

# Total Stations - Nikon Nivo™ C Series



- Survey Pro software on-board
- Windows CE touch-screen
- High quality Nikon optics
- Fast, accurate EDM
- Prism and reflectorless measurements
- Easy-to-use 2nd face keypad
- Hot swappable batteries
- Compact, rugged, and lightweight
- Cable-free Bluetooth®
- Optional laser plummet

The Nivo C Series is designed with a feature-packed Windows® CE touch-screen interface. Field application software functions are supported by the world class Spectra Precision® Survey Pro™ field software for all your surveying and construction measurement needs.

All Nivo C Series solutions are designed with high productivity in mind, including a dual face display for efficient high precision angle and distance measurements. Work all day long with endless power using hot swappable batteries, you'll never need to worry about interrupting your workflow to change a battery again.

To assist you with the multitudes of data needs of the 21st century, the Nivo C Series includes:

- Support for USB memory sticks
- Wireless cable-free Bluetooth connections to external data collectors
- A USB High-speed data transfer port

The Nivo C Series is available in 2", 3" and 5" models to meet your specific accuracy needs.

# Total Stations - Nikon Nivo™ C Series

## Specifications Sheet

SPECIFICATIONS	NIVO 2.C	NIVO 3.C	NIVO 5.C
<b>ANGLE MEASUREMENT</b>			
Minimum increment (Degree, Gon, MIL6400)	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0.05 mil	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0.05 mil	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0.05 mil
DIN 18723 accuracy (horizontal and vertical)	2"/0.5 mgon	3"/1 mgon	5"/1.5 mgon
<b>TELESCOPE</b>			
Magnification	30× (18x/36x with optional eyepieces)	30× (18x/36x with optional eyepieces)	30× (18x/36x with optional eyepieces)
Effective diameter of objective	40 mm (1.6 in)	45 mm (1.8 in)	45 mm (1.8 in)
Minimum focusing distance	1.5 m (4.9 ft)	1.5 m (4.9 ft)	1.5 m (4.9 ft)
Reticle illumination	Yes	Yes	Yes
<b>DISTANCE MEASUREMENT</b>			
Reflectorless mode (white target) <sup>1</sup>	1.5 m to 300 m (4.9 ft to 984 ft)	1.5 m to 300 m (4.9 ft to 984 ft)	1.5 m to 300 m (4.9 ft to 984 ft)
Good conditions			
With single prism	3,000 m (9,843 ft)	5,000 m (16,404 ft)	5,000 m (16,404 ft)
Accuracy (Prism/Precise mode) <sup>2</sup>	(2+2 ppm × D) mm	(3+2 ppm × D) mm	(3+2 ppm × D) mm
Accuracy (Reflectorless/Precise mode) <sup>2</sup>	(3+2 ppm × D) mm	(3+2 ppm × D) mm	(3+2 ppm × D) mm
<b>MEASURING INTERVAL<sup>3</sup></b>			
Prism mode	Precise mode	1.6 sec.	1.5 sec.
	Normal mode	0.8 sec.	0.8 sec.
Reflectorless mode	Precise mode	2.1 sec.	1.8 sec.
	Normal mode	1.2 sec.	1.0 sec.
Least count	Precise mode	1 mm (0.002 ft)	1 mm (0.002 ft)
	Normal mode	10 mm (0.02 ft)	10 mm (0.02 ft)
<b>ENVIRONMENTAL SPECIFICATIONS</b>			
<b>OPERATING TEMPERATURE RANGE</b>	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)
<b>ATMOSPHERIC CORRECTION</b>			
Temperature range	-40 °C to +60 °C (-40 °F to +140 °F)	-40 °C to +60 °C (-40 °F to +140 °F)	-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	400 mmHg to 999 mmHg 533 hPa to 1,332 hPa 15.8 inHg to 39.3 inHg	400 mmHg to 999 mmHg 533 hPa to 1,332 hPa 15.8 inHg to 39.3 inHg
<b>TILT SENSOR</b>	Dual axis	Dual axis	Dual axis
<b>LEVEL VIALS</b>			
Sensitivity of Circular level vial	10'/2 mm	10'/2 mm	10'/2 mm
<b>OPTICAL PLUMMET</b> Magnification	3×	3×	3×
<b>DISPLAY</b>			
Face 1	QVGA, 16 bit color, TFT LCD, backlight (320x240 pixel)	QVGA, 16 bit color, TFT LCD, backlight (320x240 pixel)	QVGA, 16 bit color, TFT LCD, backlight (320x240 pixel)
Face 2	Backlit, graphic LCD (128x64 pixel)	Backlit, graphic LCD (128x64 pixel)	Backlit, graphic LCD (128x64 pixel)
<b>MEMORY</b>	128 MB RAM, 128 MB Flash memory	128 MB RAM, 128 MB Flash memory	128 MB RAM, 128 MB Flash memory
<b>DIMENSIONS (W X D X H)</b>	149 mm x 145 mm x 306 mm (5.8 in x 5.7 in x 12.0 in)	149 mm x 145 mm x 306 mm (5.8 in x 5.7 in x 12.0 in)	149 mm x 145 mm x 306 mm (5.8 in x 5.7 in x 12.0 in)
<b>WEIGHT (APPROX.)</b>			
Main unit (without battery)	3.9 kg (8.6 lb)	3.8 kg (8.4 lb)	3.8 kg (8.4 lb)
Battery	0.1 kg (0.02 lb)	0.1 kg (0.02 lb)	0.1 kg (0.02 lb)
Carrying case	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)
<b>INTERNAL LI ION BATTERY (x2)</b>			
Operating time <sup>4</sup>	approx. 12 hours (continuous distance/angle measurement) approx. 26 hours (distance/angle measurement every 30 seconds) approx. 28 hours (continuous angle measurement)	approx. 7.5 hours (continuous distance/angle measurement) approx. 16 hours (distance/angle measurement every 30 seconds) approx. 20 hours (continuous angle measurement)	approx. 7.5 hours (continuous distance/angle measurement) approx. 16 hours (distance/angle measurement every 30 seconds) approx. 20 hours (continuous angle measurement)
Output voltage	3.8 V DC	3.8 V DC	3.8 V DC
Recharging time	4 hours	4 hours	4 hours
<b>COMMUNICATION PORTS</b>	1 x serial (RS-232C), 2 x USB (host and client)	1 x serial (RS-232C), 2 x USB (host and client)	1 x serial (RS-232C), 2 x USB (host and client)
<b>WIRELESS COMMUNICATIONS</b>	Integrated Bluetooth	Integrated Bluetooth	Integrated Bluetooth

