SPECIFICATIONS

Product Type		Auto-tracking Model			Auto-collimation Model		
Model		iX-1001	iX-1002	iX-1003	iX-501	iX-502	iX-503
Auto-tracking / Auto-Collimating							
Auto-tracking		●			–(Option)*1		
Auto-collimating		●			●		
Motor type		Direct drive by ultrasonic motor					
Rotation speed / Auto-tracking speed		180°/s / 20°/s					
Auto-tracking / Auto-Collimating range*2		ATP1/ATP1S 360° prism*3 : 2 to 600m (6.6 to 1,960ft.), CP01 : 1.3 to 700m (4.3 to 2,290ft.), OR1PA : 1.3 to 500m (4.3 to 1,640ft.) One AP prism : 1.3 to 1,000m (4.3 to 3,280 ft.) Reflective sheet (Auto-collimation)*4 : RS10/30/50N-K : 5 to 50m (16 to 160ft.) / RS90N-K : 10 to 50m (32 to 160ft.)					
RC handle		●			–(Option)*1		
Remote control range (RC handle + RC-PR5)		2 to 300m (4.3 to 980ft.)			2 to 300m (4.3 to 980ft.)*1		
Telescope							
Magnification / Resolving power		30x / 2.5"					
Length : 142mm (5.6in.), Objective aperture : 38mm (1.5in.) (38mm (1.5in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.)							
Angle measurement							
Display resolutions		0.5"/1" (0.0001 / 0.0002gon, 0.002 / 0.005mil)		1"/5" (0.0002 / 0.001gon, 0.005 / 0.02mil)	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"	2"	3"	1"	2"	3"
Dual-axis compensator		Dual-axis liquid tilt sensor, working range: ±6'					
Distance measurement							
Laser output*5		Reflectorless mode : Class 3R / Prism/sheet mode : Class 1					
Measuring range (under average conditions*6)	Reflectorless*7	Under good conditions*8 : 0.3 to 1,000m					
	Reflective sheet*9	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 prism*10	CP01: 1.3 to 2,500m (4.3 to 8,200ft.), OR1PA: 1.3 to 500m (4.3 to 1,640ft.)					
	One prism*10	1.3 to 5,000m (4.3 to 16,400ft) / Under good conditions*8 : 6,000m (19,680ft.)					
	ATP1/ATP1S 360° prism	1.3 to 1,000m (4.3 to 3,280ft.)					
Display resolution		Fine : 0.0001 / 0.001m (0.001 / 0.01ft., 1/16 / 1/8in.) / Rapid : 0.001m / 0.01ft. / 1/8in. Tracking / Road : 0.01m / 0.1ft. / 1/2in.					
Accuracy*6*11 (ISO 17123-4:2001) (D=measuring distance in mm)	Reflectorless*7	(2 + 2ppm x D) mm*12					
	Reflective sheet*9	(2 + 2ppm x D) mm					
	Prism*10	(1 + 2ppm x D) mm					
Measuring time*8*13	Fine / Rapid / Tracking	0.9s (initial 1.5s) / 0.6s (initial 1.3s) / 0.4s (initial 1.3s)					
OS, Interface and Data management							
Operating system		Windows Embedded Compact7					
Control panel	Display	4.3 inch, Transmissive TFT WVGA color LCD with LED backlight, Touch screen,					
	Keyboard	24 keys with backlight					
	Location	On single face On Face 2 (optional & only touch screen display)			On both faces (Face 2 is only touch screen display)		
Trigger key		On right instrument support					
Data storage	Internal memory	1GB internal memory (includes memory for program files)					
	Plug-in memory device	USB flash memory (max. 32GB)					
Calendar / clock function		Yes					
Interface		Serial RS-232C, USB2.0 (Type A / miniB)					
Wireless communication	Bluetooth modem	Bluetooth Class 1, Ver.2.1+EDR, Operating range: up to 600m (1,960ft.) (while in communication with RC-PR5)*14					
General							
Guide light*15		Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)					
Laser-pointer*15		Coaxial red laser using EDM beam					
Levels	Graphic	6' (Inner Circle)					
	Circular level (on tribrach)	10' / 2mm					
Plummet	Optical	Magnification: 3x, Minimum focus: 0.5m (11.8in.) from tribrach bottom					
	Laser (option)	Red laser diode (635nm±10nm), Beam accuracy: <=1.0mm@1.3m, Class 2 laser product					
Dust and water protection*16 / Operating temperature		IP65 (IEC 60529:2001) / -20 to +50°C (-4 to +122°F)					
Size with handle		212(W)x 172(D)x 355(H)mm (Display on single face)					
Instrument height		192.5mm from tribrach mounting surface					
Weight with battery & tribrach		Approx. 5.8kg (12.8lb)(with RC handle)			Approx. 5.7kg (12.6lb)(with standard handle)		
Power supply							
Battery	BDC70 detachable battery	Li-ion rechargeable battery					
Operating time (20°C)	BDC70 detachable battery	Approx. 4hours*16					

