

KEY FEATURES

Compact, lightweight & rugged

Trusted and reliable mechanical technology

Trimble Access™ Field Software and optional Roads module on board

Bright and colorful touchscreen QVGA display



ONE OF YOUR MOST RELIABLE CREW MEMBERS

Lightweight, compact and streamlined, the Trimble® M3 Total Station provides everything you need to get the job done right in demanding situations.

TRIMBLE ACCESS FIELD SOFTWARE ONBOARD

Featuring Trimble Access™ field software, the Trimble M3 combines trusted mechanical total station reliability with the powerful, functional and modular software that modern users need today. Designed to support your everyday work, including topographic surveys, staking, control, and more; Trimble Access offers a familiar, easy-to-use interface that will ensure your instant productivity with powerful data collection and calculation tools for fast results in the field.

Trimble Access on the Trimble M3 offers users the optional Trimble Access Roads module. The Trimble Access Roads module provides streamlined workflows allowing users to import road definitions from many third-party sources, or key in a complete road definition that includes horizontal and vertical alignments, templates and superelevation, and widening records. Users are guided through fast offsets, slope staking, real-time redesign, and real-time quality control.

DESIGNED TO KEEP YOU MOVING

Take advantage of a complete total station solution. With long range Trimble DR technology, you can save time by reducing instrument setups to reach your desired measurement points. The high-accuracy EDM provides fast, reliable measurements to get your job done quickly and efficiently.

With two hot-swappable, long life batteries, the Trimble M3 is capable of up to 26 hours of continuous operation. This offers users

the ability to quickly replace a battery while continuously working when power is getting low, without shutting down.

Backed by world-class training, service and support, Trimble's knowledgeable worldwide distribution network will help keep you running at full speed.

MECHANICAL EXPERTISE FROM THE INNOVATION LEADER

The Trimble M3 is lightweight, compact and easy to take anywhere you need it. Ergonomic controls plus an integrated screen and keyboard streamline and simplify your inputs. Renowned Nikon optics provide proven clarity, quality and precision for improved aiming and operation.

With its bright, colorful QVGA touchscreen running Windows® Embedded CE 6.0 operating system, the Trimble M3 display optimizes the graphical-rich features of Trimble Access with improved readability and menu navigation. Graphical staking of points, lines, arcs and alignments is available with the Active Maps feature.

Trimble is dedicated to advancing surveying businesses. Trimble solutions are designed to help you achieve more by focusing on making day-to-day work more efficient, in the field, in the office, and wherever your work may take you.

TRIMBLE M3 DR 5" W

The Trimble M3 DR 5" W is specially designed for use in low temperature conditions.

When in use during extreme low temperatures, the rear display heater will switch on automatically at temperature around -15°C.

TRIMBLE M3 TOTAL STATION

DISTANCE MEASUREMENT

Range with specified prisms

Good conditions¹

With reflector sheet 5 cm x 5 cm (2 in x 2 in)

1", 2" 1.5 m to 270 m (4.9 ft to 886 ft)
3", 5" 1.5 m to 300 m (4.9 ft to 984 ft)

With single prism 6.25 cm (2.5 in)

1", 2" 1.5 m to 3,000 m (4.9 ft to 9,843 ft)
3", 5" 1.5 m to 5,000 m (4.9 ft to 16,404 ft)

Reflectorless mode

	Good ¹	Normal ²	Difficult ³
1", 2"			
KGC (18%)	350 m (1,148 ft)	250 m (820 ft)	200 m (656 ft)
KGC (90%)	500 m (1,640 ft)	400 m (1,312 ft)	250 m (820 ft)
3", 5"	Good ¹	Normal ²	Difficult ³
KGC (18%)	250 m (820 ft)	200 m (656 ft)	150 m (492 ft)
KGC (90%)	400 m (1,312 ft)	300 m (984 ft)	250 m (820 ft)

Accuracy⁴

(Standard Deviation based on ISO 17123-4)

Prism ±(2+2 ppm x D) mm

Reflectorless ±(3+2 ppm x D) mm

Winterized version

Prism ±(3 + 2 ppm x D) mm (-10 °C to +40 °C)
±(3 + 3 ppm x D) mm (-20 °C to -10 °C, +40 °C to +50 °C)

Reflectorless ±(3 + 2 ppm x D) mm (-10 °C to +40 °C)
±(3 + 3 ppm x D) mm (-20 °C to -10 °C, +40 °C to +50 °C)

