

DT-300 Series



Lightweight and compact angular measurement device

The DT-300 is a lightweight, compact alignment and angular measurement device with convenient, high-precision laser guidance. It boasts up to 30 workdays of power and the highest water and dust protection in its category.

- High-accuracy (5", 7" and 9" models) measurements
- Ultra-rugged IP66 dust and heavy rain protection
- Compact and lightweight
- Long-lasting Li-ion or AA battery life
- Easy-to-use LCD backlit display(s)
- Precise laser pointer guidance
- Embedded tilt sensor for 5" and 7" models

TELESCOPE

Length	149 mm 152 mm (L Models)*3
Aperture	45mm
Magnification	30X
Image	Erect
Field of view	1°30' (26 m / 1,000 m)
Resolving power	2.5"
Minimum focus	0.9 m 1.0 m (L Models)*3
Stadia ratio	100
Stadia constant	0

ANGLE MEASUREMENT

Method	Rotary absolute encoder
Detecting	Horizontal: 1 sides Vertical: 1 sides
Minimum Reading	5" Model: 1" (0.0002 gon/0.01 mil)/5" (0.001 gon/0.1 mil) (selectable) 7" Model: 5" (0.002 gon/0.05 mil)/10" (0.005 gon/0.1 mil) (selectable) 9" Model: 10" (0.002 gon/0.05 mil)/20" (0.005 gon/0.1 mil) (selectable)
Accuracy*1	5", 7", 9"

DISPLAY

Unit	2 sides for 5" and 7" model 1 side for 9" model
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TILT ANGLE COMPENSATION (5" AND 7" MODELS)

Type	Automatic vertical compensator
Range of compensation	±3' (±0.0555 gon)
Compensation constant	Can be changed (compensation is done at the same time with vertical angle 0 point)

OPTICAL PLUMMET

Magnification	3X
Minimum focus	0.5 m

SENSITIVITY OF LEVELS

Circular level	10' / 2 mm
Plate level	30" / 2 mm

POWER SUPPLY

Mode	4 AA dry cells or BDC71 (Optional accessory)
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DT-300 Series

OPERATING TIME (4 AA ALKALINE BATTERIES)

Theodolite only	~ 250 hours
Laser only	~ 80 hours (L Models)
Theodolite and laser	~ 55 hours (L Models)

OPERATING TIME (BDC71)

Theodolite only	~ 300 hours
Laser only	~ 100 hours (L Models)
Theodolite and laser	~ 70 hours (L Models)

LASER-POINTER (L MODELS)

Signal source	Red laser diode (633 nm)
Maximum output	0.6 mW
Laser Class	Class 2
Laser beam range	50 m (in daylight)

HARDWARE

Ingress Protection	Dust and water resistance IP66 (JIS C 0920 : 2003)
Operating temperature range	-20 to 50°C (-4 to 122°F)*2
Storage temperature range	-30 to 60°C (-22 to 140°F) (no condensation)
Size (with handle) W x D x H	5" and 7" Models: 173 x 181 x 318 mm 9" Models: 173 x 174 x 318 mm
Weight (with batteries and battery holder)	5" and 7" Models: 4.1 kg (9.04 lb) 9" Models: 4.0 kg (8.82 lb)

*1: ISO 17123-3: 2001

*2: No Direct sunlight at temperatures of 50°C (122°F)

*3: L = Laser Plummet Option