



Leica TPS1200+

Technical specifications and system features

Models and options

	TC	TCR	TCRM	TCA	TCP	TCRA	TCRP
Angle measurement	•	•	•	•	•	•	•
Distance measurement (IR-Mode)	•	•	•	•	•	•	•
PinPoint reflectorless dist. measur. (RL-Mode)		•	•			•	•
Motorized			•	•	•	•	•
Automatic Target Recognition (ATR)				•	•	•	•
PowerSearch (PS)					•		•
Guide Light (EGL)	◦	◦	◦	•	•	•	•
Remote Control Unit / RadioHandle	◦	◦	◦	◦	◦	◦	◦
GUS74 Laser Guide				◦		◦	
SmartStation (ATX1230+ GNSS)	◦	◦	◦	◦	◦	◦	◦

• = Standard ◦ = Optional

Angle measurement



	Type 1201+	Type 1202+	Type 1203+	Type 1205+
Accuracy (std.dev., ISO 17123-3)	1" (0.3 mgon)	2" (0.6 mgon)	3" (1 mgon)	5" (1.5 mgon)
Display resolution:	0.1" (0.1 mgon)	0.1" (0.1 mgon)	0.1" (0.1 mgon)	0.1" (0.1 mgon)
Method	absolute, continuous, diametrical			
Compensator	centralized dual axis compensator			
Working range:	4' (0.07 gon)	4' (0.07 gon)	4' (0.07 gon)	4' (0.07 gon)
Setting accuracy:	0.5" (0.2 mgon)	0.5" (0.2 mgon)	1.0" (0.3 mgon)	1.5" (0.5 mgon)
Method:	centralized dual axis compensator			

Distance measurement (IR-Mode)



Range	Round prism (GPR1):	3000 m
(average atmospheric conditions)	360° reflector (GRZ4):	1500 m
	Mini prism (GMP101):	1200 m
	Reflective tape (60 mm x 60mm)	250 m
	Shortest measurable distance:	1.5 m
Accuracy / Measurement time	Standard mode:	1 mm + 1.5 ppm / typ. 2.4 s
(standard deviation, ISO 17123-4)	Fast mode:	3 mm + 1.5 ppm / typ. 0.8 s
	Tracking mode:	3 mm + 1.5 ppm / typ. <0.15 s
	Display resolution:	0.1 mm
Method	Special phase shift analyzer (coaxial, visible red laser)	

PinPoint R400/R1000 reflectorless distance measurement (RL-Mode)



Range	PinPoint R400:	400 m / 200 m (Kodak Gray Card: 90 % reflective / 18 % reflective)
(average atmospheric conditions)	PinPoint R1000:	1000 m / 500 m (Kodak Gray Card: 90 % reflective / 18 % reflective)
	Shortest measurable distance:	1.5 m
	Long Range to round prism (GPR1):	1000 m - 7500 m
Accuracy / Measurement time	Reflectorless < 500 m:	2 mm + 2 ppm / typ. 3 - 6 s, max. 12 s
(standard deviation, ISO 17123-4)	Reflectorless > 500 m:	4 mm + 2 ppm / typ. 3 - 6 s, max. 12 s
(object in shade, sky overcast)	Long Range:	5 mm + 2 ppm / typ. 2.5 s, max. 12 s
Laser dot size	At 30 m:	approx. 7 mm x 10 mm
	At 50 m:	approx. 8 mm x 20 mm
Method	PinPoint R400 / R1000: System analyzer (coaxial, visible red laser)	

Motorized



Maximum speed	Rotating speed:	45° / s
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