# SX Series

## Superior X-ellence Station

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Auto-Pointing Model</th>
<th>Auto-Tracking Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX-101P</td>
<td>SX-101P</td>
<td>SX-101P</td>
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<tr>
<td>SX-102P</td>
<td>SX-102T</td>
<td>SX-102T</td>
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<td>SX-103P</td>
<td>SX-103T</td>
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<tr>
<td>SX-105P</td>
<td>SX-105T</td>
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</table>

### Auto-Tracking / Auto-Pointing

<table>
<thead>
<tr>
<th>Feature</th>
<th>SX-101P</th>
<th>SX-102P</th>
<th>SX-103P</th>
<th>SX-105P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-Pointing</td>
<td>✔️</td>
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<tr>
<td>Auto-Tracking</td>
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<tr>
<td>Operating Range</td>
<td>2m to 300m</td>
<td>2m to 1,000m</td>
<td>2m to 1,000m</td>
<td>2m to 6,000m</td>
</tr>
</tbody>
</table>

### Angle Measurement

- Pitman Reading: 0.5 / 1.0 / 1.5 / 2.0 / 3.0 / 5.0
- Tilt Compensation: Dual Axis Compensation Range: ±4°

### Distance Measurement

- Precision: ±(2mm + 2ppm x D) mm
- Measuring Range: 0.3m to 1,000m (1 to 3,281ft.) under good conditions*

### Specifications subject to change without notice

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Rapidly Points. Accurately Measures.

- Superior Auto-Pointing Technology
  Incorporating cutting-edge laser and image processing technologies, the SX provides extremely reliable auto-pointing capability. Even in dense woods or in dim conditions, the SX rapidly finds a prism and accurately measures its position, ensuring maximum work efficiency under all job site environments. The SX provides a wide auto-ranging range from 1.3m to 1,000m with a standard prism.

  - Simple and Easy
    Point the SX in the general direction of the prism, press the trigger key, and the SX automatically points to the prism center. This enables even a beginner to rapidly take accurate measurements.

  - Faster, Less Effort
    By eliminating the need for the focusing telescope and adjusting fine motion screws, the SXR dramatically increases survey speed.

- Advanced Angle Measurement System
  - SX features SOKKIA’s original absolute encoders that provide long-term reliability in any job site condition. Dual-axis compensator ensures stable measurements even when setup on uneven terrain.
  - SX-101 and 102 feature groundbreaking IACS (Independent Angle Calibration System) technology for extremely reliable angle measurements.

- RED-tech Technology
  Reflectorless EDM
  - Fast-distance measurement of 0.8s regardless of object.
  - SOKKIA traditional pinpoint precision in reflectorless distance measurement.
  - Reflectroless operation from 30cm to 800m.
  - Coaxial EDM beam and laser-pointer provide fast and accurate aiming.
  - Ensures accuracy even with reflective sheets.

- Ultra-Narrow Laser Beam
  Ultra-narrow red laser beam is also used for the laser pointer, ensuring exceptional pinpoint precision in reflectorless measurement.

  Measuring beam spot size (reflectorless mode)

<table>
<thead>
<tr>
<th>Distance</th>
<th>0.28 x 0.35in.</th>
<th>0.55 x 0.55in.</th>
<th>1.14 x 0.94in.</th>
<th>2.59 x 2.2in.</th>
<th>4.94 x 3.5in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7m (23ft.)</td>
<td>7.8 x 8mm</td>
<td>14 x 14mm</td>
<td>28 x 28mm</td>
<td>70 x 74mm</td>
<td>123 x 128mm</td>
</tr>
<tr>
<td>40m (131ft.)</td>
<td>7.8 x 8mm</td>
<td>14 x 14mm</td>
<td>28 x 28mm</td>
<td>70 x 74mm</td>
<td>123 x 128mm</td>
</tr>
<tr>
<td>100m (328ft.)</td>
<td>7.8 x 8mm</td>
<td>14 x 14mm</td>
<td>28 x 28mm</td>
<td>70 x 74mm</td>
<td>123 x 128mm</td>
</tr>
<tr>
<td>500m (1640ft.)</td>
<td>7.8 x 8mm</td>
<td>14 x 14mm</td>
<td>28 x 28mm</td>
<td>70 x 74mm</td>
<td>123 x 128mm</td>
</tr>
</tbody>
</table>

- Auto-Tracking Model feature
  - LongRange Data Communication
    The SX series of total stations features Bluetooth Class 1 wireless technology for reliable data communications.
    - All SX data is instantly available at the Bluetooth-equipped controller.

- RC-PR5 Remote Control System
  The RC-PR5 On-Demand Remote allows for rapid prism search regardless of your position. A built-in directional sensor constantly monitors the prism movement so the SX can turn left or right whichever direction is closer.

- Precision 360° Prisms
  Advanced prism configuration provides unsurpassed measurement precision due to a minimum offset of each prism center. ATP1 fits a range pole; ATP15 sliding prism is designed for a pin pole.

- Waterproof, Rugged, and Operator Friendly
  - IP66 dustproof / waterproof rating.
  - Metal chassis and heavy-duty handle.
  - Standard usage temperature range -20 to +50°C.

  - New star key [ ] instantly brings up functions.
  - Trigger key lets you take a series of measurements without taking your eye off the telescope.
  - Control panel consists of 10-key board with color LCD touch screen display.
  - USB type A / mini B as well as serial ports.

  - Green / Red telescope guide lights provide efficient guidance in a range up to 150m.

- Cloud-based Solutions for Precise Positioning
  MAGNET™
  - Real-time connections. When you need it. Where you need it.

- MAGNET™ Field
  Data collection, stakeout, roads, and coordinate geometry.

- MAGNET™ Cloud-based Solutions for Precise Positioning
  MAGNET™ is a software family that uses the “cloud” to seamlessly connect the field and office for data exchange, communications, asset tracking and more.

  An industry first! New function to maintain your instrument.

  TSshield is a standard feature on all new model SOKKIA total stations. Its advanced communication system provides new opportunities to secure and maintain your instrument.

  For more detail of TSshield, please refer to the TSshield’s leaflet.