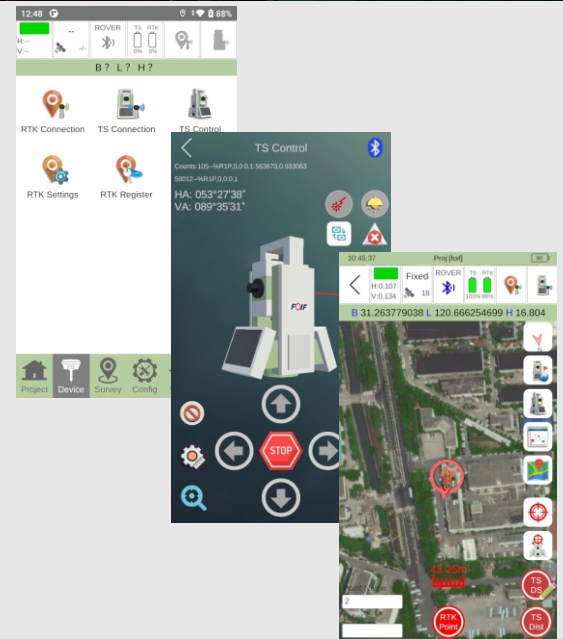




# RTS005A/010A Robotic Total Station



- Angle measurement accuracy: 0.5"/1", distance measurement accuracy(Prism):  $\pm (1+1 \times 10^{-6}D)$ mm
- 1000m long range reflectorless distance measurement
- Vertical shafting: dense ball bearing and four detectors design; Horizontal shafting: unitary and four detectors design
- Adopts up-to-date automatic target recognition and positioning technology
- Supports SDK and external control protocol for software developing
- Supports one man survey with FOIF Inspire android app, and bluetooth can stably communicate above 200 meters away
- Also applied for high precision surveying areas, such as rail traffic monitoring, dam monitoring



# RTS005A/010A Robotic Total Station

## ■ Technical data

RTS005A		RTS010A	RTS010A	
Telescope			Compensator	
Resolution/Image	3" / Erect		Working range	≥±3'
Objective aperture	Φ45,EDMΦ50		Compensating method	Dual-axis
Magnification	30x		Laser plummet	
Field of view	1°20'		Accuracy	±1.0mm/0.8-1.5m
Shortest focus distance	1.5m		Light spot	≤2.0mm/0.8-1.5m
Angle measurement			Maximum output power	0.7-1.0mW
Reading system	Absolute encoder(four detectors)		Laser wave length	635nm
Angle unit	360°(dms/d)/400gon/6400mil		Endless drive	H&V
Minimum display resolution	0.1"		Motor drive	
Shafting design	dense ball bearing for vertical shafting, unitary design for horizontal shafting		Max. rotational angular speed	35°/s
Accuracy *1	0.5"	1"	Min. value for micro-rotation control in low speed	1"
Distance measurement			Display	
Accuracy			3.5" colour TFT LCD (320 x 240 dots) touch screen transflective sunlight readable display	
Standard prism mode	± (1+1×10 <sup>-6</sup> D)mm		Power	
Reflective sheet/RP60	± (2+2×10 <sup>-6</sup> D)mm		Battery	5800mAh Li-ion Rechargeable
Reflectorless	± (3+2×10 <sup>-6</sup> D)mm/ (2-150)m ± (5+3×10 <sup>-6</sup> D)mm/ (150-300)m ± (10+5×10 <sup>-6</sup> D)mm/ (300-500)m ± (10+10×10 <sup>-6</sup> D)mm/ (500-1000)m		Output voltage	7.4V DC
Measurement range			Operation time	5-8 hours
Standard prism	2 to 3000m <sup>*2</sup>		Charger	110/220V, charging about 4 hours
Reflective sheet/RP60	1 to 800m <sup>*2</sup>		Application programs	
Reflectorless	1 to 1000m <sup>*2</sup>		Data collection/Stake out/Resection/REM/MLM/LHM /Offset measurement/Traverse surveying /Auto aim and lock	
Measuring time *3			Others	
Fine mode	≤1.0s(initial 1.5s)		Memory	Built-in 4GB/USB Host
Track mode	≤0.2s(initial 1.0s)		Sensor	Built-in temperature and pressure sensor
Unit selection	m/ft/US ft		Keyboard	Both-side alphanumerical illuminated keyboard
Minimum display	0.0001 /0.001m(fine,fast modes); 0.01m(track mode)		Operating system	WinCE 7.0,SDK supported
ATR system			Guide light	Optional
Working range(target is in the field of view)	5-1000m <sup>*4</sup>		Operating temperature	-20°C to +50°C
Positioning accuracy*5	±1.5mm@≤200m, ±1.5" @>200m		Storage temperature	-40°C to +60°C
Positioning time(in field of view of telescope)	0.5 to 2s		Interface	mini USB/RS-232C/Bluetooth(optional)
Track speed *5	7°/s		Water and dust protection	IP55(IEC60529)
Level vial sensitivity			Software	One man survey with FOIF Inspire app
Plate level vial	30"/2mm		Data collector	P9IV, fully rugged PDA(Optional)
Circular level vial	8"/2mm		Dampproof	95%,no condensing

\*1: Standard deviation based on ISO17123-3

\*2: Visibility of 40km, clear without heat shimmer

\*3: In the best condition, generally prism or sheet 10m away indoors

\*4: 20km of visibility, background illumination not more than 5000lx, no fog and direct sunshine

\*5: No high-reflective object and thermal flicker

Illustrations, descriptions and technical specifications are not binding and may change



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