SOKKIA

MADE TO FIT YOUR WORLD.

Manual Total Station

FX-200

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Manual Total Station
FX-200

Great performance in a compact size

Take charge of job sites with world-class accuracy, the FX is ready for whatever you need to accomplish. This professional-grade advanced total station provides an on-board data collection interface, long-range communication, and an incredibly powerful EDM.

Like all of our solutions, you can customize it to meet your needs and create your own workflows.

- Lightweight, compact body
- RED-tech technology reflectorless EDM
- Long-range Bluetooth® technology
- Advanced angle measurement system
- Long-lasting battery
- Waterproof, rugged, and user-friendly

Precise positioning

The FX series features our best-in-class absolute encoders that provide long-term reliability in any job site condition. Dual-axis compensator ensures stable measurements even when set up on uneven terrain. And our traditional motion clamp and tangent screw are employed to ensure stable angle measurement.

The FX-201 model feature groundbreaking IACS (Independent Angle Calibration System) technology for extremely reliable angle measurement.

On-board control

Increase your productivity with the Windows® on-board operating system and touch screen computer. The large, bright screen provides enough resolution to view points, lines, and icons so you can see and react quicker. And you can move your projects along faster by being able to do point collection, description entry, and on-screen calculations right on the instrument.

Long-range flexibility

For stakeout and other tasks where being at the prism pole with a field controller is critical, the FX series features Bluetooth® Class 1 wireless technology. All FX data is instantly available on your Bluetooth® equipped controller.

Get more out of your day

With one battery providing more than 20 hours of power, you'll be able to get through even the longest day in the field.

Dynamic software

With on-board MAGNET Field software running on a Windows® operating system and a touch screen color display, the FX-200 provides an easy-to-use manual total station with high performance capabilities. MAGNET software features a user-friendly interface and enables fast and productive workflows.

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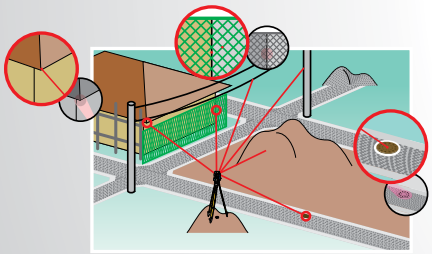
RED-tech technology reflectorless EDM

- Fast distance measurement of 0.9 s regardless of object
- Pinpoint precision in reflectorless distance measurement
- Reflectorless operation from 30 cm to 1000 m
- Coaxial EDM beam and laser-pointer provide fast and accurate aiming
- Ensures accuracy even with reflective sheets



Job site ready

- Waterproof / dustproof IP65 rating design handles the toughest environments
- Metal chassis and heavy-duty handle
- Standard usage temperature range of -20 to 60°C (-4 to 140°F)

Specifications

MODEL		FX-201	FX-203	FX-205
Telescope				
Magnification / Resolving power		30x / 2.5"		
Length		171 mm		
Objective aperture		45 mm (48 mm for EDM)		
Image		Erect		
Field of view		1°30' (26 m/1,000 m)		
Minimum focus		1.3 m		
Reticle illumination		5 brightness levels		
Angle Measurement				
Display resolution		0.5" / 1"	1" / 5"	
Accuracy (ISO 17123-3:2001)		1" (0.3 mgon)	3" (1.0 mgon)	5" (1.5 mgon)
Dual-axis compensator / Collimation compensation		Dual-axis liquid tilt sensor, working range: ±6' (±111 mgon) / Collimation compensation available		
Distance Measurement				
Laser output*1	Reflectorless mode Prism or sheet mode	Class 3R Class 1		
Measuring range (under average conditions*2)	Reflectorless*3 Reflective sheet*4/*5 Mini prisms (Prism-5) Standard prism (Prism-2)	Up to 1000 m (3,280 ft.*6) RS90N-K: 1.3 to 500 m (1,640 ft.), RS50N-K: 1.3 to 300 m (980 ft.), RS10N-K: 1.3 to 100 m (320 ft.) 1.3 to 500 m (1,640 ft.) 1.3 to 5,000 m (16,400 ft.)		
Distance accuracy*2 (ISO 17123-4:2001) (D=measuring distance in mm)		Reflectorless*3: (3 + 2 ppm x D) mm*7 (0.3 to 200m) Reflective sheet*4: (2 + 2 ppm x D) mm Standard prism: (1.5 + 2 ppm x D) mm		
Measuring time*8	Fine measurement Rapid measurement Tracking measurement	Less than 1.5 sec + every 0.9 sec or less Less than 1.3 sec + every 0.6 sec or less Less than 1.3 sec + every 0.4 sec or less		
OS, Interface and Data management				
Operating system		Windows® Compact 7		
Display		Color 3.5 inch QVGA TFT LCD		
Control panel location*9		Dual Display	Single Display	
Data storage	Internal memory Plug-in memory device	1GB internal memory (includes memory for program files) USB flash memory (max. 32GB)		
Interface		Serial RS-232C, USB 2.0 (Type A / mini B)		
Bluetooth® modem (optional)*10		Bluetooth® Class 1 Operating range: up to 10 m		
General				
Laser-pointer*11		Coaxial red laser using EDM beam		
Guide light*11		Green LED (524 nm) and Red LED (626 nm), Operating range: 1.3 to 150 m*2		
Levels	Graphic Circular level	6' (Inner Circle) 10' / 2 mm		
Optical plummet	Magnification Minimum focus	3x 0.3 m from tribrach bottom		
Laser plummet (optional)		Red laser diode (635 nm ±10 nm), Beam accuracy: ≤1.0 mm at 1.3 m, Class 2 laser product		
Dust/Water Rating		IP65 (IEC 60529:2001)		
Operating temperature*12	Standard models Low temp. models	-20 to 60°C (-4 to 140°F) -30 to 50°C (-22 to 122°F)		
Size with handle*9 (w x d x h)	Two displays One display (5" model)	191 x 190 x 348 mm 191 x 174 x 348 mm		
Weight with battery and tribrach		Approx. 5.7 kg (12.3 lb.)		

*1 IEC60825-1: Ed.2.0:2007 / FDA CDRH 21 CFR Part 1040.10 and 11 *2 Average conditions: Slight haze, visibility about 20 km (12 miles), sunny periods, weak scintillation. *3 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. *4 When the measuring beam's incidence angle is within 30° in relation to the reflective sheet target. *5 Measuring range in temperatures of -30 to -20°C (-22 to -4°F) with Low Temperature models and 50 to 60°C (122 to 140°F) with High Temperature models: RS90N-K: 1.3 to 300 m (4.3 to 980 ft.), RS50N-K: 1.3 to 180 m (4.3 to 590 ft.), RS10N-K: 1.3 to 60 m (4.3 to 190 ft.) *6 Good conditions: No haze, visibility about 40 km (25 mi.), overcast, no scintillation. *7 Measuring range: 0.3 to 200m *8 Typical, under good conditions. Reflectorless measurement time may vary according to measuring objects, observation situations and environmental conditions. *9 Control panel location may vary depending on region or model. *10 Usage approval of Bluetooth® wireless technology varies according to country. Please consult your local office or representative in advance. *11 The laser-pointer and the guide light do not work simultaneously. *12 Low Temperature models: -30 to 50 °C (-22 to 122°F) and High Temperature models: -20 to 60°C (-4 to 140°F, No direct sunlight) are available on built-to-order basis.

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