

Provided by Xpert Survey Equipment  
Click Sokkia SX-101T for Product Info and Updated Pricing

## SX Series

SX-101P/SX-102P/SX-103P/SX-105P/SX-101T/SX-102T/SX-103T/SX-105T

Superior X-ellence Station

## SPECIFICATIONS

| Product Type                         | Auto-Pointing Model   |         |         |         | Auto-Tracking Model |         |         |         |
|--------------------------------------|---|---------|---------|---------|---------------------|---------|---------|---------|
| Model                                | SX-101P   | SX-102P | SX-103P | SX-105P | SX-101T             | SX-102T | SX-103T | SX-105T |
| <b>Auto-Tracking / Auto-Pointing</b> |   |         |         |         |                     |         |         |         |
| Auto-Tracking                        | -   | -       | -       | -       | •                   | •       | •       | •       |
| Auto-Pointing                        | •   | •       | •       | •       | •                   | •       | •       | •       |
| Rotation speed / Auto Tracking speed | 85°/sec (at 20°C) / 20°/sec   |         |         |         |                     |         |         |         |
| Operating range                      | ATP1/ATP1S 360° Prism: 2m to 600m (6.6 to 1,969ft.), CP01 mini prism: 1.3 to 700m (4.3 to 2,297ft.), OR1PA mini prism: 1.3 to 500m (4.3 to 1,640ft.), AP prism: 1.3m to 1,000m (4.3 to 3,281ft.)  |         |         |         |                     |         |         |         |
| <b>Angle Measurement</b>             |   |         |         |         |                     |         |         |         |
|                                      | Rotary absolute encoder scanning.   |         |         |         |                     |         |         |         |
| Minimum Reading                      | 0.5"/1"   |         | 1"/5"   |         | 0.5"/1"             |         | 1"/5"   |         |
| Angle Measurement                    | 1"  | 2"      | 3"      | 5"      | 1"                  | 2"      | 3"      | 5"      |
| Tilt Compensation                    | Dual Axis, Compensation Range: ±6'  |         |         |         |                     |         |         |         |
| <b>Distance Measurement</b>          |   |         |         |         |                     |         |         |         |
| Prism                                | Measuring Range: ATP1/ATP1S 360° Prism: 1.3m to 1,000m (4.3 to 3,281ft.), CP01 mini prism: 1.3 to 2,500m (4.3 to 8,200ft.), OR1PA mini prism: 1.3 to 500m (4.3 to 1,640ft.), AP prism: 1.3m to 6,000m (4.3 to 19,685ft.) under good conditions* 1 |         |         |         |                     |         |         |         |
|                                      | Accuracy: ±(1.5mm + 2ppm x D) mm (D=measuring distance in mm)   |         |         |         |                     |         |         |         |
| Reflective sheet target              | Measuring Range*3: 1.3m to 500m (4.3 to 1,640ft.) with RS90N-K reflecting sheet   |         |         |         |                     |         |         |         |
|                                      | Accuracy*3: ±(2mm + 2ppm x D) mm  |         |         |         |                     |         |         |         |
| Reflectorless                        | Measuring Range*2: 0.3m to 1,000m (1 to 3,281ft.) under good conditions*1   |         |         |         |                     |         |         |         |
|                                      | Accuracy*2: ±(2mm + 2ppm x D) mm  |         |         |         |                     |         |         |         |
| <b>Interface and Data management</b> |   |         |         |         |                     |         |         |         |
| Operating System / Processor         | Windows® Embedded CE.6.0  |         |         |         |                     |         |         |         |
| Display                              | 3.5 inch / Transmissive TFT QVGA color LCD  |         |         |         |                     |         |         |         |
| Memory                               | 500MB internal memory, USB flash memory (up to 8GB)   |         |         |         |                     |         |         |         |
| Interface                            | USB2.0 Type A/mini B / RS-232C  |         |         |         |                     |         |         |         |
| <b>Wireless Communication</b>        |   |         |         |         |                     |         |         |         |
| Bluetooth® Class 1,                  | Communication range: 600m (1,969ft.)*4  |         |         |         |                     |         |         |         |
| <b>General</b>                       |   |         |         |         |                     |         |         |         |
| Dust/Water Protection                | IP65 (IEC 60529:2001)   |         |         |         |                     |         |         |         |
| Operating Temperature                | -20°C to +50°C  |         |         |         |                     |         |         |         |
| Laser Pointer                        | Coaxial red laser pointer using EDM measuring beam, Class 3R laser  |         |         |         |                     |         |         |         |
| Guide light                          | Green and Red LED, Working range: 1.3m to 150m (4.3 to 492ft.)  |         |         |         |                     |         |         |         |
| Size                                 | W230 x D207 x H393mm (W9.1 x D8.2 x H15.5in.)   |         |         |         |                     |         |         |         |
| Weight                               | Approx. 6.9kg (15.2 lb.)  |         |         |         |                     |         |         |         |
| <b>Power Supply</b>                  |   |         |         |         |                     |         |         |         |
| BDC70 standard battery               | 7.2V 5.2Ah  |         |         |         |                     |         |         |         |
| Operating time                       | Approx. 4 hours*5   |         |         |         |                     |         |         |         |
| Signal source / Laser output         | Red laser diode (690nm) / Reflectorless mode: Class 3R, Prism / Sheet mode: Class 1 equivalent  |         |         |         |                     |         |         |         |

