

# SOKKIA

# NET05X

3D STATION

Featuring 0.5" angle accuracy and sub-millimeter EDM, the NET05X 3D Station offers the highest precision in its class in a broad range of applications.



#### ■ Engineering and Construction

- Setting out with maximum precision
- On-site positioning of framework members
- Periodic measurement of tunnel convergence to ensure safety



#### ■ Industrial Measurement

- Measures dimensions and geometry with sub-millimeter accuracy
- Easy-to-set-up mobile system provides maximum convenience in large object measurement from multiple positions



#### ■ Surveying

- NET05X provides the highest precision in its class for all kinds of surveying, from control point survey to long baseline measurement



# Equipped with a variety of innovative features, the NET05X provides ideal solutions for the most demanding surveying and measurement tasks that require the highest in precision

## ■ 0.5" Angle Accuracy

- The combination of market-proven absolute rotary encoders and advanced Independent Angle Calibration System (IACS) provides the industry's highest angle accuracy.

## ■ Sub-millimeter EDM

- SOKKIA's cutting-edge distance measurement technology ensures unmatched comprehensive performance.
- "0.5mm+1ppm" accuracy with reflective sheet targets in the range of 200m (650ft.).
- "0.8mm+1ppm" with a standard prism up to 3,500m (11,480ft.).
- "1mm+1ppm" precision without reflector up to 100m (320ft.).
- Measurement time is as fast as 2.4 seconds in "fine" mode.

## ■ Superior Telescope

- The superior telescope boasts 2.5" high resolving power as well as unparalleled brightness and sharpness.

## ■ Perfectly Aligned Laser Pointe

- Red EDM beam works as a laser pointer.
- The perfectly aligned laser can be used for precise setting out and alignment tasks indoor or underground conditions.

## ■ Target Illumination

- Prisms or sheet targets can be easily located in dim lighting conditions using the high-intensity white LED built into the telescope.



## ■ Advanced User-Interface with Windows CE

- A highly visible touch screen display and a fully illuminated keyboard allow easy operation in tunnels, at night, and in low-light conditions.
- An optional Remote Trigger DLC1 enables wireless operation.



## ■ IP65 Environmental Protection

- The NET05X boasts a robust IP65 dust- and water-resistant body.
- Weatherproof multi-port maintains IP65 protection even when connected to a data cable or an external battery.

## ■ Bluetooth® Wireless Communication

- Built-in Class 1 Bluetooth modem allows wireless communication with an external controller or PC to a range of 200m (650ft.).

## ■ Wide Variety of Reflectors

- SOKKIA's full line of innovative reflectors maximizes the measurement accuracy and efficiency.



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## NET05X Specifications

Telescope		Magnification: 30x, Resolving power: 2.5" Minimum focus: 1.3m (4.3ft.)
Angle measurement		Absolute rotary encoder scanning, diametrical detection
Display resolution		0.1" / 0.5", 0.02 / 0.1mgon, 0.0005 / 0.002mil
Accuracy (ISO 17123-3:2001)		0.5", 0.15mgon, 0.0025mil
IACS		Provided (Independent Angle Calibration System)
Automatic dual-axis compensator		Working range: ±4' (±74mgon)
Distance measurement		Modulated laser, phase comparison method with red laser diode (690nm)
Laser output*1	Reflectorless mode	Class 3R (max. 5mW)
	Prism/Sheet mode	Class 1 equivalent (max. 0.22mW)
Measuring range*2 (D=measuring range, Unit: mm)	Reflective sheet*3	1.3 to 200m (4.3 to 650ft.) (with RS50N-R)
	One AP prism	1.3 to 3,500m (4.3 to 11,480ft.)
	CP compact prism	1.3 to 800m (4.3 to 2,620ft.)
	Reflectorless*4	0.3 to 100m (1.0 to 320ft.)
Unit		Meter / Foot / US foot / US foot + inch
Display resolution		0.01mm / 0.1mm, 0.0001 / 0.001ft., 1/64 / 1/16in.
Accuracy*2 (ISO 17123-4:2001)	Reflective sheet*3	(0.5 + 1ppm x D) mm
	AP/CP prism	(0.8 + 1ppm x D) mm
	Reflectorless*4	(1 + 1ppm x D) mm
Measuring time		Fine: <0.9s (initial <2.4s), Rapid: <0.6s (initial <2.0s) Tracking: <0.4s (initial <1.3s)
Beam spot size (Reflectorless mode)	Height x Width	3 x 5mm@2m, 5 x 6.5mm@10m, 11 x 9mm@40m 0.20 x 0.26in.@32ft., 0.43 x 0.35in.@130ft.
Interface and Data management		
Operating system		Windows CE Ver. 5.0
Display		3.5in. TFT color LCD with backlight, touch screen, on both faces
DLC1 Remote Trigger (optional)		Infrared, Operating range: 0.5m (1.6ft.)
Data storage		Internal memory (1MB), CF card, SD card, USB memory
Interface		Serial RS-232C / USB1.1: Type A, Type mini B
Bluetooth wireless modem		Class 1, Operating range: 200m (650ft.)
SFX data transfer		Provided
General		
Sensitivity of levels		Plate level: 20" / 2mm, Circular level: 10' / 2mm
Optical plummet		Magnification: 7x
Dust and water protection		IP65 (IEC 60529:2001)
Operating temperature		-20 to +50°C (-4 to +122°F)
Size with handle & battery		201 (W) x 220 (D) x 375 (H)mm (W8.0 x D8.7 x H14.8in.)
Weight with handle & battery		7.1kg (15.7 lb.)
Power supply		7.2 to 12 V DC
Battery	BDC58	Li-ion rechargeable battery (4.3Ah, 2 included as standard)
Operating time*5 at 20°C (68°F)	BDC58	Approx. 14hours
	External battery	BDC60: Approx. 19hours, BDC61: Approx. 38.5hours

\*1 IEC60825-1 Amd.2:2001 / FDA CDRH 21 CFR Part 1040.10 and 11

\*2 Under good conditions: No haze, visibility about 40km (25 miles), overcast, no scintillation.

\*3 When squarely aligned with the target.

\*4 With Kodak Gray Card White Side (90% reflective). When brightness on measured surface is 30,000 lx. or less (no direct sunlight).

\*5 Single measurement every 30 seconds.

