Ultra High-precision 3D Stations for Accurate Measurements in Industrial and Monitoring Applications

- Ultra High-precision Distance Measurement
- Precise Angle Accuracies 0.5" (NET05 AXII) / 1" (NET1 AXII)
- 1" Auto-pointing Accuracy
- Remote Control through On-line PC
- Exclusive Reflector Prescan Technology
- Enforced Durability for Long Term Deformation / Monitoring Applications
Ultra High-precision 3D Stations for Accurate Measurements

Monitoring
Engineering structures, such as buildings, dams, tunnels and bridges, can always be affected by movement caused by excavation, heavy construction and piling placement – in addition to natural hazards, such as harsh weather, soil movement, change of ground water level or any number of other factors. The NET Series provides superior measuring precision and is equipped with environmental protection and various functions necessary in high-precision monitoring applications.

First Order Survey
The NET Series offers high-precision angle accuracy (NET05 AXII: 0.5”, NET1 AXII: 1”), which can be applied for a wide range of precise measurements. The high-precision 3D station is equipped with an automatic tracking system and can be configured by remote control.

Ultra High-precision Distance Measurement

NET05 AXII
Using reflective sheet targets, the NET05 AXII provides sub-millimeter accuracy (0.5 mm + 1 ppm) in a range of up to 200 m.

NET1 AXII
The reflectorless measurement range of the NET1 AXII model is doubled to 400 m (1,310 ft.) with Kodak white side (90% reflective).

Industrial Measurement
The NET05 AXII, when used with reflective sheet targets, can achieve sub-millimeter accuracy. It is excellent for measuring the shape and alignment of large-scale structures, such as various plants and bridges, as well as for precise measurement of ships, railroad cars and airplanes.

Adjusting Mechanism for Angle Measuring
The biaxial level compensation mechanism has a wide adjusting range of ±6°, which is twice as wide as the previous models. This enables highly accurate measuring performance.

Advanced Angle Measurement System
The Sokkia’s IACS (Independent Angle Calibration System) technology provides “best in class” angle accuracy.

Superior Auto-Pointing Accuracy
The auto-pointing accuracy with the standard prism is 1” (1 mm at 200 m), and 4” (1 mm at 50 m) with a reflective sheet.

IP65 Dust and Water Protection Rating
The system provides protection from dust, hard rain, as well as other inclement weather conditions, and operates extreme temperature ranging from -20°C to 50°C.
Remote Operation by On-line System
A library of special control commands can be provided in order to establish remote operation functionality.

*Please contact us for the details of the special commands.

Reflector Prescan Function for Monitoring Setup*
This function is ideal for structural monitoring applications to make initial setup easy and fast. The NET Series automatically searches within the predetermined area to quickly measure the reflectors as initial positions for subsequent routine measurements. This function works even in low-light or dark conditions where the reflectors cannot be clearly seen by the human eye.

* This function is not included in on-board software, and needs to be implemented in the user's own system using opened command.

Target Illumination
Prisms or sheet targets can be located easily in dim lighting conditions using the high-intensity white LED built into the telescope.

Upgraded Durability
Rugged components, built for 24/7 monitoring applications.

Communication Port
Weatherproof multi-port maintains IP65 protection even with an RS-232C data cable or an external battery connected.

Advanced Auto-pointing Algorithm for Multiple Prisms*
The NET Series incorporates an advanced auto-pointing algorithm optimized for monitoring applications. The NET Series automatically sights the prism closest to the telescope center regardless of the distance from the instrument. This works even if multiple prisms or other reflective objects are in the field-of-view. The feature dramatically enhances the reliability in periodic monitoring of predetermined prism locations.

* With a regular auto-pointing algorithm, the instrument normally sights the nearest target with the strongest reflection.

TSshield™
Every NET total station is equipped with a telematics-based multifunction communications module, providing the ultimate security and maintenance capabilities for the investment. If an activated instrument is lost or stolen, a coded signal can be sent to the instrument to disable it – making the total station secure anywhere in the world. Software updates and firmware enhancements are available through daily connectivity with the cloud-based Sokkia servers.

Bluetooth®
Standard Bluetooth (Class 1) enables communication over a long distance, up to 600 m*

* When used with RC-PR5 Remote Controller. The range can be subject to change depending on the obstacles between the instruments or any environmental radio conditions.

Easy Access to USB Port
Easily import/export data from the office to the field in seconds.

Control Panel
Control panel with touch-screen display and alpha/numeric keyboard.
<table>
<thead>
<tr>
<th>Model</th>
<th>NET05 AXII</th>
<th>NET1 AXII</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telescope</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnification</td>
<td>30x / 2.5&quot;</td>
<td>30x / 2.5&quot;</td>
</tr>
<tr>
<td>Objective aperture</td>
<td>45 mm (1.8 in.)</td>
<td>150 mm (2.0 in.)</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1&quot; / 0.5&quot; / 0.00005 x / 0.0001 y, 0.0005 / 0.0002 m</td>
<td></td>
</tr>
<tr>
<td>Accuracy</td>
<td>0.9&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td><strong>Distance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>0.5 to 100 m (1.64 to 320 ft.)</td>
<td>0.5 to 400 m (1.64 to 1,310 ft.)</td>
</tr>
<tr>
<td><strong>Auto-Collimating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working range</td>
<td>1.3 to 1,000 m (4.2 to 3,280 ft.)</td>
<td>5 to 50 m (16 to 165 ft.)</td>
</tr>
<tr>
<td>Sighting accuracy</td>
<td>Prism (1&quot; at 200 m)</td>
<td>Prism (1&quot; at 200 m)</td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
<td>Windows® Embedded CE 6.0</td>
<td>Windows® Embedded CE 6.0</td>
</tr>
<tr>
<td>Interface</td>
<td>Serial RS-232C, USB 2.0 (Type A / mini B)</td>
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</tr>
<tr>
<td>Data storage</td>
<td>Internal: 500 MB (includes memory for program files) / External: USB flash memory up to 8 GB</td>
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</tr>
<tr>
<td>Trigger key</td>
<td>On right of instrument support</td>
<td>On right of instrument support</td>
</tr>
<tr>
<td><strong>Bluetooth</strong></td>
<td>Bluetooth Class 1, Ver. 2.1 + EDR, Operating range: up to 600 m (1,960 ft.)</td>
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</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>BDC70 Standard Battery</td>
<td>BDC70 Standard Battery</td>
</tr>
<tr>
<td>Operating time</td>
<td>Approx. 4 hours</td>
<td>Approx. 4 hours</td>
</tr>
<tr>
<td>External battery</td>
<td>BDC70: approx. 7 hours / BDC70: approx. 14.5 hours</td>
<td>BDC70: approx. 7 hours / BDC70: approx. 14.5 hours</td>
</tr>
</tbody>
</table>

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**Standard Accessories**

- NET total station
- Battery charger (CDC60BA)
- Stylus pen
- Lens hood
- USB stick
- Screwdriver
- Adjusting pin x2
- Cleaning cloth
- Precautions for safe operation
- Export restriction card
- Battery x2 (BDC70)
- Power cable
- Lens cap
- Tool pouch
- Carry case
- Lens brush
- Vinyl cover
- Quick start manual
- Laser caution sign-board
- Carry strap

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**Specifications subject to change without notice**
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