Trimble Ri

Robotic Total Station

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Key Features

- Level Detection & Monitoring
- Built-in calibration
- Focusing Red Laser EDM
- Trimble Vision technology
- Upgradeable Instrument
- 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. Easy set-up for faster efficient positioning with minimal training required.

The Trimble Ri is part of the Trimble Portfolio of Building Construction products advancing mixed reality technology through data visualization in the field.

Leverage the XR10 with HoloLens 2, together with FieldLink MR, to view and measure with confidence and precision.



DATASHEET

Trimble Ri Robotic Total Station

Performance		EDM Specifications cont'o	d
Accuracy		Diameter	< 10 mm @ 100 m (0.4 in/328 fi
Angle Accuracy		Diameter	< 4 mm @ 40 m (0.16 in/131 fi
(based on ISO 17123-3)	2" (0.6 mgon) / 3" (0.9 mgon)	General Specifications	
Automatic level compensator			
Туре	MEMS, dual-axis, self-leveling	Telescope	
Accuracy	2" (0.6 mgon)	Lens System	Continuous focu
		Aperture	32 mm (1.3 ir
Working Range	± 5 gon (± 4,5 °)	Field of view	2 gon – 12 gon (1.8 deg – 11 deg
Distance measurement		Focusing distance	0.5 m – Infinity (1.7 ft – Infinity
Accuracy to Reflectors (based on ISO 17123-4)		Crosshair	Digital, superimpose
Standard	2 mm (0.007 ft) + 2 ppm	Tracklight built in	Red / Green Status LED
Tracking	3 mm (0.01 ft)	Camera	
Accuracy Reflectorless Mode	2 mm (0.007 ft) + 2 ppm	Resolution of Stream	960 x 540 or 1920 x 108
Range Reflector Mode ¹⁾		Resolution of Still Image	1 - 7 m: 1920 x 1080 (2,1 MPx
Single Prism 50 mm	900 m (2953 ft)		7 - 300 m: 2560 x 1440 (3,7 MPx
Single Prism 25 mm	400 m (1312 ft)	Environmental	
Cat-Eye Reflector 85 mm	300 m (984 ft)	Operating temperature	–20 °C to +50 °C (–4 °F to +122 °F
Foil Reflector 60 mm	300 m (984 ft)	Storage temperature	–40 °C to +70 °C (-40°F to +158 °F
Shortest possible range	1 m (3.3 ft)	Dust and water proofing	IP5
Range Reflectorless Mode ²⁾	(0.0.13)	Power Supply	
Kodak White (90% reflective)	840 m (2756 ft) / 150 m (492 ft)	Internal battery	Li-Ion, 10.8 V / 6.5A
Kodak Gray Card (18% reflective)	375 m (1230 ft) / 150 m (492ft)	Operating time	4.5 hour
Shortest possible range	0.5 m (1.6 ft)	Communications	
	0.5 m (1.0 m)	Wireless communication	WLAN, Dual 2.4GHz and 5GHz band
Robotic Tracking			IEEE 802.11 a/b/g/n/a
360° Cat-Eye Prism		Weight	
Robotic Range	1,5 m (5 ft) 120 m (427 ft)	Instrument (Trimble Ri)	5,65 k
360° Prism3		Internal battery (Trimble Ri)	0.37 k
Robotic Range	1,5 m (5 ft) 400 m (985 ft)	Dimensions	
EDM Specifications		Height x Width x Depth (Triml	ole Ri) 368mm x 184mm x 178mm
EDM Laser and Principle			
Light source	Laser Diode 660 nm		
Laser Class Safety			LASER RADIATION DO NOT STARE INTO BEAM CLASS LASER PRODUCT
Reflector Mode	Laser Class 2		Wavelength: 640-680nm
Reflector-less Mode and Laser Poir			Maximum output power: 1mW This product complies with IEC 60825-1: 2014 and IEC 60825-1: 2007 and
FDM Beam divergence		()	EC 60825-1: 2007 and 21 CFR 1040.10 and 1040.11 except for deviations pursuant

EDM Beam divergence

Divergence

adaptive to distance (focusable laser)



Trimble Building Construction Field Solutions

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