

## SPECIFICATIONS

### Angle Measurement

Measurement Method.....Absolute Encoding  
Minimum Readout.....1"/5"/10"  
(0.3mgon/1.5mgon/3mgon) adjustable  
Accuracy<sup>1</sup>.....2"

### Distance Measurement (HTS-220 with Reflector)

Single Prism.....3000m (9,842ft.) under good condition<sup>3</sup>  
Three Prisms.....6000m (19,685ft.) under good condition<sup>3</sup>  
Reflective Sheet.....800m (2,624 ft.)  
Accuracy.....2 mm +2ppm  
Measuring Time (Fine/Quick/Tracking).....1.5s/1s/ 0.5s

### Distance Measurement (HTS-220R Reflectorless)

Reflectorless<sup>2</sup> Range.....350m (1,148 ft.)  
Single Prism.....>7500m (24,606ft.)  
Accuracy.....3mm+2ppm  
Measuring Time.....1.5s

### Telescope

Magnification.....30X  
Field of View.....1°30' (2.7m at 100m)  
Minimum Focusing Distance.....1.5m  
Reticle.....Illuminated

### Compensator

System.....Single-axis liquid tilt sensor/Dual-axis (optional)  
Working Range.....±3'  
Setting Accuracy.....1"

### Communication

Bluetooth  
Interface.....Standard RS232, SD card<sup>4</sup>,  
USB pen drive, mini-B  
Internal Data Memory.....Approx. 20,000 Points  
Data Format.....ASCII

### Operation

Operation system.....Real-time Operating System  
Display.....High resolution backlight black and white display with

contrast adjustment/ Graphics.....280 x 160 pixels  
Character: 6 lines x 25 characters  
Keyboard.....2 sides Alphanumeric backlit crystal keyboard

### Laser Plummet

Type.....Laser point, 4 brightness levels  
adjustment / Optical plummet (optional)  
Centering Accuracy.....1 mm at 1.5m instrument height

### Power Supply

Battery Type.....Rechargeable Li-ion battery  
Voltage/Capacity.....ZBA-400: 7.4V (DC) / 3000mAh  
Operating Time With ZBA-400.....Optimal 16 hours<sup>5</sup>  
(Continuous angle measurement every 30 seconds) /10 hours  
(typical)  
Measuring Times.....Approx. 12000 times

### Weight

Weight (Incl. Battery&Tribrach).....Approx. 5.5kg (12.1lb.)

### Environmental

Operating Temperature.....-20°C ~ + 50°C (-4°F to + 122°F)  
Storage Temperature.....-40°C ~ + 70°C (-40°F to + 158°F)  
Dust&Water Proof (IEC60529 Standard)/Humidity.....IP65,  
95%, non-condensing

<sup>1</sup> Standard deviation based on ISO 17123-3.

<sup>2</sup> Calculated by Kodak Gray Card white side (90% reflective), exact distance depends on measuring object, observation and environment conditions.

<sup>3</sup> Good condition: no haze, visibility about 40km, moderate sunlight,

<sup>4</sup> Maximum extension up to 32GB.

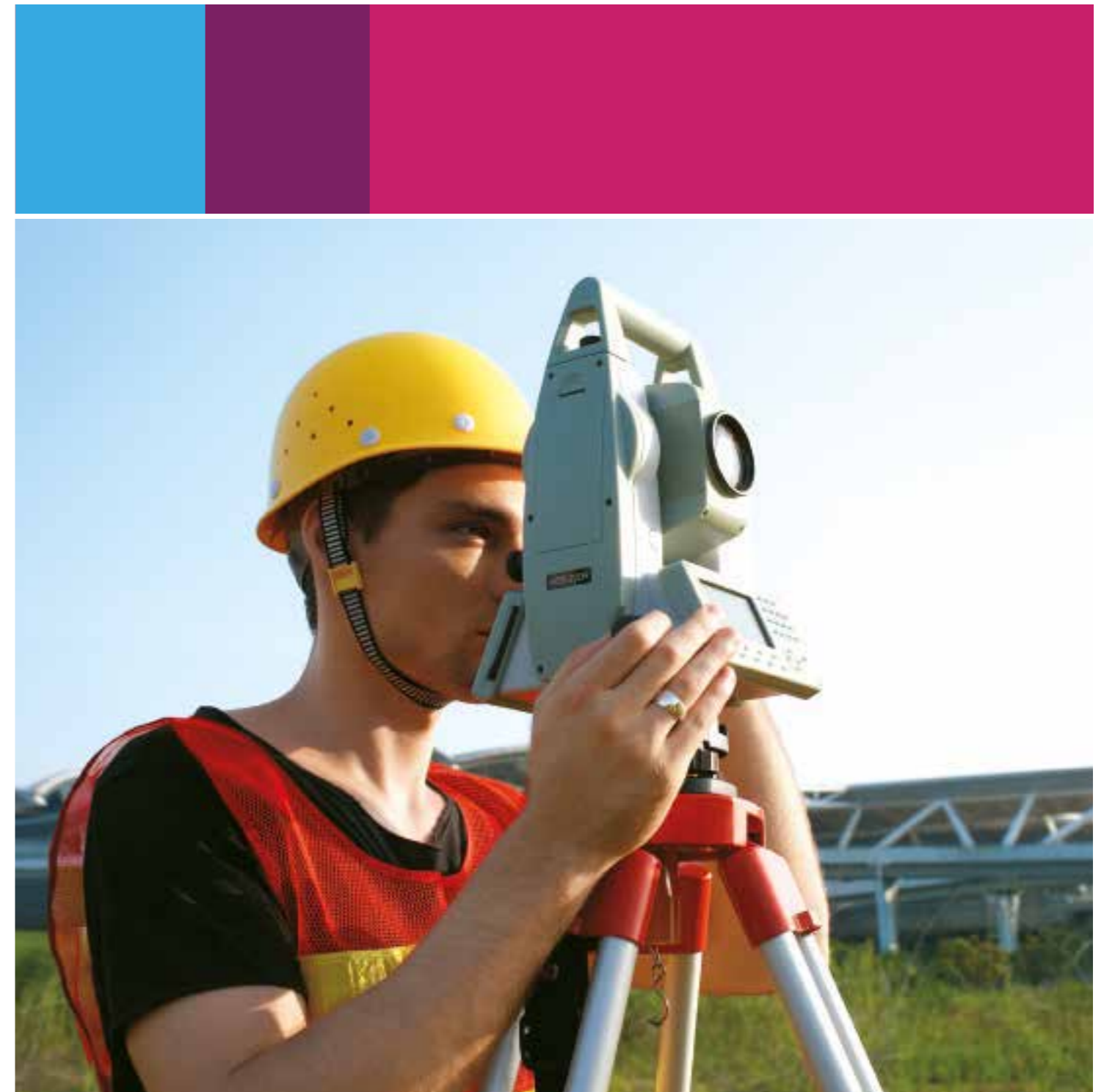
<sup>5</sup> New battery at 25°C, 24 hours continuously angle measurement mode.

Descriptions and specifications are subject to change without notice

# HI-TARGET

# HTS-220/R

## Total Station



HI-TARGET

**GEO**  
**MEXICÁ**  
CADA METRO CUENTA

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