



Nikon NPR-302 Series Total Stations

Nikon understands what it takes to get the job done right, the first time. The Nikon NPR-302 Series have simplicity and productivity designed into each model. This series offers the superior optics, intelligent design, and quality components that your surveying jobs demand. Add the powerful onboard software, and you have a total station solution that performs all day, every day.

Accuracy and Precision

Nikon NPR-302 Series Total Stations feature 3" and 5" angle accuracy models to handle the demands of your surveying applications. The NPR-302 Series offers high precision distance measurement accuracy of up to $\pm (2 + 2 \text{ ppm} \times D)$ mm. Coupled with the reliable and intelligent design, you can be confident that you will achieve the best accuracy and precision with every measurement.

Reflectorless Technology

Gain complete confidence in your measurements with Nikon NPR-302 Series reflectorless EDM technology. Nikon's reflectorless system uses a patented technology, providing long distance reflectorless measurement range of up to 300 meters (984 ft). As a result, you reduce the need for multiple set-ups by utilizing the flexible NPR-302 series measurement techniques.

Eliminating the need to focus on the target, the Nikon NPR-302 Series' reflectorless technology allows for faster, more efficient data collection. The co-axial laser pointer continues to save you time by assisting with target identification, and reducing aiming time.

Easy to Use

The Nikon NPR-302 Series feature an ergonomic keyboard, containing user-definable keys to give you fast, one-touch access to the functions you use the most. The keyboard is fully alphanumeric with large keys making it easy to access the powerful and intuitive onboard software. Perform surveying tasks quickly and efficiently, and gain even greater productivity as you learn to maximize the NPR-302 Series capabilities.

Rugged and Reliable

Nikon NPR-302 Total Stations are tough enough to stand up to all kinds of weather conditions and meet IP56 standards, offering water and dust proof protection. The onboard battery gives up to 16 hours of continuous distance and angle measurements, or 30 hours of intermittent service. The robust construction and long battery life enable the instruments to work as long and as hard as you do.

KEY FEATURES

3" and 5" Angle Accuracy

300 Meter Range

Laser Pointer

1 or 2 Display Options



SIMPLE • DEPENDABLE • ACCURATE

Nikon NPR-302 Series Total Stations

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DISTANCE MEASUREMENT

Reflectorless mode (white target)¹ 1.5 m to 300 m (4.9 ft to 984 ft)
Range with Nikon specified prisms

Good conditions (No haze, visibility over 40 km (25 miles))
With reflector sheet (5 × 5 cm) 1.5 m to 270 m (4.9 ft to 885 ft)
With single prism 6.25 cm (2.5 in) 3,000 m (9,840 ft)
Normal conditions (Ordinary haze, visibility approx. 20 km (12.4 miles))
With reflector sheet (5 × 5 cm) 1.5 m to 270 m (4.9 ft to 885 ft)
With single prism 6.25 cm (2.5 in) 3,000 m (9,840 ft)

Accuracy (Precise mode)

Prism (NPR-352)(NPR-362)⁴ ±(2+2 ppm × D) mm
Prism (NPR-332)⁵ ±(3+2 ppm × D) mm
Reflectorless / Reflector sheet⁵ ±(3+2 ppm × D) mm

Measuring interval²

Prism mode
Precise mode 1.5 sec.
Normal mode 0.8 sec.
Reflectorless mode
Precise mode 1.8 sec.
Normal mode 1.0 sec.
Least count
Precise mode 1 mm (0.002 ft)
Normal mode 10 mm (0.02 ft)

ANGLE MEASUREMENT

DIN 18723 accuracy (horizontal and vertical) 3"/1 mgon (NPR-362)
5"/1.5 mgon (NPR-352)(NPR-332)

Reading system Photoelectric detection by incremental encoder
Circle diameter 88 mm (3.46 in)
Horizontal angle Diametrical (NPR-362)(NPR-352)
Single (NPR-332)

