

SPECIFICATIONS

	N41	N40
Distance Measurement		
EDM System	Laser Class 3R ^①	
	Wave length: 650 - 690 nm. 70-150 Mhz Frequency	
Measurement Range 1 Prism ^②	3500m	4000m
3 Prism	5000m	
Mini Prism	800m	
Reflective Sheet ^③	1200m	
Reflectorless ^④	1000m	1000m
Accuracy	Single Prism $\pm(1+1\text{ppm}\times D)$ mm	$\pm(2+2\text{ppm}\times D)$ mm
	Reflective Sheet $\pm(2+2\text{ppm}\times D)$ mm	
	Reflectorless $\pm(2+2\text{ppm}\times D)$ mm ^⑤	
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 ^⑥	
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 Vertical: 4 path	Horizontal: Dual 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	$\pm 4'$	
Accuracy	1"	
Sensitivity of Vial		
Plate Vial	30" / 2mm	
Circular Vial	8' / 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	IP54	
Data Storage	Internal Memory	98M, ready for 833,000 points SD Card 8GB, ready for approx. 34,000,000 data blocks
	External Memory	8G USB Flash disk, ready for approx. 68,000,000 data blocks
Working Temperature	-20°C ~ +50°C	
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

SOUTH
Target your success

SOUTH SURVEYING & MAPPING INSTRUMENT CO.,LTD

E-mail: mail@southsurvey.com
export@southsurvey.com
impexp@southsurvey.com
euoffice@southsurvey.com
http://www.southinstrument.com

SOUTH
Target your success

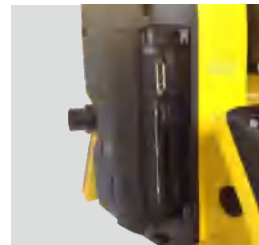
N4 Series
TOTAL STATION



KEY FEATURES



Bluetooth 4.0



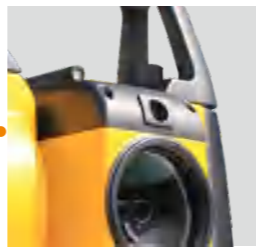
Data transfer and storage
Flash disk and SD card,
Mini USB.



T-P sensor, automatic correction



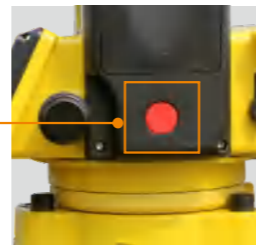
Concentrated ball bearing
Solve axis jam, more stable and
reliable.



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

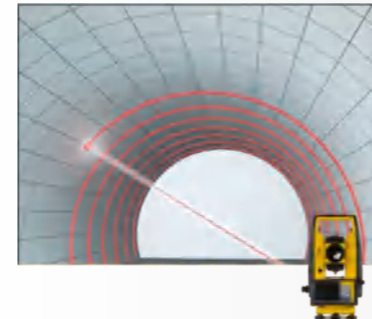
TUNNEL MEASUREMENT



Overbreak & Underbreak



Restoration Construction



Reflectorless Cross-section Measurement



Program optional for N4 Series

Powerful

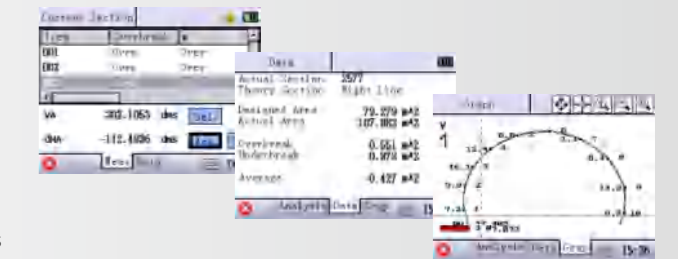
- Integrated the Random detection of overbreak & underbreak, Excavation contour line lofting, Cross-section measurement, Points & lines lay-out and Data processing as a whole

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.

