



LEICA ABSOLUTE TRACKER AT960

ASME B89.4.19-2006 Specifications

Some laser tracker producers do not publish their MPE values as specifications. Instead they use their typical accuracy which is stated as half of their MPE values. To be able to compare specifications side by side the Leica Absolute Tracker AT960 specifications have been converted to reflect both MPE and typical (or half MPE) values.



IN-LINE DISTANCE MEASUREMENT

Range (m)	ADM (mm)	IFM (mm)	ADM (mm)	IFM (mm)
	MPE values		Typical values	
2 to 5	0.014	0.001	0.007	0.001
2 to 10	0.014	0.003	0.007	0.001
2 to 20	0.014	0.005	0.007	0.003
2 to 30	0.014	0.008	0.007	0.004
2 to 35	0.014	0.010	0.007	0.005
2 to 40	0.014	0.011	0.007	0.006
2 to 60	0.014	0.017	0.007	0.009
2 to 80	0.014	0.023	0.007	0.012





ASME B89.4.19-2006 SPECIFICATIONS

All specifications are calculated per the ASME B89.4.19 standard. Information is from the most recent Leica Absolute Tracker AT960 specifications. To allow for comparison, variation in air temperature is not included.

HORIZONTAL SCALE BAR MEASUREMENT

Range (m)	ADM (mm)	IFM (mm)	ADM (mm)	IFM (mm)
	MPE values		Typical values	
2	0.036	0.036	0.018	0.018
5	0.063	0.063	0.032	0.032
10	0.106	0.106	0.053	0.053
20	0.191	0.191	0.096	0.096
30	0.276	0.276	0.138	0.138
35	0.318	0.318	0.159	0.159
40	0.361	0.361	0.180	0.180
60	0.530	0.530	0.265	0.265
80	0.700	0.700	0.350	0.350



PERFORMANCE

	MPE values	Typical values
Angle Performance Angular accuracy	$\pm 15 \mu\text{m} + 6 \mu\text{m}/\text{m}$	$\pm 7.5 \mu\text{m} + 3 \mu\text{m}/\text{m}$
Distance Performance <u>ADM</u> Accuracy	$\pm 10 \mu\text{m}$	$\pm 5 \mu\text{m}$
<u>Interferometer</u> Accuracy	$\pm 0.4 \mu\text{m} + 0.3 \mu\text{m}/\text{m}$	$\pm 0.2 \mu\text{m} + 0.15 \mu\text{m}/\text{m}$
R0 Parameter	$\pm 3 \mu\text{m}$	

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