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

2 (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).

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

4 Battery life specification at 25 °C (77 °F). Operation time may be shorter in low temperatures and if the battery is not new.

# Total Stations - Nikon Nivo™ M Series



- High quality Nikon optics
- Intuitive powerful software
- Fast, accurate EDM
- Prism and reflectorless measurements
- Easy-to-use keypad
- Hot swappable batteries
- Compact, rugged, and lightweight
- Optional cable-free Bluetooth
- Optional laser plummet

Nikon has combined simplicity and quality together in perfect harmony to produce the Nikon M Series.

These compact and efficient products use a field-proven Nikon interface and field software that is quick to learn and easy-to-use.

Supporting both prism-based and reflectorless technologies, you can be assured of accurate repeatable measurements all day long to any point.

The distance measurements are fast and flexible with the Nivo M Series. Use the MSR1 & MSR2 keys to separately configure different prism or reflectorless measurement parameters, eliminating time switching between measurement modes.

Nivo M Series field software highlights include:

- A complete set of CoGo functions
- Simple data management of files
- Quick-coding for convenient one-button data collection of point features and your raw target data

The ultimate in quality for hardworking conditions all day, every day.

The Nivo M Series is available in 2", 3" and 5" models to meet your specific accuracy needs.

# Total Stations - Nikon Nivo™ M Series

## Specifications Sheet

SPECIFICATIONS	NIVO 2.M	NIVO 3.M	NIVO 5.M
<b>ANGLE MEASUREMENT</b>			
Minimum increment (Degree, Gon, MIL6400)	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0.05 mil	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0.05 mil	Degree: 1/5/10" Gon: 0.2/1/2 mgon MIL6400: 0.005/0.02/0.05 mil
DIN 18723 accuracy (horizontal and vertical)	2"/0.5 mgon	3"/1 mgon	5"/1.5 mgon
<b>TELESCOPE</b>			
Magnification	30× (18x/36x with optional eyepieces)	30× (18x/36x with optional eyepieces)	30× (18x/36x with optional eyepieces)
Effective diameter of objective	40 mm (1.6 in)	45 mm (1.8 in)	45 mm (1.8 in)
Minimum focusing distance	1.5 m (4.9 ft)	1.5 m (4.9 ft)	1.5 m (4.9 ft)
Reticle illumination	No	No	No
<b>DISTANCE MEASUREMENT</b>			
Reflectorless mode (white target) <sup>1</sup>	1.5 m to 300 m (4.9 ft to 984 ft)	1.5 m to 300 m (4.9 ft to 984 ft)	1.5 m to 300 m (4.9 ft to 984 ft)
Good conditions			
With single prism	3,000 m (9,843 ft)	5,000 m (16,404 ft)	5,000 m (16,404 ft)
Accuracy (Prism/Precise mode) <sup>2</sup>	(2+2 ppm × D) mm	(3+2 ppm × D) mm	(3+2 ppm × D) mm
Accuracy (Reflectorless/Precise mode) <sup>2</sup>	(3+2 ppm × D) mm	(3+2 ppm × D) mm	(3+2 ppm × D) mm
<b>MEASURING INTERVAL<sup>3</sup></b>			
Prism mode			
