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Standard Glass Scales
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ISP-Z3015



ISP-A1000E

digital readout of ISP-A1000E

- touch buttons
- USB data output to Excel and CAD
- show diagram



software flash disk (included, only for ISP-A1000E)

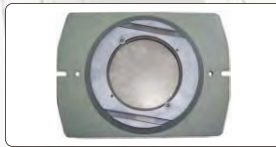


VIDEO

OPTIONAL ACCESSORY



lens



rotary table (glass plate diameter 100mm)



overlay chart (protractor with 1° graduation, radius with 1mm increment)



holder with clamp



swivel center support



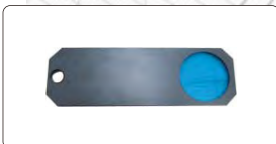
V-block with clamp



50mm reading scale (check magnification accuracy)



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)



blue filter



demo sample



printer (only for ISP-A1000E)

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-Z3015	ISP-A1000E	
Edge detector		not included	included	
Lens	magnification	10X (included) 20X (optional)	50X (optional) 100X (optional)	
	view field	Ø30mm Ø15mm	Ø6mm Ø3mm	
	working distance	77.7mm 44.3mm	38.4mm 25.3mm	
Max. workpiece height		90mm 90mm	90mm 90mm	
Magnification accuracy		±0.08%		
Image		erect image		
Projector screen		diameter: Ø300mm		
		rotation range: 0°~360°, resolution: 1" or 0.01°		
		reference lines: cross-hairs		
Stage	metal stage size	340×152mm		
	glass stage size	196×96mm		
	X-Y stage travel	range: 150×50mm		
		resolution: 0.5µm		
	Z (focus) travel range	90mm		
max. load capacity	4kg			
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable		
		surface illumination: 24V/150W halogen lamp		
Data processing unit	display	X-Y stage travel, screen rotation		
	output	RS232C	RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point		measure coordinate of point
		measure coordinate of line		measure coordinate of line
measure center coordinate, radius of circle with three points			measure center coordinate, radius of circle with three points	
measure distance between two objects			measure distance between two objects	
measure angle with four points or two lines			measure angle with four points or two lines	
set origin of coordinate			coordinate transform	
coordinate transform			choose measurement object automatically according to the selective point and display the result	
set midpoint of coordinate				
advanced function	—	programming for batch measurements		
Power supply		110/220V, 50/60Hz		
Dimension (L×W×H)		550×770×1100mm		
Weight		135kg		

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STANDARD DELIVERY

Main unit	1 pc
10X lens with half-reflection mirror and oblique illuminator mirror	1 pc
Overlay chart clip	4 pcs
Foot-switch	1 pc
Anti-dust cover	1 pc
Software (only for ISP-A1000E) and USB cable	1 pc

OPTIONAL ACCESSORY

20X lens with half-reflection mirror and oblique illuminator mirror	ISP-Z3015-LENS20X	Swivel center support	ISP-Z3015-SUPPORT
50X lens with half-reflection mirror	ISP-Z3015-LENS50X	V-block with clamp	ISP-Z3015-VBLOCK
100X lens with half-reflection mirror	ISP-Z3015-LENS100X	50mm reading scale	ISP-Z3015-SCALE50
Rotary table	ISP-Z3015-TABLE	300mm calibration scale	ISP-Z3015-RULE
Overlay chart	ISP-Z3015-CHART	Blue filter	ISP-Z3015-FILTER
Holder with clamp	ISP-Z3015-HOLDER	Demo sample	ISP-Z3015-DEMO
		Printer (only for ISP-A1000E)	ISP-A1000-PRINTER

THE STAGE DOESN'T MOVE UP AND DOWN

INSPECTION CERTIFICATE

PROFILE PROJECTORS



ISP-AZ3020



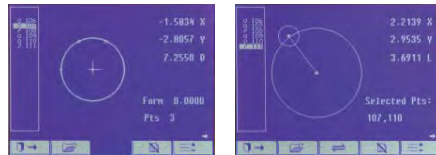
ISP-A5000E



digital readout of ISP-A5000E

- Adjust the focus by ascending and descending the projector head, the stage doesn't move up and down
- Maximum workpiece weight 50kg

- touch buttons
- USB data output to Excel and CAD
- show diagram

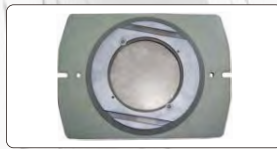


software flash disk (included, only for ISP-A5000E)

OPTIONAL ACCESSORY



lens



rotary table (glass plate diameter 100mm)



overlay chart (protractor with 1° graduation, radius with 1mm increment)



holder with clamp



swivel center support



V-block with clamp



50mm reading scale (check magnification accuracy)



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)



demo sample



printer (only for ISP-A5000E)

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-AZ3020	ISP-A5000E	
Edge detector		not included	included	
Lens	magnification	10X (included) 20X (optional)	50X (optional) 100X (optional)	
	view field	Ø30mm	Ø15mm Ø6mm Ø3mm	
	working distance	77.7mm	44.3mm 38.4mm 25.3mm	
Max. workpiece height		100mm	100mm	
Magnification accuracy		±0.08%		
Image		erect image		
Projector screen		diameter: Ø300mm		
		rotation range: 0°~360°, resolution: 1" or 0.01°		
		reference lines: cross-hairs		
Stage	metal stage size	404×228mm		
	glass stage size	260×160mm		
	X-Y stage travel	range: 200×100mm		
		resolution: 0.5µm		
	Z (focus) travel range	accuracy: (3+L/75)µm L is the measuring length in mm		
max. load capacity	100mm			
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable		
		surface illumination: 24V/150W halogen lamp		
Data processing unit	display	X-Y stage travel, screen rotation		
	output	RS232C	RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point		measure coordinate of point
		measure coordinate of line		measure coordinate of line
measure center coordinate, radius of circle with three points			measure center coordinate, radius of circle with three points	
measure distance between two objects			measure distance between two objects	
measure angle with four points or two lines			measure angle with four points or two lines	
set origin of coordinate			coordinate transform	
coordinate transform			choose measurement object automatically according to the selective point and display the result	
set midpoint of coordinate				
advanced function		—	programming for batch measurements	
Power supply		110/220V, 50/60Hz		
Dimension (L×W×H)		780×780×1100mm		
Weight		160kg		

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STANDARD DELIVERY

Main unit	1 pc
10X lens with half-reflection mirror and oblique illuminator mirror	1 pc
Overlay chart clip	4 pcs
Foot-switch	1 pc
Blue filter	1 pc
Anti-dust cover	1 pc
Software (only for ISP-A5000E) and USB cable	1 pc

OPTIONAL ACCESSORY

20X lens with half-reflection mirror and oblique illuminator mirror	ISP-A5000-LENS20X
50X lens with half-reflection mirror	ISP-A5000-LENS50X
100X lens with half-reflection mirror	ISP-A5000-LENS100X
Rotary table	ISP-A5000-TABLE
Overlay chart	ISP-A5000-CHART
Holder with clamp	ISP-A5000-HOLDER
Swivel center support	ISP-A5000-SUPPORT
V-block with clamp	ISP-A5000-VBLOCK
50mm reading scale	ISP-A5000-SCALE50
300mm calibration scale	ISP-A5000-RULE
Demo sample	ISP-A5000-DEMO
Printer (only for ISP-A5000E)	ISP-A5000-PRINTER

HORIZONTAL PROFILE PROJECTORS



ISP-W3020



ISP-A3000E

digital readout of ISP-A3000E



- touch buttons
- USB data output to Excel and CAD
- show diagram



software flash disk (included, only for ISP-A3000E)

OPTIONAL ACCESSORY



lens



overlay chart (protractor with 1° graduation, radius with 1mm increment)



50mm reading scale (check magnification accuracy)



demo sample



vise



rotary table



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)



printer (only for ISP-A3000E)

Continued from previous page

SPECIFICATION

Code		ISP-W3020		ISP-A3000E		
Edge detector		not included		included		
Lens	magnification	10X (included)	20X (optional)	50X (optional)	100X (optional)	
	view field	Ø30mm	Ø15mm	Ø6mm	Ø3mm	
	working distance	77.7mm	44.3mm	38.4mm	25.3mm	
Magnification accuracy		±0.08%				
Projector screen		diameter: Ø300mm rotation range: 0°~360°, resolution: 1' or 0.01° reference lines: cross-hairs				
Stage	metal stage size	400×150mm				
	turning range	±15°				
	X-Z stage travel	range: 200×100mm				
		resolution: 0.5µm				
	Y (focus) travel range	accuracy: (4+L/25)µm L is the measuring length in mm				
max. load capacity	75mm					
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable surface illumination: 12V/150W halogen lamp (with 2 fibers), position is adjustable				
Data processing unit	display	X-Z stage travel, screen rotation				
	output	RS232C		RS232C, USB (data output to Excel and CAD)		
	function	measure coordinate of point	measure coordinate of point		measure coordinate of point	
		measure coordinate of line	measure coordinate of line		measure coordinate of line	
		measure center coordinate, radius of circle with three points	measure center coordinate, radius of circle with three points		measure center coordinate, radius of circle with three points	
		measure distance between two objects	measure distance between two objects		measure distance between two objects	
		measure angle with four points or two lines	measure angle with four points or two lines		measure angle with four points or two lines	
		set origin of coordinate	set origin of coordinate		set origin of coordinate	
		coordinate transform	coordinate transform		coordinate transform	
		set midpoint of coordinate	set midpoint of coordinate		choose measurement object automatically according to the selective point and display the result	
advanced function	—		programming for batch measurements			
Power supply		110/220V, 50/60Hz				
Dimension (L×W×H)		830×1090×1010mm				
Weight		160kg				

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STANDARD DELIVERY

Main unit	1 pc
10X lens	1 pc
Overlay chart clip	4 pcs
Foot-switch	1 pc
Anti-dust cover	1 pc
Software (only for ISP-A3000E) and USB cable	1 pc

OPTIONAL ACCESSORY

20X lens	ISP-A3000-LENS20X	Demo sample	ISP-A3000-DEMO
50X lens	ISP-A3000-LENS50X	V-block with clamp	ISP-A3000-VBLOCK
100X lens	ISP-A3000-LENS100X	Rotary table	ISP-A3000-RTABLE
Overlay chart	ISP-A3000-CHART	Vise	ISP-A3000-VISE
50mm reading scale	ISP-A3000-SCALE50	Printer (only for ISP-A3000E)	ISP-A3000-PRINTER
300mm calibration scale	ISP-A3000-RULE		

HORIZONTAL PROFILE PROJECTORS



ISP-W4025



ISP-A7000E

digital readout of ISP-A7000E



- touch buttons
- USB data output to Excel and CAD
- show diagram



software flash disk (included, only for ISP-A7000E)

OPTIONAL ACCESSORY



lens



vise



rotary table



demo sample (need rotary table)



printer (only for ISP-A7000E)



50mm reading scale (check magnification accuracy)



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)



Ø300mm overlay chart (protractor with 1° graduation, radius with 1mm increment)

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-W4025			ISP-A7000E	
Edge detector		not included			included	
Lens	magnification	5X (optional)	10X (standard)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø80mm	Ø40mm	Ø20mm	Ø8mm	Ø4mm
	working distance	93.7mm	103.9mm	95.1mm	65.7mm	35mm
Magnification accuracy		±0.08%				
Image		erect image				
Projector screen		diameter: Ø400mm				
		rotation range: 0°~360°, resolution: 1' or 0.01°				
		reference lines: cross-hairs				
Stage	metal stage size	450×200mm				
	turning range	±15°				
	X-Z stage travel	range: 250×150mm				
		resolution: 0.5µm				
	Y (focus) travel range	accuracy: (4+L/25)µm L is the measuring length in mm				
max. load capacity	100mm					
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable				
		surface illumination: 12V/150W halogen lamp (with 2 fibers), position is adjustable				
Data processing unit	display	X-Z stage travel, screen rotation				
	output	RS232C			RS232C, USB (data output to Excel and CAD)	
	function	measure coordinate of point	measure coordinate of point			
		measure coordinate of line	measure coordinate of line			
		measure center coordinate, radius of circle with three points	measure center coordinate, radius of circle with three points			
measure distance between two objects		measure distance between two objects				
measure angle with four points or two lines		measure angle with four points or two lines				
set origin of coordinate		coordinate transform				
coordinate transform		choose measurement object automatically according to the selective point and display the result				
advanced function	—			programming for batch measurements		
Power supply		110/220V, 50/60Hz				
Dimension (L×W×H)		646×1215×1210mm				
Weight		240kg				

