

NIKON NPL-322+ SERIES



DATASHEET

2" and 5" angle accuracies

Prism and reflectorless measurements

Fast, accurate EDM

Convenient and long-lasting Li-ion battery

Easy-to-use keypad

Rugged and lightweight

Bluetooth enabled

Dual axis compensation

NPL-322+ Series

The Nikon NPL-322+ Series of mechanical total stations includes a 2" dual face and 5" single face models. Both NPL-322+ models feature dual axis compensation to correct for errors in tilt in the horizontal and vertical axes, a reflectorless EDM with 400 meter (1300 feet) range, wireless Bluetooth connections to external data collectors and 50,000 point onboard storage.

Using the same rechargeable long life Li-ion battery as the Nivo series, combined with low power consumption design, the NPL-322+ provides the longest possible time in the field. For convenience, the Nikon NPL-322+ total stations include two batteries and a dual charger, to support even the longest of working days.

The NPL-322+ Total Station delivers an economic, versatile, and easy-to-use platform to ensure you get the job done right. Nikon's legendary optics effectively allow in more light to give you brighter, clearer images. You'll see the difference when you look through a Nikon Total Station even in the low-visibility conditions typical in the field. You'll see much more detail and much less distortion, especially over longer distances. Better optics help you aim more precisely, and they're much easier on your eyes - something you'll really appreciate on long workdays.

THE NIKON NPL-322+ IS BUILT TOUGH FOR ALL OCCASIONS.

DISTANCE MEASUREMENT

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 200 m (4.9 ft to 787 ft)
With single prism 6.25 cm (2.5 in)	3,000 m (9,840 ft)

Range reflectorless mode

KGC (18%) ¹	
Good	250 m (820 ft)
Normal	200 m (656 ft)
Difficult	150 m (492 ft)
KGC (90%)	
Good	400 m (1312 ft)
Normal ²	350 m (1148 ft)
Difficult ³	250 m (820 ft)

Accuracy ISO 17123-4 (Precise mode)

Prism ²	±(2+2 ppm × D) mm
Reflectorless/Reflector sheet ³	±(3+3 ppm × D) mm

Measuring interval⁴

Prism mode	
Precise mode	1.1 sec.
Normal mode	0.8 sec.
Reflectorless mode	
Precise mode	1.2 sec.
Normal mode	1.0 sec.
Least count	
Precise mode	1 mm (0.002 ft)
Normal mode	10 mm (0.02 ft)

ANGLE MEASUREMENT

ISO 17123-3 accuracy (horizontal and vertical)	2"/0.6 mgon, 5"/1.5 mgon
Reading system	Photoelectric detection by incremental encoder
Circle diameter	88 mm (3.46 in)
Horizontal angle	2": Diametrical, 5": Single
Vertical angle	Single
Minimum increment (Degree, Gon, MIL6400)	1/5/10°, Gon: 0.2/1/2 mgon, MIL6400: 0.005/0.02/0.05 mil

TELESCOPE

Tube length	125 mm (4.9 in)
Image	Erect
Magnification	30× (18×/36× with optional eyepieces)
Effective diameter of objective	45 mm (1.77 in)
EDM Diameter	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

TILT SENSOR

Type	Dual axis
Method	Liquid-electric detection
Compensation range	±3'

COMMUNICATIONS

Communication ports	1 x serial (RS-232C)
---------------------	----------------------

WIRELESS COMMUNICATIONS

Bluetooth	Integrated
-----------	------------

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	3X
Field of view	5°
Focusing range	0.5 m (1.6 ft) to ∞
Display	
2"	Both sides, backlit, graphic LCD (128 × 64 pixel)
5"	Single side, backlit, graphic LCD (128 × 64 pixel)
Point memory	50,000 records
Dimensions (W x D x H)	168 mm x 173 mm x 335 mm (6.6 in x 6.8 in x 13.1 in)
Weight (approx.)	
Main unit (without battery)	4.9 kg (10.8 lb)
Battery	0.1 kg (0.2 lb)
Carrying case	2.5 kg (5.5 lb)
Dual charger and AC adaptor	0.6 kg (1.3 lb)

Power

Clip-on Li-on battery	x2 incl.
Operating time ⁵ (per battery)	
Continuous distance/angle measurement	approx. 4.5 hours
Distance/angle measurement every 30 seconds	approx. 11 hours
Continuous angle measurement	approx. 22 hours
Charging time	
Full charge	4 hours
External power supply	N/A

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	IP55

CERTIFICATION

Class B Part 15 FCC certification, CE Mark approval.	
IEC60825-1:2007	
Reflectorless mode	Class 1
Laser Pointer	Class 2
Prism mode	Class 1

- Kodak Gray Card. Catalog number E1527795
- ±(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)
1.5m to 5m ±(5 + 3 ppm × D) mm
- 1.5m to 5m ±(10 + 3 ppm × D) mm
- Measuring time may vary depending on measuring distance and conditions. For the initial measurement, it may take a few seconds.
- Battery life specification at 25 °C (77 °F). Operation time may be shorter if battery is not new. Operation time may be shorter in low temperatures.

Bluetooth type approvals are country specific.
Specifications subject to change without notice.



CONTACT INFORMATION:

Americas
10368 Westmoor Drive
Westminster, CO 80021 • USA
+1-720-587-4700 Phone
888-477-7516 (Toll Free in USA)

Europe, Middle East and Africa
Rue Thomas Edison
ZAC de la Fleuriaye - CS 60433
44474 Carquefou (Nantes) • FRANCE
+33-(0)2-28-09-38-00 Phone

Asia-Pacific
80 Marine Parade Road
#22-06, Parkway Parade
Singapore 449269 • SINGAPORE
+65-6348-2212 Phone

Please visit spectrageospatial.com for the latest product information and to locate your nearest distributor. Specifications and descriptions are subject to change without notice.