SET300/SET500/SET600
Total Stations

Specifications

			SET300	SET500	SET600
Telescope			Fully transiting. Coaxial sighting and distance measuring optics.		
Size (without peep sights)			L 170 x W 64 x H 125 mm (L 6.7 x W 2.6 x H 5.0 in.)		
Objective aperture			45 mm (1.8 in.) [EDM: 48 mm (1.9 in.)]		
Magnification			30 x		26 x
Image			Erect		
Resolving power			3"		3.5"
Field of view			1°30' (26 m/1,000 m)		
Minimum focus			1.0m (3.3 ft.)		
Reticle illumination			Built-in. 5 brightness levels		
Angle measurement			Photoelectric incremental rotary encoder scanning. Both circles adopt diametrical detection and are provided with absolute 0 index points.		
Unit		H&V	360° / 400gon / mil, selectable		
Display resolution (selectable)		H&V	1" /0.2 mgon /0.005 mil, 5" /1 mgon/0.02 mil		5"/1 mgon /0.02 mil, 1" /0.2 mgon /0.005 mil
Accuracy (ISO/DIS 12857-2:1995)		H&V	3" (1 mgon)	5" (1.5 mgon)	6"(1.9 mgon)
Automatic dual-axis level compensator			ON (V&H, only V) / OFF selectable		
	Type		Dual-axis liquid tilt sensor		
	Range		±3' (±55 mgon), out-of-range warning displayed		
	Display resolution		According to selection of display resolution		
Collimation program			ON / OFF selectable		
Display mode		H	Clockwise / Counterclockwise, selectable ; 0 set, Hold, angle setting, available		
		V	Zenith angle (Zenith 0°) Vertical angle (Horizontal 0°) Height angle (Horizontal 0° ± 90°), Slope %, selectable		
Distance measurement			Modulated near infrared light, Near infrared LED, Coaxial EDM transmitting and receiving optics (Class 1 LED product)		
Measuring range (slope distance)			A: Average conditions: slight haze, visibility about 20 km (12 miles), sunny periods, weak scintillation. G: Good conditions: no haze, visibility about 40 km (25 miles), overcast, no scintillation. The range is achieved by using Sokkia's AP prism system, CP01 Compact prism and reflective sheet RS90N (90 x 90mm).		
	Reflective sheet target RS90N	A	3 m to 70 m (220 ft.)		3 m to 60 m (190 ft.)
	With CP01 compact prism	A	1 m to 700 m (2,200 ft.)		1 m to 600 m (1,900 ft.)
	With one AP01 prism	A	1 m to 2000 m (6,500 ft.)		1 m to 1600 m (5,200 ft.)
		G	1 m to 2200 m (7,200 ft.)		1 m to 1800 m (5,900 ft.)
	With three AP01 prisms	A	1 m to 2200 m (7,200 ft.)		1 m to 1800 m (5,900 ft.)
		G	1 m to 2400 m (7,800 ft.)		1 m to 2000 m (6,500 ft.)
Unit			Meters / Feet / Inch, selectable		
Measurement mode			Fine meas. (single/repeat/average) / Rapid meas. (single/repeat) / Tracking		
Display resolution	Fine measurement		0.001 m (0.01 ft.)		
	Rapid measurement		0.001 m (0.01 ft.)		
	Tracking measurement		0.01 m (0.1 ft.)		
Unambiguous measuring range (Slope distance)			4200 m (13780 ft.)		
Accuracy (D=measuring distance unit: mm)	With AP prism	Fine meas.	± (3 + 2ppm x D) mm		
		Rapid meas.	± (5 + 5ppm x D) mm		
	With reflective sheet target*1	Fine meas.	± (4 + 3ppm x D) mm		
		Rapid meas.	± (5 + 5ppm x D) mm		
Measuring time	Fine measurement		Every 1.6 s (initial meas. 2.8 s)		
	Rapid measurement		Every 0.8 s (initial meas. 2.3 s)		
	Tracking measurement		Every 0.3 s (initial meas. 1.8 s)		
Atmospheric correction			(1) Temperature / pressure input, (2) ppm input, (3) w/o compensation, selectable		
	Temperature input range		-30°C to +60°C (1°C steps) / -22°F to +140°F (1°F steps)		
	Pressure input range		500 hPa to 1,400 hPa (1 hPa steps), 375 mmHg to 1,050 mmHg (1 mmHg steps), 14.7inchHg to 41.3 inchHg (0.1 inchHg steps)		
	ppm input range		-499 ppm to + 499 ppm (1 ppm steps)		
Prism constant correction			-99 mm to +99 mm (1 mm steps)		
Refraction & earth-curvature correction			ON (K=0.14 / K=0.20) / OFF, selectable		
Audio target acquisition			Display and audio; ON / OFF, selectable		
Automatic light intensity control			Provided		
Software and data transfer					
Onboard programs			Remote Elevation, Offset, 3-D Coordinate, 3-D Setting-out, Resection, Missing Line, Area Calculation, Azimuth Angle Setting		