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STANDARD DELIVERY

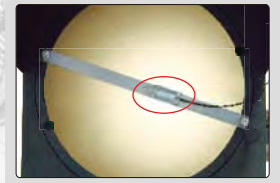
Main unit	1 pc
10X lens	1 pc
Overlay chart clip	4 pcs
Foot-switch	1 pc
Anti-dust cover	1 pc
Software (only for ISP-A7000E) and USB cable	1 pc

OPTIONAL ACCESSORY

5X lens	ISP-W4025-LENS5X	300mm calibration scale	ISP-A3000-RULE
20X lens	ISP-W4025-LENS20X	Demo sample	ISP-A3000-DEMO
50X lens	ISP-W4025-LENS50X	V-block with clamp	ISP-A3000-VBLOCK
100X lens	ISP-W4025-LENS100X	Rotary table	ISP-A3000-RTABLE
Ø300mm overlay chart	ISP-A3000-CHART	Vise	ISP-A3000-VISE
50mm reading scale	ISP-A3000-SCALE50	Printer (only for ISP-A7000E)	ISP-A3000-PRINTER

PROFILE PROJECTORS

Screen diameter: 300mm



edge detector (for ISP-A6000E)

digital readout

- touch buttons
- USB data output to Excel and CAD
- show diagram

ISP-A6000 (without edge detector)



software flash disk (included)

OPTIONAL ACCESSORY



lens



rotary table
(glass plate diameter 100mm)



holder with clamp



printer



300mm calibration scale (check magnification accuracy together with 50mm reading scale or calibrate measuring accuracy)



50mm reading scale
(check magnification accuracy)



demo sample

To be continued

Continued from previous page

SPECIFICATION

Code		ISP-A6000	ISP-A6000E			
Edge detector		not included	included			
Projector screen		diameter: Ø600mm				
		rotation range: 0°~360°, resolution: 1' or 0.01°				
		reference lines: cross-hairs				
Lens	magnification	5X (optional)	10X (included)	20X (optional)	50X (optional)	100X (optional)
	view field	Ø120mm	Ø60mm	Ø30mm	Ø12mm	Ø6mm
	working distance	242.8mm	143.2mm	85.5mm	92mm	48.5mm
Magnification accuracy		±0.08%				
Image		erect image				
Stage	metal stage size	404×265mm				
	glass stage size	207×170mm				
	X-Y stage travel	range: 200×100mm				
		resolution: 0.5µm				
	Z (focus) travel range	50mm				
max. load capacity	5kg					
Illumination		contour illumination: 24V/150W halogen lamp, brightness is adjustable				
		surface illumination: 12V/150W halogen lamp (with 2 fibers), position is adjustable				
Data processing unit	display	X-Y stage travel, screen rotation				
	output	RS232C, USB (data output to Excel and CAD)				
	function	measure coordinate of point				
		measure coordinate of line				
measure center coordinate, radius of circle with three points						
measure distance between two objects						
measure angle with four points or two lines						
coordinate transform						
advanced function	choose measurement object automatically according to the selective point and display the result programming for batch measurements					
Power supply		110/220V, 50/60Hz				
Dimension (L×W×H)		1200×1140×1940mm				
Weight		360kg				

STANDARD DELIVERY

Main unit	1 pc
10X lens	1 pc
Foot-switch	1 pc
Software and USB cable	1 pc
Overlay chart clip	4 pcs
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

5X lens	ISP-A6000-LENS5X
20X lens	ISP-A6000-LENS20X
50X lens	ISP-A6000-LENS50X
100X lens	ISP-A6000-LENS100X
Holder with clamp	ISP-A6000-HOLDER

300mm calibration scale	ISP-A6000-RULE
50mm reading scale	ISP-A6000-SCALE50
Rotary table	ISP-A6000-TABLE
Demo sample	ISP-A6000-DEMO
Printer	ISP-A6000-PRINTER

LARGE SIZE QUICK MEASUREMENT SYSTEM CODE QMS-A450



SPECIFICATION

Optical lens		dual-field dual-telecentric low-distortion lens	
Measurement range		wide view field	small view field
		500×400mm	430×350mm
Measurement Accuracy	without stitching	±3μm ^①	±1μm ^②
	with stitching	±(5+0.02L)μm ^③	±(3+0.02L)μm ^④
Repeatability	without stitching	±1μm	±0.5μm
	with stitching	±2μm	±1.5μm
Illumination system	transmission light	telecentric illuminator, green light	
	surface light	vertical illuminator, high angle ring white light vertical illuminator, 4-zone low and medium angle ring white light (electric) vertical illuminator, circular (directional) green light (electric)	
	coaxial light (optional)	vertical illuminator, white light	
Max. weight of workpiece		25kg	
Measurement time		<2s	
Measurement data		2D measurement	
Environmental requirement		temperature: 20°C±2°C, relative humidity: 30%~80%, vibration: <0.002g, less than 15Hz	
Power supply		220V, 50Hz, 1200W	
Dimension (L×W×H)		1060×860×1890mm	
Weight		650kg	

* The optimum temperature is 20°C±1°C

- ① Within 73×49mm, on focal position and environment temperature at 20°C±1°C
- ② Within 16×12mm, on focal position and environment temperature at 20°C±1°C
- ③ Within 450×360mm, on focal position and environment temperature at 20°C±1°C
- ④ Within 387×315mm, on focal position and environment temperature at 20°C±1°C

Continued from previous page

- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically
- Measurement of 999+dimensions and 200+workpieces
- Suitable for parts with high precision requirements for large, medium, and small sizes

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Software	1 pc

OPTIONAL ACCESSORY

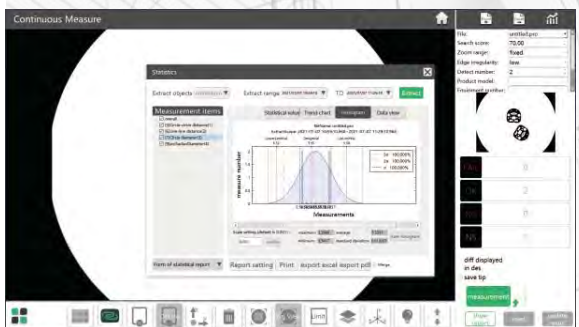
Coaxial light illumination	QMS-43-A1
Data transmission function of software	QMS-23-D1
CAD import function of software	QMS-23-C1
Laser sensor	QMS-43-SJ1
Foot-switch	QMS-43-FS1

Software (included)

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient



- Measuring result can be stored automatically. OK items and NG items can be counted automatically



NOTE: NOT SUITABLE FOR SMALL SIZES SUCH AS THREADS, CHAMFERS, ETC

QUICK MEASUREMENT SYSTEMS (WITH STITCHING)



SPECIFICATION

Code	QMS-A220		QMS-A315		QMS-A320	
Optical lens	dual-field dual-telecentric low-distortion lens					
	wide view field: Ø100mm small view field: Ø25mm		wide view field: Ø100mm small view field: Ø25mm		wide view field: Ø150mm small view field: Ø50mm	
View field range	wide view field	small view field	wide view field	small view field	wide view field	small view field
	93×62mm	20×16mm	100×80mm	25×20mm	150×110mm	50×35mm
Measurement range	200×200mm	130×130mm	300×200mm	230×130mm	300×210mm	200×135mm
Measurement accuracy *	without stitching	±3µm ^①	±1µm ^②	±3µm ^①	±1µm ^②	±5µm ^③
	with stitching	±(5+0.02L)µm ^⑤	±(3+0.02L)µm ^⑥	±(5+0.02L)µm ^⑦	±(3+0.02L)µm ^⑧	±(7+0.02L)µm ^⑨
Repeatability	without stitching	±1µm	±0.5µm	±1µm	±0.5µm	±1µm
	with stitching	±2µm	±1.5µm	±2µm	±1.5µm	±2µm
Max. weight of workpiece	5kg					
Measurement time	<2s					
Measurement data	2D measurement					
Power supply	220V, 50Hz, 600W					
Illumination system	back light	telecentric illuminator, green light				
	ring light	4-zone circular white high light circular (directional) low-angle green light (electric)				
	coaxial light (optional)	vertical illuminator, white light				
Environmental requirement	temperature: 20°C±2°C, relative humidity: 30%~80%, vibration: <0.002g, less than 15Hz					
Dimension (L×W×H)	532×480×766mm		532×497×766mm		669×510×883mm	
Weight	50kg		60kg		68kg	

* The optimum temperature is 20°C±1°C

① Within 80×64mm, on focal position and environment temperature at 20°C±1°C

② Within 20×16mm, on focal position and environment temperature at 20°C±1°C

③ Within 120×88mm, on focal position and environment temperature at 20°C±1°C

④ Within 40×28mm, on focal position and environment temperature at 20°C±1°C

⑤ Within 180×180mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

⑥ Within 117×117mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

⑦ Within 270×180mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

⑧ Within 207×117mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

⑨ Within 270×189mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

⑩ Within 180×121mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

To be continued

Continued from previous page

- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically
- Measurement of 999+dimensions and 200+workpieces
- **QMS-A220** and **QMS-A315** are suitable for small and medium-size parts with high precision requirements
- **QMS-A320** is suitable for medium-size parts with low accuracy requirements and fast efficiency requirements



11.6" LCD (optional)

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Software	1 pc

OPTIONAL ACCESSORY

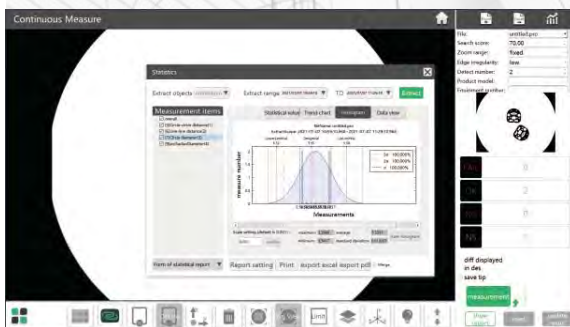
Coaxial light illumination	QMS-23-A3 (for QMS-A220, QMS-A315) QMS-23-A4 (for QMS-A320)
Data transmission function of software	QMS-23-D1
CAD import function of software	QMS-23-C1
Laser sensor	QMS-43-SJ1 (for QMS-A315)
Foot-switch	QMS-43-FS1
11.6" LCD	QMS-23-B1 (must be installed in factory)

Software (included)

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient



- Measuring result can be stored automatically. OK items and NG items can be counted automatically



NOTE: NOT SUITABLE FOR SMALL SIZES SUCH AS THREADS, CHAMFERS, ETC

QUICK MEASUREMENT SYSTEMS (WITHOUT STITCHING)



QMS-A110



QMS-A200

SPECIFICATION

Code	QMS-A110	QMS-A200	
Optical lens	low-distortion lens, single-field telecentric Ø100mm	dual-field dual-telecentric low-distortion lens wide view field: Ø150mm small view field: Ø50mm	
View field range	100×80mm	wide view field 150×110mm	small view field 50×35mm
Measurement range (X×Y)	98×78mm	148×108mm	48×33mm
Measurement accuracy *	±3µm ①	±5µm ②	±2µm ③
Repeatability	±1µm	±1µm	±0.5µm
Max. weight of workpiece	5kg		
Measurement time	<2s		
Measurement data	2D measurement		
Power supply	220V, 50Hz, 600W		
Illumination system	back light	telecentric illuminator, green light	
	ring light	4-zone circular white high light circular (directional) low-angle green light (electric)	
	coaxial light (optional)	vertical illuminator, white light	
Environmental requirement	temperature: 20°C±2°C, relative humidity: 30%~80%, vibration: <0.002g, less than 15Hz		
Dimension (L×W×H)	580×235×790mm	638×336×885mm	
Weight	40kg	60kg	