Measuring interval⁵

	Prism mode	Standard mode	Fast standard mode
1", 2"		1.6 s	0.8 s
3", 5"		1.5 s	0.8 s
Reflectorless mode			
1", 2"		2.1 s	1.2 s
3", 5"		1.8 s	1.0 s
Least count		1 mm (0.002 ft)	10 mm (0.02 ft)

ANGLE MEASUREMENT

DIN 18723 accuracy (horizontal and vertical) 1", 2"/0.5 mgon
3"/1.0 mgon, 5"/1.5 mgon

Reading system Absolute encoder

Circle diameter 62 mm (2.4 in)

Horizontal/Vertical angle Diametrical

Minimum increment (Degree, Gon, MIL6400) Degree: 1/5/10"
Gon: 0.2/1/2 mgon
MIL6400: 0.005/0.02/0.05 mil

TELESCOPE

Tube length 125 mm (4.9 in)

Image Erect

Magnification 30x (18x/36x with optional eyepieces)

1", 2" Effective diameter of objective 40 mm (1.6 in)

1", 2" EDM diameter 45 mm (1.8 in)

3", 5" Effective diameter of objective 45 mm (1.8 in)

3", 5" EDM diameter 50 mm (2.0 in)

Field of view 1°20'

Resolving power3"

Minimum focusing distance 1.5 m (4.9 ft)

Laser Pointer Coaxial Red Light

TILT SENSOR

Type Dual-axis

Method Liquid-electric detection

Compensation range ±3.5'

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COMMUNICATIONS

Communication ports 1 x serial (RS-232C), 2 x USB (host and client)

Wireless communications Integrated Bluetooth

POWER

Internal Li-ion battery (x2)

Output voltage 3.8 V DC

Operating time⁶

1", 2" approx. 12 hours (continuous distance/angle measurement)
approx. 26 hours (distance/angle measurement every 30 seconds)
approx. 28 hours (continuous angle measurement)

3", 5" approx. 7.5 hours (continuous distance/angle measurement)
approx. 16 hours (distance/angle measurement every 30 seconds)
approx. 20 hours (continuous angle measurement)

Charging time

Full charge 4 hours

GENERAL SPECIFICATIONS

Level vials

Sensitivity of Circular level vial10/2 mm

Tangent/Clamps Endless (1", 2", 3", 5")

Clamping (1")

Display face 1 QVGA, 16 bit color, TFT LCD, backlit (320x240 pixel)

Display face 2 Backlit, graphic LCD (128x64 pixel)

Point memory 128 MB RAM, 128 MB Flash memory

Dimensions (W x D x H) 149 mm x 145 mm x 306 mm
(5.8 in x 5.7 in x 12.0 in)

Weight (approx.)

1", 2" Main unit (without battery) 3.9 kg (8.6 lb)

3", 5" Main unit (without battery) 3.8 kg (8.4 lb)

Battery 0.1 kg (0.2 lb)

Carrying case 2.3 kg (5.1 lb)

ENVIRONMENTAL

Operating temperature range -20 °C to +50 °C (-4 °F to +122 °F)

Winterized -30 °C to +50 °C (-22 °F to +122 °F)

Storage temperature range -25 °C to +60 °C (-13 °F to +140 °F)

Winterized -30 °C to +60 °C (-22 °F to +140 °F)

Atmospheric correction

Temperature range -40 °C to +60 °C (-40 °F to +140 °F)

Barometric pressure 400 mmHg to 999 mmHg/533 hPa to
1,332 hPa/15.8 inHg to 39.3 inHg

Dust and water protection IP66

CERTIFICATION

Class B Part 15 FCC certification, CE Mark approval. C-Tick.

Laser safety IEC 60825-1 am2:2007

1", 2" Prism mode: Class 1 laser

1", 2" Reflectorless/Laser Pointer: Class 3R laser

3", 5" Reflectorless / Prism mode: Class 1 laser

3", 5" Laser Pointer: Class 2 laser

Laser Plummet: Class 2 laser

Bluetooth type approvals are country specific.



1 Good conditions (good visibility, overcast, twilight, low ambient light).

2 Normal conditions (normal visibility, object in the shadow, moderate ambient light).

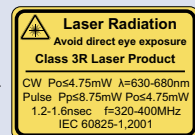
3 Difficult conditions (haze, object in direct sunlight, high ambient light).

4 ±(3+3 ppm x D) mm -20 °C to -10 °C, +40 °C to +50 °C

(-4 °F to +14 °F, +104 °F to +122 °F)

5 Measuring time may vary depending on measuring distance and conditions. For the initial measurement, it may take a few more seconds.

6 Battery life specification at 25 °C (77 °F). Operation times may vary depending on the condition and deterioration of the battery.



Specifications subject to change without notice.

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