Trimble C3

MECHANICAL TOTAL STATION

TOUGH, EFFICIENT, ACCURACY WHEREVER WORK TAKES YOU.

The Trimble® C3 mechanical total station delivers the range of features you expect and the accuracy you need, whatever the project or terrain.

This durable, user-friendly addition to the industry's top portfolio reduces worker fatigue even as it handles the toughest worksite conditions. For surveyors across the globe, it not only boosts productivity and saves time, but it also makes fieldwork easier.

Rely on the Trimble C3 to deliver precise measurements while virtually eliminating downtime, allowing you to finish each job quickly and efficiently.

High Performance in an Easy-to-Use Package.

With the Trimble C3, you can move quickly, stay productive, and work as long as you need to work.

The Trimble C3 is built to deliver exceptional results, whatever the worksite conditions. It's lightweight and compact, simplifying storage, transport, and handling. Setup is easy, too—just as you'd expect from a Trimble total station. Onboard data collection software ensures smooth, efficient workflows.

You can also count on the Trimble C3 to deliver exceptional results for years to come. Its superior design and durability ensure reliability, project after project. And PIN code security means it's always well-protected.

Trimble Reliability. Nikon Optics. Superior Results.

With its autofocus and superior Nikon optics, the Trimble C3 makes every day in the field productive. It focuses precisely and delivers crisp, bright sightings even in low light conditions. The results are always accurate and true—which ensures greater productivity back in the office, too. With the Trimble C3, there's no need to return to the field, because you get it right the first time.

The Features You Need for the Job You Do.

The Trimble C3 is designed to make your job easier. That's why the batteries have enough power to last all day. And they're hot-swappable. You have the option of charging one battery while you're working with the other one.

The new Trimble C3 offers 1", 2", 3" and 5" accuracy models. With intuitive, fully-featured onboard software it's always ready to deliver the high level of efficiency and productivity—the improved workflows—you expect from Trimble.

Extend Your Survey Season.

For users working in cold temperatures, the Trimble C3 2" and 5" total stations are available in a specially designed Winterized version featuring a display heater.

Key Features

- Autofocus powered by Nikon
- Powerful long range EDM
- Compact, lightweight and rugged system design
- Dual face displays
- Intuitive onboard software
- Winterized 2" and 5" models available

Trimble C3 MECHANICAL TOTAL STATION

DISTANCE MEASUREMENT

Range with specified prisms

Good conditions[1]
- With reflector sheet 5 cm x 5 cm (2 in x 2 in) . . . . . 1.5 m to 300 m
- With single prism 6.25 cm (2.5 in) . . . . . 1.5 m to 5000 m

Reflectorless mode

	Good[1]	Normal[2]	Difficult[3]
KGC (18%)	400 m (1,312 ft)	300 m (984 ft)	235 m (771 ft)
KGC (90%)	800 m (2,625 ft)	500 m (1,640 ft)	250 m (820 ft)

Accuracy in precise measurement mode[7,8]

Prism[4] . . . . . ±(2+2 ppm × D) mm
Reflectorless . . . . . ±(3+2 ppm x D) mm

Measuring interval[5]

	Precise mode	Normal mode	Fast mode
Prism mode	1.0 s	0.5 s	0.3 s
Non-Prism mode	1.0 s	0.5 s	0.3 s
Least count	0.1 mm or 1 mm (0.0002 ft or 0.002 ft)	10 mm (0.02 ft)	10 mm (0.02 ft)

ANGLE MEASUREMENT

Accuracy (Standard Deviation based on ISO 17123-3) . . . . . 1" (0,3 mgon), 2" (0.6 mgon), 3" (1.0 mgon), 5" (1.5 mgon)
Reading system . . . . . Absolute encoder
Circle diameter . . . . . 62 mm (2.4 in)
Horizontal/Vertical angle . . . . . Diametrical / Single
Minimum increment (Degree, Gon)
- 1" model . . . . . 0.5" (0.1 mgon)
- 2", 3", 5" models . . . . . 1.0" (0.2 mgon)

TELESCOPE

Tube length . . . . . 125 mm (4.9 in)
Image . . . . . Erect
Magnification . . . . . 30× (19x/38x with optional eyepieces)
Effective diameter of objective . . . . . 45 mm (1.77 in)
EDM Diameter . . . . . 50 mm (1.97 in)
Field of view . . . . . 1° 25'
Resolving power . . . . . 3"
Minimum focusing distance . . . . . 1.5 m (4.9 ft)
Laser Pointer . . . . . Coaxial Red Light
Tracklight . . . . . No

TILT SENSOR

Type . . . . . Dual-axis
Method . . . . . Liquid-electric detection
Compensation range . . . . . ±3'

COMMUNICATIONS

Communication ports . . . . . 1 x serial (RS-232C), 1 x USB (host)
Wireless communications . . . . . Integrated Bluetooth®

POWER

Internal Li–ion battery (x2)
- Output voltage . . . . . 3.6 V

Operating time[6]
- Continuous angle-only measurement . . . . . 22 h
- Distance/ angle measurement/ AF every 30 s . . . . . 18 h
- Continuous distance/ angle measurement . . . . . 10 h

Charging time, full charge . . . . . 6 h

GENERAL SPECIFICATIONS

Autofocus . . . . . Yes
Level vials
- Sensitivity of Circular level vial on tribrach . . . . . 10'/2 mm

Tangent Clamps . . . . . Yes
Display face 1 . . . . . back-lit, graphic LCD (128 x 64 pixels)
Display face 2 . . . . . back-lit, graphic LCD (128 x 64 pixels)
Point memory . . . . . 50.000 points
Internal Plummet . . . . . Optical or Class 2 Laser
Optical Plummet:
- Magnification 3x
- Field of view . . . . . 5°
- Minimum focusing distance . . . . . 0.5 m

Dimensions (W x D x H) . . . . . 206 mm x 169 mm x 318 mm (8.1 in x 6.70 in x 12.5 in)

Weight (approx.)
- 1", 2", 3", 5" Main unit . . . . . 4.3 kg (9.5 lb)
- Battery . . . . . 0.1 kg (0.2 lb)
- Carrying case . . . . . 3.3 kg (7.3 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. RCM Mark.
IEC60825-1 am 2007, IEC60825-1 am 2014, FDA notice 50
Prism/Reflectorless mode: Class 1 laser
Laser Plummet/Laser Pointer: Class 2 laser

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 Standard Deviation based on ISO 17123-4
5 Measuring time may vary depending on measuring distance and conditions. Specification based on average of repeated measurements.
6 Battery life specification at 25 °C (77 °F). Operation times may vary depending on the condition and deterioration of the battery.
7 For both prism and non-prism modes, EDM accuracy in normal mode is ±(10+5 ppm × D) mm and fast mode is ±(20+5 ppm × D) mm.
8 ±(2+2 ppm × D) mm –20 °C to –10 °C (–4 °F to +14 °F), +40 °C to +50 °C (+104 °F to +122 °F).

Bluetooth type approvals are country specific.

Specifications subject to change without notice.

Contact your local Trimble Authorized Distribution Partner for more information

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