* The optimum temperature is 20°C±1°C

- ① Within 80×64mm, on focal position and environment temperature at 20°C±1°C
- ② Within 120×88mm, on focal position and environment temperature at 20°C±1°C
- ③ Within 40×28mm, on focal position and environment temperature at 20°C±1°C

Continued from previous page

- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically
- Measurement of 999+dimensions and 200+workpieces
- **QMS-A110** is suitable for measuring small flat parts
- **QMS-A200** is suitable for measuring flat parts with low precision requirements and small surface sizes



11.6" LCD (optional)

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Software	1 pc

OPTIONAL ACCESSORY

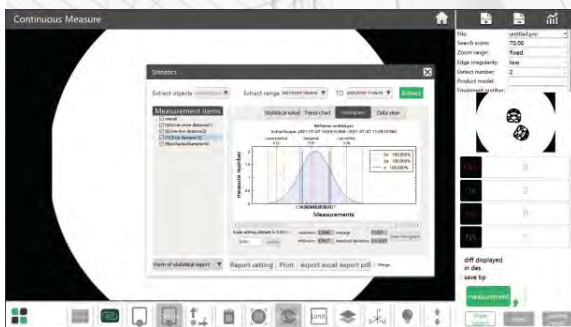
Coaxial light illumination	QMS-23-A3 (for QMS-A110) QMS-23-A4 (for QMS-A200)
Data transmission function of software	QMS-23-D1
CAD import function of software	QMS-23-C1
Foot-switch	QMS-43-FS1
11.6" LCD	QMS-23-B1 (must be installed in factory)

Software (included)

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient



- Measuring result can be stored automatically. OK items and NG items can be counted automatically



AUTOMATIC CNC VISION MEASURING SYSTEM (PROFESSIONAL TYPE) CODE ISD-F432



- Stable and high-precision measurement under high-speed, silent and stable mode
- Accurately detect the edge of surface size



six-ring eight-zone ring light (included)



vertical light (included)

SPECIFICATION

Camera	giga-bit network camera	
Measuring range (X×Y×Z)	400×300×200mm (650TVL)	
Granite stage size	827×480mm	
Glass stage size	450×350mm	
Resolution of X/Y/Z axis	0.5μm	
Accuracy of X/Y axis	≤(2+L/250)μm (L is the measuring length in mm)	
Accuracy of Z axis	≤(3+L/150)μm (L is the measuring length in mm)	
Objective	0.7X~5X (zoom)	
Working distance	68mm	
Magnification	28X~155X (on 23.5" monitor)	
Illumination	surface	six-ring eight-zone ring light and vertical light
	contour	bottom horizontal light
Max. height of workpiece	200mm	
Max. weight of workpiece	30kg	
Operation system	Windows 10	
Power supply	220V±10% (AC), 50Hz	
Environment requirement	temperature: 18~24°C, relative humidity: 30~75%	
Dimension (L×W×H)	1270×910×1750mm	
Weight	360kg	

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Computer table	1 pc
Calibration glass chart	1 pc
Software	1 pc



laser probe (optional)

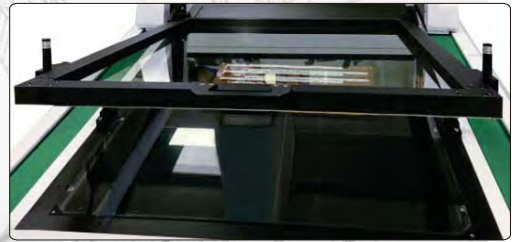


plate clamp (optional)

OPTIONAL ACCESSORY

Advanced probe	probe base*	code ISD-F-BASE1 (must be installed before shipment)
	probe*	code ISD-F-TP20 (must be installed before shipment)
	ruby probe	optional M2 probe series with ISQ-01 , refer to page 545
Standard probe	probe base*	code ISD-F-BASE2 (must be installed before shipment)
	ruby probe	code ISD-F-P2
		code ISD-F-P3
Laser probe** (can measure glass thickness, step height, flatness, height etc.)		code ISD-F-PB (must be installed before shipment)
Special lens for large field navigation		code ISD-F-LENS (must be installed before shipment)
PLC full-angle intelligent programmable lighting system		code ISD-F-LIGHT (must be installed before shipment)
Plate fixture (manual self-locking tempered glass)		code ISD-F-HOLDER glass size: 450×350mm can be customized
Protector		code ISD-F-PROTECTOR (must be installed before shipment)
Contour comparison module		code ISD-F-PROFILE
Office software		code 7313-OFFICE

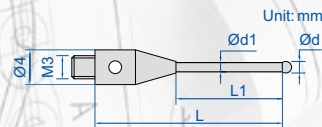


advanced probe (optional)



standard probe (optional)

* The probe head and probe are Renishaw brand
 ** Laser probe is KEYENCE brand



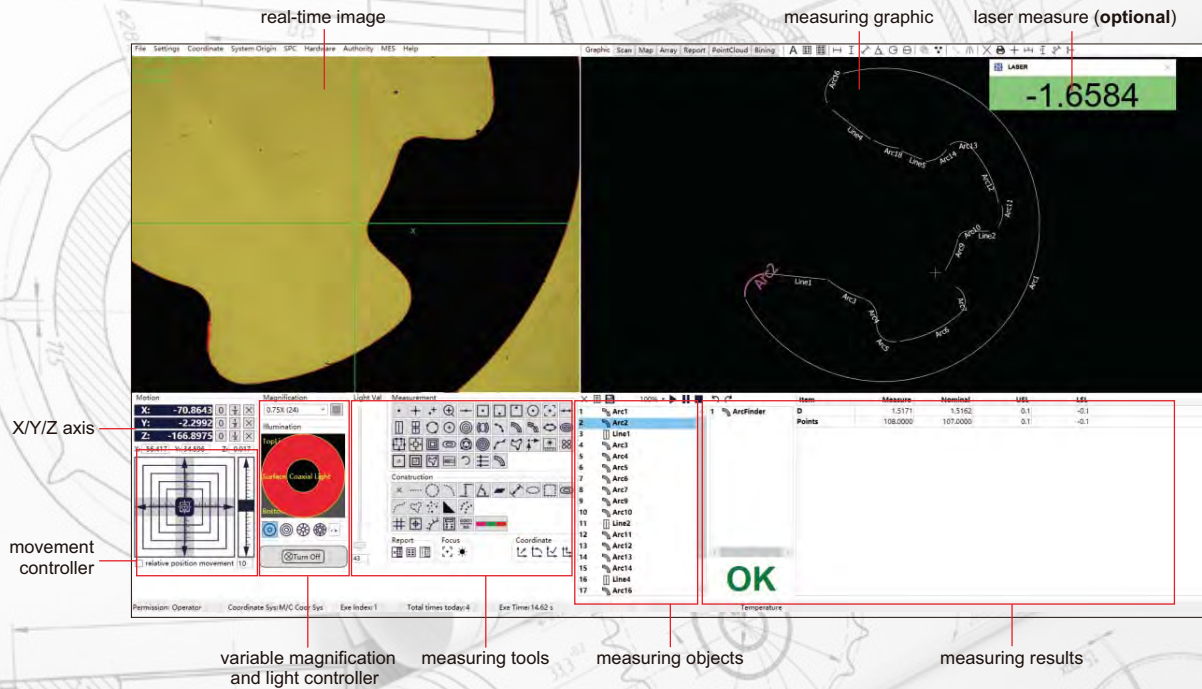
STYLUS (INCLUDED) SPECIFICATION

Code	Material	Ød	Ød1	L	L1	Quantity
ISD-F-P2	ruby ball/stainles steel stem	Ø2mm	Ø1.4mm	21mm	8mm	1 pc
ISD-F-P3		Ø3mm	Ø1.5mm		12mm	1 pc

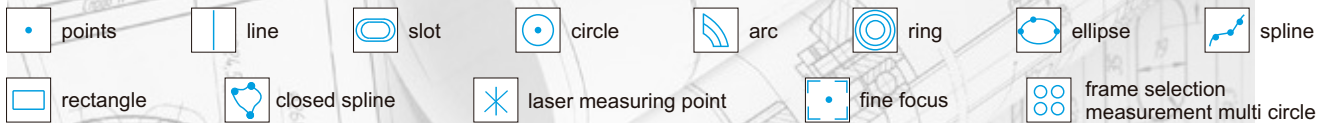
To be continued

Continued from previous page

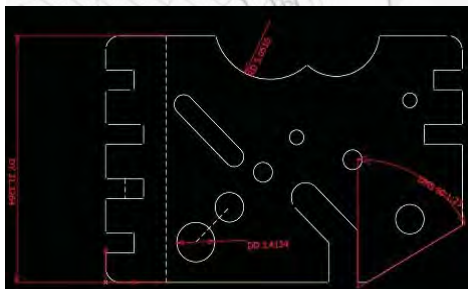
MEASURING SOFTWARE (INCLUDED)



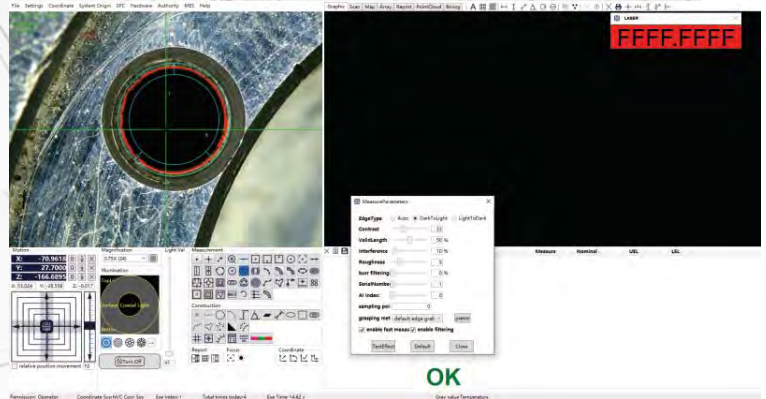
- Operation system: Windows 10
- Language: English
- Image measuring methods: crosshair point, manual point, auto point, zoom in point, line point, center point, lowest point, highest point, closest point, focus point
- Constructable elements: point, line circle, arc, height, angle, plane, distance, ellipse, rectangle, construction ringgroove, spline, closed spline, profile, geometric tolerance
- Geometric tolerance: concentricity, parallelism, verticality, angularity, symmetry, circular, arc profile
- Measurement elements can be translated and rotated
- Measuring data can export to Excel, DXF and other format files. The image area can save BMP image format
- The software includes CAD drawing import module
- The software includes SPC analysis module. The measurement software is seamlessly linked with the SPC module. After the measurement is completed, the measurement software automatically imports the data into the SPC database, allowing simple data analysis
- Dimension measuring tools:



■ Element annotations



■ Accurately detect the edge of the surface size



HORIZONTAL VISION MEASURING SYSTEM CODE ISD-W3150

**INSPECTION
CERTIFICATE**



table (optional)

SPECIFICATION

Measuring range (X×Z)	300×150mm	
Accuracy	≤(4+L/25)μm L is the measuring length in mm	
Resolution	0.5μm	
Y travel range (focus)	125mm	
Stage	metal stage size	455×126mm
	turning range	±15°
	max. load capacity	30kg
Objective	0.7X~4.5X (zoom)	
Working distance	96mm	
View field (diagonal length)	1.3~8.2mm	
Magnification	34X~213X	
Display	19"	
Camera	1/3" CMOS, 0.8M pixel	
Illumination	surface and contour with adjustable LED	
Operation system	Windows 10	
Drive method	manual	
Power supply	220V, 50Hz	
Dimension (L×W×H)	1164×634×1048mm	
Weight	200kg	



demo sample (optional)



vise (optional)

STANDARD DELIVERY

Main unit (including computer)	1 pc
Software	1 pc
Calibration glass chart	1 pc
Clay	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-W-OB05X working distance: 175mm magnification: 17~106.5X
2X auxiliary objective	code: ISD-W-OB2X working distance: 32mm magnification: 68~426X
Office software	code: 7313-OFFICE
Table	code: ISD-W-TABLE
Vise	code: ISP-A3000-VISE
Demo sample	code: ISP-A3000-DEMO

To be continued

Continued from previous page

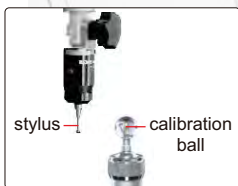
MEASURING SOFTWARE (INCLUDED)

The screenshot shows the INSIZE-M software interface. On the left, there is a 'measuring graphic' showing a circular object with a blue arc labeled 'ARC1' and a red crosshair. Below it are 'measuring objects' and 'measuring tools' icons. On the right, there is a 'real-time image' of the object with a green 'OK' label. Above the image is a table of 'measuring results' for X, Y, and Z coordinates. The table shows X_o = 0.0649, Y_o = -0.4139, and Z_o = 0.0000. Below the table is a table of 'Content' with columns for Actual, Nominal, Over, and LowTol. The 'Content' table shows values for Length, DT, Mid X, and Mid Y.

