

SPECTRA PRECISION®

FOCUS® 6 TOTAL STATION

SPECSHEET

DISTANCE MEASUREMENT

Reflectorless mode (white target) ¹	1.5 m to 300 m (4.9 ft to 984 ft)
Range with specified prisms	
Good conditions (No haze, visibility over 40 km (25 miles))	
With reflector sheet 5 cm x 5 cm (2 in x 2 in)	
2"	1.5 m to 270 m (4.9 ft to 886 ft)
5"	1.5 m to 300 m (4.9 ft to 984 ft)
With single prism 6.25 cm (2.5 in)	
2"	1.5 m to 3,000 m (4.9 ft to 9,843 ft)
5"	1.5 m to 5,000 m (4.9 ft to 16,404 ft)
Accuracy ² (Precise mode)	
2" Prism	±(2+2 ppm x D) mm
2" Reflectorless	±(3+2 ppm x D) mm
5" Prism	±(3+2 ppm x D) mm
5" Reflectorless	±(3+2 ppm x D) mm
Measuring interval ³	
Prism mode	
2" Precise mode	1.6 sec.
5" Precise mode	1.5 sec.
Normal mode	0.8 sec.
Reflectorless mode	
2" Precise mode	2.1 sec.
5" Precise mode	1.8 sec.
2" Normal mode	1.2 sec.
5" Normal mode	1.0 sec.
Least count	
Precise mode	1 mm (0.002 ft)
Normal mode	10 mm (0.02 ft)

ANGLE MEASUREMENT

DIN 18723 accuracy (horizontal and vertical)	2"/0.5 mgon
	5"/1.5 mgon
Reading system	Absolute encoder
Circle diameter62 mm (2.4 in)
Horizontal angle	Diametrical
Vertical angle	Single
Minimum increment (Degree, Gon, MIL6400)	Degree: 1/5/10"
	Gon: 0.2/1/2 mgon
	MIL6400: 0.005/0.02/0.05 mil

TELESCOPE

Tube length	125 mm (4.9 in)
Image	Erect
Magnification	30x (18x/36x with optional eyepieces)
2" Effective diameter of objective40 mm (1.6 in)
2" EDM diameter45 mm (1.8 in)
5" Effective diameter of objective45 mm (1.8 in)
5" EDM diameter50 mm (2.0 in)
Field of view	1°20'
Resolving power3"
Minimum focusing distance	1.5 m (4.9 ft)
Laser Pointer	Coaxial Red Light

TILT SENSOR

Type	Dual-axis
Method	Liquid-electric detection
Compensation range	±3.5'

- 1 White objects with high reflectivity (KGC 90%). Measuring distance may vary depending on targets and measuring conditions.
- 2 ±(3+3 ppm x D) mm -20 °C to -10 °C, +40 °C to +50 °C (-4 °F to +14 °F, +104 °F to +122 °F)
- 3 Measuring time may vary depending on measuring distance and conditions. For the initial measurement, it may take a few more seconds.
- 4 Battery life specification at 25 °C (77 °F). Operation times may vary depending on the condition and deterioration of the battery.

Specifications subject to change without notice.

COMMUNICATIONS

Communication ports	1 x serial (RS-232C)
Wireless communications	integrated Bluetooth

POWER

Internal Li-ion battery (x2)	
Output voltage	3.8 V DC
Operating time ²	
2"	approx. 19 hours (continuous distance/angle measurement)
5"	approx. 57 hours (distance/angle measurement every 30 seconds)
	approx. 62 hours (continuous angle measurement)
2"	approx. 10 hours (continuous distance/angle measurement)
5"	approx. 26 hours (distance/angle measurement every 30 seconds)
	approx. 31 hours (continuous angle measurement)

Charging time

Full charge	4 hours
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GENERAL SPECIFICATIONS

Level vials	
Sensitivity of Circular level vial	10'/2 mm
Optical plummet	
Image	Erect
Magnification	3x
Field of view	5°
Focusing range	0.5 m (1.6 ft) to ∞
Display	Single side, backlit, graphic LCD (128x64 pixel)
Laser plummet (optional)	4 levels
Point memory	10,000 records
Dimensions (W x D x H)	149 mm x 145 mm x 306 mm
	(5.8 in x 5.7 in x 12.0 in)
Weight (approx.)	
2" Main unit (without battery)	3.8 kg (8.4 lb)
5" Main unit (without battery)	3.6 kg (8.0 lb)
Battery	0.1 kg (0.2 lb)
Carrying case	2.3 kg (5.1 lb)

ENVIRONMENTAL

Operating temperature range	-20 °C to +50 °C (-4 °F to +122 °F)
Storage temperature range	-25 °C to +60 °C (-13 °F to +140 °F)
Atmospheric correction	
Temperature range	-40 °C to +60 °C (-40 °F to +140 °F)
Barometric pressure400 mmHg to 999 mmHg/533 hPa to 1,332 hPa/15.8 inHg to 39.3 inHg
Dust and water protection	IP66

CERTIFICATION

Class B Part 15 FCC certification, CE Mark approval. C-Tick.
 Laser safety IEC 60825-1 am2:2007
 2" Reflectorless / Laser Pointer: Class 3R laser
 2" Prism mode: Class 1 laser
 5" Reflectorless / Prism mode: Class 1 laser
 5" Laser Pointer: Class 2 laser
 Laser Plummet (optional): Class 2 laser
 Bluetooth type approvals are country specific.



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