

**SOKKIA**

**DX Series**  
Direct Aiming X-ellence Station



- **Upgradable Auto-Tracking Technology**
- **Advanced Angle Measurement System**
- **RED-tech Technology Reflectorless EDM**
- **LongRange Data Communication**
- **MAGNET™ Field On-board Software**

# Get the Job Done Quickly and Easily in any Environment.

## New Auto Pointing "Direct Aiming Technology"

The DX Series employs "Direct Aiming Technology" featuring a new intelligent algorithm that automatically aims to the prisms with precisely corrected angle readings.

The technology works even in dim or dark conditions where the prism is difficult to be found. Whatever the job requires and wherever operators must go, the DX Series gets your job done faster and easier while still maintaining high accuracy.



Rough Aiming

Push the Trigger key

Auto Pointing

## DX Direct Aiming Technology with Optional Auto-Tracking Upgrade

The DX Series, with Direct Aiming Technology, is faster than manually sighting a prism. In addition to automatic aiming, the DX can be upgraded, via firmware, to track a moving prism. This function eliminates the need for an operator to stand at the instrument, turn, and sight the prism. The operator can control the instrument from the prism pole as a one-man robotic system. This enhances productivity and minimizes personnel costs.



## RED-tech Technology Reflectorless EDM

- Reflectorless operation from 30cm to 1,000m\*.
- Sokkia's traditional pinpoint precision in reflectorless distance measurement.
- Fast distance measurement of 0.9 seconds.
- Coaxial EDM beam and laser-pointer provide fast and accurate aiming.
- Ensures accuracy even with reflective sheets.

\* With Kodak Gray Card white side (90% reflective).  
Brightness level at object surface: <=500 lx.



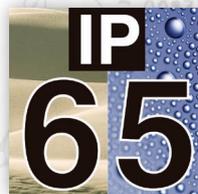
## LongRange Data Communication

The DX Series total stations feature Bluetooth® Class1 technology for reliable data communications.



## Advanced Angle Measurement System

Sokkia's original absolute encoders provide long-term reliability in any job site condition. DX-101 features groundbreaking IACS (Independent Angle Calibration System).



## Waterproof and Rugged

- IP65 waterproof / dustproof rating.
- Standard usage temperature range -20°C to +50°C.



## Easy Auto-Tracking Upgrade

The DX can easily be upgraded by purchasing the Auto-Tracking upgrade. Software can be installed when you purchase the DX or at a later time when you have a project that requires Auto-Tracking. The DX Series firmware can be upgraded to automatically track a prism. This USB upgrade process is simple and will enhance productivity.

## TSshield



### An industry first!

### New function to protect your investment

TSshield is a standard feature on all new models of Sokkia total stations. Its advanced communication system provides new opportunities to secure and maintain your investment.

\*For more detail of TSshield, please refer to the TSshield brochure. This service may not be available in some areas.

**Fast and Powerful EDM  
1,000m Non-Prism Range**

**Industry's First  
TSshield™ System**

**Easy Access USB Type  
A/B Flash Drive Port**

**Advanced Angle  
Measurement System**

**Rugged Waterproof/  
Dustproof IP65 Design**

**Exclusive "STAR-KEY"  
Functionality**

**Backlit 25 Key Keyboard  
with Directional Arrow Key**

### **Easy "Topo" and "Stake-out" Operation**

Just "Rough Aim" and "Press Trigger Button" to get precise aiming and measurement to the prism target. Stake-out can be done easily by automatic turning and guide lights.



## Software

MAGNET™ software is tailored for use with Sokkia total stations in both field and office works.

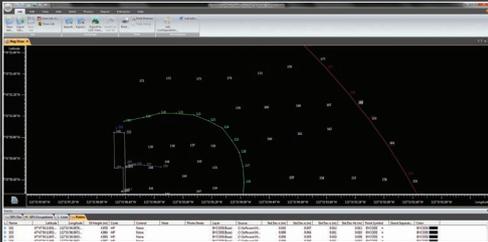
### MAGNET™ Enterprise

A managers dream of tracking all field and office data in one simple to access web interface. Store and exchange your field data in the MAGNET Enterprise cloud. Save the drive time by sending your field and office updates to the cloud rather than driving back to the office.



