

SPECIFICATION SHEET

PERFORMANCE SPECIFICATIONS

Measurements

Angle measurement

Accuracy (Standard deviation based on DIN 18723)

1.5" model	1.5" (0.5 mgons)
3" model	3" (1.0 mgons)
5" model	5" (1.5 mgons)

Angle reading (least count)

Horizontal & vertical

Standard measurement	1" (0.1 mgon)
Fast Standard	1" (0.1 mgon)
Tracking	2" (0.5 mgon)

Automatic level compensator

Dual-axis compensator ±6' (±100 mgon)

Distance measurement

Accuracy (standard deviation)

Prism

Standard measurement	±(3 mm + 3 ppm) ±(0.01 ft + 3 ppm)
Fast Standard	±(8 mm + 3 ppm) ±(0.025 ft + 3 ppm)
Tracking	±(10 mm + 3 ppm) ±(0.032 ft + 3 ppm)

Reflective foil

Standard measurement	±(3 mm + 3 ppm) ±(0.01 ft + 3 ppm)
Fast Standard	±(8 mm + 3 ppm) ±(0.025 ft + 3 ppm)
Tracking	±(10 mm + 3 ppm) ±(0.032 ft + 3 ppm)

Reflectorless mode 5–200 m (16.4 ft–656 ft)

Standard measurement	±(3 mm + 3 ppm) ±(0.01 ft + 3 ppm)
Fast Standard	±(8 mm + 3 ppm) ±(0.025 ft + 3 ppm)
Tracking	±(10 mm + 3 ppm) ±(0.032 ft + 3 ppm)
> 200 m (656 ft)	±(5 mm + 3 ppm) ±(0.016 ft + 3 ppm)

Shortest possible range

To prism	.2 m (6.56 ft)
Reflectorless	.2 m (6.56 ft)
Reflective foil	.2 m (6.56 ft)

Measuring time

Prism mode

Standard measurement	3 s
Fast Standard	3 s
Tracking	0.4 s

Reflectorless mode

Standard measurement	3–7 s
Fast Standard	3–7 s
Tracking	0.4 s

Range (under standard clear conditions*)

Range using prism

1 prism	2,500 m (8,200 ft)
1 prism Long Range	5,500 m (18,040 ft) (max. range)
3 prisms	3,500 m (11,480 ft)
3 prisms Long Range	5,500 m (18,040 ft) (max. range)

Range using reflective foil

Reflective foil 20 mm	180 m (590 ft)
Reflective foil 20 mm Long Range	800 m (2,624 ft)
Reflective foil 60 mm	360 m (1,181 ft)
Reflective foil 60 mm Long Range	1,600 m (5,248 ft)

Range Reflectorless measurement (typically)

Kodak Gray Card(18% reflective)**	> 200 m (656 ft)
Kodak Gray Card(90% reflective)**	> 600 m (1,968 ft)
Concrete	200–300 m (656–984 ft)
Wood construction	150–300 m (492–984 ft)
Metal construction	150–200 m (492–656 ft)
Light rock	150–250 m (492–820 ft)
Dark rock	100–150 m (328–492 ft)

GENERAL SPECIFICATIONS

Light source Pulsed laserdiode 870 nm, Laser class 1

Beam divergence

Horizontal	0.4 mrad (4 cm/100 m) (0.13 ft/328 ft)
Vertical	0.8 mrad (8 cm/100 m) (0.26 ft/328 ft)

Atmospheric correction -60 to 195 ppm continuously

Leveling

Circular level in tribrach	8' / 2 mm (8' / 0.007 ft)
Electronic 2-axis level in the LC-display with a resolution of	.6" (2 mgon)

Clamps and slow motions Servo-drive. Endless fine adjustment

Centering

Centering system	3-pin
Optical plummet	Optical plummet in tribrach
Magnification	2.4×
Shortest focusing distance	0.5 m (1.6 ft) to infinity

Telescope

Magnification	26×
Trunnion axis height	205 mm (8.1 in)
Aperture	40 mm (1.57 in)
Field of view at 100 m (328 ft)	2.6 m (8.5 ft)
Shortest focusing distance	1.7 m (5.58 ft) to infinity
Illuminated crosshair	Variable (15 steps)

Operating temperature -20 °C to +50 °C (-4 °F to +122 °F)

Power Supply

Internal battery	Rechargeable NiMH battery 12 V, 1.8 Ah
External battery	External rechargeable NiMH batteries, 12 V, 3.8–11.4 Ah

Weight

Instrument with Focus CU	6.4 kg (14.1 lb)
Tribrach	0.7 kg (1.5 lb)
Internal battery	0.4 kg (0.9 lb)

Memory

Onboard > 10,000 points

NOTICE TO OUR EUROPEAN UNION CUSTOMERS

For product recycling instructions and more information, please go to www.spectraprecision.com/ev.shtml.

Recycling in Europe:

To recycle Spectra Precision WEEE (Waste Electrical and Electronic Equipment products that run on electrical power), call +31 497 53 24 30, and ask for the "WEEE Associate". Or, mail a request for recycling instructions to:
Spectra Precision, c/o Menlo Worldwide Logistics, Meerheide 45, 5521 DZ Eersel, NL.



* Standard clear: No haze, overcast or moderate sunlight with very light heat shimmer. Range and accuracy are dependent on atmospheric conditions and background radiation.

** Kodak Gray Card, Catalog number E1527795.

Specifications and descriptions are subject to change without prior notice.

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