*1 Auto-Tracking function can be added by upgrading. *2 Average conditions: Slight haze, visibility about 20km (12 miles), sunny periods, weak scintillation. *3 Figures when both the elevation and depression angles of the laser beam are within 15° and the instrument is facing the ATP1/ATP1S 360° prism *4 When using a reflective sheet for Auto Pointing, the size of sheet (10 to 90 mm) must be selected to correspond to the distance being measured. Use smaller reflective sheets for shorter distances. Figures when the Auto Pointing beam strikes within 15° of the reflective sheet target. *5 IEC60825-1:Ed.3.0:2014 / FDA CDRH 21 CFR Part 1040.10 and 11 *6 Average conditions: Slight haze, visibility about 20km (12 miles), sunny periods, weak scintillation. *7 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. *8 Good conditions: No haze, visibility about 40km (25miles), overcast, no scintillation. *9 When the measuring beam's incidence angle is within 30° in relation to the reflective sheet target. *10 Face the prism toward the instrument during the measurement with the distance at 10m or less. *12 Measuring range:0.66 to 200m *13 Fastest time under good conditions, no compensation, EDM ALC at appropriate setting, slope distance. *14 Usage approval of Bluetooth wireless technology varies according to country. Please consult your local office or representative in advance. No obstacles, few vehicles or sources of radio emissions/interference in the near vicinity of the instrument, no rain. *15 The laser-pointer and the guide light do not work simultaneously. *16 Figures will change depensing on the operating environment including temperatures and observation conditions.

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SOKKIA

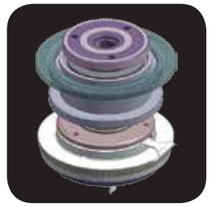
iX Series
Robotic Total Station

- **World's fastest !**
  UltraSonic motor and direct drive system
- **World's smallest !**
  Redesigned to ultra-slim body
- **World's lightest !**
  Accomplished lightweight, 5.7kg robotic total station
- **World's first Internet-connected (IoT) total station !**
  Integrated cellular modem
  Total station now offers Internet connectivity
- **Highest quality in class !**
  Passes various environmental tests with Sokkia quality

*As robotic total station, by our research on January 2016.

Fastest · Smallest · Lightest

Newborn...The next generation total station



The world's fastest! *
UltraSonic motor and direct drive system!

Accomplished world's fastest turning speed of 180° per second with UltraSonic motor and direct drive system. This also contributes to ultra-slim body.

The world's smallest! *
Redesigned ultra-slim body!

iX is designed by reviewing of the basis and redesigned to the world's smallest total station.

Highest quality in class
Passes various environmental test with Topcon quality!

Tough designed iX, passes impact, vibration, high-temperature, and humidity testing — provides consistent performance at any harsh environments.

The world's lightest *
Accomplished weight-saving, 5.7 kg motor drive total station!

iX is a third smaller than any previous Sokkia robotic instrument and the same weight as a manual total station — providing easy carrying and set up at a project site.

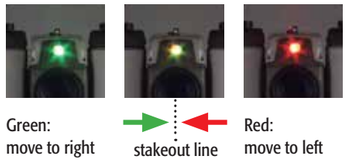
World's first Internet-connected(IoT) total station! *
Integrated cellular modem. Total station now with Internet-connectivity!

iX is fully networked with cellar modem and wireless LAN. This allows direct connectivity to MAGNET® Enterprise and provides you close connection between project site and office staff and managers.

*As robotic total station, by our research on January 2016.

Versatile functions

Bright, Sharp Guide Light
The Guide Light allows operators to instantly recognize the line between the instrument and the stakeout line, with clearly visible Green and Red lights.



Jog dial
You can rotate iX with smooth jog dial.

Large display
Large and high-resolution WVGA display provides clear visibility under the sun light. Moreover, large size icon improves operability.

RC handle (iX-1000 series)
RC-PR5 sensor on the handle can be used for auto-prism searching. This allows easy, rapid prism searching regardless of your position.

Trigger key
Just "Rough Aim" and "Press Trigger button" to get precise aiming and measurement automatically and easily.

USB available
Serial cable and USB connections can be used (Max:32GB) for data transmission/reception.

Waterproof and dustproof: IP65 design
Provides protection from dust and driving rain as well as other inclement weather conditions. Operates in temperatures from -20 to +50°C.

Auto-tracking
Increases power for prism tracking under extreme conditions of frequent interruption or strong reflections.
Even if a prism rock is lost, you can easily rotate iX and reacquire prism with RC-PR5 and go back to work smoothly.

Auto-collimating
Precise measurement can be done by just "Rough Aim" and "Press Trigger button" without lens focus and other operation.
Auto-collimating provides consistent accuracy and speed regardless of operator's skill levels and condition.