



Technical Specifications R-2800N Series Total Station

Model		R-2801N	R-2802N	R-2803N	R-2805N
Telescope	Image	Erect			
	Magnification	30 x			
	Effective aperture	45mm			
	Resolving power	4.0"			
	Field of view	1°20'			
	Minimum focus distance	1.0m			
	Focus	Manual			
Distance measurement	Laser Class	Visible Laser : Class IIIa (Reflectorless, sheet) / Class I (Prism)			
Measurement range (Good condition) *3	Reflectorless *1	800m			
	Reflector sheet *2	800m			
	Mini prism	1200m			
	Prism 1P	3000m			
Accuracy	Prism	±(2+2ppm x D)mm			
	Reflector sheet	±(3+2ppm x D)mm			
	Reflectorless	2~150m : ±(3+2ppm x D)mm 150~300m: ±(5+2ppm x D)mm 300~500m: ±(10+2ppm x D)mm			
Angle measurement	Measuring method	Absolute rotary encoder			
	Detection method	Vertical / Horizontal angle			
		2 sides			
	Minimum count	1" / 5"			
	Accuracy (ISO17123-3)	1"	2"	3"	4"
Compensator	Axis	2 axis			
	Range	± 3"			
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 (not incl. battery)	5.4kg			
Carrying case	Dimensions / weight	440(W) x370 (H) x275 (L)mm /3.9 kgs.			
Battery pack	Power source	Li-ion 2500mAh × 2			
	Weight	5.4kg			
Battery charger and AC Adapter	Input voltage	AC 100 ~ 240V			
	Output voltage	DC8.4V			
Data Process	Data Recording Method	Selectable			
	I/F	RS-232C,SD,miniB,Bluetooth(Class1)			
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 any notice

NOTE :

- *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 2000m in prism mode and 300m in reflectorless mode.