### RC-PR5 Remote Control System Optional of Auto-Collimating Model

Operating range (slope distance) Far mode: 2m to 300m (6.6 to 984ft.) / Standard mode: 2m to 100m (6.6 to 328ft.)  
Measuring time 15 sec

\*1 Condition 1: No haze with visibility about 40km, overcast with no heat shimmer.

\*2 Fine mode. With Kodak Gray Card White Side (90% reflective). When brightness on measured surface is 30,000 lx. or less. Reflectorless range/accuracy may vary according to measuring objects, observation situations and environmental conditions.

\*3 When the measuring beam's incidence angle is within 30° in relation to the reflective sheet target.

\*4 Wireless communication range may vary depending on obstruction and other environmental conditions.

\*5 In continuous face-1 and face-2 observations by using Auto-Collimating.

### Standard Accessories

- SX main unit
- Battery (BDC70)
- Battery charger (CDC68)
- Power Cable
- Lens cap
- Lens hood
- Tool pouch
- Screwdriver
- Lens brush
- Adjusting pin x2
- Cleaning cloth
- Operation manual
- USB memory
- Laser caution sign-board
- Carrying case
- Carrying strap



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Specifications subject to change without notice

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### Your local Authorized Dealer is:

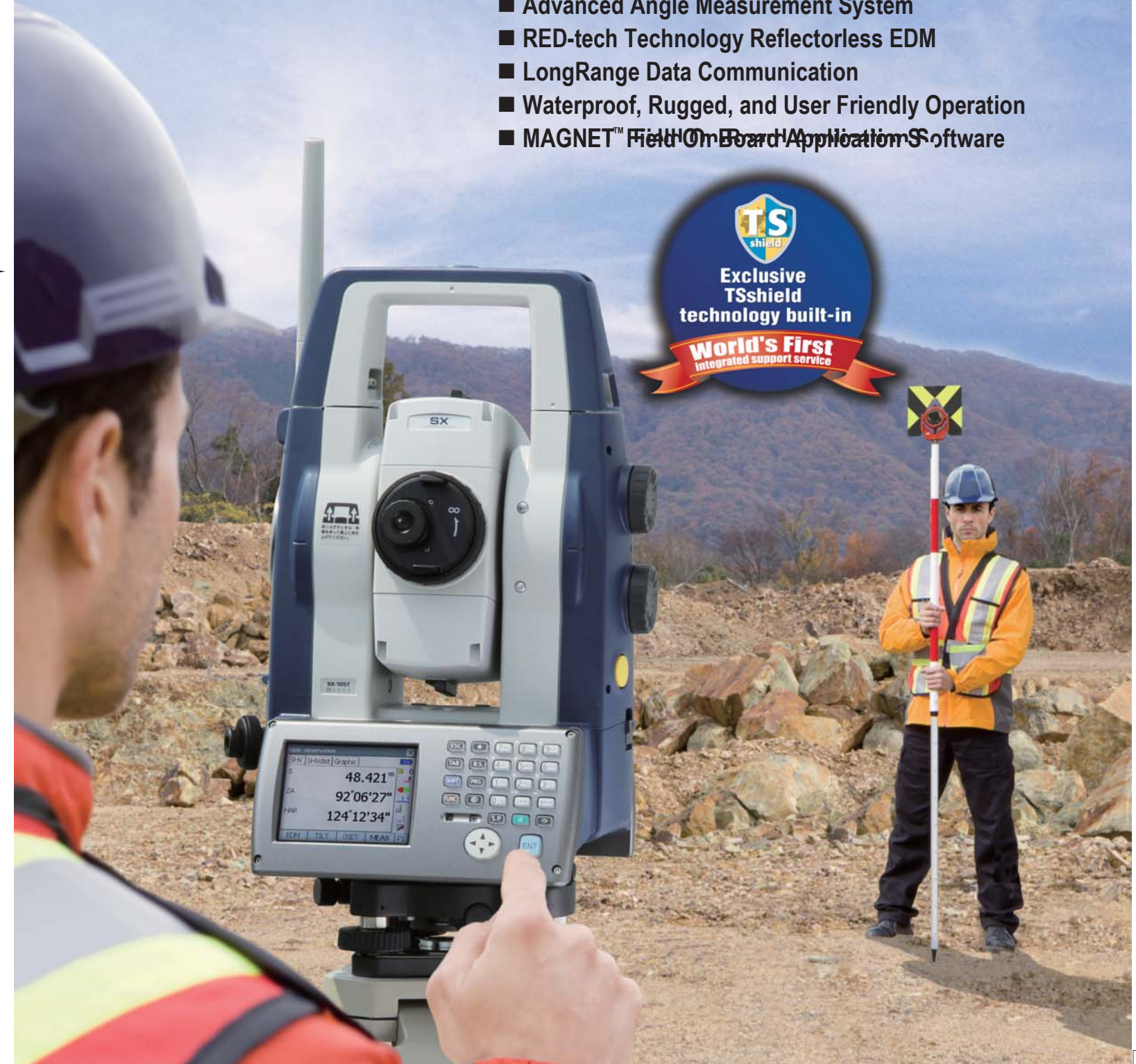
SOKKIA

**SX Series**

Superior X-ellence Station

# Automatic Precision

- Superior Auto-Pointing Technology
- Advanced Angle Measurement System
- RED-tech Technology Reflectorless EDM
- LongRange Data Communication
- Waterproof, Rugged, and User Friendly Operation
- MAGNET™ Field On Board Application Software



# 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-pointing range from 1.3m to 1,000m with a standard prism.

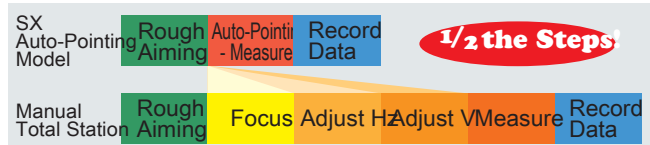


### ● Simple and Easy

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.

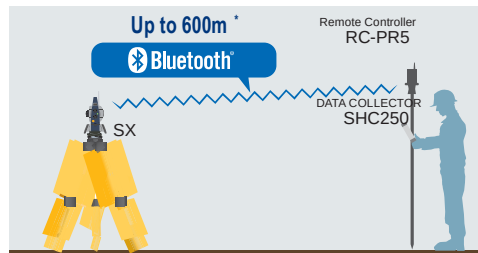
### ● Faster, Less Effort

By eliminating the need for the focusing telescope and adjusting fine motion screws, the SRX dramatically increases survey speed.



