+INSIZE+

LEVELS 20



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Digital Levels And Slope Meters Page 497-500



Frame Levels Page 501



Block Levels Page 502



Levels Page 503-506



Cross-Line Laser Levels Page 507



Self-Leveling Rotary Lasers Page 508



ELECTRONIC LEVELS

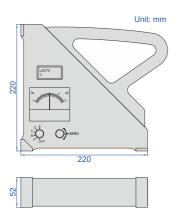


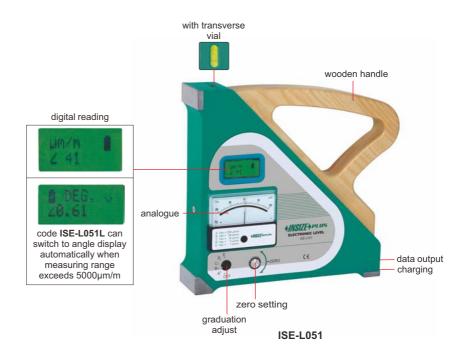




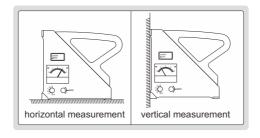


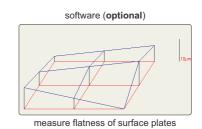






- Shockproof
- Analogue and digital reading modes





SPECIFICATION

Code	ISE-L051			ISE-L051L			
Analogue graduation (adjustable)	250µm/m (=0.014°)	50μm/m (=10")	10µm	/m (=2")	5μm/m (=1")	1μm/m (=0.2")	
Analogue range	±5000µm/m	±1000µm/m	±200	um/m	±100µm/m	±20µm/m	
Digital reading resolution	horizontal: 1µm/m (=0.2	2")		horizontal:	1μm/m (=0.2"), ang	le: 0.01°	
Digital reading range	horizontal: 5000µm/m			horizontal: 5000µm/m, angle: 0.3~85°			
Accuracy	horizontal: ±1%	horizontal: ±1%			horizontal: ±1%, angle: ±0.7%		
Zero setting range	±1500µm/m	±1500µm/m					
Response time	<3s						
Data output	RS232						
Power supply	rechargeable Li-ion battery, provides power for 10h continuous working						
Dimension	220×220×52mm						
Weight	4.4kg						

20 STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc

O	P	ΤI	O	NA	٩L	Α	С	C	E	SS	80	R	Y	

Software and data output cable ISE-L050-SOFTWARE



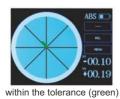


DIGITAL LEVEL CODE ISE-2DT





- Color LCD, touch panel
- X-Y axis measurement
- Set the tolerance and the display is shown in different colors





out of the tolerance (red)



■ To show the incline with line or bubble









SPECIFICATION

Measuring range	±30°	
Resolution	0.1°, 0.01°, 0.1mm/m	
Accuracy	±0.03° (range 0~3°) ±0.05° (range >3°)	
Power supply	rechargeable battery	
Dimension	115×66×25mm	
Weight	224g	

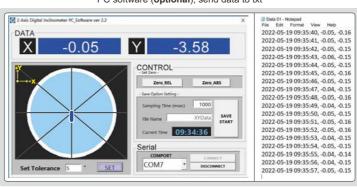
STANDARD DELIVERY

Main unit	1 pc
USB cable	1 pc

OPTIONAL ACCESSORY

OF HONAL ACCESSORT						
Software	ISE-2DT-SOFTWARE					

PC software (optional), send data to txt



20



DUAL AXIS DIGITAL LEVEL AND GYRO ANGLE METER



DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

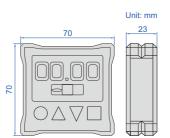


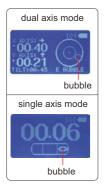


ATTENTION: HARD PLASTIC CASE

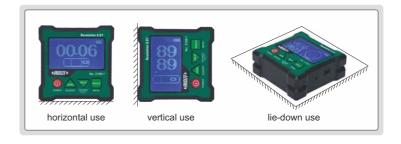












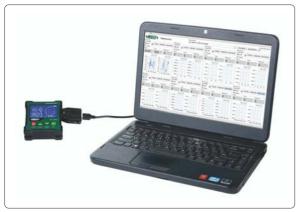
- Single axis/double axis level and slope meter, gyro technique can measure the angle between two planes in any direction
- Hard plastic case, with V-shaped grooves, four magnetic sides
- Display flips over when the bottom faces up
- Audible alarm when out of limit
- Buttons: POWER, ZERO, HOLD, display unit (°, mm/m, %), MENU
- Rechargeable Li-ion battery 3.7V, operation time is 40 hours
- Automatic power off in 30 minutes
- Data output
- Optional accessory: wired data transmission (code 2199-A01), bluetooth (code 2199-A02), transmission distance is 10 meters (under the condition of no obstruction and no electromagnetic iterference)

