



FRACTION ACCURACY REFERENCE

Leveling Accuracy - Fractions of an inch / 100 feet

Category	Model	Accuracy in even 64ths ¹	Accuracy decimal 64ths	Distance
OL	AP-120	3/64 inch	2.61 / 64 inch	100 ft
OL	AP-124	3/64 inch	2.61 / 64 inch	100 ft
OL	AFL-240 / AL-240	3/64 inch	2.53 / 64 inch	100 ft
OL	AP-128	2/64 inch	2.42 / 64 inch	100 ft
OL	AFL-280 / AL-270	2/64 inch	2.35 / 64 inch	100 ft
OL	AFL-320 / AL-320	2/64 inch	2.01 / 64 inch	100 ft
EA	ETH-320	17/64 inch ³	16.94 / 64 inch	100 ft
EA	ETH-310	9/64 inch	9.40 / 64 inch	100 ft
EA	ETH-305	6/64 inch	5.77 / 64 inch	100 ft
EA	ETH-302	4/64 inch	3.54 / 64 inch	100 ft

Range - Optical

Model	Magnification	Read a rod at: ²
AP-120	20	250 feet
AL-240 / AFL-240 / AP-124	24	330 feet
AL-270	27	390 feet
AFL-280 / AP-128	28	410 feet
ETH-320 / ETH-310 / ETH-305 / ETH-302	30	450 feet
AL-320, AFL-320	32	490 feet

Notes

OL	Optical Level
EA	Electronic Angle Instrument
1	Resolution + reticle width + (± compensator) = Total angle angular error @ 100 feet rounded up to the nearest 64th
2	Discern slant of graduation mark - up or down
3	Resolution + reticle width + (± compensator / vial reading accuracy) + (± angle accuracy) = Total angle angular error @ 100 feet rounded up to the nearest 64th

Leveling Accuracy - Fractions of an inch / multiple 100 feet

Model	100 feet	200 feet	300 feet	400 feet	500 feet
AP-120	3/64	6/64	--	--	--
AP-124	3/64	6/64	8/64	--	--
AFL-240 / AL-240	3/64	5/64	8/64	10/64	--
AP-128	3/64	5/64	8/64	10/64	--
AFL-280 / AL-270	2/64	5/64	7/64	9/64	--
AFL-320 / AL-320	2/64	4/64	6/64	8/64	10/64
ETH-320	17/64	33/64	51/64	68/64	85/64
ETH-310	9/64	19/64	28/64	38/64	47/64
ETH-305	6/64	12/64	17/64	23/64	29/64
ETH-302	4/64	7/64	11/64	14/64	18/64

Angle Accuracy - Fractions of an inch / feet

DIN Accuracy	100 feet	200 feet	300 feet	400 feet	500 feet
20"	7/64	15/64	22/64	30/64	37/64
10"	4/64	7/64	11/64	15/64	19/64
5"	2/64	4/64	6/64	7/64	9/64
2"	1/64	1/64	2/64	3/64	4/64