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
**MECHANICAL TOTAL STATION**

**DISTANCE MEASUREMENT**

<table>
<thead>
<tr>
<th>Range with specified prisms</th>
<th>Good conditions</th>
<th>Normal conditions</th>
<th>Difficult conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>With reflector sheet 5 cm x 5 cm (2 in x 2 in)</td>
<td>1.5 m to 300 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With single prism 6.25 cm (2.5 in)</td>
<td>1.5 m to 5000 m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reflectorless mode**

<table>
<thead>
<tr>
<th>Accuracy in standard measurement mode</th>
<th>Prism mode</th>
<th>Reflectorless mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>±(2+2 ppm x D) mm</td>
<td>±(3+2 ppm x D) mm</td>
<td></td>
</tr>
</tbody>
</table>

**Measuring interval**

<table>
<thead>
<tr>
<th>Measuring mode</th>
<th>Standard mode</th>
<th>Fast standard mode</th>
<th>Tracking mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prism mode</td>
<td>1.0 s</td>
<td>0.5 s</td>
<td>0.3 s</td>
</tr>
<tr>
<td>Reflectorless Mode</td>
<td>1.0 s</td>
<td>0.5 s</td>
<td>0.3 s</td>
</tr>
</tbody>
</table>

**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)

**TELESCOPE**

- Tube length: 125 mm (4.9 in)
- Image: Erect
- Magnification: 30x (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: Yes, 4 steps
- Reticle Illumination: Yes

**TILT SENSOR**

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

**COMMUNICATIONS**

- Communication ports: 1 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 time:
  - Continuous: 14 h
  - Distance/angle measurement: 12 h
  - Continuous distance/angle measurement: 7 h
  - Charging time for both batteries: approx. 6 h

**GENERAL SPECIFICATIONS**

- Autofocus: Yes
- Level vials: Yes
- Sensitivity of Circular level vial on tribrach: 10°/2 mm
- Tangent Clamps: Yes
- Display face 1:
  - LCD back-lit (640 x 480 pixels)
- Display face 2:
  - LCD back-lit (640 x 480 pixels)
- Operating system:
  - Windows® Embedded Compact 7
- Processor:
  - Dual Core 800 MHz
- Level vials:
  - 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 315 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)
  - Battery: 0.4 kg (0.9 lb)
  - Carrying case: 3.3 kg (7.3 lb)

**ENVIRONMENTAL**

- Operating temperature range: -20 °C to +50 °C (−4 °F to +122 °F)
- Storage temperature range: -25 °C to +60 °C (−13 °F to +140 °F)
- Winterized: -30 °C to +50 °C (−22 °F to +122 °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
  - Compensation range: ±3’
- 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 I laser
- Laser Plummet/Laser Pointer: Class II laser

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