

**PULSE TOTAL STATION**

# GPT-3000LN/Nseries

## Universal Reflectorless

**Long Range • Surface Independent • Pulsed Precision**

TOPCON proudly announces the new GPT-3000LN/GPT-3000N. The GPT-3000LN can measure virtually anything, of any size or material, within a normal working range of 350m.



### 5 Superior Features to change your field work dramatically.

**MAKE IT EASIER** Operation with alphanumeric keyboard to make easy control and data entry.

**BE MORE PRECISE** Topcon's pulse-laser technology "time-of-flight" system eliminates measuring errors caused by the overlapping signals used in phase measuring systems.

**DO MORE** Software applications that boost your productivity. In addition to the versatile applications, already included in the GPT-3000LN/GPT-3000N, new Road software is added.

**BE SAFER** Distance measurement with Laser class 1 is safe to use around populated areas or heavy traffic. (Visible Laser Pointer : Laser Class 2)

**GO FURTHER** Achieved reflectorless distance measurement upto 1,200m (to the Kodak Gray card : white surface) in the long range mode. (GPT-3000N : 250m)

With updated functions

- New road function can automatically calculate a complicated spiral curve and a long distance route only by inputting the starting point, terminal point and a curvilinear element.
- Topcon realize easy to push alphanumeric keyboard interval.

## SPECIFICATIONS

	GPT-3002LN/N	GPT-3003LN/N	GPT-3005LN/N	GPT-3007LN/N		GPT-3002LN/N	GPT-3003LN/N	GPT-3005LN/N	GPT-3007LN/N
<b>TELESCOPE</b>					<b>ANGLE MEASUREMENT</b>				
Length	150mm				Method	Absolute Reading			
Objective Lens Dia.	45mm (EDM 50mm)				Detecting System	H: 2 sides V: 2 sides	H: 2 sides V: 1 side	H: 1 side V: 1 side	
Magnification	30x				Minimum Reading	1 <sup>1</sup> / <sub>5</sub> "(0.2/1mgon)			
Image	Erect				Accuracy*1	2"(0.6mgon)	3"(1mgon)	5"(1.5mgon)	7"(2mgon)
Field of View	1°30'				Measuring Time	Less than 0.3 sec.			
Resolving Power	2.8"				Diameter of Circle	71mm			
Min. Focus Distance	1.3m (4.29 ft.)				<b>DISPLAY</b>				
<b>DISTANCE MEASUREMENT</b>					Display Unit	Graphics LCD 160 × 64 Dots with backlight			
Prism Mode					Keyboard	2 sides		1 side	
Measuring Range	1,000m*				<b>TILT CORRECTION (AUTOMATIC INDEX)</b>				
Mini prism	3000m*/4,000m**				Tilt Sensor	Dual axis		Single axis	
1 prism	4,000m*/5,300m**				Method	Liquid type			
3 prisms	5,000m*/6,500m**				Compensating Range	±3'			
9 prisms					Correction Unit	1" (0.1mgon)			
* Condition 1: Slight haze with visibility about 20km (12.5 miles) moderate sunlight with light heat shimmer.					<b>OTHERS</b>				
** Condition 2: No haze with visibility about 40km(25 miles), overcast with no heat shimmer.					The Number of Measuring Points	Approx. 24,000 points			
Measurement Accuracy*3	Fine: ±(2mm+2ppm×D)m.s.e. Coarse: ±(7mm+2ppm×D)m.s.e.				Instrument Height	176mm (6.93 in.)			
Measuring Time	Fine mode 1mm: Approx. 1.2 sec. (Initial 3 sec.) 0.2mm: Approx. 3.0 sec. (Initial 4 sec.) Coarse mode 1mm/10mm: Approx. 0.5 sec. (Initial 2.5 sec.)				Laser Class	Class 1 (for distance measurement) Class 2 (Laser Pointer on)			
Non-Prism Mode (Diffusing Surface)					<b>LEVEL SENSITIVITY</b>				
Measuring Range	1.5m to 250m				Circular Level	10' /2mm			
Measuring Accuracy	Fine: 1.5 to 25m ±(10mm)m.s.e. 25m or more ±(5mm)m.s.e. Coarse: ±(10mm)m.s.e.				Plate Level	30" /2mm		40" /2mm	
Measuring Time	Fine mode 1mm: Approx. 1.2 sec. (Initial 3 sec.) 0.2mm: Approx. 3.0 sec. (Initial 4 sec.) Coarse mode 1mm/10mm: Approx. 0.5 sec. (Initial 2.5 sec.)				<b>DIMENSION</b>				
Non-Prism Long Mode (Diffusing Surface)*2					<b>WEIGHT</b>				
Measuring Range	5m to 1,200m				Instrument (with battery)	5.3kg(11.6 lbs.)			
Measuring Accuracy*3 (<500m, Kodak Gray Card White Surface (90%))	Fine 1mm: ±(10mm+10ppm×D)m.s.e. Coarse 5mm/10mm: ±(20mm+10ppm×D)m.s.e. Tracking 10mm: ±(100mm)m.s.e.				Plastic Carrying Case	3.4kg (7.5 lbs.) (Weight of the carrying case may be slightly different due to specific market.)			
Measuring Time	Fine mode 1mm: Approx. 1.5 to 6 sec. (Initial 6 to 8 sec.) Coarse mode 5mm/10mm: Approx. 1 to 3 sec. (Initial 6 to 8 sec.) Tracking mode 10mm: Approx. 0.4 sec. (Initial 4 to 7 sec.)				<b>DURABILITY</b>				
Least Count in Measurement Prism Mode/Non-Prism Mode	Fine mode 1mm/0.2mm Coarse mode 10mm/1mm				Protection against water and dust	IP66 (with BT-52QA) (Based on the standard IEC60529)			
Non-Prism Long Mode	Fine mode 1mm Coarse mode 5mm/10mm Tracking mode 10mm				Ambient Temperature Range	-20°C to +50°C (-4°F to +122°F)			
Measurement Display	12 digits: max. display 99999999.9999				<b>BATTERY BT-52QA*4</b>				
Atmospheric Correction Range	-999.9ppm to +999.9ppm, in 0.1ppm increments				Output Voltage	DC7.2V			
Prism Constant Correction Range	-99.9mm to +99.9mm, in 0.1mm increments				Capacity	2.7 Ah (Ni-MH)			
					Maximum operating time (when fully recharged) at +20°C (+68°F)				
					Including distance measurement	3000LN: 3.5 hours 3000N: 4.2 hours			
					Angle measurement only	45 hours			
					Weight	0.3kg (0.7 lbs.)			
					<b>BATTERY CHARGER BC-27</b>				
					Input Voltage	AC 100~240V (BC-27)			
					Frequency	50/60Hz			
					Recharging Time (at +20°C/+68°F)	Battery BT-52QA: 1.8 hours			
					Discharging Time (at +20°C/+68°F)	Battery BT-52QA: 8 hours (in case of full charge)			
					Operating Temperature	+10°C to +40°C (+50°F to 104°F)			
					Weight	0.5kg (1.1 lbs.)			

\*1 Standard deviation based on DIN18723 \*2 GPT-3000LN only \*3 D: Measuring Distance

\*4 Battery using time will vary depending on environmental conditions and operations done with GPT-3000LN/N series.

• Designs and specifications herein are subject to change without notice (E. & O.E.).

**Important** In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.



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