GM-100 SERIES

Manual Total Stations

- Advanced security and maintenance with TSshield™
- Fast and powerful EDM
- Advanced angle accuracy
- Long battery life – 28 hours (Eco mode)
- Rugged, waterproof design

Topcon GM-100 total stations – advanced design with superior technology
The GM-100 series was designed from the ground up to deliver the very latest technological advantages, all in a small, sleek design – you’ll appreciate the advantages from the very first measurement.

Featuring a best-in-class EDM unit, the GM-100 is able to measure up to 6,000 m 1.5 mm + 2 ppm to standard prisms, and up to 1,000 m at an incredible 2 mm + 2 ppm accuracy in reflectorless mode.

Measurements are captured faster than ever, and with a beam width of 13 mm (over 30 m), the bright red laser dot pinpoints features with ease.

A world’s first – TSshield
Topcon is proud to offer another world’s first technology in all GM-100 total stations – TSshield. Every instrument is equipped with a telematics-based multi-function communications module providing the ultimate security and maintenance capabilities for your investment.

If the activated instrument is lost or stolen, send a coded signal to the instrument and disable it – the total station is secure anywhere in the world.

In the same module, you have daily connectivity to cloud-based Topcon servers that can inform you of available software updates and firmware enhancements.

Onboard TopBasic Program
Run onboard basic layout and topo programs with the GM series. Store up to 50,000 points. Use the convenient USB transfer method to move data on and off the instrument.
Laser plummet

Tangent lock – securely holds your angle in place

Quick and easy-to-use trigger button

Unique IACS angle encoder system (1° and 2°)

World’s first TSshield™ system

1,000 m non-prism range

Dual, graphic, backlit LCD display and keyboard (second display is optional)

Side mount extra long-life battery

Exclusive “STAR-KEY” functionality

Electro-optical leveling system

Highly visible green and red LED guidelights

Easy access, environmentally protected USB 2.0 slot

Tangent lock – securely holds your angle in place

Laser plummet
# GM-100 SERIES

## Angle Measurement

<table>
<thead>
<tr>
<th>Model</th>
<th>Min Resolution/Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM-101</td>
<td>0.5°/1&quot;</td>
</tr>
<tr>
<td>GM-102</td>
<td>1°/2&quot;</td>
</tr>
<tr>
<td>GM-103</td>
<td>1°/3°</td>
</tr>
<tr>
<td>GM-105</td>
<td>1°/5°</td>
</tr>
</tbody>
</table>

IACS: Standard on 1" and 2" models  
Compensation: Dual-axis compensator

## Distance Measurement

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prism EDM Range</td>
<td>6,000 m</td>
</tr>
<tr>
<td>Prism EDM Accuracy</td>
<td>1.5 mm + 2 ppm</td>
</tr>
<tr>
<td>Non-Prism Range</td>
<td>1,000 m</td>
</tr>
<tr>
<td>Non-Prism Accuracy</td>
<td>2 mm + 2 ppm (0.3 - 200 m)</td>
</tr>
<tr>
<td>Measuring Time</td>
<td>Fine: 0.9 sec, Rapid: 0.6 sec, Tracking: 0.4 sec</td>
</tr>
</tbody>
</table>

## Communications

- LongLink™ is not supported  
- Bluetooth® Class 1.5/10 m  
- USB 2.0 Slot (Host)  
- RS-232C Serial

## General

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>Single Backlit LCD (Dual display optional)</td>
</tr>
<tr>
<td>Battery Operation</td>
<td>Up to 28 hours</td>
</tr>
<tr>
<td>Dust/Water Rating</td>
<td>IP66</td>
</tr>
<tr>
<td>Wireless Connection</td>
<td>Bluetooth® Class 1.5</td>
</tr>
<tr>
<td>Operating Temp</td>
<td>-20°C to 60°C*</td>
</tr>
<tr>
<td></td>
<td>* Special Arctic version available (-35 to 50°C)</td>
</tr>
<tr>
<td></td>
<td>* Laser plummet standard.</td>
</tr>
<tr>
<td></td>
<td>* Optional optical plummet available in some global locations</td>
</tr>
</tbody>
</table>

## Ultra-powerful, advanced EDM

- 1,000 m non-prism range  
- 6,000 m prism range

## Easy access USB 2.0 memory

- Up to 32GB storage  
- Environmentally protected  
- Compatible with industry standard thumb drives

## Advanced angle encoder system

- “Best-in-class” 1” angle accuracy  
- Incorporates exclusive IACS (Independent Angle Calibration System) on 1” and 2” models

## Rugged, waterproof design

- Waterproof/dustproof IP66 design handles the toughest environments  
- Magnesium-alloy housing providing stable angle accuracy  
- Graphic display and alphanumeric key board (standard)