Code	Range	Resolution	Accuracy
2199-1	single axis level: 4x90° dual axis level: ±40°	0.01°	at 0° and 20°: ±0.08° at 20° and 70°: ±0.15° at 70° and 90°: ±0.08°
	gyro angle meter: 360°	0.1°	±0.5°

measurement of angle between two planes in any direction (gyro technique)



place the angle meter at the first position, press "angle" button, rotate to another position (rotation speed<90°/s), LCD shows the angle α



connect to computer via wired data transmission



connect to mobile phone via bluetooth



bluetooth (optional)



wired data transmission (optional)

20











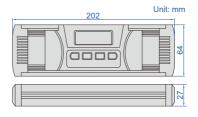
DIGITAL LEVEL AND SLOPE METER





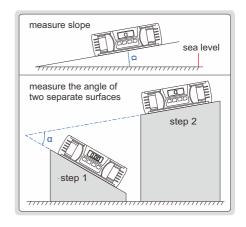


2175-360



- IP67 dust/waterproof
- Used as level and slope meter
- Aluminum frame, shock absorbing rubber end caps
- Magnetic bottom with V-groove for shafts
 The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, backlight/buzzer alarm, absolute and incremental measurement, unit (mm/m, %, °), HOLD (keep the reading)
- Three AAA batteries, automatic power off

Code	Range	Resolution	Accuracy
2175-360	0-360° (90°x4)	0.05° (=0.873mm/m)	at 0°: ±0.05°; at others: ±0.1°



DIGITAL LEVEL AND SLOPE METER





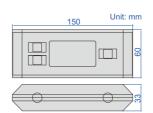






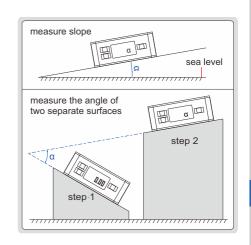


2179-360



- IP54 dust/waterproof
- Used as level and slope meter
- Aluminum frame
- Magnetic bottom with V-groove for shafts
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm, unit (mm/m, %, in/ft), conversion, backlight
- Two AAA batteries, automatic power off

Code	Range	Resolution	Accuracy
2179-360	0-360° (90°x4)	0.05° (=0.873mm/m)	at 0° and 90°: ±0.1°; at others: ±0.2°





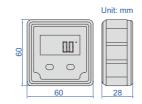
DIGITAL LEVEL AND SLOPE METER



- Used as level and slope meter
- Aluminum frame
- Magnetic bottom
- The display flips over when the bottom faces up
- The backlight is on automatically when in use, and automatically off in 15 seconds after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, absolute and incremental measurement
- One AAA battery, automatic power off in 5 minutes







measure slope	sea level
measure the angle of two separate surfaces	a
step 1	step 2

WORKING TEMPERATURE

-5°C~50°C

DISPLAY FLIPS OVER WHEN

THE BOTTOM FACES UP

Code	Range	Resolution	Accuracy
2170-1	4x90°	0.1° (=1.745mm/m)	at 0° and 90°: ±0.1°; at others: ±0.2°

BLUETOOTH DIGITAL LEVEL AND SLOPE METER



MAGNETIC

BOTTOM

MAGNETIC BOTTOM DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

WORKING TEMPERATURE
-5°C~50°C

ABSOLUTE LEVEL

BACKLIGHT

ABSOLUTE

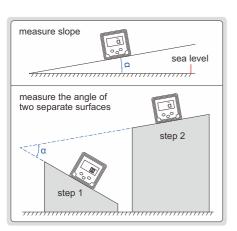
LEVEL

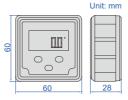
- Used as level and slope meter
- Aluminum frame
- Magnetic bottom
- The display flips over when the bottom faces up
- The backlight is on automatically when in use, and automatically off in 15 seconds after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, HOLD, absolute and incremental measurement
- Built-in bluetooth, transmission distance is 15 meters (under the condition of no obstruction and no electromagnetic interference). Android and iPhone APP are included
- One AAA battery, automatic power off in 5 minutes



