SRX

SOKKIA

165.568ᵐ

79°50'58"

245°21'44"

Because it's the time spent between points that's important.

Stress-Free Complete Remote Control

RED-tech EX - Precise Distance Measurement over a Wide Range of Situations

Encoders Enhanced with IACS Technology

Multiple Data Interfaces

Fully Wireless

SRX

STRESS-FREE COMPLETE REMOTE CONTROL

SRX eliminates the problems of previous remote control systems, which were often stressful and time-consuming to use.

With SRX, there's:

- No more waiting for the total station to lock on to the prism
- No more lost targets and unreliable tracking
- No more accidental sighting of other reflective objects

SRX achieves "stress-free complete remote control" with a combination of SRX series auto-tracking and an RC-PR3 on-demand remote control system. This powerful combination eliminates operator stress and increases productivity immediately.

■ On-Demand Remote Control System

The On-demand Remote Control System emits a laser fan beam that is detected by the RC detector unit in the SRX handle. SRX quickly rotates in the direction of the prism, auto-points and starts measurement right away. The RC-PR3 unit is equipped with a directional sensor to ensure that SRX always rotates in the shortest direction, dramatically speeding up one-touch target acquisition.

■ Quick Start!

Simply press the measurement key and SRX will rotate toward the prism and immediately start measurement. SRX is available in both full robotic and upgradeable auto-pointing configurations.

■ Focus on Where You're Going!

With SRX, you can smoothly continue measurement even if buildings, trees or passing traffic interrupt the line of sight. Even the roughest terrain poses no problem for SRX. All you need to do is pay attention to your footing and SRX will take care of the rest. If target loss should occur, press the measurement key and the on-demand remote control unit will automatically capture the prism using the on-board directional sensor, allowing you to continue without missing a beat.

■ False Sighting Recovery

If SRX gets caught sighting another reflective object, the on-demand remote control system quickly calls it back to the prism. Recovery and measurement are done at the push of a button.

ATP1 360˚ Prism

No matter which way you sight it, Sokkia's unique ATP1 360˚ prism plays an important role in high-precision measurement by minimizing sighting error. The focally aligned 6-piece ATP1 offers the industry's best accuracy. Why set your sights on anything less than the best?

STATE-OF-THE-ART TECHNOLOGY

■ RED-tech EX - Precise Distance Measurement over a Wide Range of Situations

RED-tech reflectorless EDMs are acclaimed for high-precision pinpoint accuracy and the flexibility to measure from distances as close as 30cm (1ft.). SRX features RED-tech EX, the latest in Sokkia's innovative reflectorless measurement technology. The technology to produce a signal that can perform measurement with even higher precision than RED-tech II has been developed, and the reflectorless measurement range has been further extended to 500m (1,640ft.) while maintaining the same high level of accuracy. Of course, the ability to measure from 30cm (1ft.) remains unchanged.

This high precision measurement technology has more intelligent signal processing, offering distance measurement with greater stability and less constraints. RED-tech EX performs fast, highly accurate measurement of building corners, through fences, and to prisms and reflective sheets.

REDEX**-tech**
REvolutionary Digital processing EDM technology

RED-tech	30cm ←→ 150m
RED-tech II	30cm ←——————→ 350m
RED-tech EX	30cm ←——————→ 500m

30cm

■ Single Optimized Beam

RED-tech EX uses only one laser beam for measuring and pointing, meaning you measure exactly what you see. The laser beam diameter is automatically optimized according to the target, providing stability like you have never experienced before.

■ Enhanced Encoder with IACS Technology

SRX features Sokkia's original absolute encoders with IACS (Independent Angle Calibration System) based on Sokkia's digital level RAB (Random Bi-directional) Code technology. Highly stable, dependable encoders have been further refined making unprecedented high angle measurement possible. SRX is available in 1", 2", 3" and 5" models.

■ New Targeting Sensor

A new targeting sensor utilizing high speed, high-resolution digital signal processing was developed especially for SRX. Accurate results with high repeatability are quickly obtained using both Auto-Tracking and Auto-Pointing modes. Select sighting accuracy and speed using "Rapid" and "Fine" mode options. Fine mode forces measurement to the center of the target achieving accurate results by avoiding measurement while shaking, a drawback to other tracking sighting systems.

