

SPECIFICATIONS

		N41	N40
Distance Measurement		Laser Class 3R <sup>①</sup>	
EDM System		Wave legnth: 650 - 690 nm. 70-150 Mhz Frequency	
Measurement Range	1 Prism <sup>②</sup>	3500m	5000m
	3 Prism	5000m	
	Mini Prism	800m	
	Reflective Sheet <sup>③</sup>	1200m	
	Reflectorless <sup>④</sup>	1000m	1000m
Accuracy	Single Prism	± (1+1ppm×D) mm	± (2+2ppm×D) mm
	Reflective Sheet	± (2+2ppm×D) mm	
	Reflectorless	± (2+2ppm×D) mm <sup>⑤</sup>	
Reading		Maximum: 99999999.999m; Minimum: 1mm	
Measuring Time	Single Prism	Fine Mode<1.3s; Tracking Mode<0.4s; Repeat< 0.2s	
	Reflective Sheet	<0.3s	
	Reflectorless	0.5-3s <sup>⑥</sup>	
Atmospheric Correction		Auto Correction	
Prism Constant		Auto Correction	
Angle Measurement			
Measurement Method		Absolute Encoding	
Diameter of the Absolute Encoding Disk (Horizontal/Vertical)		79mm	
Minimum Reading		0.1″ / 1″ Optional	
Accuracy ISO 17123-3		1″	2″
Detection Method		Horizontal: 4 path	Horizontal: Dual
		Vertical: 4 path	Vertical: Dual
Telescope			
Image		Erect	
Length		152mm	
Effective Aperture		45mm, (DTM: 47mm)	
Magnification		30 X	
Field of View		1° 30′	
Minimum Focus		3″	
Minimum Focussing Distance		1.5m	
Reticle Illumination		Adjustable	
Automatic Compensator			
System		Dual Axis Liquid-electric Sensor Compensation	
Working Range		± 4′	
Accuracy		1″	
Sensitivity of Vial			
Plate Vial		30″ / 2mm	
Circular Vial		6′ / 2mm	
Laser Plummet (Default)			
Accuracy		1.5mm (in 1.5m InsHt)	
Wave Length		635nm	
Laser Class		Class 2	
Optical Plummet (Optional)			
Image		Erect	
Magnification		3X	
Focusing Range		0.3m - ∞	
Field of View		5°	
Camera (Optional)			
		780000 pixe, 16mm focal length, 11 frames/s refresh rate, 2m -∞deep of field, 3 X digital zoom, Automatic white balance	
General			
Display		Two 3.5-inch LCD graphic display, 320 x 240 dpi touch-screen backlight, contrast adjustment	
Keyboard		Alphanumeric Keyboard/ 30 keys with backlight	
EDM Trigger Key		Quick Measure Key located on side cover	
Laser pointer		Easy to find target	
Guide light (optional)		Indicates correct position fast and easy	
Bluetooth		Easier way to transfer data and connect with controller	
Auto height(optional)		Get instrument height automatically	
Communication			
SD card		Supportable	
Serial I/F Port		USB flash disk/ RS-232C/ USB Mini-B/ SD card/ Bluetooth	
On-board Battery			
Power Supply		Rechargeable Lithium Battery	
Voltage		7.4 V DC	
Operating Time		8 hrs	
Physical			
IP Standard		IP66	
Data Storage	Internal Memory	98M, ready for 833,000 points	
	External Memory	SD Card 8GB, ready for approx. 34,000,000 data blocks 8G USB Flash disk, ready for approx. 68,000,000 data blocks	
Working Temperature		-20℃ ~ +50℃	
Dimension and Weight		206×200×353 mm, 6.0Kg	

STANDARD PACKING LIST

Main unit	1x
Lens cover	1x
Battery holder	1x
Battery	2x
Tools pouch	1x
Plummet	1x
SD card	1x
Y type cable	1x
Manual	1x
Warranty card	1x
Charger	1x
Reflective sheet	1x
Carry case	1x
Belt	2x
Mini USB cable	1x

