



iLT and iLTx Laser Tracker

ESSENTIAL SPEED, ACCURACY, PORTABILITY

iLT (Integrated Laser Tracker) is a high-performance Laser Tracker that delivers essential measurement capability at a very portable package and affordable price. It's compact and wireless operation allows for high accuracy measurement with portability and ease-of-use, featuring several performance upgrades over previous models.

FEATURES & BENEFITS

- **Absolute Distance Measurement (ADM)** - iLT and iLTx use a high-accuracy ADM laser, with a data acquisition rate of 1Khz.
- **8MP iVision Camera with Live Streaming** - iLT's 8MP camera with iVision improves on the previous IR camera for better target selection and Autolock functionality for beam recapture and confined measurements.
- **Size and Weight** - iLT is half the size and weight of our current Radian tracker models, due to the significant reduction in size and weight there are endless application possibilities.
- **Dual Level Design** - The dual level construction (instead of single level models) allows for dynamic accessory use.
- **Portability and Flexibility** - At less than 5 kg, iLT can be mounted in any orientation and fits in a small carry-on case.
- **Fully Integrated Unit** - The integrated controller and cableless operation allows for measurement in more confined spaces without hazard.
- **On-Board Wireless Technology** - Integrated Wi-Fi reduces set-up time and eliminates fuss.
- **Battery Operation** - iLT can measure for up to 4 hours without an AC power source. Additional external batteries can extend measurement time.
- **Environmental Compensation** - onboard weather station ensures accuracy in different operating conditions from -10° C to 45° C.
- **GPU "AI Enhanced"** - Traditional CPU has been replaced with the state-of-the-art latest graphic processing unit for faster data and image processing.



API

iLT and iLTx Laser Tracker

Product Specifications		
Range of Measurements	iLT	iLTx
Linear Range (Diameter)	25m Radial	80m Radial
Minimum Measurement Distance	0m	0m
Azimuth Range	± 320° (640° end to end)	± 320° (640° end to end)
Elevation Range	-59° to 79°	-59° to 79°
Internal Level Range	± 5°	± 5°
3D Measurement Performance		
Volumetric Accuracy	±15 µm + 10 µm/m*	±15 µm + 5 µm/m*
Angular Performance		
Axial Angular Accuracy	3.5 µm/m**	3.5 µm/m**
Maximum Angular Speed	180° / sec	180° / sec
Maximum Angular Acceleration	180° / sec ²	180° / sec ²
Internal Level Accuracy	± 2 arcseconds	± 2 arcseconds
Linear Performance		
Accuracy	±15 µm + 2µm/m*	±15 µm + 0.7µm/m*
Autolock Performance		
Field of View	30° (diagonal)	30° (diagonal)
Acquisition Range	2m to 25m	2m to 40m
Environmental		
Operating Temperature	-10°C to 45°C	-10°C to 45°C
Relative Humidity	10-95% non-condensing	10-95% non-condensing
Altitude	-700m to 3000m	-700m to 3000m
Dimensions		
Tracker Weight	4.9 kg (11lbs) with battery	4.9 kg (11lbs) with battery
Tracker Size	330mm x 152mm x 152 mm (13in x 6in x 6in)	330mm x 152mm x 152 mm (13in x 6in x 6in)
Internal Controller		
Battery Operation	8 hours (typical)****	8 hours (typical)****
Communication Protocol	Ethernet - WiFi 802.11a/b/g/n	Ethernet - WiFi 802.11a/b/g/n



VOLUMETRIC ACCURACY (MPE)

*Measurement of a ScaleBar per ASME B89.4.19-2006

**Specifications are listed in MPE

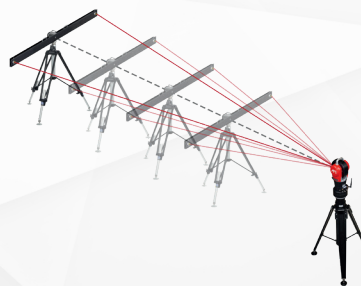
***Capable of hot-switching with External battery

Laser Safety: Class II (IEC60825-1)



IN-LINE DISTANCE MEASUREMENT

Range	MPE iLT	MPE iLTx
2 to 5 m	0.025 mm	0.018 mm
2 to 10 m	0.035 mm	0.022 mm
2 to 25 m	0.065 mm	0.033 mm
2 to 50 m	--	0.050 mm



SCALE BAR MEASUREMENT

Range	MPE	MPE
2 m	0.070 mm	0.035 mm
5 m	0.114 mm	0.057 mm
10 m	0.184 mm	0.092 mm
25 m	0.326 mm	0.163 mm
50 m	--	0.375 mm

The **ASME B89.4.19-2006 standard** prescribes a series of tests for evaluating the performance of spherical measurement systems. These values represent the Maximum Permissible Error (MPE) between a verified Scale Bar and the expected performance of the instrument.

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