HIGH-DEFINITION VISION MEASURING SYSTEMS (MANUAL TYPE)

- High-definition image
- Large view field
- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed

**INSPECTION
CERTIFICATE**



probe (optional), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm



lens with coaxial light (optional, must be installed in factory)



ISD-H210

computer is included

STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Calibration glass chart	1 pc
Clay	1 pc
Foot switch	1 pc
Anti-dust cover	1 pc

To be continued

Continued from previous page

SPECIFICATION

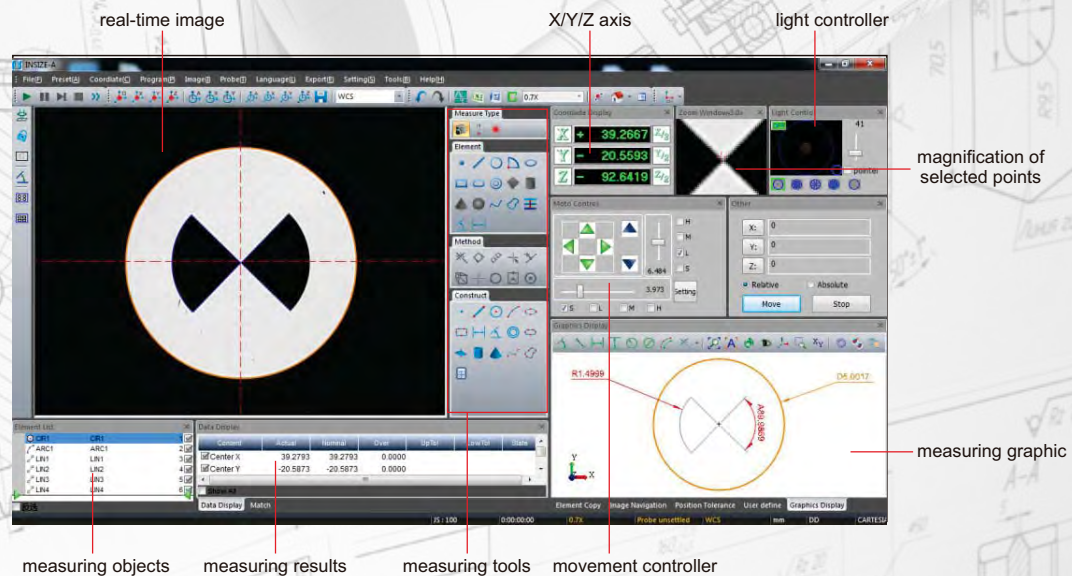
Code	ISD-H210	ISD-H320	ISD-H430
Measuring range (X×Y×Z)	200×100×150mm	300×200×150mm	400×300×150mm
Stage size	404×228mm	500×330mm	606×466mm
Glass stage size	260×160mm	350×250mm	450×350mm
Resolution of X/Y/Z axis	0.5µm		
Accuracy of X/Y axis	≤(3.5+L/100)µm (L is the measuring length in mm)		
Repeatability of X/Y axis	2µm		
Objective	0.58X~7.5X (zoom)		
View field (diagonal length)	1.4mm~14mm		
Working distance	82mm		
Magnification	27.4X~351X (on 24" monitor)		
Camera	giga-bit network camera		
Illumination	surface and contour with adjustable LED		
Max. height of workpiece	150mm		
Max. weight of workpiece	20kg		
Operation system	Windows 7/8/10		
Drive method	manual		
Power supply	110~240V, 50/60Hz		
Dimension (L×W×H)	540×560×850mm	760×600×900mm	970×670×940mm
Weight	110kg	140kg	240kg

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-H-OB05X working distance: 155mm magnification: 13.7~175.5X (on 24" monitor)
2X auxiliary objective	code: ISD-H-OB2X working distance: 34.5mm magnification: 54.8~702X (on 24" monitor)
Probe	code: ISD-V-PROBE includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Vision measuring system with coaxial light lens	code: ISD-H210CL, ISD-H320CL, ISD-H430CL
Office software	code: 7313-OFFICE

SOFTWARE (INCLUDED)

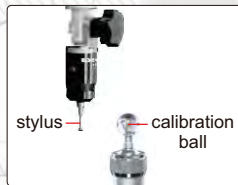
- Refer to page 590~591 for details



VISION MEASURING SYSTEMS (MANUAL TYPE)



lens with coaxial light (**optional**, must be installed in factory)



probe (**optional**), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm



ISD-V250A

computer is included

SPECIFICATION

Code	ISD-V150A	ISD-V250A	ISD-V300A	ISD-V400A
Measuring range (X×Y×Z)	150×100×150mm	250×150×150mm	300×200×150mm	400×300×150mm
Stage size	354×228mm	450×280mm	500×330mm	606×466mm
Glass stage size	210×160mm	306×196mm	350×250mm	450×350mm
Resolution of X/Y/Z axis	0.5µm			
Accuracy of X/Y axis	≤(3.5+L/100)µm (L is the measuring length in mm)			
Repeatability of X/Y axis	2µm			
Objective	0.7X~4.5X (zoom)			
Working distance	92mm			
Magnification	33X~195X (on 19" monitor)			
Camera	1/3" color CCD, 0.3M pixel			
Illumination	surface and contour with adjustable LED			
Max. height of workpiece	150mm			
Max. weight of workpiece	20kg			
Operation system	Windows 7/8/10			
Drive method	manual			
Power supply	110/220V, 50/60Hz			
Dimension (L×W×H)	560×540×850mm	760×600×900mm	760×600×900mm	970×670×940mm
Weight	100kg	120kg	140kg	240kg

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-V-OB05X working distance: 175mm magnification: 16.5~97.5X (on 19" monitor)
2X auxiliary objective	code: ISD-V-OB2X working distance: 36mm magnification: 66~390X (on 19" monitor)
Probe	code: ISD-V-PROBE includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Vision measuring system with coaxial light lens (with computer)	code: ISD-V150ACL, ISD-V250ACL, ISD-V300ACL, ISD-V400ACL
Office software	code: 7313-OFFICE

STANDARD DELIVERY

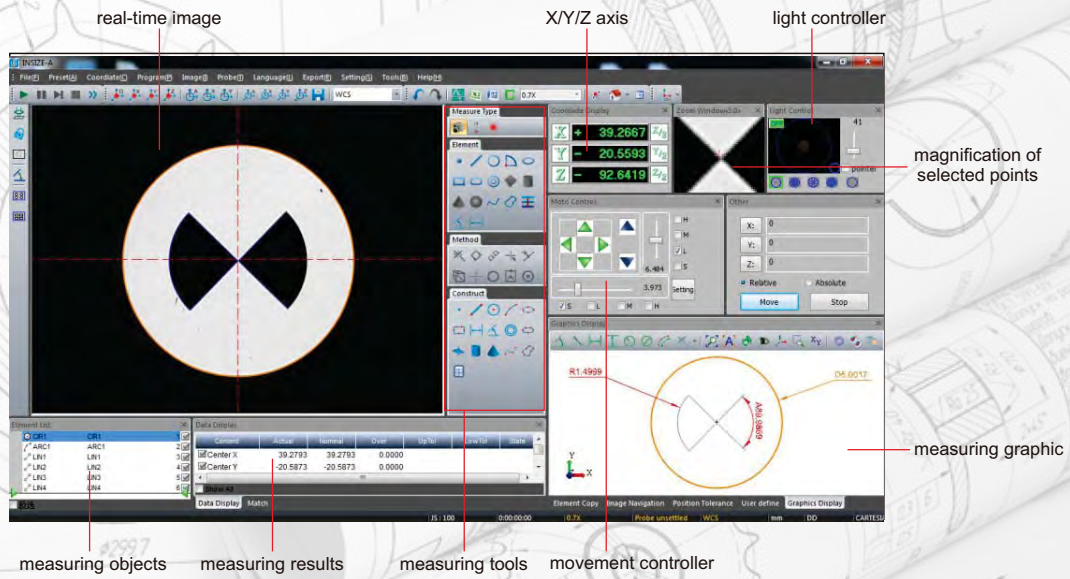
Main unit	1 pc
Computer	1 pc
Calibration glass chart	1 pc
Clay	1 pc
Foot switch	1 pc
Anti-dust cover	1 pc

To be continued

Continued from previous page

SOFTWARE (INCLUDED)

- Refer to page 590–591 for details



CNC VISION MEASURING SYSTEMS (WITH STAND)

MOTORIZED ZOOM OBJECTIVE IS OPTIONAL



lens with coaxial light (included)



programmable segmented ring light (included)



software flash disk (included)

- Automatic edge-detection, focus, measuring, contour scanning, calibration, etc.
- Servo motors for X, Y, Z axis
- Granite body, more stable
- SPC function for large quantity measurement
- Measuring software is included (page 590–591)

STANDARD DELIVERY

Main unit	1 pc
Dongle	1 pc
Software	1 pc
Computer	1 pc
Display	1 pc
Lens with coaxial light	1 pc
Controller	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc



ISD-E320

To be continued

Continued from previous page

SPECIFICATION

Code		ISD-E320	ISD-E430
Measuring range (X×Y×Z)		300×200×200mm	400×300×200mm
Stage size		556×406mm	561×556mm
Glass stage size		350×250mm	450×350mm
Resolution of X/Y/Z axis		0.5µm	
Accuracy of X/Y axis		≤(2.5+L/200)µm (L is measuring length in mm)	≤(3.5+L/200)µm (L is measuring length in mm)
Repeatability of X/Y axis		2µm	
Objective (manual zoom)		0.7X~4.5X (zoom)	
Working distance		92mm	
View field (diagonal length)		1.7~11.1mm	
Magnification		33X~208.6X (on 24" monitor)	
Camera		giga-bit network camera	
Illumination	surface	coaxial light, programmable segmented ring light	
	contour	adjustable LED light	
Max. height of workpieces		200mm	
Max. weight of workpieces		30kg	
Operation system		Windows 7/8/10	
Drive method		automatic	
Power supply		220V, 50/60Hz	
Dimension (L×W×H)		1420×915×1830mm	1650×1170×1900mm
Weight		500kg	700kg

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-V-OB05X working distance: 175mm magnification: 16.5~104.3X (on 24" monitor)
2X auxiliary objective	code: ISD-V-OB2X working distance: 36mm magnification: 66~417.2X (on 24" monitor)
Probe	code: ISD-V-PROBE includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Office software	code: 7313-OFFICE
Laser probe	code: ISD-V-LASER



stylus calibration ball



laser probe (optional)
measuring accuracy is 5µm

probe (optional), includes
Ø2mm and Ø3mm styli,
Ø25mm calibration ball,
measuring accuracy is 10µm

SOFTWARE (INCLUDED)

- Refer to page 590~591 for details

real-time image

X/Y/Z axis

light controller

magnification of selected points

measuring objects

measuring results

measuring tools

movement controller

measuring graphic

CNC VISION MEASURING SYSTEMS



- Automatic edge-detection, focus, measuring, contour scanning, calibration, etc.
- Servo motors for X, Y, Z axis
- SPC function for large quantity measurement
- Measuring software is included (page 590-591)