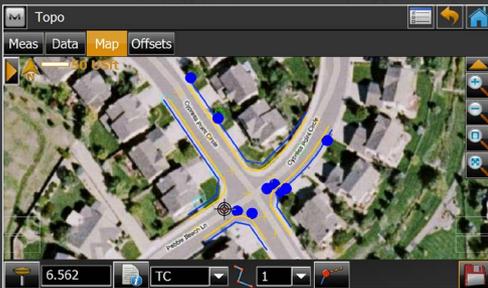
### MAGNET™ Office

Full CAD functionality with MAGNET Office Site and Topo. Or field data processing with MAGNET Office Tools inside AutoCAD® products, like Civil3D®. The MAGNET Office solution has what you need. Pick the module that fits your needs.



### MAGNET™ Field

Powerful on-board software that covers full functions for surveying and engineering tasks. MAGNET Field handles data collection, stake out, roads and coordinate geometry.



# SOKKIA

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## DX Series

DIRECT AIMING X-CELLENCE STATION

## SPECIFICATIONS

Model	DX-101AC	DX-103AC	DX-105AC
<b>Telescope</b>			
Magnification / Resolving power	30x / 2.5"		
Length: 168mm (6.6in.), Objective aperture: 45mm (1.8in.) (50mm (2.0in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.), Reticle illumination: 5 brightness levels			
<b>Angle measurement</b>			
Display resolutions (selectable)	0.5" / 1" (0.0001 / 0.0002gon, 0.002 / 0.005mil)	1" / 5" (0.0002 / 0.001gon, 0.005 / 0.02mil)	
Accuracy (ISO 17123-3:2001)	1"	3"	5"
IACS (Independent Angle Calibration System)	Provided		
Dual-axis compensator / Collimation compensation	Dual-axis liquid tilt sensor, working range: ±6' / Collimation compensation available		
<b>Distance measurement</b>			
Laser output	Reflectorless mode: Class 3R / Prism/sheet mode: Class 1		
Measuring range (under average conditions)	Reflectorless	0.3 to 800m (2,620ft.) / Under good conditions: to 1,000m (3,280ft.)	
	Reflective sheet	RS90N-K: 1.3 to 500m (4.3 to 1,640ft.), RS50N-K: 1.3 to 300m (4.3 to 980ft.), RS10N-K: 1.3 to 100m (4.3 to 320ft.)	
	Mini prisms	CP01: 1.3 to 2,500m (8,200ft.), OR1PA: 1.3 to 500m (1,640ft.)	
	One AP prism	1.3 to 5,000m (4.3 to 16,400ft.) / Under good conditions: 6,000m (16,680ft.)	
Display resolution	Three AP prism	to 8,000m (26,240ft.) / Under good conditions: to 10,000m (32,800ft.)	
	Display resolution	Fine: 0.0001 / 0.001m (0.001 / 0.01ft., 1/16 / 1/8in.) Rapid: 0.001m / 0.01ft. / 1/8in. Tracking: 0.01m / 0.1ft. / 1/2in.	
Accuracy (ISO 17123-4:2001) (D=measuring distance in mm)	Reflectorless	(2 + 2ppm x D) mm	
	Reflective sheet	(2 + 2ppm x D) mm	
	AP/CP prism	(1.5 + 2ppm x D) mm	
Measuring time	Fine: 0.9s (initial 1.5s), Rapid: 0.6s (initial 1.3s), Tracking: 0.3s (initial 1.3s)		
<b>Motor drive system</b>			
Type	DC servo motor		
Max rotation speed	70°/sec		
<b>Auto Pointing and Auto-Tracking Upgrade</b>			
Working range	One AP prism	1.3 to 1,000m	
	Reflective sheet	5 to 50m	
	360° prism	2 to 600m	
	Mini prisms	CP01: 1.3 to 700m, OR1PA 1.3 to 500m	
Optional Auto-Tracking range	360° prism	2 to 600m (6.6 to 1,960 ft.)	
	Single prism	1.3 to 1,000m (4.3 to 3,280 ft.)	
<b>OS, Interface and Data management</b>			
Operating system / Application	Microsoft Windows CE 6.0 / MAGNET™ Field		

## Kit Components

DX Series Total Station  
Battery x2 (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 x2



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