2198-2

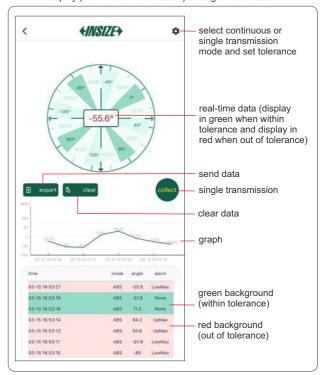
Android and iPhone APP (included), can choose real-time display (continuous transmission) or single transmission







Code	Range	Resolution	Accuracy
2198-2	4x90°	0.1° (=1.745mm/m)	at 0°and 90°: ±0.1°; at others: ±0.2°





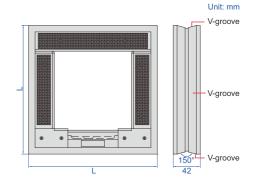
NO NEED TO SET ZERO BEFORE USE

FRAME LEVELS \|\\S\|ZE PLU5 MADE IN EUROPE





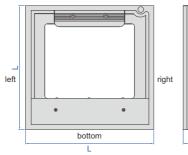
- No need to set zero before use
- Three V-grooves for shafts (shafts dia. 19.3~115.9mm)
 With longitudinal vial

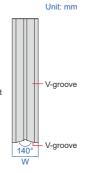


Co	Size (LxL)	Remark	
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.1mm/m (=0.0057°)	Size (LXL)	Remark
4906-150	4906-B150	150x150mm	_
4906-200	4906-B200	200x200mm	-
4906-300	4906-B300	300x300mm	-
4906-150M	4906-B150M	150x150mm	with magnet
4906-200M	4906-B200M	200x200mm	with magnet
4906-300M	4906-B300M	300x300mm	with magnet



- V-groove on bottom and left for shafts (shafts dia. 15~68mm)
- With transverse vial





C	Size (LxL)	w	
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.05mm/m (=0.0029°)	Size (LXL)	**
4902-150	4902-C150	150x150mm	40mm
4902-200	4902-C200	200x200mm	40mm
4902-300	4902-C300	300x300mm	45mm

FRAME LEVELS



4902-200



BLOCK LEVELS

♦///S/ZE♦ PLU5 MADE IN EUROPE

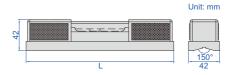
- No need to set zero before use
- V-groove on bottom for shafts (shafts dia. 19.3~115.9mm)
- With longitudinal vial



Unit: mm

NO NEED TO SET ZERO BEFORE USE

Co	Size (L)	
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.1mm/m (=0.0057°)	Size (L)
4905-160	4905-B160	160mm
4905-200	4905-B200	200mm
4905-300	4905-B300	300mm
4905-500	4905-B500	500mm



BLOCK LEVELS



V-groove on bottom for shafts (shafts dia. 15~68mm)

■ With transverse vial



Co	Lameth (L)	
Sensitivity 0.02mm/m (=0.001°)	Sensitivity 0.05mm/m (=0.0029°)	Length (L)
4903-150A	4903-C150	150mm
4903-200A	4903-C200	200mm
4903-300A	4903-C300	300mm



SHORT LEVEL

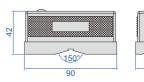
\|\\S\|ZF PLUS MADE IN EUROPE

- No need to set zero before use
- Suitable for small spaces like crankshaft
- Longitudinal and transverse V-grooves on bottom for shafts (shafts dia. 19.3~115.9mm)
- With transverse vial

Code	Length	Sensitivity
4907-90	90mm	0.1mm/m (=0.0057°)



NO NEED TO SET ZERO BEFORE USE





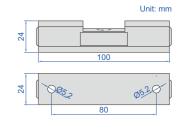
MINI LEVEL | WSIZE | PLUS | MADE IN EUROPE

- No need to set zero before use
- With mounting holes (for M5 screws)

Code	Length	Sensitivity
4908-100	100mm	0.1mm/m (=0.0057°)







