

22 SPECIFICATIONS

Telescope

Length	: 150mm
Objective lens	: 45mm (EDM 50mm)
Magnification	: 30×
Image	: Erect
Field of view	: 1°30'
Resolving power	: 2.5"
Minimum focus	: 1.3m
Reticle illumination	: Provided

Distance measurement

Measurement range

Non-prism mode (Target: White wall)	: 100m (330ft) (In low light condition)
	130m (426ft) (Without sun glare on target)

Prism mode:

Model	Prism	Atmospheric conditions
		Condition 1
GPT-1003	Mini prism	2,000m (6,600ft)
	1 prism	6,000m (19,700ft)
GPT-1004	Mini prism	2,000m (6,600ft)
	1 prism	6,000m (19,700ft)

Condition 1: Sight haze with visibility about 20km (12.5miles)
moderate sunlight with light heat shimmer.

Measurement accuracy

Non-prism mode	: ± 10mm (3m~ / Diffusing Surface)
Prism mode	: ± (3mm + 2ppm) m.s.e.

Least Count in Measurement

Fine measurement mode	: 1mm (0.005ft.) / 0.2mm (0.001ft.)
Coarse measurement mode	: 10mm (0.02ft.) / 1mm (0.005ft.)
Tracking measurement mode	: 10mm (0.02ft.)

Measurement Display

: 11 digits : max. display 9999999.9999

Measurement Time

Fine measurement mode	: 1mm	: 1.0sec. (Initial 3 sec.)
	0.2mm	: 3.0sec. (Initial 4 sec.)
Coarse measurement mode	: 10mm	: 0.5sec. (Initial 2.5 sec.)
	: 1mm	: 0.5sec. (Initial 2.5 sec.)
Tracking measurement mode	: 0.3sec. (Initial 2.5 sec.)	(The initial time will be different by a condition.)

Atmospheric Correction Range	: -99.9 ppm to +99.9 ppm , in 0.1 ppm increments
Prism Constant Correction Range	: -99.9 mm to +99.9 mm , in 0.1 mm increments
Coefficient Factor	: Meter / Feet 1meter = 3.2808398501 ft.
Ambient Temperature Range	: -20°C to +50°C (-4°F to +122°F)

Electronic Angle Measurement

Method		: Incremental reading
Detecting system:		
Horizontal angle		
	GPT-1003	: 2 sides
	GPT-1004	: 1 side
Vertical angle		: 1 sides
Minimum reading		
	GPT-1003	: 5"/1"(1mgon / 0.2mgon) reading
	GPT-1004	: 5"/1"(1mgon / 0.2mgon) reading
Accuracy(Standard deviation based on DIN 18723)		
	GPT-1003	: 5"(1.5mgon)
	GPT-1004	: 6"(1.8mgon)
Diameter of circle		: 71mm

Tilt Correction (Automatic index)

Tilt sensor	GPT-1003	: Automatic vertical and horizontal compensator
	GPT-1004	: Automatic vertical compensator
Method		: Liquid type
Compensating Range		: $\pm 3'$
Correction unit		: 1"

Others

Water protection		: IPX 4
Instrument height		: 176mm (6.93in) Base unit detachable (Height from the tribrach dish to the center of telescope)
Level sensitivity		
Circular level		: 10'/2mm
Plate level	GPT-1003	: 30"/2 mm
	GPT-1004	: 40"/2 mm
Optical Plummet Telescope		
Magnification		: 3×
Focusing range		: 0.5m to infinity
Image		: Erect
Field of view		: 5°(114mm ϕ /1.3m)
Dimension		
	(with carrying handle)	: 343(H)×184(W)×150(L) mm (13.5(H)×7.2(W)×5.9(L) in)
	(without carrying handle)	: 293(H)×184(W)×150(L) mm (11.5(H)×7.2(W)×5.9(L) in)
Weight		
Instrument		
	(with carrying handle and battery):	5.1kg (11.2 lbs)
	Plastic carrying case	: 3.7kg (8.2 lbs)

On-board Battery BT-32Q

Out put voltage	: 7.2 V
Capacity	: 1.4 AH
Maximum operating time(when fully recharged) at +20°C (+68°F)	
Including distance measurement	: 1.5hours
Angle measurement only	: 18hours
Weight	: 0.3kg (0.7 lbs)

Battery Charger BC-19BR / BC-19CR

Input voltage	: AC 120V(BC-19BR), AC 230V(BC-19CR)
Frequency	: 50/60Hz
Recharging time (at +20°C / +68°F)	
On-board battery BT-32Q	: 1.5 hours
Discharging time (at +20°C / +68°F)	
On-board battery BT-32Q	: 8 hours (in case of full charge)
Operating temperature	: +10°C to +40°C (+50°F to 104°F)
Charging signal	: Red lamp illumination
Refreshing signal	: Yellow lamp illumination
Finishing signal	: Green lamp illumination
Weight	: 0.5kg (1.1 lbs)

- Battery using time will vary depending on environmental conditions and operations done with GPT-1000 series.

The logo for Geodesical, featuring the word "Geodesical" in a blue, sans-serif font. A blue, stylized orbital ring or path surrounds the letter "G".