## ■ Auto-Tracking Model feature

### ● LongRange Data Communication



- The SX series of total stations features Bluetooth® Class1 wireless technology for reliable data communications.
- All SX data is instantly available at the Bluetooth-equipped controller.

\* Wireless communication range may vary depending on obstruction and other environmental conditions.

## ■ 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 0.9s regardless of object.
- SOKKIA traditional pinpoint precision in reflectorless distance measurement.
- Reflectorless 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)

| Distance                        | 10m (33ft.)              | 40m (131ft.)               | 100m (328ft.)              | 300m (984ft.)             | 500m (1,640ft.)            |
|---------------------------------|--------------------------|----------------------------|----------------------------|---------------------------|----------------------------|
| Beam spot size (height x width) | 7 x 9mm (0.28 x 0.35in.) | 14 x 14mm (0.55 x 0.55in.) | 29 x 24mm (1.14 x 0.94in.) | 76 x 56mm (2.99 x 2.2in.) | 123 x 89mm (4.84 x 3.5in.) |



### ● 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 6-prism configuration provides unsurpassed measurement precision due to a minimum offset of each prism center. ATP1 fits a range pole; ATP1S sliding prism is designed for a pin pole.



ATP1 360° Prism ATP1S sliding prism

## ■ Waterproof, Rugged, and Operator Friendly

- IP65 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.



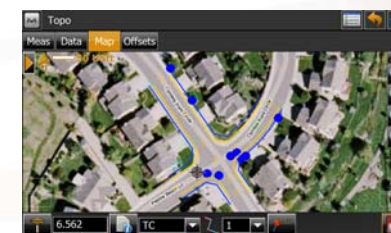
## ■ MAGNET™

### ● 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.. Real-time connections. When you need it. Where you need it.

### ● MAGNET™ Field

Data collection, stakeout, roads, and coordinate geometry.



MAGNET™ Field



**World's First**  
integrated support service

**TSshield**  
An industry first! New function to protect your investment

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.

