PENTAX | R-1500N Series

Total Surveying Solution



- Long EDM range measuring distance in reflectorless up to 500m and in prism mode up to 3,000m
- Large internal memory: 60000 points.
- Dual display as a standard equipment
- Easy transfer to a PC via SD card, USB mini and RS-232C data port
- Pre-loaded versatile software functions
- Dual battery system for long time use

INCREASE YOUR WORK EFFICIENCY

FASTER TURNAROUND



PENTAX

Technical Specifications R-1500N Series Total Station

Model			R-1502N	R-1503N	R-1505N
Telescope	Image		Erect		
	Magnification		30 x		
	Effective Aperture		45mm		
	Resolving Power		4.0″		
	Field of View		1°30′		
	Minimum Focus		1.0m		
	Focus		Manual		
	Laser Class		Visible Laser: Class IIIa (Reflectorless, sheet) / Class I (Prism)		
Measurement Range (Good condition) *3					
	Reflectorless ***1**		1.5 ~ 500m		
	Reflector Sheet ***2**		1.5 ~ 800m		
	Mini Prism		1.5 ~ 800m		
	1P		1.5 ~ 3000m		
	3P		1.5 ~ 5000m		
Accuracy	Prism		±(2+2ppm x D)mm		
	Reflector Sheet		±(3+2ppm x D)mm		
	Reflectorless		2.0m ~ 150m: ±(3+2ppm x D)mm		
			150m ~ 300m: ±(5+2ppm x D)mm		
			300m ~ 500m: ±(10+2ppm x D)mm		
	Minimum Count		0.1mm (Fine mode), 1mm (Normal mode), 10mm (Track mode)		
Measurement Time *4	Repeat Meas.	Fine (0.1mm)	Prism / Ref.sheet 3.0sec., Ref.less 3.0sec. (over 300m 5.0sec.)		
		Normal (1mm)	Prism / Ref.sheet 2.0sec., Ref.less 2.0sec. (over 300m 4.0sec.)		
		Track (10mm)	Prism / Ref.sheet 0.4sec., Ref.less 0.4sec. (over 300m 0.4sec.)		
	Initial Meas.	Fine (0.1mm)	1.5 ~ 300m 3.5sec., over 300m ~ 13sec.		
		Normal (1mm)	1.5 ~ 300m 2.4sec., over 300m ~ 12sec.		
		Track (10mm)	1.5 ~ 300m 2.5sec., over 300m ~ 12sec.		
Angle Measurement	Measuring Method		Absolute rotary encoder		
	Detection Method		Vertical / Horizontal angle		
			2 sides		
	Minimum Count		1″ / 5″		
	Accuracy (ISO17123-3)		2″	3″	5″
Compensator			2 axis		
Tangent Screw			1 Seed/Clamping (<30″)		
Sensitivity of Vials	Plate Level		30″/1div. (electrical)		
	Circular Level		8′/2mm		
Plummet			Visible Laser, ±0.5mm (instrument height 1.5m)		
Base			Detachable		
Dust and Water Protection			IP55 (instrument only)		
Ambient Temperature			-20°C ~ 50°C / -4°F ~ 122°F (Working range)		
Tripod Thread			5/8″x 11		
Dimensions/Weight	Dimensions		183 (W) x 342(H) x 167(L)mm		
	Weight (incl. Battery)		5.4 kg		
Carrying Case			440(W) x 370 (H) x 275 (L)mm /3.9 kg		
Battery Pack	Power Source		Li-ion 2,500mAh X 2 = 5,000mAh (hotswap)		
	Operation Time		Continuous approx. 9.0 hrs (ETH+EDM) with approx. 2.5hrs. of charging time		
	Weight		5400g		
Battery Charger and AC Adapter					
	Input Voltage (AC05)		AC 100 ~ 240V		
	Output Voltage (BC05)		DC8.4V		
Data Process	Data Recording Method		Internal Memory		
	Coordinates Data		60000		
	Special Function		PowerTopoExpress 2		
	I/F		RS-232C, SD CARD, USB mini, Bluetooth (class2)		
Display / Keyboard	Display Type		Graphic LCD / 20 characters x 8 lines / 240 x 96 pixels		
	Quantity		2		
	Keys		22 each (12 numeric / 5 function / 5 special)		
Display Back Light			Intensity settings: 10 steps		
Laser Pointer			Yes		
Date Clock			Yes		

* Specifications are subject to change without notice

*1 The measurement range and accuracy of reflectorless, and time required to measure may vary by the shape, size of surface area and reflection rate of the target and its environment.
The measurement range of reflectorless is determined by the white side of the Kodak Gray Card.
*2 Reflector sheet: Genuine Reflector sheet
*3 The measurement range may vary by conditions of the environment.
Normal conditions: 20km visibility with slight shimmer
Good conditions: 40km visibility with overcast, no heat, no shimmer and moderate wind.
*4 EDM measuring time is determined in good conditions. It may takes longer than usual to measure the distance exceeding 4000m in prism mode and 300m in reflectorless mode.

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ISO 9001:2008

JSIMA Japan Surveying Instruments Manufacturers' Association

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