**SX Series**

**Superior X-ellence Station**

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

**Angle Measurement**

- Rotary absolute encoder reading
- Front: 1" to 2" / 1" to 3" / 1" to 5"
- Rear: 1" to 2" / 1" to 3" / 1" to 5"

**Distance Measurement**

- Measuring Range: 500m / 1,640 ft. (Class 1 equivalent)
- Accuracy: ±(2mm + 2ppm x D) mm

**Specs**

- **Measuring Range**
  - SX-101P: 0.3m to 1,000m (1 to 3,281ft.) under good conditions
  - SX-103P: 0.3m to 1,000m (1 to 3,281ft.) under good conditions
  - SX-105P: 0.3m to 1,000m (1 to 3,281ft.) under good conditions

- **Accuracy**
  - SX-101P: ±(2mm + 2ppm x D) mm
  - SX-103P: ±(2mm + 2ppm x D) mm
  - SX-105P: ±(2mm + 2ppm x D) mm

- **Operating Range** (slope distance)
  - SX-101P: 2m to 300m (6.6 to 984ft.) / Standard mode: 2m to 100m (6.6 to 328ft.)
  - SX-103P: 2m to 600m (6.6 to 1,969ft.)
  - SX-105P: 2m to 600m (6.6 to 1,969ft.)

**Seniors CAN use this brochure may vary slightly from those of the actual products owing to limitations of the printing process.**

**Standards Accessories**

- SX main unit
- Battery charger (BDC70)
- Tripod (C2900)
- Power Cable
- Lens cap
- Lens hood
- Carrying strap
- Adjusting pin x2
- Cleaning cloth
- Operation manual
- USB memory
- Cleaning cloth sign-board
- Carrying case

**Contact to**

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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 SX dramatically increases survey speed.

**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.
- Wireless communication range may vary depending on obstacles and other environmental conditions.

**Advanced Angle Measurement System**
- SX features SOKKEN’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 0.9s regardless of object.
- SOKKEN traditional pinpoint precision in reflectorless distance measurement.
- Reflectance operation from 3cm 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 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>Beam spot size (height x width)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>10m (33ft.)</td>
<td>1.28 x 0.38in.</td>
<td>1.4 x 0.4in.</td>
<td>1.8 x 0.46in.</td>
<td>2.39 x 0.59in.</td>
</tr>
<tr>
<td>30m (98ft.)</td>
<td>7 x 2mm</td>
<td>9.5 x 3.5mm</td>
<td>14 x 5.6mm</td>
<td>19.5 x 8.2mm</td>
</tr>
<tr>
<td>50m (164ft.)</td>
<td>13.5 x 4.5mm</td>
<td>20 x 6.9mm</td>
<td>28 x 9.8mm</td>
<td>40 x 13.4mm</td>
</tr>
<tr>
<td>100m (328ft.)</td>
<td>23 x 6.9mm</td>
<td>35 x 10.1mm</td>
<td>51 x 14.1mm</td>
<td>80 x 20.1mm</td>
</tr>
<tr>
<td>300m (984ft.)</td>
<td>76 x 20.6mm</td>
<td>123 x 33.1mm</td>
<td>185 x 48.4mm</td>
<td>300 x 70.6mm</td>
</tr>
</tbody>
</table>

**Waterproof, Rugged, and Operator Friendly**
- IP65 dustproof / waterproof rating.
- Metal chassis and heavy-duty handle.
- Standard usage temperature range -20~+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™**
- MAGNET™ is a software family that uses the “cloud” to seamlessly connect the field and office for data exchange, communications, asset tracking and more.
- Real-time connections. When you need it. Where you need it.

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

**TSshield**
- An industry first! New function to protect your investment
- TSshield is a standard feature on all new model SOKKEN 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.*