



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 (average atmospheric conditions) | Round prism (GPR1): | 3000 m |
| | 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 deviation, ISO 17123-4) | Standard mode: | 1 mm + 1.5 ppm / typ. 2.4 s |
| | 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 (average atmospheric conditions) | PinPoint R400: | 400 m / 200 m (Kodak Gray Card: 90 % reflective / 18 % reflective) |
| | 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 (standard deviation, ISO 17123-4) (object in shade, sky overcast) | Reflectorless < 500 m: | 2 mm + 2 ppm / typ. 3 – 6 s, max. 12 s |
| | Reflectorless > 500 m: | 4 mm + 2 ppm / typ. 3 – 6 s, max. 12 s |
| | 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 |
|----------------------|-----------------|---------|