

PENTAX

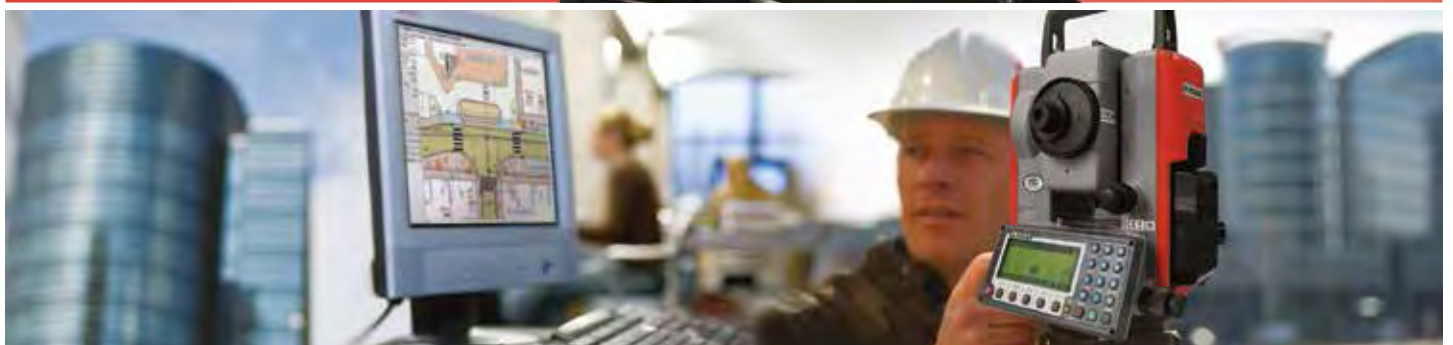
R-200 Series

EFFICIENT ACCURACY AT YOUR FINGERS!

- 350m reflectorless EDM range
- 2" and 5" models
- Adjustable laser plummet



**INCREASED
PRODUCTIVITY
FASTER
TURNAROUND**



Model		R-202NE	R-205NE
Telescope	Magnification	30 x	
	Effective aperture	45mm (EDM45mm)	
	Resolving power	3.0"	
	Field of view	2.6 % (1° 30')	
	Minimum focus	1.0 m	
	Focus	Manual	
Distance measurement	Laser Class	Visible laser: Class III a (3R) (Reflectorless) / Class II (2) (Prism, sheet)	
Measurement range (Good conditions) (*3)	Reflectorless (*1)	1.5 ~ 350 m	
	Reflector sheet (*2)	1.5 ~ 600 m (800 m)	
	Mini Prism	1.5 ~ 1,100 m (2,000 m)	
	1 P	1.5 ~ 3,000 m (4,000 m)	
	3 P	1.5 ~ 4,000 m (5,200 m)	
Accuracy	Prism / Reflector sheet	1.5 ~ 10 m: $\pm (3 + 2 \text{ ppm} \times D) \text{ mm} / 10 \text{ m} \sim \pm (2 + 2 \text{ ppm} \times D) \text{ mm}$, Quick: $\pm (3+2\text{ppm}\times D) \text{ mm}$ (*5)	
	Reflectorless	1.5 ~ 300 m: $\pm (5 + 2 \text{ ppm} \times D) \text{ mm} / 300 \text{ m} \sim \pm (7 + 10 \text{ ppm} \times D) \text{ mm}$	
	Minimum count	0.1 mm (Fine mode) / 1 mm (Normal mode) / 10mm (Track mode)	
Measuring time (*4)	Repeat meas. Normal (1 mm)	Prism / Reflector sheet 2.0 sec - Reflectorless 2.0 sec	
	Quick (1 mm)	Prism / Reflector sheet 1.2 sec (*5)	
	Track (10 mm)	Prism / Reflector sheet 0.4 sec - Reflectorless 0.4 sec	
	Initial meas. Normal (1 mm)	Prism / Reflector sheet 2.5 sec - Reflectorless 2.4 sec	
	Quick (1 mm)	Prism / Reflector sheet 1.7 sec (*5)	
	Track (10 mm)	Prism / Reflector sheet 2.5 sec - Reflectorless 2.5 sec	
Angle measurement	Measurement method	Absolute rotary encoder	
	Direction method	Vertical / Horizontal angle: 2 sides	Vertical / Horizontal angle: 1 side
	Minimum count	1" / 5" selectable	
	Accuracy (ISO 17123-3)	2"	5"
Compensator	Axis	Single	Single
	Range	$\pm 3'$	
Target screw		1 speed	
Sensitivity of vials	Plate level	30" / 1 mm	
	Circular level	8' / 2 mm	
Plummet		Laser Plummet	
Base		Detachable	
Dust & water resistance		IP56 (instrument only)	
Ambient temperature		-20°C ~ +50°C / -4°F ~ 122°F (working range)	
Tripod thread		5/8" x 11	
Dimensions / Weight	Dimensions	172 (W) x 342 (H) x 177 (L) mm	
	Weight (incl. battery)	5.7 kg	
	Carrying case	250 (W) x 365 (H) x 425 (L) mm	
Battery pack	Power source	Ni-MH 4300 mAh (rechargeable) DC 6.0 V	
	Operation time	Approx. 7.0 hrs (ETH + EDM, single measurement every 30 sec.), 15 hrs (ETH) with approx. 2.2 hrs of charging time	
	Weight	380 g	
Battery charger and AC adapter	Input Voltage	AC 100 ~ 240 V	
	Output Voltage	DC 7.5 V	
	Weight	280 g	
Data Process	Data recording method	Internal Memory	
	Coordinates data (*6)	20,000	
	Special function	PowerTopoLite	
	I / F	RS-232C	
Display / keyboard	Display type	Graphic LCD / 20 characters x 8 lines / 240 x 96 pixels	
	Quantity	double	
	Keys	22 each (12 numeric / 5 function / 5 special)	
	Display back light	Intensity settings: 10 steps	
Laser Pointer		Yes	
Date clock		Yes	

*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. (KODAK is a trademark of Eastman Kodak Company)

*2 Reflector sheet: PENTAX 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, overcast, no heat, no shimmer and moderate wind.

*4 EDM measuring time is determined in good conditions. It may take longer than usual to measure the distance exceeding 4000m in prism mode and 300m in reflectorless mode. Also the measurement time in reflectorless mode is influenced by the share, size and surface area and reflection rate of the target and its environment.

*5 Quick mode, which functions with prism and reflector sheet, is effective only under normal mode (1mm) and up to 500m.

*6 Number of points to be recorded may vary by usage.

Maximum number of point to be recorded per job site: 3000 points

Maximum number of job file to be recorded: 50 job files

Maximum data points to be sent from PC to the instrument: 3000 points

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The CE marking assures that this product complies with the requirements of the EC directive for safety.



DANGER

LASER RADIATION - DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENT INTO SUNLIGHT.
620-690 nm/4.75mW max.
CLASS IIIa LASER PRODUCT
Laserclass IIIa, conform FDA 21 CFR Ch. 1 § 1040

CAUTION

LASER RADIATION - DO NOT STARE INTO BEAM
620-690 nm/0.95mW max.
CLASS II LASER PRODUCT
Laserclass II, conform FDA 21 CFR Ch. 1 § 1040



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