

Nikon Nivo™ C Series Total Stations

Specifications Sheet

QUALITY • COMPACT • ACCURATE

DISTANCE MEASUREMENT

Range with Nikon specified prisms (Good conditionsⁱⁱ)

With reflector sheet 5 cm x 5 cm (2 in x 2 in)

Nivo^{1.C}, Nivo^{2.C} 1.5 m to 270 m (4.9 ft to 886 ft)

Nivo^{3.C}, Nivo^{5.C} 1.5 m to 300 m (4.9 ft to 984 ft)

With single prism 6.25 cm (2.5 in)

Nivo^{1.C}, Nivo^{2.C} 1.5 m to 3,000 m (4.9 ft to 9,843 ft)

Nivo^{3.C}, Nivo^{5.C} 1.5 m to 5,000 m (4.9 ft to 16,404 ft)

Range reflectorless modeⁱ

| Nivo ^{1.C} , Nivo ^{2.C} | Good ⁱⁱⁱ | Normal ⁱⁱⁱ | Difficult ^{iv} |
|---|---------------------|-----------------------|-------------------------|
| KGC ^{ix} (18%) | 350 m (1,148 ft) | 250 m (820 ft) | 200 m (656 ft) |
| KGC ^{ix} (90%) | 500 m (1,640 ft) | 400 m (1,312 ft) | 250 m (820 ft) |

| Nivo ^{3.C} , Nivo ^{5.C} | Good ⁱⁱⁱ | Normal ⁱⁱⁱ | Difficult ^{iv} |
|---|---------------------|-----------------------|-------------------------|
| KGC ^{ix} (18%) | 250 m (820 ft) | 200 m (656 ft) | 150 m (492 ft) |
| KGC ^{ix} (90%) | 400 m (1,312 ft) | 300 m (984 ft) | 250 m (820 ft) |

Shortest possible range 1.5m (4.9 ft)

Accuracy* (Precise mode)

(Standard Deviation based on ISO 17123-4)

Prism ±(2+2 ppm × D) mm

Reflectorless ±(3+2 ppm × D) mm

Measuring interval^{vi}

| Prism mode | Precise mode | Normal mode |
|---|-----------------|-----------------|
| Nivo ^{1.C} , Nivo ^{2.C} | 1.6 s | 0.8 s |
| Nivo ^{3.C} , Nivo ^{5.C} | 1.5 s | 0.8 s |
| Reflectorless mode ^{vii} | | |
| Nivo ^{1.C} , Nivo ^{2.C} | 2.1 s | 1.2 s |
| Nivo ^{3.C} , Nivo ^{5.C} | 1.8 s | 1.0 s |
| Least count | 1 mm (0.002 ft) | 10 mm (0.02 ft) |

ANGLE MEASUREMENT

ISO 17123-3 accuracy (horizontal and vertical): 1"/0.3mgon Nivo^{1.C}
2"/0.6 mgon Nivo^{2.C}; 3"/1 mgon Nivo^{3.C}; 5"/1.5 mgon Nivo^{5.C}

Reading system Absolute encoder

Circle diameter 62 mm (2.4 in)

Horizontal/Vertical angle Diametrical

Minimum increment

Nivo^{1.C} Degree: 0.5"; Gon: 0.1 mgon

Nivo^{2.C}, Nivo^{3.C}, Nivo^{5.C} Degree: 1"; Gon: 0.1 mgon

TELESCOPE

Tube length 125 mm (4.9 in)

Image Erect

Magnification 30× (18×/36× with optional eyepieces)

Nivo^{1.C}, Nivo^{2.C} Effective diameter of objective 40 mm (1.6 in)

Nivo^{1.C}, Nivo^{2.C} EDM diameter 45 mm (1.8 in)

Nivo^{3.C}, Nivo^{5.C} Effective diameter of objective 45 mm (1.8 in)

Nivo^{3.C}, Nivo^{5.C} EDM diameter 50 mm (2.0 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 ±3.5'

COMMUNICATIONS

Communication ports 1 x serial (RS-232C), 2 x USB (host and client)

Wireless communications Integrated Bluetooth

POWER

Internal Li-ion battery (x2)

Output voltage 3.8 V DC

Operating time^{viii}

Nivo^{1.C}, Nivo^{2.C}

approx. 12 hours (continuous distance/angle measurement)

approx. 26 hours (distance/angle measurement every 30 s)

approx. 28 hours (continuous angle measurement)

Nivo^{3.C}, Nivo^{5.C}

approx. 7.5 hours (continuous distance/angle measurement)

approx. 16 hours (distance/angle measurement every 30 s)

approx. 20 hours (continuous angle measurement)

Charging time

Full charge 4 hours

GENERAL SPECIFICATIONS

Level vials

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 face 1 QVGA, 16 bit color, TFT LCD, backlit (320x240 pixel)

Display face 2 Backlit, graphic LCD (128x64 pixel)

Laser plummet (optional) 4 levels

Memory 128 MB RAM, 128MB Flash memory

Processor Marvell PXA300 XScale 624 MHz

Dimensions (W x D x H) 149 mm x 145 mm x 306 mm

(5.8 in x 5.7 in x 12.0 in)

Weight (approx.)

Nivo^{1.C}, Nivo^{2.C} Main unit (without batteries) 3.9 kg (8.6 lb)

Nivo^{3.C}, Nivo^{5.C} Main unit (without batteries) 3.8 kg (8.4 lb)

Battery 0.1 kg (0.2 lb)

Carrying case 2.3 kg (5.1 lb)

ENVIRONMENTAL

Operating temperature range -20 °C to +50 °C (-4 °F to +122 °F)

Storage temperature range -25 °C to +60 °C (-13 °F to +140 °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 IP66 (Nivo^{1.C}) IP56)

CERTIFICATION

Class B Part 15 FCC certification, CE Mark approval. C-Tick.

Laser safety IEC 60825-1 am2:2007

Prism mode: Class 1 Laser / Laser Plummet (optional): Class 2 laser

Nivo^{1.C}, Nivo^{2.C} Reflectorless / Laser Pointer: Class 3R laser

Nivo^{3.C}, Nivo^{5.C} Reflectorless / Class 1 laser

Nivo^{3.C}, Nivo^{5.C} Laser Pointer: Class 2 laser

i Measuring distance may vary depending on targets and measuring conditions.

ii Good conditions (good visibility, overcast, twilight, underground, low ambient light).

iii Normal conditions (normal visibility, object in the shadow, moderate ambient light).

iv Difficult conditions (haze, object in direct sunlight, high ambient light).

v ±(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)

vi Measuring time may vary depending on measuring distance and conditions. For the initial

measurement, it may take a few more seconds.

vii Measured to KGC 90% at 20 m (65 ft)

viii Battery life specification at 25 °C (77 °F). Operation time may be shorter in low temperatures

or if the battery is not new.

ix Kodak Gray Card, Catalog number E1527795

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



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