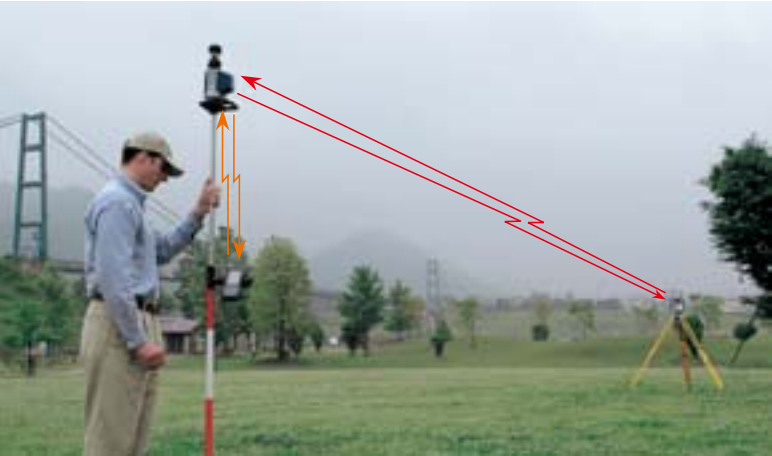Auto-Pointing can also be performed using reflective sheets.
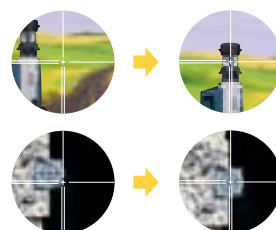
FULLY WIRELESS

SRX

■ Completely Cable-Free

SRX and the RC-PR3 are 100% wireless. No more cables to untangle, trip over or forget. License-free long-range data communication is easily performed using Bluetooth® Class 1 wireless technology.

Data collectors may vary according to region.

■ RC-PR3 On-Demand Remote Control Unit

The lightweight RC-PR3 unit has been redesigned with external cables and separate components now combined into a single, compact system. RC-PR3 is equipped with both Bluetooth® Class 1 and Class 2, an industry first. A wide search beam is emitted from the beam emitter for more effective searches. Complete prism-side operation gives you the freedom to survey the way you want to.

USER-FRIENDLY DESIGN

Ergonomic Handle

The removable, ergonomically designed handle incorporates both Bluetooth® wireless technology and the RC detector in one sleek design.

Compact Telescope Unit

SRX features a compact high-performance telescope unit. Perform rough sighting easily even while wearing a hard hat.

Guide Light Unit

Sokkia's guide light unit assists in setting out measurements. It consists of two different color LEDs emitted from a single aperture and can be easily determined at both long and short ranges.
A special flashing pattern is also included to assist users with color weakness.

Rechargeable Li-ion Battery

The battery box is located for easy-access to make battery replacement effortless. SRX comes with two rechargeable large capacity Li-ion batteries as standard.

Jog Dials/Trigger Key

Jog dials have a comfortable finger fit and change instrument rotation speed according to how fast the dials are turned. A handy trigger key lets you take a measurement without taking your eye from the telescope.

The jog dials include additional customizable settings for individual applications.

Color Display/ Illuminated Keyboard

SRX features a color LCD touch panel display. The display has high angle visibility and subtle contrast for maximum visibility. The full alphanumeric keyboard has concave keys that can be easily pressed by hand or with the stylus and is illuminated to let you see what you are doing under any environmental condition.

Environmental Protection

Featuring advanced protection against dust and water, SRX is able to withstand harsh environmental conditions. IP64 compliant.

Protection against ingress of solid foreign objects
Highest level: 6
7 levels: 0 to 6.
X: unspecified.

IP 64

Protection against ingress of water
Highest level: 8
9 levels: 0 to 8.
X: unspecified.

MULTIPLE DATA INTERFACES

CompactFlash Card Slot

Support for Type II cards up to 1GB. CompactFlash card style communication cards are also supported.

