

KEY FEATURES

Compact, lightweight & rugged

Powerful and reliable mechanical technology

Easy to learn and operate

Backed by world-class training, service and support



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.

EASY TO LEARN AND TO OPERATE

Featuring Trimble Digital Fieldbook™ software, the Trimble M3 provides mechanical measurement expertise built on proven Trimble software. Trimble Digital Fieldbook includes powerful data collection and calculation tools for fast results in the field.

For users already familiar with Trimble Survey Controller™ software the Trimble M3 and Trimble Digital Fieldbook is an easy workflow extension. In addition, optical data from the Trimble M3 integrates easily with Trimble GPS data via Trimble Business Center software for improved flexibility.

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.

Optimize stakeout with Trimble Tracklight technology—a visible guide light emitted from the total station guides the user to find the right spot for measurement. This feature also assists clearing sight lines and working in low-light conditions.

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

Reflectorless mode (white target) ¹	1.5 m to 300 m (4.9 ft to 984 ft)
Range with specified prisms	
Good conditions (No haze, visibility over 40 km (25 miles))	
With reflector sheet 5 cm x 5 cm (2 in x 2 in)	
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)	
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)
Accuracy ²	
2" Prism	±(2+2 ppm × D) mm
2" Reflectorless	±(3+2 ppm × D) mm
3", 5" Prism	±(3+2 ppm × D) mm
3", 5" Reflectorless	±(3+2 ppm × D) mm
Winterized version	
Prism	±(3 + 2 ppm × D) mm (–10 °C to +40 °C)
±(3 + 3 ppm × D) mm (–20 °C to –10 °C, +40 °C to +50 °C)	
Reflectorless	±(3 + 2 ppm × D) mm (–10 °C to +40 °C)
±(3 + 3 ppm × D) mm (–20 °C to –10 °C, +40 °C to +50 °C)	
Measuring interval ³	
Prism mode	
2"	1.6 sec.
3", 5"	1.5 sec.
Reflectorless mode	
2"	2.1 sec.
3", 5"	1.8 sec.
Least count	1 mm (0.002 ft)

ANGLE MEASUREMENT

DIN 18723 accuracy (horizontal and vertical)	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)
2" Effective diameter of objective	40 mm (1.6 in)
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 power	3", 5"
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'

COMMUNICATIONS

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

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POWER

Internal Li-ion battery (x2)	
Output voltage	3.8 V DC
Operating time ⁴	
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 vial	10/2 mm
Tangent/Clamps	Endless
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.)	
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)

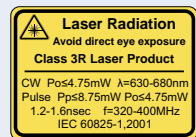
ENVIRONMENTAL

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

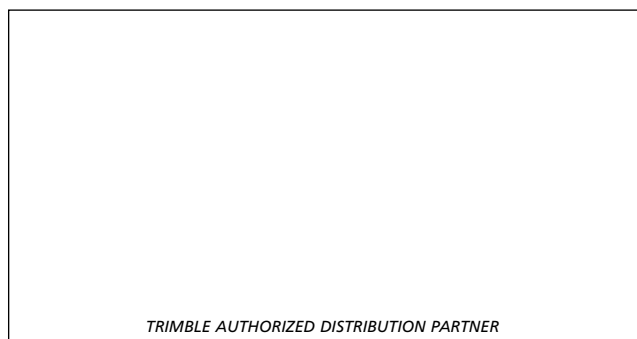
Class B Part 15 FCC certification, CE Mark approval. C-Tick.
 Laser safety IEC 60825-1 am2:2007
 2" Prism mode
 2" Prism mode: Class 1 laser
 2" Reflectorless/Laser Pointer: Class 3R laser
 3", 5" Reflectorless / Prism mode: Class 1 laser
 3", 5" Laser Pointer: Class 2 laser
 Laser Plummet: Class 2 laser

Bluetooth type approvals are country specific.



1 White objects with high reflectivity (KGC 90%). Measuring distance may vary depending on targets and measuring conditions.
 2 ±(3+3 ppm × D) mm –20 °C to –10 °C, +40 °C to +50 °C (–4 °F to +14 °F, +104 °F to +122 °F)
 3 Measuring time may vary depending on measuring distance and conditions. For the initial measurement, it may take a few more seconds.
 4 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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