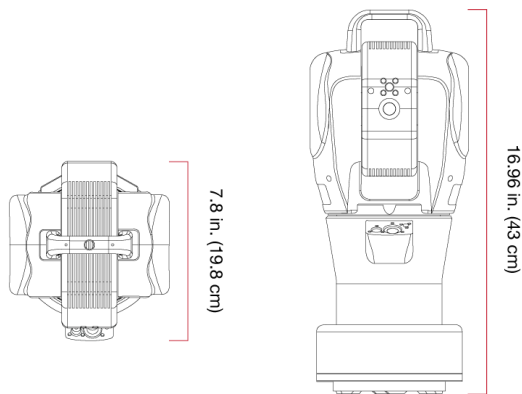




OMNITRAC 2

Wireless Laser Tracker



ASME B89.4.19-2006 Standard (MPE)

Angular Performance

Angular Accuracy (MPE) $\pm 18 \mu\text{m} + 5 \mu\text{m}/\text{m}$

Distance Performance

ADM Accuracy (MPE) $\pm 15 \mu\text{m} + 1.5 \mu\text{m}/\text{m}$

MPE values were calculated per B89.4.19-2006 Standard. For comparison, variation in air temperature is not included.

Parameter

Specification

Range of Measurements	
Linear Range (Diameter):	200 m (with selected targets) 160 m (525 ft with 80m target)
System Performance	
Azimuth Range:	$\pm 320^\circ$ (640° end to end)
Elevation Range:	+ 79° / -59°
Angular Resolution:	± 0.018 arc seconds
Angular Accuracy:	$\pm 18 + 5\text{ppm}$
System Resolution:	0.02 arc seconds
Maximum Lateral Target Speed:	180° / sec
Maximum Acceleration:	> 2 g
Maximum Battery Life:	6 hours
Internal Level Accuracy:	± 2 arc-second
Internal Level Range:	± 3 degrees
ADM2	
IR Laser (ADM-Maxx™):	Class I (eye safe)
Accuracy:	$\pm 15 \mu\text{m} + 1.5 \mu\text{m}/\text{m}$
Resolution:	0.1 μm (0.0000039 in)
Environmental	
Operating Temperature:	-10° C to > 45° C
Storage Temperature:	-10° C to 60° C
Barometric Pressure:	8 mmHg - 825 mmHg
Relative Humidity:	10-95% non-condensing
Altitude:	3000 m (9842.49 ft)
Autolock (Automated Target Search)	
Full range pointing accuracy:	2"
Field of Vision:	$\pm 12.5^\circ$ (diagonal)
Dimensions	
Tracker Weight:	10.9 kg (24 lb)
Tracker Size:	Height: 16.95 inches (43 cm) Width: 7.8 inches (19.8 cm)

In-Line Distance Measurement

Horizontal Scale Bar Measurement

Range (m)	ADM 2 MPE (mm)
2	0.018
2 to 5	0.023
2 to 10	0.030
2 to 20	0.045
2 to 30	0.060
2 to 40	0.075
2 to 50	0.090
2 to 60	0.105
2 to 80	0.135

Range (m)	ADM 2 MPE (mm)
2	0.042
5	0.065
10	0.101
20	0.173
30	0.245
40	0.317
50	0.390
60	0.462
80	0.606