

# **GTS-310**

## **SPECIFICATIONS**



TELESCOPE			
Length	150 mm		
Objective lens diameter	45 mm (EDM:50mm)		
Magnification	30 x		
Image	Erect		
Field of view (at 1,000m)	1°30 ´		
Resolving power	2.5"		
Minimum focusing distance	1.3 m		
Reticle illumination	provided		
DISTANCE MEASUREMENT			
Measuring range	GTS-300/311	GTS-312	GTS-313
Condition 1			
1 Prism	2,400m (7,900ft)	3,100m(10,200ft)	3,700m(12,100ft)
3 Prisms	2,200m(7,200ft)	2,900m(9,500ft)	3,600m(11,800ft)
9 Prisms	1,600m(5,200ft)	2,400m(7,500ft)	3,000m(9,800ft)
Condition 2			
1 Prism	2,700m(8,900ft)	3,600m(11,800ft)	4,400m(14,400ft)
3 Prisms	2,500m(8,200ft)	3,300m(10,800ft)	4,200m(13,800ft)
9 Prisms	1,900m(6,200ft)	2,600m(8,500ft)	3,600m(11,800ft)
Condition 1 :Slight haze with visibility about 20 km (12.5 miles) moderate sunlight with light heat shimmer. 2 :No haze with visibility over 40 km (25 miles), overcast with no heat shimmer.			
Measurement accuracy	±(2mm+2ppm)m.s.e.		
Least count in measurements			
Fine mode	0.2 mm (0.001 ft)		
Normal mode	1 mm (0.005 ft)		
Coarse mode	10 mm (0.02 ft) /1 mm (0.005 ft)		
Tracking mode	10 mm (0.02 ft)		
Measurement display	11 digits: max. display 9,999,999.9999m		
Measuring time			
Fine mode	3.0 sec.		
Normal mode	2.0 sec.		
Coarse/Tracking mode	0.7 sec./0.3 sec.		
Atmospheric correction range	Temperature / pressure input on -99.9 to +99.9ppm (by 0.1ppm )		
Prism constant correction	-99.9 to +99.9mm (by 0.1mm )		
Ambient temperature range	-20°C to +50°C (-4°F to +122°F)		
ELECTRONIC ANGLE MEASUREMENT			
Method	Incremental reading		
Detecting			

Horizontal	2 sides
Vertical	2 sides
Minimum reading	GTS-300: 0.5"/1" (0.1mgon/0.5mgon) GTS-311: 1"/5" (0.2mgon/1mgon) GTS-312: 1"/5" (0.2mgon/1mgon) GTS-313: 1"/5" (0.2mgon/1mgon)
Accuracy	GTS-300: 1" (0.2mgon) GTS-311: 2" (0.6mgon) GTS-312: 3" (1mgon) GTS-313: 5" (1.5mgon) (Standard deviation based on DIN18723)
Circle diameter	71 mm
<b>TILT SENSOR</b>	
Method	Dual-axis liquid-type
Compensating range	±3'
<b>LEVEL SENSITIVITY</b>	
Plate level	30" / 2 mm
Circular level	10' / 2 mm
<b>OPTICAL PLUMMET TELESCOPE</b>	
Image	Erect
Magnification	3 x
Focusing range	0.5 m to ∞
Field of view (at 1.3m)	4° (91mmØ)
<b>DIMENSION</b>	
Instrument with handle battery	13.6 (H) x 7.5 (W) x 5.9 (D) in. [346 (H) x 190 (W) x 150 (D) mm]
Weight Instrument (with handle battery)	13.0 lbs.(5.9 kg)
<b>HANDLE BATTERY BT-24QW</b>	
Output voltage	7.2V
Capacity	2.8 AH
Maximum operating time at +20°C (+68°F)	
Distance measurement	8 hours (7,000 points)
Angle measurement only	30 hours
Weight	2.0 lbs.(0.9 kg)
<b>BATTERY CHARGER BC-20BR/20CR</b>	
Input voltage	AC120V (BC-20BR) AC230V (BC-20CR)
Frequency	50/60 Hz
Recharging time (at +20°C /+68°F) Handle battery BT-24QW	1.5 hours
Discharging time (at +20°C/+68°F) Handle battery BT-24QW	8 hours (in case of full charge)
Operating temperature	10°C to 40°C (50°F to 104°F)
Weight	1.1 lbs. (0.5kg)

<b>Point guide</b>	Factory option
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The logo for Geodesical, featuring the word "Geodesical" in a bold, blue, sans-serif font. To the left of the text is a stylized blue ring or orbit that encircles the letter 'G'.