SPECIFICATION

Code	motorized zoom lens	ISD-V220ZA	ISD-V220ZHN	ISD-V270ZA	ISD-V270ZHN	ISD-V370ZA	ISD-V370ZHN	
	manual zoom lens	ISD-V220CNCA	ISD-V220HN	ISD-V270CNCA	ISD-V270HN	ISD-V370CNCA	ISD-V370HN	
Measuring range (X×Y×Z)		220×120×150mm	220×120×300mm	270×170×150mm	270×170×300mm	370×270×150mm	370×270×300mm	
Stage size		450×280mm	450×280mm	500×330mm	500×330mm	606×466mm	606×466mm	
Glass stage size		306×196mm	306×196mm	350×250mm	350×250mm	450×350mm	450×350mm	
Resolution of X/Y/Z axis		0.5µm						
Accuracy of X/Y axis		≤(2.5+L/100)µm (L is the measuring length in mm)				≤(3.5+L/100)µm (L is the measuring length in mm)		
Repeatability of X/Y axis		2µm						
Objective		0.7X~4.5X (zoom)						
Working distance		92mm						
Magnification		33.0X~208.6X (with manual zoom lens, on 24" monitor)						
		31.9X~188.7X (with motorized zoom lens, on 24" monitor)						
Camera		giga-bit network camera						
Illumination	surface	coaxial light, programmable segmented ring light						
	contour	adjustable LED light						
View field (diagonal length)		1.5~10.8mm						
Max. height of workpiece		150mm	300mm	150mm	300mm	150mm	300mm	
Max. weight of workpiece		30kg						
Operation system		Windows 7/8/10						
Drive method		automatic						
Power supply		220V, 50/60Hz						
Dimension (L×W×H)		760×600×900mm	760×600×1050mm	760×600×900mm	760×600×1050mm	970×670×940mm	970×670×1090mm	
Weight		146kg	156kg	168kg	178kg	266kg	276kg	

To be continued

Continued from previous page



software flash disk (included)



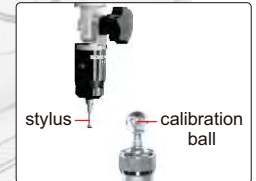
laser probe (optional)
measuring accuracy is 5µm

STANDARD DELIVERY

Main unit	1 pc
Software	1 pc
Computer	1 pc
24" display	1 pc
Len with coaxial light	1 pc
Controller	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc



desk (optional)



stylus — calibration ball

probe (optional), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-V-OB05X , working distance: 175mm magnification: 16.5~104.3X (with manual zoom lens, on 24" monitor), 16.0~94.4X (with motorized zoom lens, on 24" monitor)
2X auxiliary objective	code: ISD-V-OB2X , working distance: 36mm magnification: 66~417.2X (with manual zoom lens, on 24" monitor), 63.8~377.4X (with motorized zoom lens, on 24" monitor)
Probe	code: ISD-V-PROBE , includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Laser probe	code: ISD-V-LASER
Office software	code: 7313-OFFICE
Desk	code: ISD-V-DESK

SOFTWARE (INCLUDED)

- Refer to page 590~591 for details

real-time image

X/Y/Z axis

light controller

magnification of selected points

measuring objects

measuring results

measuring tools

movement controller

measuring graphic

CNC VISION MEASURING SYSTEMS



computer is included

ISD-V500N

- Automatic edge-detection, focus, measuring, contour scanning, calibration, etc.
- Servo motors for X, Y, Z axis
- SPC function for large quantity measurement

SPECIFICATION

Code	ISD-V500N	ISD-V501N	ISD-V500HN	ISD-V501HN
Measuring range (X×Y×Z)	470×370×200mm	500×400×200mm	470×370×400mm	500×400×400mm
Stage size	786×636mm	846×696mm	786×636mm	846×696mm
Glass stage size	570×470mm			
Resolution of X/Y/Z axis	0.5µm			
Accuracy of X/Y axis	≤(2.5+L/200)µm (L is measuring length in mm)			
Repeatability of X/Y axis	2µm			
Objective	0.7X~4.5X (zoom)			
Working distance	92mm			
View field (diagonal length)	1.5~10.8mm			
Magnification	33.0X~208.6X (on 24" monitor)			
Camera	giga-bit network camera			
Illumination	surface	coaxial light, programmable segmented ring light		
	contour	adjustable LED light		
Max. height of workpieces	200mm		400mm	
Max. weight of workpieces	30kg			
Operation system	Windows 7/10			
Drive method	automatic			
Power supply	220V, 50/60Hz			
Dimension (L×W×H)	1270×1200×1870mm	1405×1260×1870mm	1270×1200×2070mm	1405×1260×2070mm
Weight	870kg	1000kg	900kg	1030kg

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
Video card with dongle	1 pc
Software disc	1 pc
Lens with coaxial light	1 pc
Controller	1 pc
Computer	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc



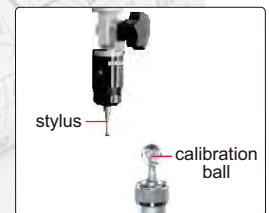
lens with coaxial light (included)



programmable segmented ring light (included)

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-V-OB05X working distance: 175mm magnification: 16.5~104.3X (on 24" monitor)
2X auxiliary objective	code: ISD-V-OB2X working distance: 36mm magnification: 66~417.2X (on 24" monitor)
Probe	code: ISD-V-PROBE includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Office software	code: 7313-OFFICE



probe (optional), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm

SOFTWARE (INCLUDED)

- Refer to page 590~591 for details

real-time image

XY/Z axis

light controller

magnification of selected points

measuring objects

measuring results

measuring tools

movement controller

measuring graphic

CNC VISION MEASURING SYSTEMS

MOTORIZED ZOOM
OBJECTIVE IS OPTIONAL



VMM-L1001CN

- Automatic edge-detection, focus, measuring, contour scanning, calibration, etc.
- Servo motors for X, Y, Z axis, X, Y axis adopt linear guide rail structure, without air supply
- Fixed glass table and granite platform base, good stability
- SPC function for large quantity measurement
- Measuring software is included (page 590~591)

SPECIFICATION

Code	VMM-L600CN	VMM-L601CN	VMM-L800CN
Measuring range (X*Y*Z)	600×600×200mm	600×900×200mm	800×1000×200mm
Glass stage size	765×1238mm	702×1543mm	902×1643mm
Resolution of X/Y/Z axis	0.5µm		
Accuracy of X/Y axis	≤(3.5+L/200)µm (L is measuring length in mm)		
Repeatability of X/Y axis	2µm		
Objective (manual zoom)	0.7X~4.5X (zoom)		
Working distance	92mm		
View field (diagonal length)	1.7~11.1mm		
Magnification	33.0X~208.6X (on 24" monitor)		
Camera	giga-bit network camera		
Illumination	surface	coaxial light, programmable segmented ring light	
	contour	adjustable LED light	
Max. height of workpiece	200mm		
Max. weight of workpiece	35kg		
Operation system	Windows 7/8/10		
Drive method	automatic		
Power supply	AC 220V, 50/60Hz		
Dimension (L*W*H)	1445×1185×1560mm	1745×1220×1720mm	1850×1420×1720mm
Weight	1000kg	1400kg	2200kg

Continued from previous page

SPECIFICATION

Code	VMM-L1000CN	VMM-L1001CN	VMM-L1200CN
Measuring range (X×Y×Z)	1000×1200×200mm	1000×1500×200mm	1200×1500×200mm
Glass stage size	1100×1831mm	1100×2113mm	1300×2113mm
Resolution of X/Y/Z axis	0.5µm		
Accuracy of X/Y axis	≤(3.5+L/200)µm (L is measuring length in mm)		
Repeatability of X/Y axis	2µm		
Objective(manual zoom)	0.7X~4.5X (zoom)		
Working distance	92mm		
View field (diagonal length)	1.7~11.1mm		
Magnification	33.0X~208.6X (on 24" monitor)		
Camera	giga-bit network camera		
Illumination	surface	coaxial light, programmable segmented ring light	
	contour	adjustable LED light	
Max. height of workpiece	200mm		
Max. weight of workpiece	30kg		
Operation system	Windows 7/8/10		
Drive method	automatic		
Power supply	AC 220V, 50/60Hz		
Dimension (L×W×H)	2035×1590×1720mm	2315×1590×1720mm	2315×1790×1720mm
Weight	2900kg	3200kg	4000kg



programmable segmented ring light (included)



lens with coaxial light (included)

STANDARD DELIVERY

Main unit	1 pc
Dongle	1 pc
Computer	1 pc
Software	1 pc
Display	1 pc
Lens with coaxial light	1 pc
Controller	1 pc
Calibration glass chart	1 pc
Laser positioner	1 pc
Clay	1 pc
Anti-dust cover	1 pc



probe (optional), includes Ø2mm and Ø3mm styli, Ø25mm calibration ball, measuring accuracy is 10µm



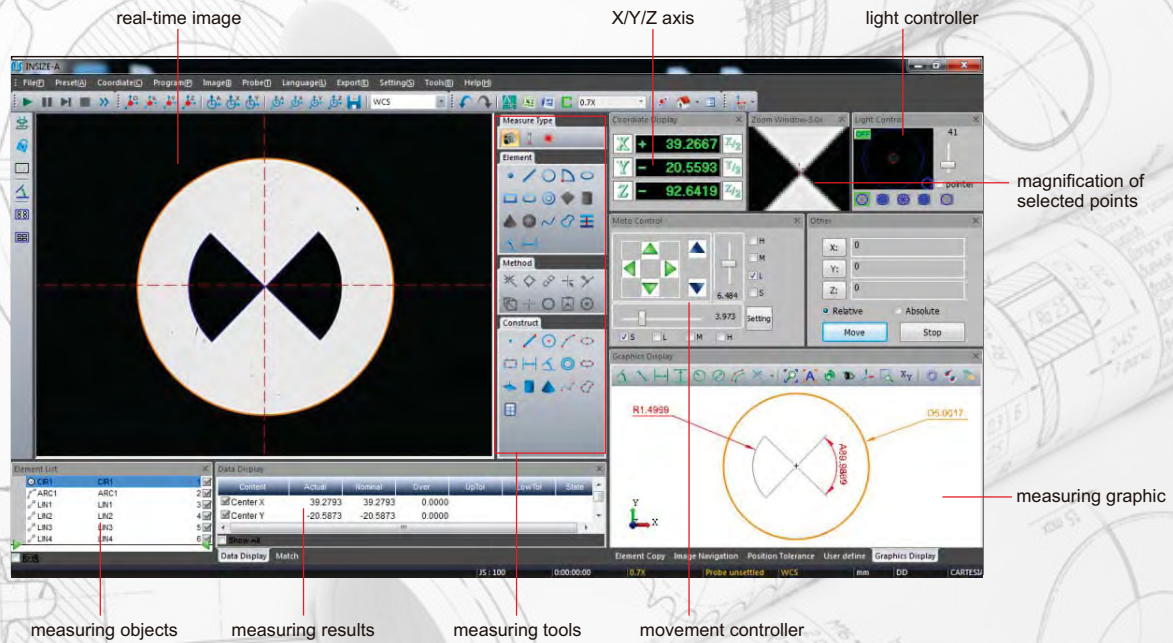
laser probe (optional) measuring accuracy is 5µm

OPTIONAL ACCESSORY

0.5X auxiliary objective	code: ISD-V-OB05X working distance: 175mm magnification: 16.5~104.3X (on 24" monitor)
2X auxiliary objective	code: ISD-V-OB2X working distance: 36mm magnification: 66~417.2X (on 24" monitor)
Probe	code: ISD-V-PROBE includes Ø2mm and Ø3mm styli, Ø25mm calibration ball
Laser probe	code: ISD-V-LASER
Office software	code: 7313-OFFICE