Precise mode	1.6 sec.	1.5 sec.	1.5 sec.
Normal mode	0.8 sec.	0.8 sec.	0.8 sec.
Reflectorless mode			
Precise mode	2.1 sec.	1.8 sec.	1.8 sec.
Normal mode	1.2 sec.	1.0 sec.	1.0 sec.
Least count			
Precise mode	1 mm (0.002 ft)	1 mm (0.002 ft)	1 mm (0.002 ft)
Normal mode	10 mm (0.02 ft)	10 mm (0.02 ft)	10 mm (0.02 ft)
<b>ENVIRONMENTAL SPECIFICATIONS</b>			
<b>OPERATING TEMPERATURE RANGE</b>	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)	-20 °C to +50 °C (-4 °F to +122 °F)
<b>ATMOSPHERIC CORRECTION</b>			
Temperature range	-40 °C to +60 °C (-40 °F to +140 °F)	-40 °C to +60 °C (-40 °F to +140 °F)	-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	400 mmHg to 999 mmHg 533 hPa to 1,332 hPa 15.8 inHg to 39.3 inHg	400 mmHg to 999 mmHg 533 hPa to 1,332 hPa 15.8 inHg to 39.3 inHg
TILT SENSOR	Dual axis	Dual axis	Dual axis
<b>LEVEL VIALS</b>			
Sensitivity of Circular level vial	10'/2 mm	10'/2 mm	10'/2 mm
<b>OPTICAL PLUMMET</b>			
Magnification	3×	3×	3×
<b>DISPLAY</b>	Single side, backlit, graphic LCD (128x64 pixel)	Single side, backlit, graphic LCD (128x64 pixel)	Single side, backlit, graphic LCD (128x64 pixel)
<b>POINT MEMORY</b>	10,000 records	10,000 records	10,000 records
<b>DIMENSIONS (W X D X H)</b>	149 mm x 145 mm x 306 mm (5.8 in x 5.7 in x 12.0 in)	149 mm x 145 mm x 306 mm (5.8 in x 5.7 in x 12.0 in)	149 mm x 145 mm x 306 mm (5.8 in x 5.7 in x 12.0 in)
<b>WEIGHT (APPROX..)</b>			
Main unit (without battery)	3.8 kg (8.4 lb)	3.6 kg (8.0 lb)	3.6 kg (8.0 lb)
Battery	0.1 kg (0.2 lb)	0.1 kg (0.2 lb)	0.1 kg (0.2 lb)
Carrying case	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)	2.3 kg (5.1 lb)
<b>INTERNAL LI ION BATTERY (x2)</b>			
Operating time <sup>4</sup>	approx. 19 hours (continuous distance/angle measurement)	approx. 10 hours (continuous distance/angle measurement)	approx. 10 hours (continuous distance/angle measurement)
	approx. 57 hours (distance/angle measurement every 30 seconds)	approx. 26 hours (distance/angle measurement every 30 seconds)	approx. 26 hours (distance/angle measurement every 30 seconds)
	approx. 62 hours (continuous angle measurement)	approx. 31 hours (continuous angle measurement)	approx. 31 hours (continuous angle measurement)
Output voltage	3.8 V DC	3.8 V DC	3.8 V DC
Recharging time	4 hours	4 hours	4 hours
<b>COMMUNICATION PORTS</b>	1 x serial (RS-232C)	1 x serial (RS-232C)	1 x serial (RS-232C)
<b>WIRELESS COMMUNICATIONS</b>	Optional integrated Bluetooth	Optional integrated Bluetooth	Optional integrated Bluetooth

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

<sup>2</sup> (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).

<sup>3</sup> Measuring time may vary depending on measuring distance and conditions. For the initial measurement, it may take a few more seconds.

<sup>4</sup> Battery life specification at 25 °C (77 °F). Operation time may be shorter in low temperatures and if the battery is not new.