

Nikon NPL-632 Total Station

DISTANCE MEASUREMENT

Reflectorless mode (white target) ¹	1.6 m to 210 m (5.3 ft to 680 ft)
Range with Nikon specified prisms	
Good conditions	
(no haze, visibility of over 40 km (25 miles))	
With reflector sheet 5 cm x 5 cm (12.5 in x 12.5 in)	1.6 m to 300 m (5.3 ft to 980 ft)
With mini prism 2.5 cm (1 in)	1.6 m to 3,000 m (5.3 ft to 9800 ft)
With single prism 6.25 cm (2.5 in)	1.6 m to 5,000 m (5.3 ft to 16,400 ft)
Normal conditions	
(ordinary haze, visibility approx. 20 km (12.5 miles))	
With reflector sheet 5 cm x 5 cm (12.5 in x 12.5 in)	1.6 m to 300 m (5.3 ft to 980 ft)
With mini prism 2.5 cm (1 in)	1.6 m to 3,000 m (5.3 ft to 9800 ft)
With single prism 6.25 cm (2.5 in)	1.6 m to 5,000 m (5.3 ft to 16,400 ft)
Accuracy (Prism/Precise mode)	
Normal operating temperature	±(3 + 2 ppm x D) mm
-20 °C to -10 °C, +40 °C to +50 °C	±(3 + 3 ppm x D) mm
(-4 °F to +14 °F, +104 °F to +122 °F)	
Accuracy (Reflectorless/Precise mode)	
Normal operating temperature	±(3 + 2 ppm x D) mm
-20 °C to -10 °C, +40 °C to +50 °C	±(3 + 3 ppm x D) mm
(-4 °F to +14 °F, +104 °F to +122 °F)	
Measuring interval ²	
Prism mode	
Precise mode	1.3 sec. (initial 2.0 sec.)
Normal mode	0.5 sec. (initial 1.6 sec.)
Reflectorless mode	
Precise mode	1.6 sec. (initial 2.6 sec.)
Normal mode	0.8 sec. (initial 2.0 sec.)
Least count	
Precise mode	0.1 mm (0.0005 ft)/1 mm (0.002 ft) selectable
Normal mode	1 mm (0.002 ft)/10 mm (0.02 ft) selectable
Prism offset	-999 mm to 999 mm

ANGLE MEASUREMENT

DIN 18723 accuracy (horizontal and vertical)	2"/0.5 mgon
Reading system	Photoelectric detection by incremental encoder
Circular diameter	79 mm (3.1 in)
Horizontal angle	Diametrical
Vertical angle	Diametrical
Minimum reading increment	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0,05 mil

TELESCOPE

Tube length	153 mm (6.02 in)
Image	Erect
Magnification	26x (16x/32x with optional eyepieces)
Effective diameter of objective	40 mm (1.57 in) EDM: 50 mm (1.97 in)

Field of view	1°30'
Resolving power	3"
Minimum focusing distance	1.6 m (5.3 ft)
Reticle illumination	Provided (3 steps)

TILT SENSOR

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

COMMUNICATIONS

Communication ports	1 x serial, 1 x USB Client
External memory ports	1 x CompactFlash (CF Types I and II), 1 x USB Host (Each unit includes a 128 MB CompactFlash card)

POWER

On-board Ni-MH battery BC-80	
Operating time	approx. 6 hours (continuous distance/angle measurement) approx. 12 hours (distance/angle measurement every 30 seconds) approx. 25 hours (angle measurement only)
Charging time	
Full charge	3 hours

GENERAL SPECIFICATIONS

Lumi-Guide	
Working range	100 m (330 ft)
Positioning accuracy	within approx. 6 cm at 100 m (2.4 in at 330 ft)
Level vials	
Plate level vial	30"/2 mm
Circular level vial	10"/2 mm
Optical plummet	
Magnification	3x
Focusing range	0.5 m (1.6 ft) to ∞
Display	Graphic LCD (128 x 64 dot); both sides
Point memory	10,000 records
Dimensions (W x D x H)	166 mm x 168 mm x 365 mm (6.5 in x 6.6 in x 14.4 in)
Weight (approx.)	
Main unit (without battery)	5.1 kg (11.2 lb)
BC-80 clip-on battery	0.6 kg (1.3 lb)
Carrying case	4.0 kg (8.8 lb)

ENVIRONMENTAL

Operating 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	IP54

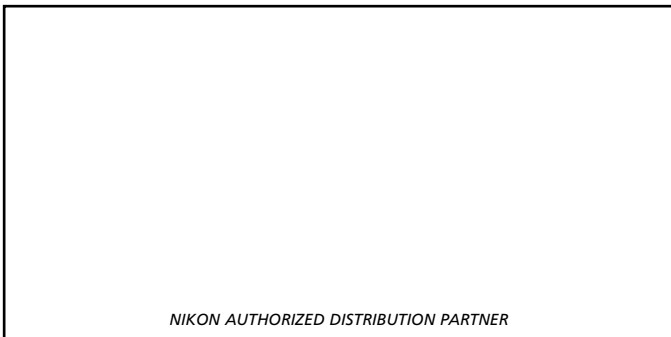
CERTIFICATION

Class B Part 15 FCC certification, CE Mark approval.

¹ White objects with high reflectivity. Measuring distance may vary depending on targets and measuring conditions.

² Measuring time may vary depending on measuring distance and conditions.

Simple • Dependable • Accurate



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

