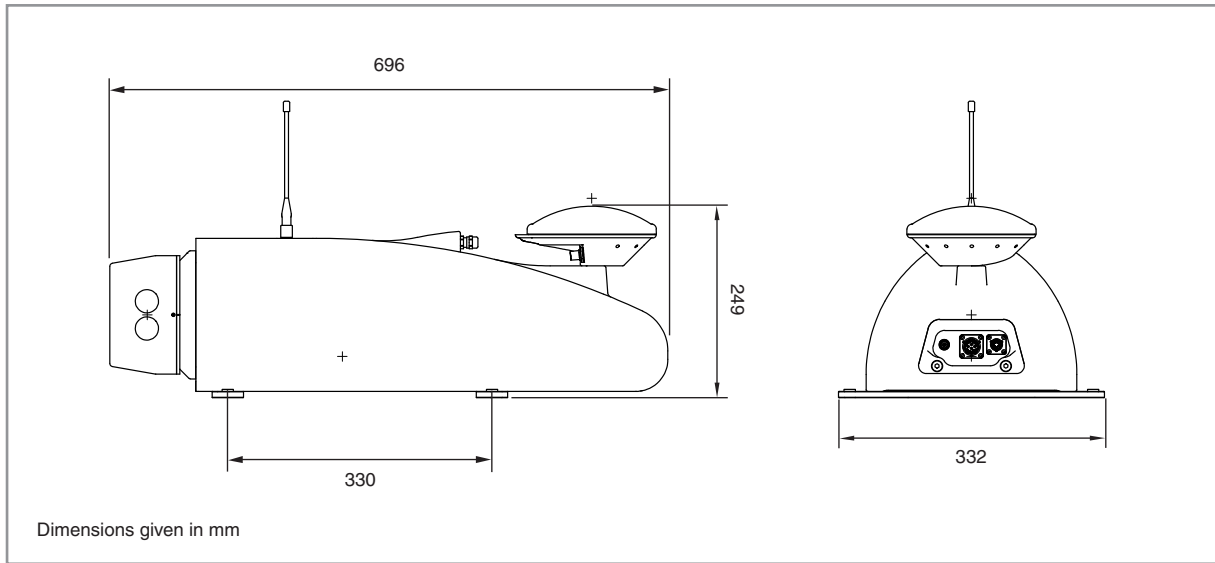
\* Max measuring accuracy recorded at 50 m against Kodak white card (90% reflectivity) to 1σ. Accuracy is defined as the degree of conformity of the measured sample mean range to its actual (true) value, measured with reference to a total station.

\*\* Environmental protection is tested in accordance with IEC 60529 (2001).

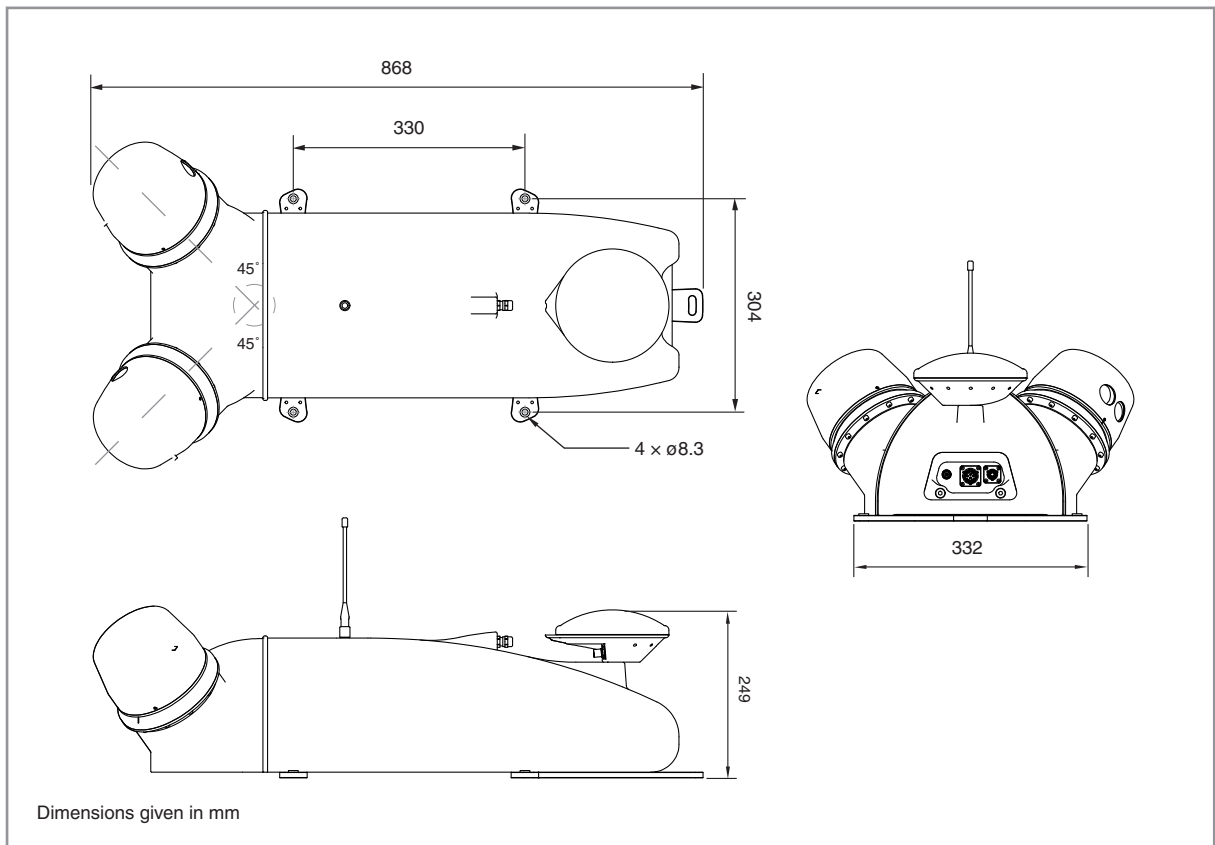
\*\*\* Accuracy is defined as the degree of conformity of the measured sample mean angle to its actual (true) value, measured with reference to a total station.

For further information and the best possible application and performance support please contact Renishaw or visit [www.renishaw.com/mapping](http://www.renishaw.com/mapping)

## Dynascan M250 single head dimensions



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