

Trimble Ri

Robotic total station



Key features

- Level detection & monitoring
- Built-in calibration
- Focusing red laser EDM
- Trimble® VISION™ technology
- Upgradeable instrument
- Trimble FieldLink integration

Total performance

Expanded range and various zoom levels plus new side-to-side search pattern for quick-lock onto prism, saves time when searching for a target.

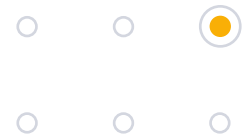
Built for construction

Trimble's most scalable, accurate and automated robotic total station. With self-calibration and level detection built-in, easily set-up for faster, efficient positioning with minimal training required.

The Trimble Ri is equipped with Trimble VISION technology, allowing you to perform layout tasks with one person, saving both time and money. Additionally, FieldLink integration means you can use the same software for both scanning and layout, providing a seamless upgrade path to scale your business from job to job and site to site.

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SYSTEM OVERVIEW

Trimble Ri - robotic total station The Trimble Ri robotic total station is offered in three configurations—**Essential, Standard, and Plus.**

PERFORMANCE

ACCURACY

Angular accuracy (based on ISO 17123-3) **Essential:** 5" (1.5 mgon) **Standard:** 5" (1.5 mgon) **Plus:** 2" (0.6 mgon)

AUTOMATIC LEVEL COMPENSATOR

Type	MEMS, dual-axis, self-leveling
Accuracy	2" (0.6 mgon)
Working range	± 5 gon (± 4,5 °)

DISTANCE MEASUREMENT

Accuracy to Reflectors (based on ISO 17123-4)

Standard	2 mm (0.007 ft) + 2 ppm
Tracking	3 mm (0.01 ft)
Accuracy Reflectorless Mode	2 mm (0.007 ft) + 2 ppm

Range Reflector Mode

	Essential	Standard	Plus
Single Prism 50 mm	150 m (492 ft)	900 m (2,953 ft)	900 m (2,953 ft)
Single Prism 25 mm	150 m (492 ft)	400 m (1,312 ft)	400 m (1,312 ft)
Cat-Eye Reflector 85 mm	150 m (492 ft)	300 m (984 ft)	300 m (984 ft)
Foil Reflector 60 mm	150 m (492 ft)	300 m (984 ft)	300 m (984 ft)
Shortest possible range	1 m (3.3 ft)	1 m (3.3 ft)	1 m (3.3 ft)

Range Reflectorless Mode

	Essential	Standard	Plus
Kodak White (90% reflective)	100 m (328 ft)	150 m (492 ft)	840 m (2,756 ft)
Kodak Gray Card (18% reflective)	100 m (328 ft)	150 m (492 ft)	375 m (1,230 ft)
Shortest possible range	0.5 m (1.6 ft)	0.5 m (1.6 ft)	0.5 m (1.6 ft)

ROBOTIC TRACKING

360° Cat-Eye Prism	Robotic range	1.5 m (5 ft) ... 120 m (427 ft)
360° Prism	Robotic range	1.5 m (5 ft) ... 400 m (985 ft)

EDM SPECIFICATIONS

EDM LASER AND PRINCIPLE

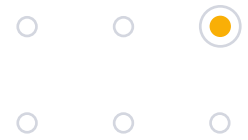
Light source	Light source Laser Diode 660 nm
Laser Class Safety	
Reflector mode	Laser Class 2
Reflector-less mode and laser pointer	Laser Class 2

EDM BEAM DIVERGENCE

Divergence	Adaptive to distance (focusable laser)
Diameter	Diameter < 10 mm @ 100 m (0.4 in/328 ft)
Diameter	< 4 mm @ 40 m (0.16 in/131 ft)

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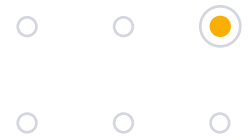
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GENERAL SPECIFICATIONS		
TELESCOPE		
	Lens system	Continuous focus
	Aperture	32 mm (1.3 in)
	Field of view	2 gon - 12 gon (1.8 deg - 11 deg)
	Focusing distance	0.5 m - infinity (1.7 ft - infinity)
	Crosshair	Digital, superimposed
	Tracklight built in	Red / green status LEDs
CAMERA		
	Resolution of stream	960 × 540 or 1920 × 1080
	Resolution of still image	1 - 7 m: 1920 × 1080 (2.1 MPx) 7 - 300 m: 2560 × 1440 (3.7 MPx)
ENVIRONMENTAL		
	Operating temperature	-20 °C to +50 °C (-4 °F to +122 °F)
	Storage temperature	-40 °C to +70 °C (-40°F to +158 °F)
	Dust and water proofing	IP55
POWER SUPPLY		
	Internal battery	Li-Ion, 10.8 V / 6.5Ah
	Operating time	4.5 hours
COMMUNICATIONS		
	Wireless communication	WLAN, Dual 2.4 GHz and 5 GHz band, IEEE 802.11 a/b/g/n/ac
WEIGHT		
	Instrument	5.65 kg
	Internal battery	0.37 kg
DIMENSIONS		
	Height × width × depth	368 mm × 184 mm × 178 mm

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