

# Topcon DS Series Total Station

The DS series total station can be configured as a mid-range, on-board data collection, auto-pointing total station, and later upgraded to a fully robotic instrument. Further upgrades, such as Hybrid Positioning can be added, making this the most versatile instrument on the market. Versatility to meet your needs.

## Features & Benefits

- Auto-tracking firmware upgrade available
- Ready for Hybrid Positioning
- Xpointing Technology (Auto Collimating)
- Magnet On-Board application software
- Exclusive LongLink™ Communications 300m (984 ft)
- TSshield™ Advanced Security and Maintenance
- Rugged Waterproof IP65 design
- [Hybrid ready ?](#)

### Topcon Hybrid Positioning Technology Concept Video (1 min, 40 sec)

#### Data Collection Software

The MAGNET On-Board software boasts an intuitive graphical interface to assist with topography and traverse surveys, as well as staking out complex structures. This rugged, waterproof total station has the latest technology of TSshield™ advanced security and maintenance, and exclusive LongLink™ communications.

#### Hybrid Ready

The Topcon DS total station can be upgraded with auto-tracking firmware to make it the ideal base instrument for a Hybrid Robotic System. Pairing a tough and durable Topcon HiPer SR job site receiver on top of the prism makes this versatile system one of the most productive land measurement systems available.

#### Xpointing Technology (Auto Collimating)

The Topcon DS utilizes Xpointing technology featuring a new intelligent algorithm that automatically aims to the prisms with precise corrected angle readings. In experienced users will find that the DS finds and centers on the prism quicker than by hand. The Xpointing technology works in dim or dark conditions where the prism is difficult to be found. Whatever the job requires the DS makes your job done easier and faster while still maintaining accuracy.

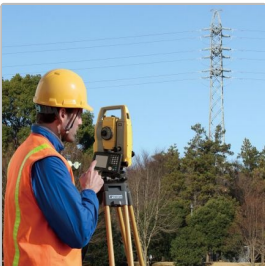
#### Fast and Powerful EDM

The **1,000 m (3,280 ft)** Non-Prism is a phase shift EDM that has a smaller beam width then other non-prism instruments in this class. Measurements can be as fast as .9 seconds in the fine mode. The Topcon algorithm reduces the noise associated with non prism measurements providing an accurate result to most surfaces over longer distance. This is true for darker surfaces and wet surfaces where other non-prism fail. Our smaller beam width allows Topcon to get measurements to a fence as well as through the fence to a building behind. **5,000m** is the distance to a prism.

#### Exclusive LongLink™ Communications 300m

When connected with external data collector the Longlink™ communication provides the power at the remote rod position. The remote operator can record the data for codes and rod heights for as-builts eliminating most common errors. For stakeout the remote operator can view directions required to find the stake point. The system becomes an economical robotic system where the instrument man simple needs to follow, and aim on the remote prism. No need to focus on the prism, the DS with XPointing feature finds the center of the prism automatically.

#### TSshield™ Advanced Security and Maintenance



Topcon DS series Auto Collimating Total Station Specifications	
Angle Measurement	
Accuracy	
Accuracy	1" (0.3 mgon) /3" (1.0 mgon) 5" (1.5 mgon, )
Tilt Correction	Dual Axis
Distance	
Prism	
Range	Single Prism 5000m (16,400 ft) Triple Prism 8,000m (26,240 ft)
Measuring Accuracy	1.5mm+2ppm
Measuring Time	0.9 seconds
Non-Prism Mode	
Measuring Range	800m (2,624 ft) 1000m (3280 ft) 500 lux
Measuring Time	0.9 seconds
Auto Tracking Servo	
Max rotation speed	70 degrees/ Second
Positioning Accuracy	1.2mm (<100m 0.3 +9ppm)
Interface	

Bluetooth®	Bluetooth Class 1 300m (984 ft)
Communications Port	RS-232 New Connector
USB Port	A and B
Wireless Communications	WLAN Tierra Module
Others	
Operating System	Windows CE 6.0
Display Panel	240 * 320 QVGA Color TFT Single Display and Keyboard
Waterproof Rating	IP-65
Software	Magnet On-board
Power	
Battery	BDC70 Li-ion 7.2 v5240 mamps 5 hours