



**IPX6:
For Use under
the Harshest
Conditions**

The instrument is waterproof: protection class **IPX6**. A gas-filled objective lens compartment prevents moisture condensation on the lenses.

Automatic Compensator

This newly-developed automatic compensator is wire suspended and magnetically damped.

The Pentax Automatic Level AL is impressively equipped and applicable in surveying and construction



Automatic Level

AL Series AL-240 / AL-240R / AL-270 / AL-270R / AL-320 / AL-320R / AL-320S

High Performance



Pentax AL Series Levels are Robust Precision instruments for Surveying and Construction

High Performance for a Wide Range of Applications

The AL-series automatic levels are accurate and easy to use. They feature improved performance and are compact and light.

Short focus distance

The AL-240 and AL-270 provide an extremely short focus distance of 12 inch (30 cm), allowing usage in confined space.

Quality 'Designed by Pentax'

- ▣ Superior optics in terms of sharpness, contrast and range.
- ▣ High Resolution Telescope: bright images and high resolving power enable clear targeting.
- ▣ Compact, Watertight IPX6 and Robust (only high-grade materials are used).

Useful accessories

The AL-series Levels offer a wide variety of optional accessories to match different job conditions.

- ▣ **Parallel Plate Micrometer (SM4)**
Parallel Plate micrometer SM4 attached to the front of the telescope provides reading down to 0.1mm.
- ▣ **Diagonal eyepieces (SBL2)**
The diagonal eyepiece SBL2 can be used when space is limited or when the instrument is set up at low level.
- ▣ **Illumination device (EP2)**
The illumination device EP2, attached to the front of the telescope, provides light to the telescope reticle, allowing operation at night or when working in dark places like a tunnel.

Technical specifications

AL-Series	AL-240	AL-240R	AL-270	AL-270R	AL-320	AL-320R	AL-320S
Telescope							
Image	Erect						
Magnification	24 x		27 x		32 x		
Objective aperture	36 mm		40 mm		45 mm		
Resolving power	3.5"		3"		2.5"		
Field of view	2.5 % (1°26')				2.3 % (1°20')		
Minimum focus distance	0.3 m/12'				0.5 m/20'		
Stadia ratio	1:100						
Stadia constant	0						
Automatic compensator							
Compensation range	± 12'						
Setting accuracy	± 0.5"				± 0.3"		
Standard deviation*	± 2.0 mm		± 1.5 mm		± 0.8 mm		
(1 km double run levelling)**	-		-		± 0.4 mm		

AL-Series	AL-240	AL-240R	AL-270	AL-270R	AL-320	AL-320R	AL-320S
Sensitivity of vial							
Circular vial	8' / 2 mm						
Horizontal circle	Metal						Glass
Diameter	96 mm						88 mm
Graduation	1°/1G(360° or 400G)						10°/10c
Estimation	0.1' / 0.1G						1' / 1c
Levelling base	3 screws	Spherical	3 screws	Spherical	3 screws	Spherical	3 screws
Dimensions and weights							
Length	219 mm				247 mm		
Width	147 mm						
Height	133 mm	137 mm	133 mm	137 mm	137 mm	141 mm	137 mm
Weight (kg/lbs)	1.6/3.5	1.8/3.9	1.6/3.5	1.8/3.9	1.8/3.9	2.0/4.4	2.0/4.4
Carrying case (mm)	L364 x W200 x H180 mm						

Remarks: * Standard deviation measured without the parallel plate micrometer
** Standard deviation measured with the parallel plate micrometer



Standard configuration

- ▣ Instrument
- ▣ Objective cap
- ▣ Plumb bob
- ▣ Hexagonal wrench
- ▣ Lens brush
- ▣ Rain cover
- ▣ Instruction manual
- ▣ Carrying case



Your Authorized Pentax Dealer:



PENTAX Industrial Instruments Co., Ltd.

World Headquarters
2-5-2 Higashi-Oizumi
Nerima-ku, Tokyo 178-0063, 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@pentaxeuropa.com

Visit the R-300X series at: www.pentaxR300X.com

Pentax, the reference for Quality



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