USB Port

For seamless data exchange. 1GB FAT32 format USB is supported. A USB card reader can be used to further broaden useable media possibilities.

Waterproof Multi Port

Data transmission and external power connection are available in a single waterproof port. The port boasts an environmental rating of IP64 with data and battery cables connected – an industry first!

SFX

SRX also includes Sokkia's original SFX technology for long-range data transfer via the Internet. With SFX you can enjoy instantaneous data transfer from any worksite directly to the office.
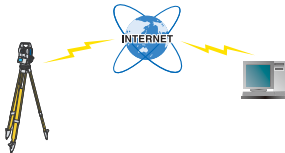
Windows CE-based Operability

A Windows CE-based SDR operating system provides superior operability. An easy to use intuitive graphic interface and color LCD touch panel display save you time on the job. SRX features the fully integrated SDR software suite "Expert".

Customizable to fit your individual needs

SRX is available in auto-pointing and full robotic configurations. In addition, SRX can be upgraded, giving you the freedom to create the ideal solution to fit your individual surveying needs.

■ Auto-Pointing Model
Auto-Pointing → Auto-Tracking

Auto-Pointing
Point SRX roughly toward the target, press a button, and SRX takes care of the rest.

Auto-Tracking
SRX continuously tracks the prism, updating distance and angle values in real-time. Measurement can be taken at any time with a simple press of a button.

■ Selectable Handle for On-Demand Remote Control Compatibility
No RC Detector Unit → RC Detector Unit

No RC Detector Unit
H-BT1 Handle with Bluetooth Class 1

RC Detector Unit
RC-TS3 Handle with Bluetooth Class 1 + RC Detector Unit

■ Control Panel
Additional control panel on face 2

Please consult your local Sokkia representative about product configurations.

Standard accessories

BDC58 rechargeable Li-ion battery (2 pcs.) ● CDC68 quick charger with EDC113A/EDC113B/EDC113C power cable ● CP9 Tubular compass ● Lens cap ● Lens hood ● Plumb bob ● Tool kit ● Wiping cloth ●Vinyl cover ● CD-ROM* ● Stylus (2 pcs.) ● Operator's manual ● Quick manual ● Laser caution sign board (Class 3R) ● Carrying Case and shoulder strap.

* CD-ROM includes SDR Software Reference Manual, SFX Dialup Program Explanations, and Quick Manual.

Optional Accessories

Please refer to the separate "Equipment List" for detailed information about options.