①EN60825-1: 2007 ②Good conditions: No haze, visibility about 40km. Overcast, no scintillation ③ Good conditions. With Koda gray card white side (90%) reflective. standard sheet size. 300m under good conditions with koda gray card grey side (18%). ④With Kodak gray card white side (90%) reflective. Reflectorless range /accuracy may vary according to measuring objects, observation situations and environmental conditions ⑤Range less than 100m. When 100m to 200m, 5+2ppm and measurement time maximum less than 5s ⑥Typical, under good conditions. Range less than 500m. It also depend on object surface. Maximum less than 10s

OPTIONAL ACCESSORIES



ATS-2 Wooden Tripod  
NLS-15 Prism Pole  
TK21T Prism Set

You Local Authorized Dealer

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**SOUTH**  
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**N4 Series**  
**TOTAL STATION**

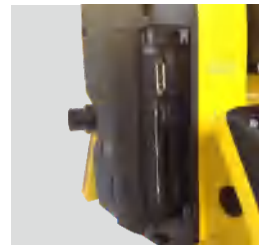




# KEY FEATURES



Bluetooth 4.0



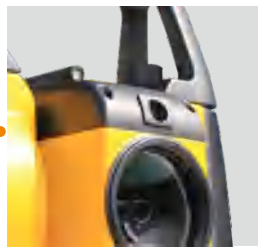
Data transfer and storage  
Flash disk and SD card,  
Mini USB.



T-P sensor, automatic correction



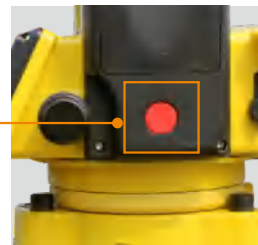
Concentrated ball bearing  
Solve axis jam, more stable and  
reliable.



Camera Optional for N40/N41



1000m/600m reflectorless EDM  
Laser pointer, easy to find target



EDM Trigger Key  
Special design for quick  
measurement

Control panel with high resolution  
touch screen  
Back-lights keypad with 3.5 inch colorful  
LCD touch screen, display for easy viewing  
of graphics and operations.  
Active screen back-light technology



HD  
Display



T/P  
Sensor



4-probe  
Encoding



Dual  
Compensation



Laser  
Plummet



Bluetooth



SD  
Storage



USB  
Interface

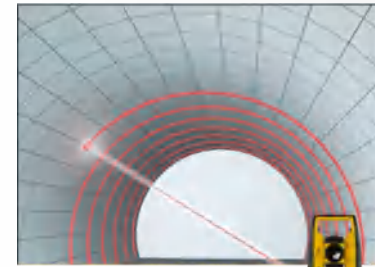
# TUNNEL MEASUREMENT



Overbreak & Underbreak



Restoration Construction



Reflectorless Cross-section Measurement



Program optional for N4 Series

## Powerful

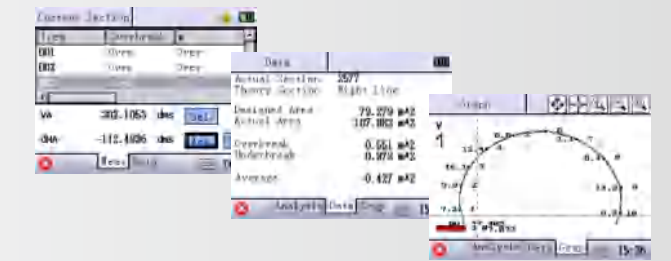
- Integrated the Random detection of overbreak & underbreak, Excavation contour line lofting, Cross-section measurement, Points & lines lay-out and Data processing as a whole

## Simplify

- One-key operation to finish the data seamless transform among modules

## Precise

- Millimeter accuracy ensured by considering various plane curve and vertical curve, contour shape and tunnel interface in same time



# CONTROLLER



## Powerful application platform

- Increase efficiency with data controller

## Combine with different kinds of fieldwork software

- SURVCE, Field Genius, etc.