VISION MEASURING SOFTWARE

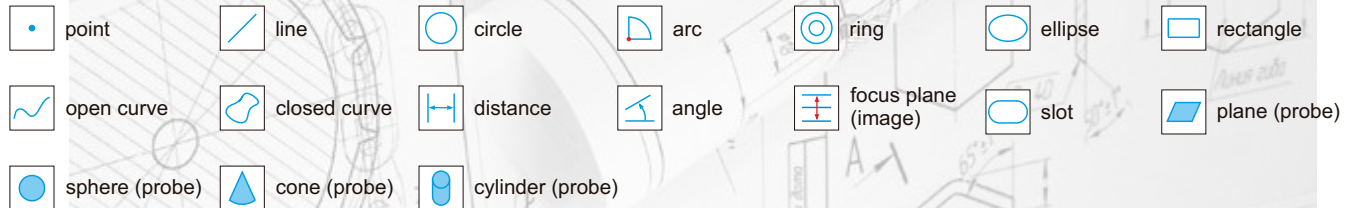
SOFTWARE FOR VISION MEASURING SYSTEMS
 ISD-V SERIES, ISD-H SERIES, ISD-VMM SERIES,
 ISD-E SERIES AND VMM-L SERIES



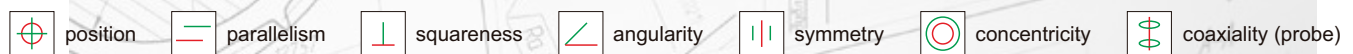
- Operation system: Windows 7/10
- Language: English
- Control features: assistant focus (manual machines), auto focus (CNC machines), auxiliary light control, motion controlled by mouse (CNC machines), auto zoom lens (CNC machines)
- Image measuring methods: intelligent automatic edge detect, select points of an area, select points from multiple parts, select points via mouse, select adjacent points, select points via cross line, magnify to select points, comparatively select points, select points via probe, edge point, contour point
- Constructable elements: point, line, circle, arc, ellipse, rectangle, distance, angle, ring, slot, plane, cone, open curve, closed curve
- Support fixture (CNC machines), scanning, image navigation, user define, pixel calibration
- Measuring by image and probe, image and probe can be synchronized
- Measuring data can be sent to Excel, Word, SPC, measuring elements can be sent to dxf

24

Dimension measuring tools:



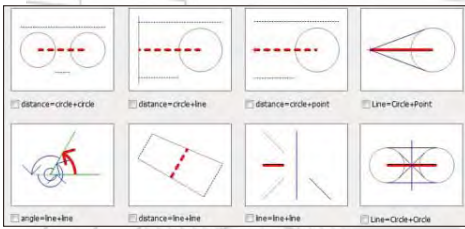
Geometric measuring tools:



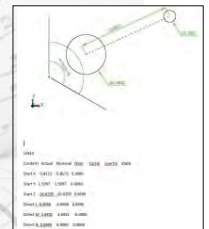
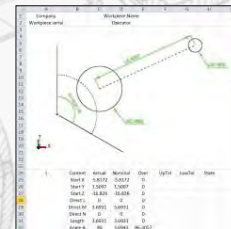
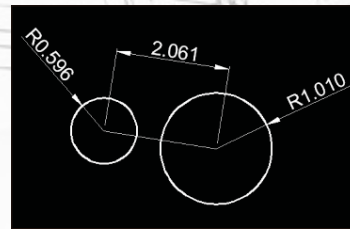
To be continued

Continued from previous page

Measuring and element construct methods:



Sent to CAD, EXCEL, WORD



CAD

EXCEL

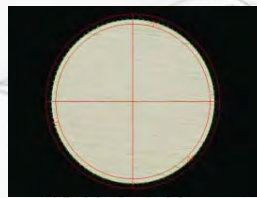
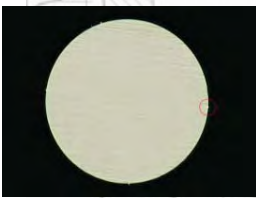
WORD

Edge-detection:

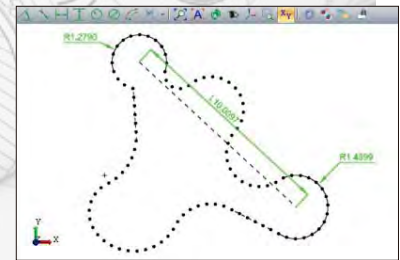
point tool

box tool

circle tool



Contour scanning:

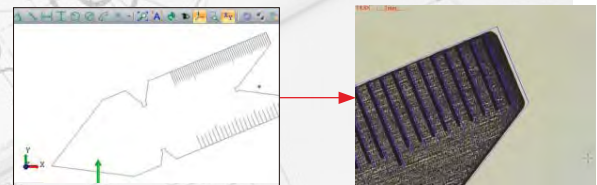


CAD measuring:



import CAD drawing, set the datum, establish coordinate system, then the software will automatically measure

CAD comparison:

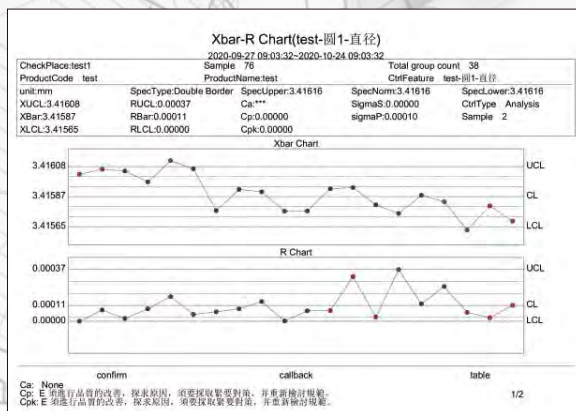


import CAD drawing, then compare with real-time image

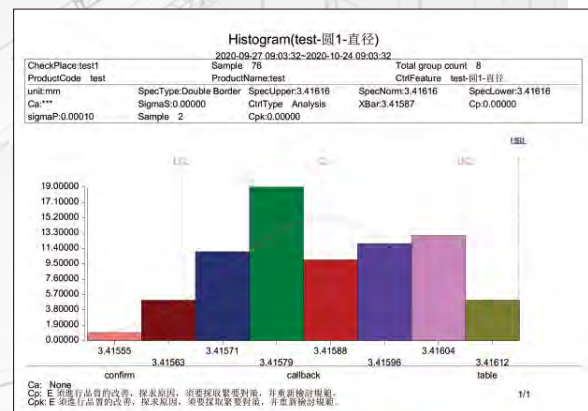
Profile scanning:



SPC analysis, import the measuring data to SPC module, generate Xbar-R chart, Xbar-S chart, Mid-R chart, X-Rs chart, Histogram, Sigma A and Sigma S chart, Cpk process chart, Process state analyse chart, Single process advice analyse chart

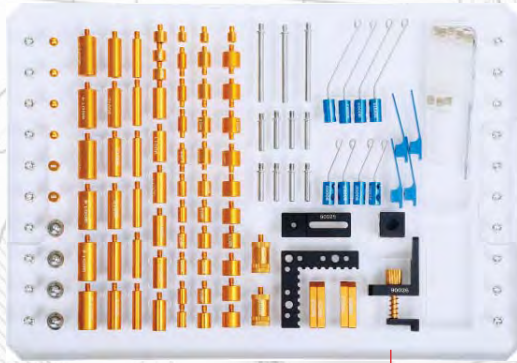


Xbar-R chart

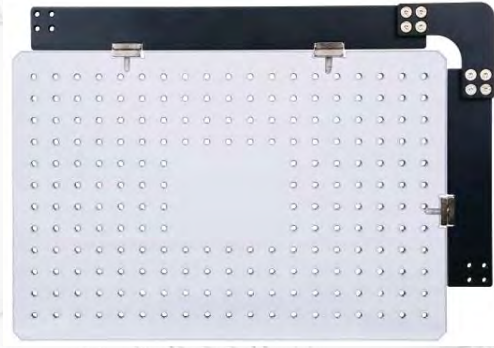


Histogram

JIG SET FOR VISION MEASURING SYSTEMS CODE ISY-700

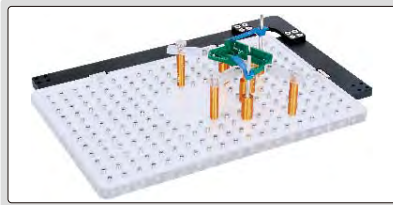




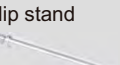

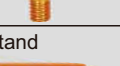
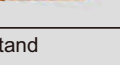



acrylic tray (included)



ISY-700

application example



Product	Code	Size (mm)	Quantity
 clip	ISY-700-90001	7×34	4
	ISY-700-90002	∅1.5×24	4
	ISY-700-90003	∅1.5×50	4
	ISY-700-90004	∅4×20	8
	ISY-700-90005	∅4×46	3
 spherical support head	ISY-700-90006	—	4
	ISY-700-90007	∅6×10	6
	ISY-700-90008	∅6×25	6
	ISY-700-90019	∅6×6	3
	ISY-700-90009	∅9×7	3
	ISY-700-90010	∅9×10	6
	ISY-700-90011	∅9×20	6
	ISY-700-90012	∅9×25	6
	ISY-700-90013	∅12×10	6
	ISY-700-90014	∅12×25	6
	ISY-700-90015	∅6×10	4
	ISY-700-90016	∅9×10	4
	ISY-700-90017	∅12×10	4
 stand with fine adjustment	ISY-700-90018	∅12×20~25	2

Product	Code	Size (mm)	Quantity
 adapter for square support	ISY-700-90020	—	2
 clamping screw	ISY-700-90021	—	4
 L-shaped positioning plate	ISY-700-90022	50×50×6	1
 sliding support plate	ISY-700-90023	30×12×5	4
 square support	ISY-700-90024	20×16×16	1
 base for square support	ISY-700-90025	45×16×6	1
 spring stand	ISY-700-90026	—	1
 acrylic sliding support plate	ISY-700-90028	45×12×5	8
 wrench	ISY-700-90029	M3	1
 acrylic base plate	ISY-700-90030	300×200×12 Hole size: M4X0.7	1

STANDARD GLASS SCALES



ISD-CL300A

- To calibrate optical measuring instruments, also can be used as optical positioning elements in precision machine tools

STANDARD TYPE

Code	Measuring range	Graduation	Length	Width	Thickness	Accuracy
ISD-CL100A	100mm	1mm	130mm	30mm	5mm	1µm
ISD-CL200A	200mm	1mm	230mm	30mm	5mm	1µm
ISD-CL300A	300mm	1mm	330mm	30mm	5mm	1µm
ISD-CL400A	400mm	1mm	430mm	30mm	5mm	1µm
ISD-CL500A	500mm	1mm	530mm	30mm	5mm	2µm

ECONOMIC TYPE

Code	Measuring range	Graduation	Length	Width	Thickness	Accuracy
ISD-CL100B	100mm	1mm	130mm	30mm	5mm	3µm
ISD-CL200B	200mm	1mm	230mm	30mm	5mm	3µm
ISD-CL300B	300mm	1mm	330mm	30mm	5mm	3µm
ISD-CL400B	400mm	1mm	430mm	30mm	5mm	3µm
ISD-CL500B	500mm	1mm	530mm	30mm	5mm	3µm

PROFESSIONAL TYPE (The scale is between two layers of glass and will not be worn off)

Code	Measuring range	Graduation	Length	Width	Thickness	Accuracy
ISD-CL100S	100mm	1mm	130mm	30mm	10mm	1µm
ISD-CL200S	200mm	1mm	230mm	30mm	10mm	1.5µm
ISD-CL300S	300mm	1mm	330mm	30mm	15mm	2.5µm
ISD-CL400S	400mm	1mm	430mm	30mm	15mm	3µm
ISD-CL500S	500mm	1mm	530mm	30mm	15-25mm	3.5µm



Toolmaker Microscopes
Page 595-596



Digital Microscopes
Page 597-635



Cutting Tools Microscopes
Page 622



Industrial Microscopes
Page 636-637



Metallurgical Microscopes
Page 638-641



Zoom Stereo Microscopes
Page 642-648



Polarizing Microscopes
Page 649



Digital Cameras For Microscopes
Page 650-658



Metallurgical Analysis Softwares
Page 657-658



Portable Measuring Microscopes
Page 659



Table Magnifiers With Illumination
Page 660



Digital Magnifiers
Page 661-662



Magnifiers
Page 663-667



Telescoping Inspection Mirrors
Page 667



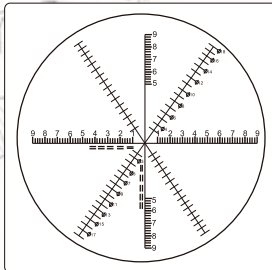
Telescoping Pick-up
Page 668

TOOLMAKER MICROSCOPES

**INSPECTION
CERTIFICATE**



10X dividing eyepiece



the horizontal and vertical scale lines are used for length measurement, the graduation is 0.2mm. the two diagonals scale lines are used for diameter measurement, the graduation is 1mm (when using 1X objective)