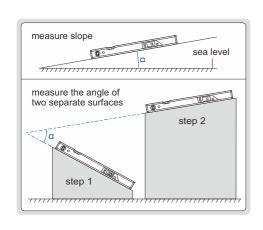






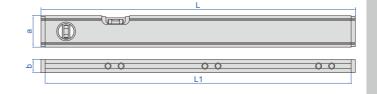


DIGITAL LEVELS AND SLOPE METERS





- With transverse and longitudinal vials
- Used as level and slope meter
 Aluminum frame, magnetic bottom
- The sea level is permanently set inside the chip, zero setting is not needed when batteries are replaced
- Buttons: ON/OFF, absolute and incremental measurement, keep the reading, buzzer alarm (not for 4910-400), unit (mm/m, %, in/ft), conversion (not for 4910-400), backlight
- The display flips over when the bottom faces up
- Two AAA batteries
- Automatic power off



Unit: mm

(mm)

C	ode	Range	Resolution	Accuracy	Remark	L	L1	а	b
49	910-400	0~360° (90°×4)	angle: 0.1°; slope: 1mm/m	±0.2°	both angle and slope are displayed	416	400	50	21
49	910-600	0~360° (90°×4)	at 0° and 90°: 0.05° (=0.8725mm/m); at others: 0.1° (=1.745mm/m)	at 0° and 90°: ±0.1°; at others: ±0.2°	at 0° and 90° buzzer alarms	600	585	60	25

LIFETIME WARRANTY VIALS





4912-100



magnetic base surface



packaging

HANDY LEVEL



Shoc	kproot	f via	ls

- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

Code	Size (L)	Accuracy
4912-100	100mm	0.5mm/m

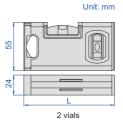


HANDY LEVELS

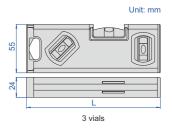
MAGNETIC BASE











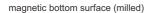
Code	Size (L)	Accuracy	Number of vials
4922-100	100mm	0.5mm/m	2
4922-150	150mm	0.5mm/m	3
4922-200	200mm	0.5mm/m	3

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

CASTING ALUMINUM LEVEL







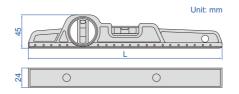


- Shockproof horizontal and vertical vials
- Magnetic base
- Working temperature: -15°C~55°C
- Casting aluminum body

Code	Size (L)	Accuracy
4913-250	250mm	0.5mm/m



4913-250





ALUMINUM LEVEL

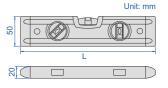
- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
 Working temperature: -15°C~55°C



4921-230







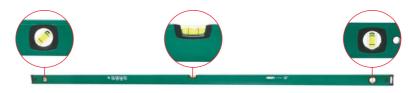




MAGNETIC BASE

ALUMINUM LEVELS

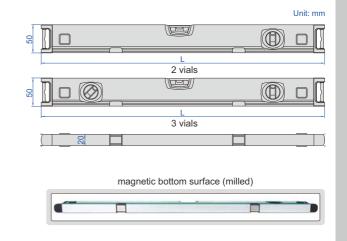




4914-2000

- Shockproof horizontal and vertical vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C

Code	Size (L)	Accuracy	Number of vials
4914-300	300mm	0.5mm/m	2
4914-600	600mm	0.5mm/m	2
4914-800	800mm	0.5mm/m	2
4914-1000	1000mm	0.5mm/m	2
4914-1200	1200mm	0.5mm/m	2
4914-2000	2000mm	0.5mm/m	3



LIFETIME WARRANTY VIALS

ALUMINUM LEVELS

- Top and bottom working surfacesShock-proof and UV-proof vials
- Die casting aluminum alloy frame
- Zero position of horizontal vial can be set
 One graduation of horizontal vial is 2% slope
 Working temperature: -15°C~55°C

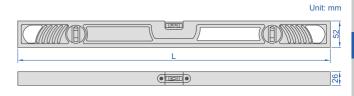


4911-600

bottom surface (non-magnetic, milled)



Code	Size (L)	Accuracy
4911-600	600mm	0.5mm/m
4911-800	800mm	0.5mm/m



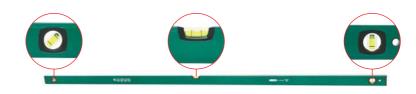


ALUMINUM LEVELS (BASIC TYPE)







