

R2W Plus with Endless Friction drives

ANGLE MEASUREMENT

Reading system	Absolute encoder
Angle Unit	360°(dms/d)/400gon/6400mil
Accuracy ¹	1"/2"

TELESCOPE

Magnification/lenght	30 x / 156 mm
Field of view	1°30'
Minimum focusing distance	1.0 m
Reticle	10 brightness levels adjustable
Objective diameter	φ 45 mm
Laser pointer	Coaxial red light

TILT SENSOR

System	Electronic dual-axis-compensator
Working range/Accuracy	± 4.0' / 1"

DISTANCE MEASUREMENT R1000/R500 RANGE

Reflectorless ²	1 to 1000 m / 1 to 500 m
Standard mode Prism	1 to 3500 m / 1 to 3000 m (Class 1)
Long mode Prism	1 to 6000 m (Class 2)
Reflective sheet	1 to 1200 m / 1 to 800 m

DISTANCE MEASUREMENT R1000/R500 ACCURACY

Reflectorless	2-4 mm + 2 ppm / 3-5 mm + 2 ppm
Standard mode Prism	1 mm + 1ppm / 2 mm + 2 ppm
Long mode Prism	2mm + 2.5 ppm
Reflective sheet	2 mm + 2 ppm / 3 mm + 2 ppm

DISTANCE MEASUREMENT

Laser class (prism)	Class 1
Laser class (Reflectorless / Reflective sheet)	Class 3R
Measuring time	Initial: 2.5sec
Reflectorless	typ: 1.5-5sec, max: 20sec
With Prism	typ: 1.0-1.5sec
With reflective sheet (60mm x 60mm)	typ: 1.5sec
Distance Unit	m/ft/US ft

LASER PLUMMET (STANDARD)³

Accuracy	±1.0mm at 1.5 m instrument height
Laser class	Class 2/IEC60825-1
Laser wavelength	635nm
Laser spot	2.0mm/1.5m

Specifications subject to change without notice.

1.Standard deviation based on ISO17123-3.

2.Good conditions: no haze, visibility about 40km, no heat shimmer, breeze.
Reflectorless: White side of Kodak Gray Card with 90% reflective.

3.Laser plummet mounted on the bottom of the vertical axis.

LEVEL VIAL SENSITIVITY

Plate level vial	30" / 2mm
Circular level vial	8' / 2mm

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20° C ~ +50° C
Storage Temperature	-40° C ~ +70° C
Waterproof/Dustproof	IP55

WEIGHT

Weight including battery and tribrach	5.5 Kg
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POWER

Battery	3400mAh Li-ion rechargeable
Output voltage	7.4V
Operating period with continuous angle measurement	12 hours
Operating period with measurement every 30 seconds	Approx. 9 hours (>1000 measurements)
Charger	110V/240V
Charging time (at +20° C)	Approx. 4 hours

OTHER SPECIFICATIONS

CPU	ARM9 core
Display	Two sides, 3.5" color TFTLCD (320 x 240 pixel), touch screen
Operating System	Windows CE 7.0
Internal Memory	4 GB
Interface	RS-232C / USB slave / USB host
Bluetooth	On board
Bluetooth level	Class 2
Bluetooth effective distance	10 m
Guide Light System	On board
Sensor	Temperature/Pressure