SRX Total Stations
SRX1 · SRX2 · SRX3 · SRX5

SPECIFICATIONS

Model		SRX1	SRX2	SRX3	SRX5
Angle measurement		Photoelectrical absolute encoder scanning. Both circles adopt diametrical detection.			
Display resolutions (selectable)		0.5" / 1", 0.1 / 0.2mg, 0.002 / 0.005mil		1" / 5", 0.2 / 1mg, 0.005 / 0.02mil	
Accuracy (ISO17123-3)		1" / 0.3mg / 0.005mil	2" / 0.6mg / 0.01mil	3" / 1mg / 0.015mil	5" / 1.5mg / 0.025mil
Automatic dual-axis compensator		Dual-axis liquid tilt sensor, Working range: ±4' (±74mg), out-of-range warning display and audio beep provided			
Distance measurement		Modulated laser, phase comparison method with red laser diode			
Measuring range*[1] (slope distance)	Reflectorless*[2]	0.3 to 500m (1 to 1,640ft.) (White side, 90% reflective)			
	(with Kodak Gray Card)	0.3 to 250m (1 to 820ft.) (Gray side, 18% reflective)			
	With reflective sheet target	RS90N-K: 1.3 to 500m (4.3 to 1,640ft.)			
	With ATP1 prism	1.3 to 1,000m (4.3 to 3,280ft.)			
	With 1 AP prism	1.3 to 5,000m (4.3 to 16,400ft.), Under good conditions*[3]: 1.3 to 6,000m (4.3 to 19,680ft.)			
Accuracy (ISO 17123-4) (D=measuring distance, unit:mm)	Reflectorless*[2]/*[4] (Fine mode)	0.3 to 200m (1 to 650ft.): $\pm(3 + 2ppm \times D)mm$ Over 200 to 350m (over 650 to 1,140ft.): $\pm(5 + 10ppm \times D)mm$ Over 350 to 500m (over 1,140 to 1,640ft.): $\pm(10 + 10ppm \times D)mm$			
	Reflectorless*[2]/*[4] (Rapid mode)	0.3 to 200m (1 to 650ft.): $\pm(6 + 2ppm \times D)mm$ Over 200 to 350m (over 650 to 1,140ft.): $\pm(8 + 10ppm \times D)mm$ Over 350 to 500m (over 1,140 to 1,640ft.): $\pm(15 + 10ppm \times D)mm$			
	With prism	Fine: $\pm(1.5 + 2ppm \times D)mm$*[5] Rapid: $\pm(5 + 2ppm \times D)mm$	Fine: $\pm(2 + 2ppm \times D)mm$, Rapid: $\pm(5 + 2ppm \times D)mm$		
	With reflective sheet target	Fine: $\pm(3 + 2ppm \times D)mm$, Rapid: $\pm(6 + 2ppm \times D)mm$			
Auto-tracking*[6]		Pulse laser transmitter and CCD detector with co-axial optics			
Range	With ATP1 prism	5 to 500m (16.4 to 1,640ft.)			
Auto-pointing		Pulse laser transmitter and CCD detector with co-axial optics			
Range	With ATP1 prism	2 to 600m (6.5 to 1,960ft.)			
	With APO1 prism	2 to 1,000m (6.5 to 3,280ft.)			

Model		RC-PR3
On-Demand Remote Control Unit		Beam Emitter, Bluetooth® Unit, and Magnetic compass sensor. Recommended for use with ATP1 360° prism
Range*[1] (slope distance between SRX and RC-PR3)	Near mode	2 to 100m*[7] (7 to 320ft.), under good conditions*[3]: 2 to 150m (7 to 490ft.)
	Far mode	2 to 250m*[8] (7 to 820ft.), under good conditions*[3]: 2 to 300m*[2] (7 to 980ft.)

Available SRX Configurations

Angle Accuracy	Auto-Tracking / Auto-Pointing	Handle*
SRX1 (Angle accuracy: 1" / 0.3mgon)	Auto-Tracking	RC-TS3
		H-BT1
	Auto-Pointing	RC-TS3
		H-BT1
SRX2 (Angle accuracy: 2" / 0.6mgon)	Auto-Tracking	RC-TS3
		H-BT1
	Auto-Pointing	RC-TS3
		H-BT1
SRX3 (Angle accuracy: 3" / 1.0mgon)	Auto-Tracking	RC-TS3
		H-BT1
	Auto-Pointing	RC-TS3
		H-BT1
SRX5 (Angle accuracy: 5" / 1.5mgon)	Auto-Tracking	RC-TS3
		H-BT1
	Auto-Pointing	RC-TS3
		H-BT1

*H-BT1: Bluetooth Class 1; RC-TS3: Bluetooth Class 1 and RC Detector Unit

*1 Average conditions: Slight haze, visibility about 20km (12 miles), sunny periods, weak scintillation.
*2 Reflectorless range/accuracy may vary according to measuring objects, observation situations and environmental conditions.
*3 Good conditions: No haze, visibility about 40km (25 miles), overcast, no scintillation.
*4 With Kodak Gray Card White Side (90% reflective).
*5 With CPS12 high precision glass prism, more than 4m.
*6 Available for Auto-tracking model only.
*7 When the vertical interval between SRX and the RC-PR3 beam emitter is no more than 20m.
*8 When the vertical interval between SRX and the RC-PR3 beam emitter is no more than 40m.

Specifications are subject to change without notice.
Please refer to the separate "Specification Sheet" for specifications not listed in this brochure.

LASER RADIATION
AVOID DIRECT EYE EXPOSURE
MAX 5mW LD 635-690nm
CLASS3R LASER PRODUCT
IEC 60825-1 Am.2 2001

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