



Trimble C5

MECHANICAL TOTAL STATION

THE EFFICIENT, ACCURATE WAY TO WORK

The new Trimble® C5 mechanical total station completes the industry's top portfolio with productivity-boosting, time-saving features that make fieldwork easier and faster.

The Trimble C5 is tough and reliable with a user-friendly design. It limits user fatigue even as it stands up to the toughest worksite conditions. On a wide range of projects, in diverse settings across the globe, the C5 is hard at work, quickly capturing accurate measurements and virtually eliminating downtime.

Precise Autofocus. Superior Optics. Accurate Results.

The Trimble C5 offers the easy setup Trimble users have come to expect. The autofocus powered by Nikon enables the C5 to quickly and precisely focus on the anticipated distance, so users can simply sight, shoot and go. That means any day spent in the field can be highly productive. Superior Nikon optics give you crisp, bright sightings even in low light conditions. The results are always precise and true—which ensures greater productivity back in the office, too. There's no need to return to the field, because you get it right the first time.

Tough, Durable and Easy to Use.

The Trimble C5 is lightweight and compact, facilitating ease of storage, transport and set up. It's also easy to carry when you're in the field. Users can work as long as they want without getting tired. The rugged construction means it also can handle whatever situation and wherever you take it. The C5 is built to deliver exceptional results, whatever the conditions. Count on it to perform to the highest standards, project after project, year after year.

Cut Downtime. Improve Workflows.

Fully charged, the Trimble C5 batteries have enough power to last all day. And for the days that begin with half-charged batteries, they're hot-swappable. So there's no time wasted.

The Trimble C5 is compatible with Trimble's location-tracking technology, L2P. This brings simplicity to large fleet tracking, and peace of mind to fleets of one.

The new Trimble C5 has color touch screens supporting Trimble Access™ on board. The C5 is available in 1", 2", 3", and 5" accuracies. Whatever the task, it's equipped and 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 C5 2" and 5" total stations are available in a specially designed Winterized version.

Key Features

- ▶ Autofocus enabling precise and fast focus
- ▶ Powerful long range EDM
- ▶ Dual color touchscreen displays
- ▶ L2P security location technology
- ▶ Compact, lightweight and rugged system design



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DISTANCE MEASUREMENT

Range with specified prisms

Good conditions¹
 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 standard measurement mode⁷

Prism⁴ ±(2+2 ppm x D) mm
 Reflectorless ±(3+2 ppm x D) mm

Measuring interval⁵

	Standard mode	Fast standard mode	Tracking mode
Prism mode	1.0 s	0.5 s	0.3 s
Reflectorless Mode	1.0 s	0.5 s	0.3 s

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 diameter62 mm (2.4 in)
 Horizontal/Vertical angle Diametrical/ Single

TELESCOPE

Tube length 125 mm (4.9 in)
 Image Erect
 Magnification 30x (19x/38x with optional eyepieces)
 Effective diameter of objective45 mm (1.77 in)
 EDM Diameter50 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 Yes
 Reticle Illumination Yes, 4 steps

TILT SENSOR

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

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 3.6 V
 Operating time⁶
 Continuous angle-only measurement 14 h
 Distance/ angle measurement/ AF every 30 s 12 h
 Continuous distance / angle measurement 7 h
 Charging time, full charge both batteries approx. 6 h

GENERAL SPECIFICATIONS

Autofocus Yes
 Level vials
 Sensitivity of Circular level vial on tribrach 10'/2 mm
 Tangent Clamps Yes
 Display face 1 LCD back-lit (640 x 480 pixel)
 Display face 2 LCD back-lit (640 x 480 pixel)
 Operating system Windows[®] Embedded Compact 7
 Processor Dual Core 800 MHz
 Point memory 512 MB RAM, 4 GB flash memory
 Internal Plummet Optical or Class 2 Laser
 Optical Plummet:
 Magnification 3x
 Field of view5°
 Minimum focusing distance 0.5 m
 Dimensions (W x D x H) 206 mm x 169 mm x 318 mm
 (8.1 in x 6.7 in x 12.5 in)
 Weight (approx.)
 1", 2", 3", 5" Main unit 4.3 kg (9.5 lb)
 Battery01 kg (0.2 lb)
 Carrying case33 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 reflectorless modes, EDM accuracy in fast standard mode is ±(10+5 ppm x D) mm and tracking mode is ±(20+5 ppm x D) mm.

Bluetooth type approvals are country specific.

Specifications subject to change without notice.



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