Vertical angle Single
Minimum increment (Degree, Gon, MIL6400) Degree: 1/5/10"
Gon: 0.2/1/2 mgon
MIL6400: 0.005/0.02/0.05 mil

TELESCOPE

Tube length 158 mm (6.22 in)
Image Erect
Magnification 33× (21×/41× with optional eyepieces)
Effective diameter of objective 45 mm (1.77 in)
EDM 50 mm (1.97 in)
Field of view 1°20'
Resolving power 3"
Minimum focusing distance 1.5 m (4.9 ft)
Laser Pointer Coaxial Red Light

¹ White objects with high reflectivity (KGC 90%). Measuring distance may vary depending on targets and measuring conditions.

² Measuring time may vary depending on measuring distance and conditions. For the initial measurement, it may take a few more seconds.

³ Battery life specification at 25 °C (77 °F). Operation time may be shorter if battery is not new.

⁴ ±(2+3 ppm × D) mm -20 °C to -10 °C, +40 °C to +50 °C (-4 °F to +14 °F, +104 °F to +122 °F)
⁵ ±(3+3 ppm × D) mm -20 °C to -10 °C, +40 °C to +50 °C (-4 °F to +14 °F, +104 °F to +122 °F)

TILT SENSOR

Type Dual-axis (NPR-362)(NPR-352)
Single-axis (NPR-332)

Method Liquid-electric detection
Compensation range ±3'
Setting accuracy 1"

COMMUNICATIONS

Communication ports 1 x serial (RS-232C)

POWER

Clip-on BC-65 NiMH battery
Output voltage 7.2 V DC
Operating time³
approx. 8 hours (continuous distance/angle measurement)
approx. 16 hours (distance/angle measurement every 30 seconds)
approx. 30 hours (continuous angle measurement)
Charging time
Full charge 3 hours

GENERAL SPECIFICATIONS

Level vials
Sensitivity of Plate level vial 30"/2 mm
Sensitivity of Circular level vial 10"/2 mm
Optical plummet
Image Erect
Magnification 3×
Field of view 5°
Focusing range 0.5 m (1.6 ft) to ∞
Display Both sides, graphic LCD (128 × 64 pixel) (NPR-362)(NPR-352)
Single side, graphic LCD (128×64 pixel) (NPR-332)
Point memory 10,000 records
Dimensions (W × D × H) 168 mm × 173 mm × 347 mm
(6.6 in × 6.8 in × 13.7 in)
Weight (approx.)
Main unit (without battery) 5.0 kg (11.0 lb) (NPR-362) (NPR-352)
4.9 kg (10.8 lb) (NPR-332)
BC-65 battery 0.4 kg (0.9 lb)
Carrying case 4.4 kg (9.7 lb)

ENVIRONMENTAL

Ambient temperature range -20 °C to +50 °C (-4 °F to +122 °F)
Atmospheric correction
Temperature range -40 °C to +60 °C (-40 °F to +140 °F)
Barometric pressure 400 mmHg to 999 mmHg/533 hPa to
1,332 hPa/15.8 inHg to 39.3 inHg
Dust and water protection IP56

CERTIFICATION

Class B Part 15 FCC certification, CE Mark approval.
Laser safety IEC 60825-1 am2:2001
Reflectorless mode: Class 3R
Laser Pointer : Class 3R
Prism mode: Class 1



NORTH AMERICA

Tripod Data Systems
P O Box 947 • Corvallis, OR 97339 • USA
+1-541-753-9322 Phone • +1-541-757-7439 Fax
www.tdsway.com

EUROPE

Trimble GmbH
Am Prime Parc 11 • 65479 Raunheim • GERMANY
+49-6142-2100-0 Phone
+49-6142-2100-550 Fax

ASIA-PACIFIC

Trimble Navigation Singapore PTE Limited
80 Marine Parade Road • #22-06, Parkway Parade
Singapore 449269 • SINGAPORE
+65-6348-2212 Phone • +65-6348-2232 Fax

NIKON AUTHORISED DISTRIBUTION PARTNER