

| Product Type | Auto-tracking Model | Auto-collimation Model | |
|--|---|---|--|
| Model | ix-1001 | ix-501 | ix-505 |
| Auto-tracking / Auto-collimating | | | |
| Auto-tracking | ● | | -(Option) ¹¹ |
| Auto-collimating | ● | | ● |
| Motor type | Direct drive by ultrasonic motor | | |
| Rotation speed / Auto-tracking speed | 180°/s / 20°/s | | |
| Working 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) ¹¹ |
| Remote control range (RC handle + RC-PR5) | 2 to 300m (4.3 to 980ft.) | | 2 to 300m (4.3 to 980ft.) ¹¹ |
| Telescope | 30x / 2.5" | | |
| 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) | 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" | 1" | 5" |
| 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 | | Under good conditions ⁸ : 0.3 to 500m |
| | 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 AP 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. (2 + 2ppm x D) mm ¹² (2 + 2ppm x D) mm (1 + 2ppm x D) mm | | |
| 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 Keyboard Location | 4.3 inch, Transmissive TFT VWGA color LCD with LED backlight, Touch screen, 24 keys with backlight On single face | |
| Trigger key | On right instrument support | | |
| Data storage | Internal memory Plug-in memory device | 1GB internal memory (includes memory for program files) USB flash memory (max. 32GB) | |
| Calendar / clock function | Yes | | |
| Interface | Serial RS-232C, USB2.0 (Type A / miniB) | | |
| Wireless communication | Cellular Bluetooth modem Wireless LAN | 2G/3G, User SIM: mini-SIM(2FF)(25 x 15 x 0.76mm) Bluetooth Class 1, Ver.2.1+EDR, Operating range: up to 600m (1,960ft.) (while in communication with RC-PR5) ¹⁴ IEEE 802.11b/g/n | |
| 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 Circular level (on tribrach) Circular level (for main unit) | 6' (Inner Circle) 10' / 2mm 8' / 2mm (option) | |
| Plummet | Optical Laser (option) | Magnification: 3x, Minimum focus: 0.5m (11.8in.) from tribrach bottom 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 | | |
| 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 ¹⁵ | |

*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 depending on the operating environment including temperatures and observation conditions.



TOPCON CORPORATION

75-1 Hasunuma-cho, Itabashi-ku, Tokyo 174-8580, Japan
www.topcon.co.jp

<Contact to>

Topcon Sokkia India Private Limited
C-25, Ground Floor, Sector-8, Noida-201301, India
Phone: 91-120-2424154 FAX: 91-120-2424158

Your local Authorized Topcon dealer is:

- Specifications subject to change without notice.
- Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.
- Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Topcon is under license.
- Other trademarks and trade names are those of their respective owners.

Brand New Model Newborn... The next generation total station



The world's fastest ! *

UltraSonic motor and direct drive system !!

The world's smallest ! *

Redesigned to ultra-slim body !!

The 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!

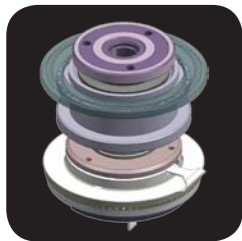
Passes various environmental tests with Topcon quality



Fastest · Smallest · Lightest

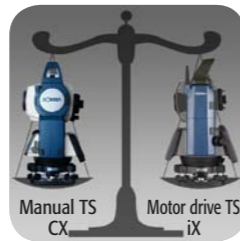


Newborn...The next generation total station



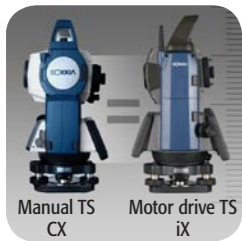
The world's fastest!*

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 lightest*

Accomplished weight-saving, 5.7 kg motor drive total station!
iX is a third smaller than any previous Topcon robotic instrument and the same weight as a manual total station – providing easy carrying and set up at a project site.



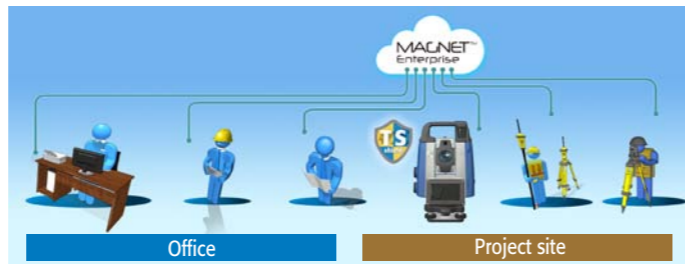
The world's smallest!*

Redesigned ultra-slim body!
iX is designed by reviewing of the basis and redesigned to the world's smallest total station.



World's first Internet-connected (IoT) total station!*

Integrated cellular modem. Total station now with Internet-connectivity!
iX is fully networked with cellular 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.



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.

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



Green: → move to right
← stakeout line
Red: ← move to left

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.