

# The perfect instrument for your precision survey work

The Sokkia TM1A one second theodolite has been superbly designed and built to produce a highly precise, easy to use instrument. Tested and acclaimed by government survey bodies, the TM1A is ideal for a wide variety of surveying tasks, including triangulation and precise traversing.



TM1A

The TM1A micrometer theodolite is equipped with a high precision axis and circles with direct reading to 1" (0.1mgon), and estimation to 0.1" (0.01mgon).

## Diametrical projection system

Both horizontal and vertical circle graduations are displayed by means of a special co-incident image projection method developed by Sokkia. The system eliminates circle eccentricity error.

## Clear and sharp micrometer windows

Sharp graduations and clear windows provide precise reading. The background color of the micrometer confirms the selection of vertical or horizontal angle reading — aqua for the zenith angle reading, soft green for the horizontal angle.

## Magnetic vertical circle compensator

The magnetically damped vertical circle compensator always provides an accurate reading of the precise zenith angle.

## Auto-collimation eyepiece

With the ACE2 Auto-collimation eyepiece, the TM1A serves as an auto-collimator.

## Combination with EDM

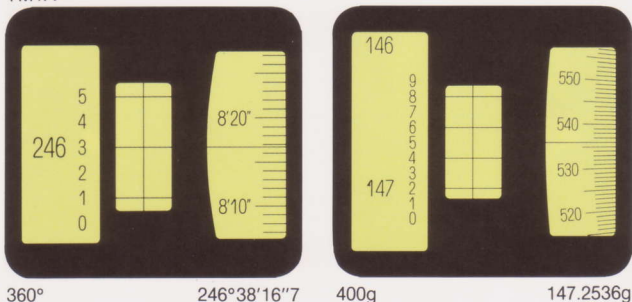
Attachments are available to mount any of the Sokkia's electronic distance meters on the TM1A.

## TM1A Specifications

Telescope	
Length	170mm (6.7 in.)
Objective aperture	45mm (1.8 in.)
Magnification	30×
Image	Erect
Resolving power	2.5"
Field of view [at 1000m]	1°30' [26m]
Minimum focus	1.3m (4.3 ft.)
Stadia multiplication constant	100
Stadia additive constant	0cm
Reticle illumination	by LA1
Angle measurement	
Micrometer reading	
Horizontal circle	Diametrical projection, Clockwise reading
Diameter	94mm (3.7 in.)
Direct reading	1" (0.1mgon)
Estimation	0.1" (0.01mgon)
Vertical circle	Diametrical projection, Zenith angle reading
Diameter	80mm (3.1 in.)
Direct reading	1" (0.1mgon)
Estimation	0.1" (0.01mgon)
Vertical compensator	
Damping system	Magnetic
Range	± 2'
Setting accuracy	0.3"
Circle illumination	by LA1
General	
Sensitivity of levels	
Plate level	20" /2mm
Circular level	10' /2mm in tribrach
Optical plummet	In alidade
Image	Erect
Magnification	2×
Minimum focus	0.5m (1.6 ft.)
Standing axis	Single
Tilting axis height	
from tribrach bottom	248mm (9.8 in.)
from tribrach dish	205mm (8.1 in.)
Size (W × D × H)	189 × 170 × 300mm (7.4 × 6.7 × 11.8 in.)
Weight	6.0kg (13.2 lbs.)
Base screw	φ 5/8 inch

Designs and specifications are subject to change without notice.

TM1A



360°

246°38'16"7

400g

147.2536g



Horizontal circle orientation knob

## The TM1A Theodolite comes complete with:

Main unit with WA Tribrach, LA1 Illumination unit, Sunshade, Lens cap, Plumb bob, Vinyl cover, Tool kit, Operator's manual and Carrying case.

When placing your order, please specify the required angle unit: 360° sexagesimal or 400gon.