

## Technical features R1 Plus

### ANGLE MEASUREMENT

Reading system	Absolute encoder
Display resolution	1" / 5" / 10" (or 0.2mgon/1mgon/2mgon)
Angle Unit	360°(dms/d)- 400gon/6400mil
Accuracy <sup>1</sup>	2"

### TELESCOPE

Magnification/Length	30 x/156 mm
Field of view	1°30'
Minimum focus	1.0 m
Reticle	9 brightness levels adjustable
Objective aperture	φ 45 mm

### AUTOMATIC COMPENSATOR

System	liquid detection dual axis compensator
Compensation range/Accuracy	± 3' / 1"

### DISTANCE MEASUREMENT RANGE

Reflectorless	1.0 ~500 <sup>2</sup> m 1.0 ~3000 <sup>3</sup> 2000 <sup>4</sup> 1500 <sup>5</sup>
With Prism	Class 1 up to 5000 m Class 3
With reflective sheet (60mm x 60mm)	1.0 ~800 m

### MEASUREMENT ACCURACY

Reflectorless	± (3+2×10 <sup>-6</sup> D)mm
Prism	± (2+2×10 <sup>-6</sup> D)mm
Reflective sheet (60mm x 60mm)	± (3+2×10 <sup>-6</sup> D)mm

### MEASUREMENT TIME

Measuring time (Tracking/Fast/Fine)	0.5 sec / 1.5 sec / 2.0 sec
Distance Unit	m/ft/US ft

### LASER PLUMMET

Laser type	635nm semiconductor laser
Accuracy	1mm at 1.5 m instrument H
Laser spot	±1,5mm/1,5m

### LEVEL VIAL SENSITIVITY

Plate level	30 ("2mm)
Circular level	8 ('/2mm)

### ENVIRONMENTAL CONDITIONS

Operating Temperature	-20° C ; +50° C
Storage Temperature	-40° C ; +70° C
Waterproof/Dustproof	IP66

### PHYSICAL SPECIFICATION

Dimensions	175 mm x 178 mm x 340 mm
Weight (including battery and tribrach)	5.1 Kg

### BATTERY

Voltage/Capacity	7.4V / 3400mAh Li-ion battery
Operating period with continuous angle measurement	36 hours
Operating period with measurement every 30 seconds	26 hours (>1.000 measurement at 20° C )

### OTHER SPECIFICATIONS

Display	Two sides, LCD, 96x160 dots
Memory	120000 points, support SD card 16 Gb
Interface	RS-232C / mini USB/ SD card
Charger	110/220V, Charging time: about 4h

#### Specifications subject to change without notice

1. Standard deviation based on ISO 17123-3.
2. Visibility about 40 km, back light less than 5000 lx, no haze, no direct sunlight.
3. Visibility about 40 km, sunny, no heat shimmer.
4. Visibility about 20 km, moderate sunlight, slight heat shimmer.
5. Visibility about 10 km, light haze, severe heat shimmer.