

# Leica Nova TS60

## Data sheet

Nova



When working on demanding surveying projects your main priority is to avoid mistakes and have an instrument that always works with the expected highest accuracy – an instrument you can rely on. This way you **reduce the risk of cost and delays** due to inaccurate or unreliable measurements, even under challenging environmental conditions. The Leica Nova TS60 leaves no room for compromises: it delivers the **world's best angular accuracy of 0.5"** and **distance accuracy of 0.6mm + 1ppm**. The instrument remains extremely accurate even under the **harshest conditions** like rain, fog, dust, sun, heat shimmer or reflections with the sole intention of giving you the ultimate peace of mind.

### LEICA NOVA TS60 TOTAL STATION: ACCURACY AT ITS BEST

- **Highest accuracy for stakeout tasks in construction projects:** stakeout design data, guiding pre-fabricated elements to the right location.
- **Reference network measurements for construction and infrastructure projects:** define the reference network frame with precise angle and distance measurements.
- **Measuring buildings and structures:** bridge condition/clearance analysis, BIM and as-built.
- **Checking pre-fabricated elements in shipbuilding and for wind turbines:** as-built checks and dimension control.
- **Monitoring measurements:** permanent or campaign monitoring of bridges, buildings and steel structures.
- **Railways:** control of slab track installation and clearance surveys.

# Leica Nova TS60 Total Station

## ANGLE MEASUREMENT

Accuracy <sup>1</sup> Hz and V	■ Absolute, continuous, quadruple	0.5" (0.15 mgon)
--------------------------------	-----------------------------------	------------------

## DISTANCE MEASUREMENT

Range <sup>2</sup>	■ Prism (GPR1, GPH1P) <sup>3</sup> ■ Non-Prism / Any surface <sup>4</sup>	0.9m to 3,500m 0.9m to >1,000m
Accuracy / Measurement time	■ Single (prism) <sup>2,5</sup> ■ Single (any surface) <sup>2,4,5,6</sup>	0.6mm + 1ppm / typically 2.4s 2mm + 2ppm / typically 2s <sup>7</sup>
Laser dot size	At 50m	8mm x 20mm
Measurement technology	System analyser	Coaxial, visible red laser

## IMAGING

Overview and telescope camera	■ Sensor ■ Field of view (overview / telescope) ■ Frame rate	5 megapixel CMOS sensor 19.4° / 1.5° Up to 20 frames per second
-------------------------------	--	---

## MOTORISATION

Direct drives based on Piezo technology	Rotation speed / Time to change face	Maximum 200 gon (180°) per s / typically 2.9s
---	--------------------------------------	---

## AUTOMATIC AIMING - ATRplus

Target aiming range <sup>2</sup> / Target locking range <sup>2</sup>	■ Circular prism (GPR1, GPH1P) ■ 360° prism (GRZ4, GRZ122)	■ 1,500m / 1,000m ■ 1,000m / 1,000m
Accuracy <sup>1,2</sup> / Measurement time	ATRplus angle accuracy Hz, V	0.5" (0.15 mgon) / typically 3-4s

## POWERSEARCH

Range / Search time	360° prism (GRZ4, GRZ122)	300m / typically 5s
---------------------	---------------------------	---------------------

## GUIDE LIGHT (EGL)

Working range / Accuracy		5-150m / typically 5cm @ 100m
--------------------------	--	-------------------------------

## GENERAL

Operating System / Field Software	Windows EC7 / Leica Captivate with apps	
Processor	TI OMAP4430 1GHz Dual-core ARM® Cortex™- A9 MPCore™	
Autofocus telescope	Magnification / Focus Range	30 x / 1.7m to infinity
AutoHeight Module	■ Distance accuracy ■ Distance range	1.0 mm (1 Sigma) 0.7 m to 2.7 m
Display and keyboard	5" (inch), WVGA, colour, touch, both faces	37 keys, illumination
Operation	3x endless drives, 1x Servofocus drive, 2x Autofocus keys, user-definable SmartKey	
Power management	Exchangeable Lithium-Ion battery	Up to 9h, internal charging capability
Data storage	Internal memory / Memory card	2 GB / SD card 1 GB or 8 GB
Interfaces	RS232, USB, Bluetooth®, WLAN	
Weight	Total station including battery	7.7kg
Environmental specifications	■ Working temperature range ■ Dust & Water (IEC 60529) / Blowing rain ■ Humidity	-20°C to +50°C IP65 / MIL-STD-810G, Methods 506.5 I and 507.5 95%, non-condensing

<sup>1</sup> Standard deviation ISO 17123-3

<sup>2</sup> Overcast, no haze, visibility about 40 km, no heat shimmer

<sup>3</sup> 1.5m to 2000m for 360° prisms (GRZ4, GRZ122)

<sup>4</sup> Object in shade, sky overcast, Kodak Gray Card (90% reflective)

<sup>5</sup> Standard deviation ISO 17123-4

<sup>6</sup> Distance > 500m: Accuracy 4mm+2ppm, Measurement time typ. 6s

<sup>7</sup> Up to 50m, max. measurement time 15s



**Integrate with LOC8 – Lock & Locate**

For more information visit: [leica-geosystems.com/LOC8](http://leica-geosystems.com/LOC8)



Laser radiation, avoid direct eye exposure.

Class 3R laser product in accordance with IEC 60825-1:2014.

The Bluetooth® trademarks are owned by Bluetooth SIG, Inc. Windows is a registered trademark of Microsoft Corporation. Other trademarks and trade names are those of their respective owners. Copyright Leica Geosystems AG, 9435 Heerbrugg, Switzerland. All rights reserved. Printed in Switzerland - 2020. Leica Geosystems AG is part of Hexagon AB. 914506en - 02.20

**Leica Geosystems AG**  
Heinrich-Wild-Strasse  
9435 Heerbrugg, Switzerland  
+41 71 727 31 31

- when it has to be **right**

**Leica**  
Geosystems