

SPECIFICATIONS

Model	GM-101	GM-102	GM-103	GM-105
Telescope	30x / 2.5"			
Magnification / Resolving power	Length : 171mm (6.7in.), Objective aperture : 45mm (1.8in.) (48mm (1.9in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.) Reticle illumination: 5 brightness levels			
Others				
Angle measurement				
Minimum Display	0.5"/1" (0.0001 / 0.0002gon, 0.002 / 0.005mil)	1"/5" (0.0002 / 0.001gon, 0.005 / 0.02mil)		
Accuracy (ISO 17123-3:2001)	1"	2"	3"	5"
Dual-axis compensator / Collimation compensation	Dual-axis liquid tilt sensor, working range: ±6' On/Off (selectable)			
Distance measurement				
Laser output ¹⁾	Reflectorless mode : Class 3R / Prism/sheet mode : Class 1			
Measuring range (under average conditions ²⁾)	Reflectorless ³⁾ Reflective sheet ^{4,5,6)} Mini prism One prism	0.3 to 800m (2,620ft.) / Under good conditions ⁴⁾ : 1,000m (3,280ft.) RS90N-K: 1.3 to 500m (4.3 to 1,640ft.), RS50N-K: 1.3 to 300m (4.3 to 980ft.), RS10N-K: 1.3 to 100m (4.3 to 320ft.) 1.3 to 500m (4.3 to 1,640ft.) 1.3 to 5,000m (4.3 to 16,400ft.) / Under good conditions ⁴⁾ : 6,000m (19,680ft.)		
Minimum Display	Fine : 0.0001m (0.001ft. / 1/16in.) / 0.001m (0.005ft. / 1/8in.) (selectable) Coarse : 0.001m (0.005ft. / 1/8in.) / 0.01m (0.02ft. / 1/2in.) (selectable) Tracking / Road : 0.01m (0.02ft. / 1/2in.)			
Accuracy ²⁾ (ISO 17123-4:2001) (D=measuring distance in mm)	Reflectorless ³⁾ Reflective sheet ^{4,5,6)} Prism ⁷⁾	(2 + 2ppm x D) mm ⁸⁾ (2 + 2ppm x D) mm (1.5 + 2ppm x D) mm		
Measuring time ^{9,10)}	Fine Coarse Tracking	0.9s (initial 1.5s) 0.6s (initial 1.3s) 0.4s (initial 1.3s)		
OS, Interface and Data management				
Operating system	Linux			
Display / Keyboard	Graphic LCD, 192 x 80 dots, backlight, contrast adjustment / Alphanumeric keyboard / 28 keys with backlight			
Control panel location	On both faces			
Trigger key	Yes (right side)			
Data storage	Internal memory Plug-in memory device	Approx. 50,000 points USB flash memory (max. 32GB)		
Interface	Bluetooth modem (option) ¹⁰⁾	Serial RS-232C, USB2.0 (Type A for USB flash memory) Bluetooth Class 1.5, Operating range: up to 10m ¹¹⁾		
General				
Guide light ¹²⁾	Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)			
Laser pointer ¹²⁾	Coaxial red laser using EDM beam 6" (Inner Circle) 10" / 2mm			
Levels	Graphic Circular level (on tribrach)	Magnification: 3x, Minimum focus: 0.5m (19.7in.) from tribrach bottom		
Plummet	Optical Laser (option)	Red laser diode (635nm±10nm), Beam accuracy: <=1.0mm@1.3m, Class 2 laser product		
Dust and water protection / Operating temperature	IP66 (IEC 60529:2001) / -20 to +60°C (-4 to +140°F)			
Size with handle	183(W)x 181(D)x 348(H)mm			
Instrument height	192.5mm from tribrach mounting surface			
Weight with battery & tribrach	Approx. 5.3kg (11.7lb)			
Power supply				
Battery	Li-ion rechargeable battery BDC70			
Operating time (20°C) ¹³⁾	BDC70: Approx. 28hours ¹⁴⁾			
Application program				
On board	<ul style="list-style-type: none"> •REM Measurement •3D Coordinate Measurement •Resection •Stake Out •Topography Observation •Offset Measurement •Missing Line Measurement •Surface Area Calculation •Route Surveying •Point to Line 			

GM-100 Series

Geodetic Measurement Station



Evolving Entry-Level Total Station

- Construction and Survey Application Software On Board
- Best-in-Class Measuring Distance Feature
- Reliable Large Volume Internal Memory
- Long-Hour Battery Operation
- Strong Environmental Specification against Tough Sites

Standard Package Components

- Main unit • Battery (BDC70) • Battery charger (CDC68A) • Power Cable • Lens cap • Lens hood • Tool pouch • Precision Screwdriver • Lens brush
- Hexagonal wrench (1.3 mm/2.5 mm) x 2 • Cleaning cloth • Quick Manual • CD-ROM (Operation manual) • Laser caution sign-board • Carrying case • Carrying strap



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