X-axis reset switch

Y-axis reset switch



laser positioning switch

illumination control panel

3X objective

10X eyepiece

aperture diaphragm adjustment knob

computer is optional

ISD-VMM215

SPECIFICATION

Code	binocular	ISD-VMM205	ISD-VMM215	ISD-VMM225	ISD-VMM235
	monocular	ISD-VMM205D	ISD-VMM215D	ISD-VMM225D	ISD-VMM235D
X/Y axis travel		150×100mm	200×100mm	250×150mm	300×200mm
Z axis travel		150mm	150mm	200mm	200mm
Metal stage size		354×228mm	404×228mm	450×280mm	500×330mm
Glass stage size		210×160mm	260×160mm	306×196mm	350×250mm
Resolution of X/Y/Z axis		0.5µm			
Accuracy of X/Y axis		≤(3.5+L/100)µm (L is the measuring length in mm)			
Repeatability		2µm			
Camera		1/3" color CCD, 0.3M pixel			
Optical magnification		30X (with 3X objective)			
Image magnification		114X (on 19" monitor)			
Illumination		surface and contour with adjustable LED			
Max. weight of workpiece		25kg			
Power supply		100V~240V, 50/60Hz			
Operation system		Windows 7/8/10			
Drive method		manual			
Dimension (L×W×H)		540×667×850mm	540×667×850mm	800×675×920mm	800×675×920mm
Weight		100kg	110kg	135kg	140kg

Continued from previous page

DATA PROCESSING UNIT

Output	RS232
Function	simple measuring tools
	measure coordinate of points
	measure lines
	measure center coordinate, radius of circle with three points
	measure distances between two objects
	measure angles
	set origin of coordinate
	skew and calibrate the workpiece
	measure rectangle (including length, width, perimeter and center coordinate)
	measure thread (including thread diameter, screw pitch, screw angle)
	measure slot (including center coordinate, length, width)

STANDARD DELIVERY

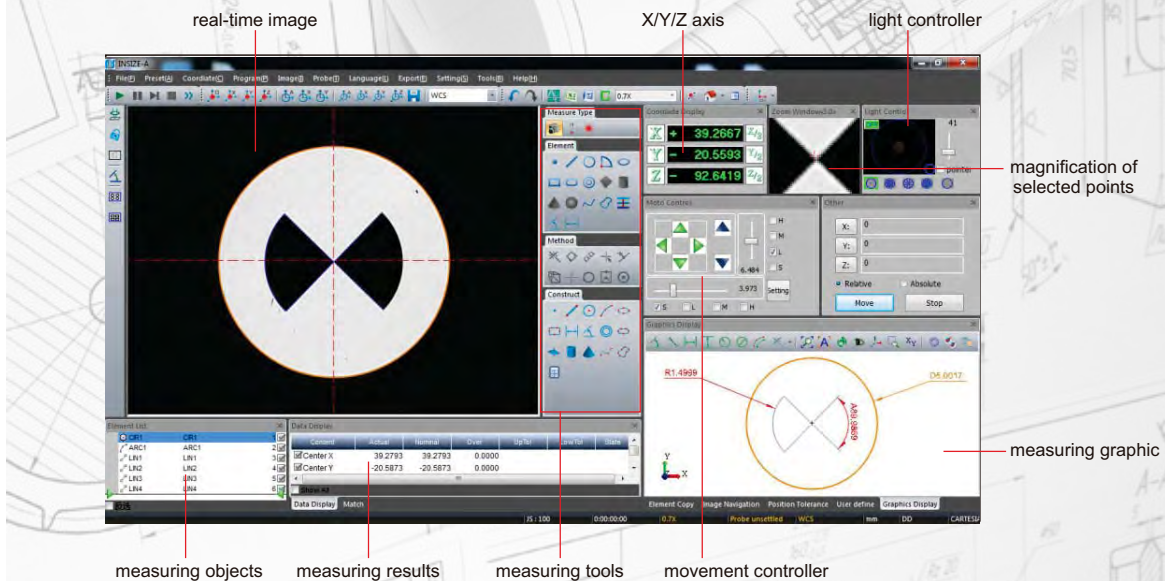
Main unit	1 pc
Video card with dongle	1 pc
Software disc	1 pc
Calibration glass chart	1 pc
Demo sample	1 pc
Foot switch	1 pc
3X objective	1 pc

OPTIONAL ACCESSORY

1X objective	ISD-VMM-LENS1X
5X objective	ISD-VMM-LENS5X
10X objective	ISD-VMM-LENS10X
Toolmaker microscopes (with computer)	code: ISD-VMM205A (binocular)
	ISD-VMM215A (binocular)
	ISD-VMM225A (binocular)
	ISD-VMM235A (binocular)
	code: ISD-VMM205DA (monocular)
	ISD-VMM215DA (monocular)
	ISD-VMM225DA (monocular)
	ISD-VMM235DA (monocular)

SOFTWARE (INCLUDED)

- Refer to page 590~591 for details



TAKE PICTURES AND VIDEOS

MEASUREMENT

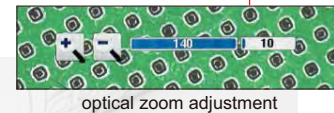
CAN BE CONNECTED TO PC AND TV AT THE SAME TIME

AUTO FOCUS

AUTO FOCUS DIGITAL MICROSCOPES (LARGE VIEW FIELD)

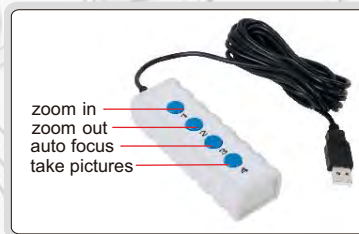


connect to computer through cable to save pictures (software for computer is included)



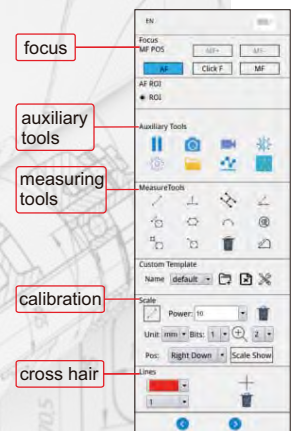
optical zoom adjustment

- Auto focus camera
- Take pictures and videos
- Can be connected to TV (HDMI port) and computer (RJ45 port) at the same time
- Built-in measuring software for TV
- Measuring software for computers is included
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red /yellow/black/brown colors)



controller (optional, for TV)

TV SOFTWARE (INCLUDED)



SPECIFICATION

Code	5302-AF105 (standard type)	5302-AF108 (high-definition type)
Pixel	2M	8M
Resolution	1920×1080	3840×2160
Magnification	1.4X~25.8X (on 28" TV)	1.4X~51.6X (on 28" TV)
Sensor	1/2.8" CMOS	
Auto focus distance	100mm~∞	
Output	HDMI, RJ45	
Frame rate	HDMI: 60fps, RJ45: 50fps	
Power supply	power adapter	
Dimension (L×W×H)	500×280×410mm	
Weight	17kg	

VIEW FIELD

Focus distance	Adjustable magnification (on 28" TV)	View field
100mm	3.9~25.8X	24×14~168×91mm
150mm	2.6~20X	30×17~240×128mm
200mm	2.1~17X	37×20~315×170mm
250mm	1.7~14.7X	42×24~385×210mm
270mm	1.4~14X	43×25~415×225mm

MEASURING ACCURACY

Optical magnification (5302-AF105)	Optical magnification (5302-AF108)	Measuring accuracy
2X	2X	±0.1mm
4X	4X	±0.1mm
6X	6X	±0.04mm
8X	8X	±0.02mm
14X	14X	±0.02mm
/	28X	±0.02mm



STANDARD DELIVERY

Main unit (with stand)	1 pc
LED illumination	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable (for TV)	1 pc
Network cable (for computer)	1 pc
Switch	1 pc
Software for computer	1 pc
Power adapter	2 pcs

OPTIONAL ACCESSORY

28" 4K TV	5302-AF-TV28
32" 4K TV	5302-AF-TV32
Computer	5302-AF-COMPUTER
Controller	5302-AF-CONTROLLER

HIGH-DEFINITION AUTO FOCUS DIGITAL MICROSCOPE (LARGE VIEW FIELD) CODE 5320-AF410

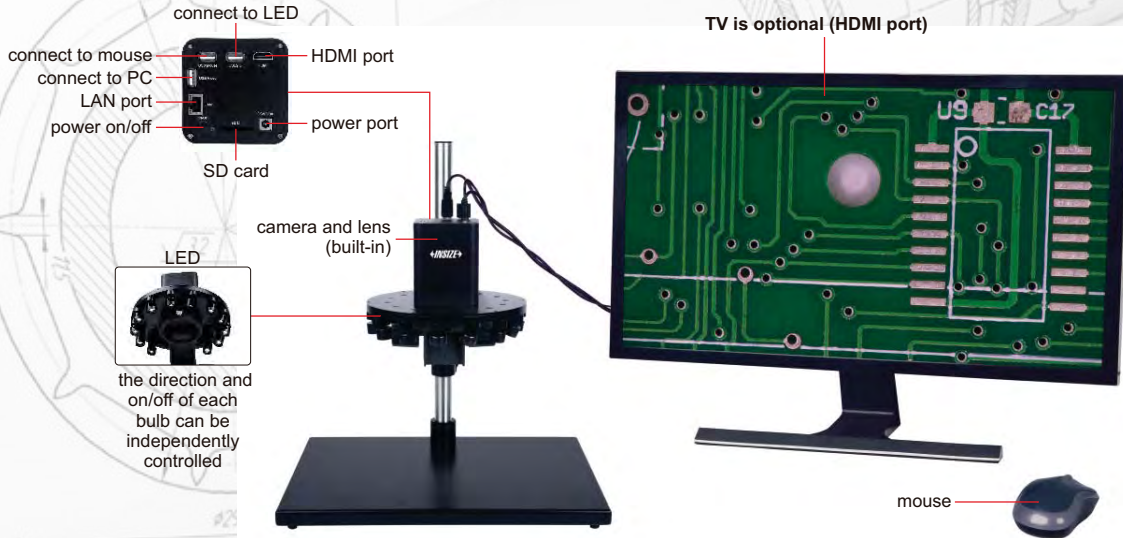
AUTO FOCUS

MEASUREMENT

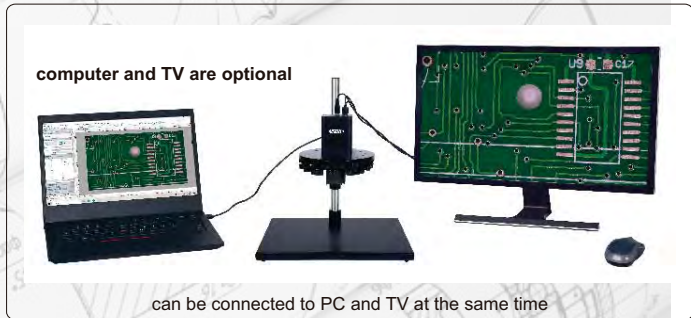
TAKE PICTURES
AND VIDEOS

LED INDEPENDENT
ADJUSTMENT

CAN BE CONNECTED TO PC
AND TV AT THE SAME TIME



- Auto focus camera
- Take pictures and videos
- Built-in measuring software
- Automatic exposure, sharpening, denoising and white balance
- 4K/1080P automatically switched by display resolution
- Display actual magnification
- Digital magnification
- Motorized light control
- Display cross hair and gridline



SPECIFICATION

Magnification (on 28" TV)	2.4X~43.7X
View field	14.2×8~255×145mm
Auto focus distance	200~255mm
Sensor	1/2.8" CMOS
Pixel	8M
Resolution	3840×2160
Frame rate	30fps
Output	HDMI/USB/LAN
Power supply	power adapter
Dimension (L×W×H)	400×300×450mm
Weight	5.8kg

