



Electronic Theodolites

ETH-300 Series ETH-302/305/310/320

for Building and Construction



Quick! Clear! Easy!

*Compact and portable electronic theodolites designed for ease of use
Easy-to-read-display • Built for the construction site*

ETH-300 Electronic Theodolites

Building the future

The new ETH-300 series reflect angle accuracy and have an easy to see Pentax red side for safety and recognition. There are 4 models in the range providing a choice of 2" (0.001G), 5" (0.001G), 10" (0.002G) or 20" (0.005G) accuracy.

Applications

- Setting out right angles and checking plumb
- Alignment measurements
- Anchor bolt layout
- 90° layout

Key Features include:

- Easy to read-display
- Zero set and reverse angle display
- Powered by Alkaline batteries

Easy to read-display

A 16 characters x 2 line liquid crystal display (LCD) is incorporated on both sides of the instrument. Both vertical and horizontal angles are displayed in degrees or gon.

Easy key operation

A row of soft keys allows simple and fast operation

Easy to use

- Lightweight and compact
- The basic instrument weighs only 4.6 kg or 10 lbs. 2 oz. (including battery)

Automatic power-off function

Automatic power-off prevents unnecessary battery drainage. The remaining battery capacity is indicated on the display.

Angle measurement and Angle control

- Clockwise and counter-clockwise angle measurement
- Conversion of the vertical angle to a percentage grade
- Zero setting of the horizontal angle at any position
- Horizontal angle 'Hold' key function

Bright optics

All the models have a bright 30x magnification telescope which ensures sharp and clear images even in poor light conditions.



Standard configuration

- 2x Battery case (one is attached to each instrument)
- 4x Dry cell battery, type AA (pre-installed in battery case)
- 2x Adjusting pin
- 1x Screwdriver
- 1x Plumb bob
- 1x Rain cover
- 1x Carrying case
- Instruction manual



Technical specifications

ETH-300 Series	ETH-302	ETH-305	ETH-310	ETH-320
Telescope				
Magnification	30 x			
Objective aperture	45 mm			
Resolving Power	3"			
Field of view	1°30'			
Minimum Focusing Distance	1.35 m			
Stadia ratio	100			
Stadia constant	0			
Focusing	2 Speed			
Angle Measurement				
Type	Incremental			
Reading System				
Vertical	Single			
Horizontal	Dual			
Minimum Display	5" / 1 mgon (1"/5" selectable) (0.2 / 1 mgon)	5" / 1 mgon (1"/5" selectable) (0.2 / 1 mgon)	10" / 2 mgon (5"/10" selectable) (1 / 2 mgon)	20" / 5 mgon (10"/20" selectable) (2 / 5 mgon)
Accuracy (DIN18723)	2" / 0.6 mgon	5" / 1.5 mgon	10" / 3 mgon	20" / 6 mgon
Unit of Angle	360° / 400 g / 6400 MIL			
Display				
Type	dot matrix LCD			
Display Panel	2 sides			
Key Panel	English			

ETH-300 Series	ETH-302	ETH-305	ETH-310	ETH-320
Vertical axis				
single axis				
Compensator				
		Yes	No	
Water Resistance				
IPX 4				
Sensitivity of Vials				
Plate Vial	30" / 2 mm		40" / 2 mm	
Circular Vial	8' / 2 mm			
Warning Buzzer				
Yes				
Optical Plummet Telesc.				
Magnification	3 x			
Focus Range	0.5 m ~ ∞			
Power Source				
Type	4 x AA Dry Battery			
Operation Time	Alkaline 30 hrs./ (NiMH 15 hrs)			
Ambient Temperature				
-20°C - + 50°C				
Size and Weight				
Body	W 168 x H 330 x L 158 mm			
Weight	4.6 kg / 10 lbs. 2 oz			
Detachable tribrach				
Yes				

Your Authorized Pentax Dealer:



Visit the website: www.pentaxsurveying.com

PENTAX Industrial Instruments Co., Ltd.
World Headquarters
 2-5-2 Higashi-Oizumi
 Nerima-ku, Tokyo 178-8555, Japan
 Tel.: +81 3 5905 1222
 Fax: +81 3 5905 1225
 e-mail: international@piic.pentax.co.jp
 www.pentax.co.jp/piic/survey

European Headquarters
 PENTAX Technologies Europe-Surveying Div.
 Weiveldlaan 3-5
 B-1930 Zaventem, Belgium
 Tel.: +32 2 306 1111
 Fax: +32 2 306 1199
 e-mail: info_survey@pentaxtech-eu.com

Pentax, the reference for Quality



Member symbol of the
 Japan Surveying Instruments
 Manufacturers' Association
 representing the high quality
 surveying products.