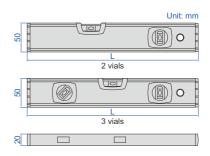


4918-300 4918-2000

- Shock-proof and UV-proof vials
- Magnetic base
- Shock absorbing rubber end caps
- Working temperature: -15°C~55°C



Code	Size (L)	Accuracy	Number of vials
4918-300	300mm	1mm/m	2
4918-600	600mm	1mm/m	2
4918-800	800mm	1mm/m	2
4918-1000	1000mm	1mm/m	2
4918-1200	1200mm	1mm/m	2
4918-2000	2000mm	1mm/m	3



ALUMINUM LEVEL WITH RULER

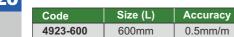


Unit: mm



- Shockproof horizontal and vertical vials
- Non-magnetic milled base
- Shock absorbing rubber end caps
- Range of ruler: 0-60cm, graduation: 1mm
 Working temperature: -15°C~55°C

		(I) 0 (I) 15
-	L	
		75







AUDIBLE AND VISUAL ALARM WHEN OUT OF ±3°

CROSS-LINE LASER LEVEL CODE 4917-30



- Red horizontal and vertical cross laser lines
- Self-leveling within ±3°, self-leveling time within 4s, audible and visual alarm when out of ±3°
- Folding legs for angle and height adjustment
 Outdoor use with the detector (code: 4917-DETECTOR)



folding legs for angle and height adjustment



application examples



SPECIFICATION

Laser line width	2±0.5mm (within 5m)
Laser type	630~660nm, class II, <1mW
Beam angle	120±0.5°
Self-leveling range	±3°
Working distance	indoor: 30m, outdoor: 50m with detector (optional)
Accuracy	0.2mm/m
Operation temperature	-10~40°C
Power supply	3×AA batteries, for 3 hours working
Dimension	100×82×104mm
Weight	620g



stand (included with outdoor detector)

outdoor detector (optional)

OUTDOOR DETECTOR (OPTIONAL)

Detecting distance	horizontal 1~50m, vertical 1~30m	
Detecting accuracy *	high accuracy ±1.5mm, low accuracy ±2.5mm	
Power supply	9V battery	
Dimension	168×58×30mm	
Weight	140g (battery included)	

^{*} Use high accuracy detection mode within 15m, use low accuracy detection mode over 15m

STANDARD DELIVERY

Main unit	1 pc
1/4" to 5/8" tripod adaptor	1 pc
Battery (AA)	3 pcs

OPTIONAL ACCESSORY

Outdoor detector 4917-DETECTOR



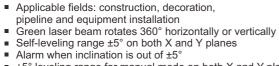
SELF-LEVELING ROTARY LASER CODE GRL-L340











- ±5° leveling range for manual mode on both X and Y planes
 5 variable speeds 0-600rpm
- 6 scan modes
- Plumb up and plumb down dots
 Remote control for long distance
- Power supply: AC or DC



remote controller (included)

detector (included)

bracket for C battery (included)

beam finder glasses (included)





tripod (included)

application examples



horizontal leveling

vertical leveling

working with detector

SPECIFICATION

Working range	•	indoor 50m, outdoor 300m (with detector)	
Self leveling range		±5°	
Horizontal/ver	tical beam accuracy	±0.1mm/m	
Main laser typ	e	520~540nm, class 2, <1mW	
Auxiliary laser type		645~655nm, class 2, <1mW	
Rotating speed		0/60/120/300/600rpm	
Scanning range		0/10/45/90/180/360°	
Setting slope		X axis: ±5°, Y axis: ±5°	
Operation temperature		-20~50°C	
Maximum rem	ote control distance	20m	
	remote controller	2×1.5V AAA batteries	
Power supply	main unit	NI-MH batteries or 4×1.5V C batteries	
	detector	1x9V battery	
Dimension		210×210×213mm	
Weight		2.5kg	

STANDARD DELIVERY	
Main unit (including NI-MH batteries)	1 pc
C battery and bracket	1 set
Detector	1 pc
Remote controller	1 pc
Beam finder glasses	1 pc
Laser target	1 pc
Power adapter	1 pc
AAA battery	2 pcs
9V battery	1 pc
Tripod	1 pc