

GPT-3100N
REFLECTORLESS TOTAL STATION

TOPCON

GPT-3100N series

REFLECTORLESS TOTAL STATION



"Pulse+" Laser Technology

- *Reflectorless distance measurement up to 350M*
- *Low power consumption*
- *Small diameter pin-point measurement*
- *Point guide*
- *Laser pointer*
- *Water and dust protection IP66*
- *Versatile applications including Road*



New Reflectorless distance measurement technology "Pulse+"

Topcon's unique optical technology "Pulse +" enhanced the productivity

Reflectorless distance measurement up to 350M



GPT-3100N achieved Reflectorless distance measurement up to 350M, 140% improvement against previous model (250M)

Significant saving of power consumption



Pulse + optical system contributed to power consumption cut down from 4.7W to 3.6W ($\pm 20\%$ down), but extended operating time to 5 hours (+120%)

It's time.

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Specifications subject to change without notice

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Specifications

	GPT-3102N	GPT-3103N	GPT-3105N	GPT-3107N
TELESCOPE				
Length	150mm			
Objective Lens Dia.	45mm (EDM 50mm)			
Magnification	30×			
Image	Erect			
Field of View	1°30'			
Resolving Power	2.8"			
Min. Focus Distance	1.3m (4.9 ft.)			
DISTANCE MEASUREMENT				
Prism Mode				
Measuring Range	1,000m*			
Mini prism	3,000m*/4,000m**			
1 prism	4,000m*/5,300m**			
3 prisms	5,000m*/6,500m**			
9 prisms				
* Condition 1: Slight haze with visibility about 20km (12.5 miles) moderate sunlight with light heat shimmer.				
** Condition 2: No haze with visibility about 40km(25 miles), overcast with no heat shimmer.				
Measurement Accuracy ¹	Fine: $\pm(2\text{mm}+2\text{ppm}\times\text{D})\text{m.s.e.}$ Coarse: $\pm(7\text{mm}+2\text{ppm}\times\text{D})\text{m.s.e.}$			
Measuring Time	Fine mode 1mm: Approx.1.1 sec. (Initial 2.5 sec.) 0.2mm: Approx. 1.5 sec. (Initial 3 sec.) Coarse mode 1mm/10mm: Approx. 0.8 sec. (Initial 2 sec.)			
Non-Prism Mode (Diffusing Surface)				
Measuring Range	1.5m to 350m			
Measuring Accuracy	$\pm(3\text{mm}+2\text{ppm}\times\text{D})\text{m.s.e.}$ Coarse: $\pm(10\text{mm})\text{m.s.e.}$			
Measuring Time	Fine mode 1mm: Approx. 1.7 sec. (Initial 3 sec.) 0.2mm: Approx. 2.6 sec. (Initial 3.5 sec.) Coarse mode 1mm/10mm: Approx. 1.0 sec. (Initial 2.0 sec.)			
ANGLE MEASUREMENT				
Method	Absolute Reading			
Detecting System	H: 2 sides V: 2 sides	H: 2 sides V: 1 side		H: 1 side V: 1 side
Minimum Reading	1"/5" (0.2/1mgon)			5"/10" (1/2mgon)
Accuracy ²	2" (0.6mgon)	3" (1mgon)	5" (1.5mgon)	7" (2mgon)
Diameter of Circle	71mm			
DISPLAY				
Display Unit	Graphics LCD 160 × 64 Dots with backlight			
	2 sides		1 side	
Keyboard	Alpha-Numeric key			
TILT CORRECTION (AUTOMATIC INDEX)				
Tilt Sensor	Dual axis			Single axis
Method	Liquid type			
Compensating Range	$\pm 3'$			
Correction Unit	1" (0.1mgon)			
OTHERS				
The Number of Measuring Points	Approx. 24,000 points			
Instrument Height	176mm (6.93 in.)			
Laser Class	Class 1 (for distance measurement) Class 2 (Laser Pointer on)			
LEVEL SENSITIVITY				
Circular Level	10"/2mm			
Plate Level	30"/2mm		40"/2mm	
DIMENSION				
	336(H)×184(W)×172(L)mm/13.2(H)×7.2(W)×6.8(L)in.			
WEIGHT				
Instrument (with battery)	5.3kg (11.6 lbs.)			
Plastic Carrying Case	3.4kg (7.3 lbs.) (Weight of the carrying case may be slightly different due to specific market.)			
DURABILITY				
Protection against water and dust	IP66 (with BT-52QA) (Based on the standard IEC60529)			
Ambient Temperature Range	-20°C to +50°C (-4°F to +122°F)			
BATTERY BT-52QA				
Maximum operating time (when fully recharged) at +20°C (+68°F)	45 hours/5 hours			
Angle measurement only/Including distance measurement	45 hours/5 hours			

*1 D: Measuring Distance *2 Standard deviation based on DIN18723

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