

### 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

Range with specified prisms

Good conditions<sup>1</sup>

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)

Reflectorless mode

	Good <sup>1</sup>	Normal <sup>2</sup>	Difficult <sup>3</sup>
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"			
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)

Accuracy<sup>4</sup>

(Standard Deviation based on ISO 17123-4)

Prism .....  $\pm(2+2 \text{ ppm} \times D)$  mm

Reflectorless .....  $\pm(3+2 \text{ ppm} \times D)$  mm

Winterized version

Prism .....  $\pm(3 + 2 \text{ ppm} \times D)$  mm (-10 °C to +40 °C)  
 $\pm(3 + 3 \text{ ppm} \times D)$  mm (-20 °C to -10 °C, +40 °C to +50 °C)

Reflectorless .....  $\pm(3 + 2 \text{ ppm} \times D)$  mm (-10 °C to +40 °C)  
 $\pm(3 + 3 \text{ ppm} \times D)$  mm (-20 °C to -10 °C, +40 °C to +50 °C)

Measuring interval<sup>5</sup>

Prism mode	Standard mode	Fast standard mode
2"	1.6 s	0.8 s
3" & 5"	1.5 s	0.8 s
Reflectorless mode		
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) ..... 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"

Minimum focusing distance ..... 1.5 m (4.9 ft)

Laser Pointer ..... Coaxial Red Light

## TILT SENSOR

Type ..... Dual-axis

Method ..... Liquid-electric detection

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Compensation range .....  $\pm 3.5'$

## 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 time<sup>6</sup>

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

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

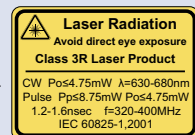
3 Difficult conditions (haze, object in direct sunlight, high ambient light).

4  $\pm(3+3 \text{ ppm} \times D)$  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.



TRIMBLE AUTHORIZED DISTRIBUTION PARTNER

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