MEASURING ACCURACY (ON 28" TV)

Optical magnification	Measuring accuracy
2X	±0.1mm
4X	±0.1mm
6X	±0.04mm
10X	±0.02mm
14X	±0.02mm
18X	±0.01mm

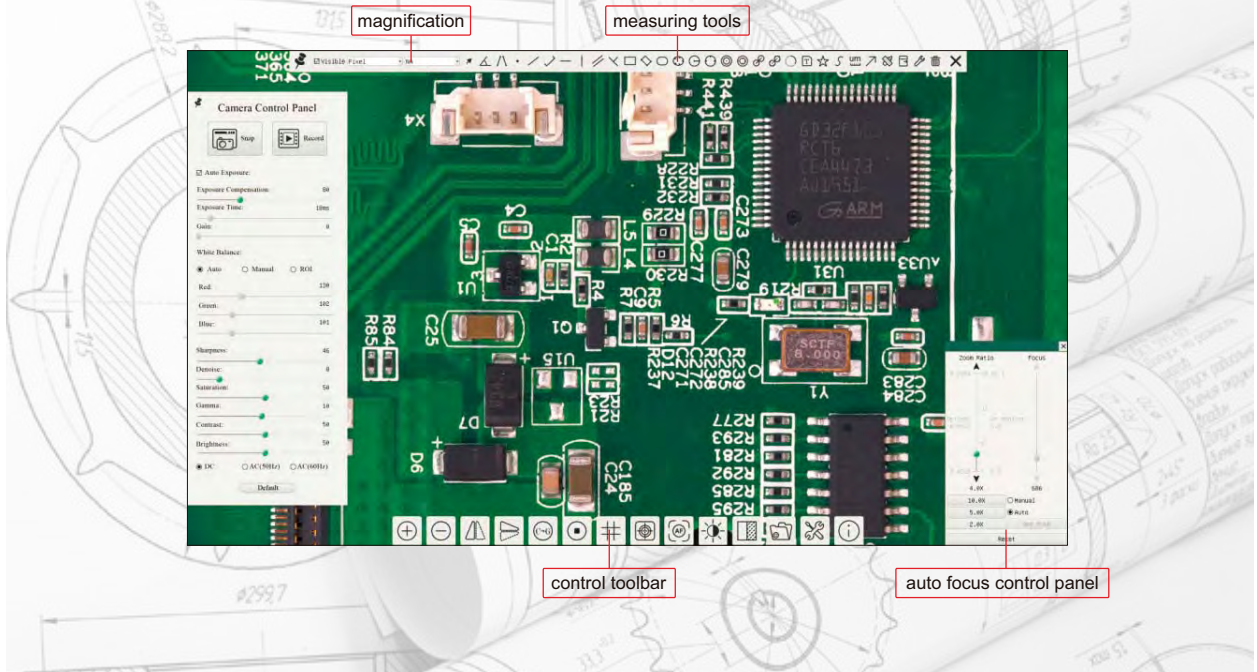
STANDARD DELIVERY

Main unit (with stand)	1 pc
LED illumination	1 pc
32G memory card and holder	1 pc
Mouse	1 pc
HDMI cable	1 pc
USB 2.0 cable	1 pc
Power adapter	1 pc

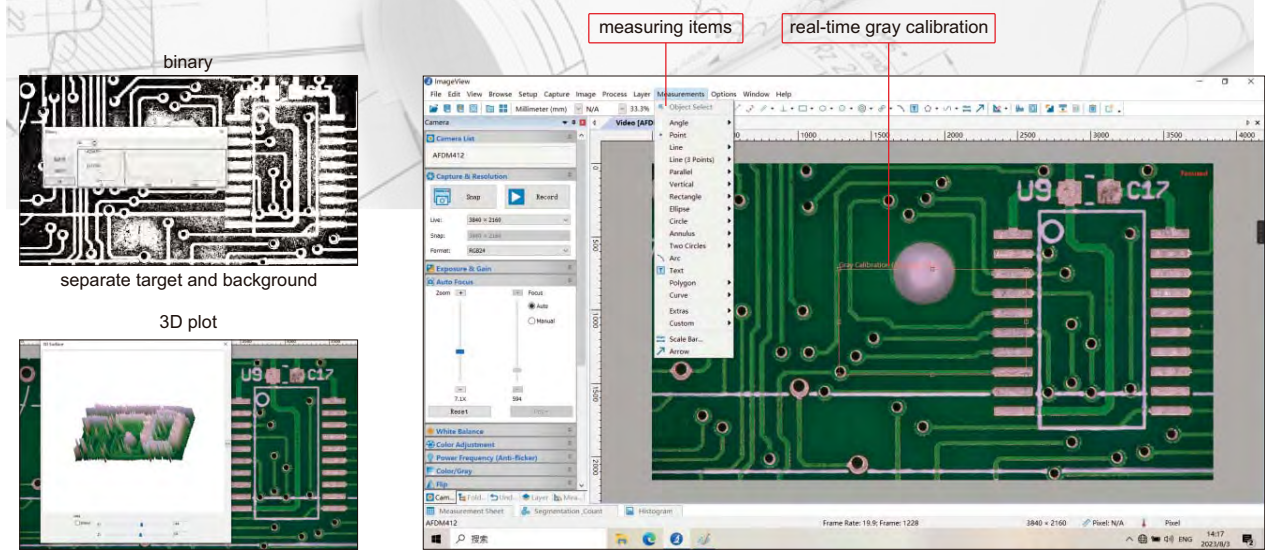
To be continued

Continued from previous page

SOFTWARE FOR TV (INCLUDED)



PROFESSIONAL SOFTWARE (INCLUDED, FOR COMPUTER)



<p>selectable resolution</p>	<p>histogram (quantify the distribution of color and brightness)</p>	<p>white balance (reduce color difference)</p>	<p>flat field balance (reduce brightness difference)</p>	<p>dark field balance (reduce thermal noise)</p>
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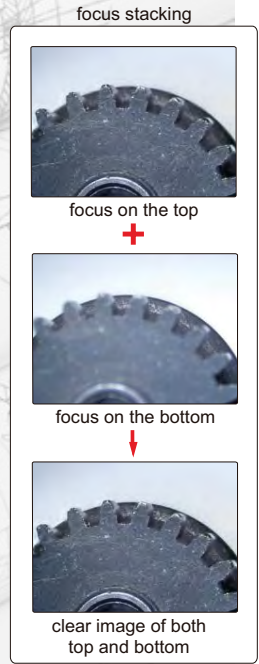
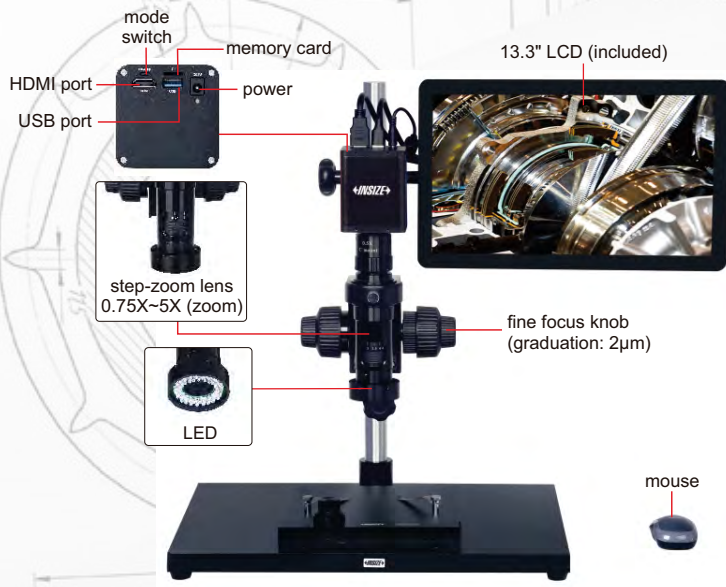
the software can control image completely, including measurement, image stitching, image gray processing, RGB histogram observation, image color sampling, 3D plot (3D representation of image intensity), image exposure, white balance, image bit depth, flat field correction and dark field correction, etc.

**HIGH-DEFINITION AUTO FOCUS MEASURING MICROSCOPE
CODE 5315-S710**

IMAGE
STITCHING

DUAL SCREEN
OPERATION

FOCUS
STACKING



- 12M high-definition image
- Switchable LCD mode and computer mode
- Take pictures or videos, save to memory card
- Measurement results can be sent to Excel
- Auto focus
- Automatic white balance and exposure



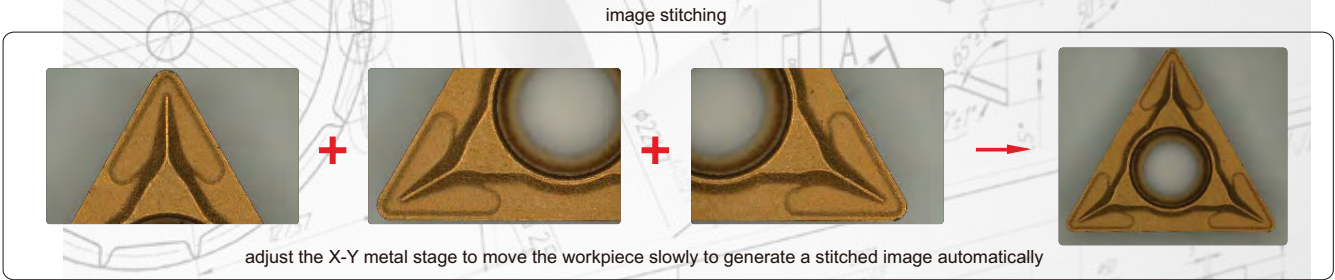
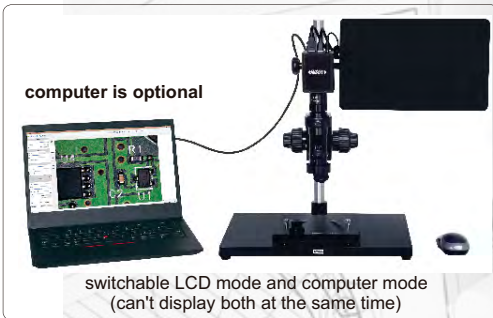
calibration plate
(included)



1X camera adapter
(optional)



2X auxiliary objective
(optional)



To be continued

Continued from previous page

SPECIFICATION

Magnification	15X~100X (on 13.3" LCD)
Sensor	1/1.7" CMOS
Pixel	12M
Resolution	1920×1080
Frame rate	30fps
Output	HDMI/USB
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD (on 13.3" LCD)

Specification	Camera adapter	
	0.5X (included)	1X (optional)
Magnification	15~100X	30~200X
Focus distance	80±2mm	80±2mm
View filed	20.0×11.2~5.5×3.1mm	10.0×5.6~2.7×1.5mm

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
32G memory card	1 pc
Mouse	1 pc
X-Y metal stage	1 pc

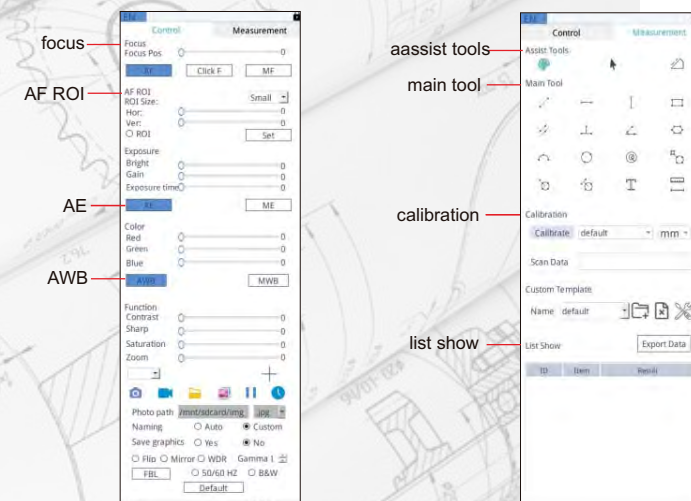
OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
Computer	ISM-DL-COMPUTER
LED light	page 626~627
Auxiliary objective	page 628

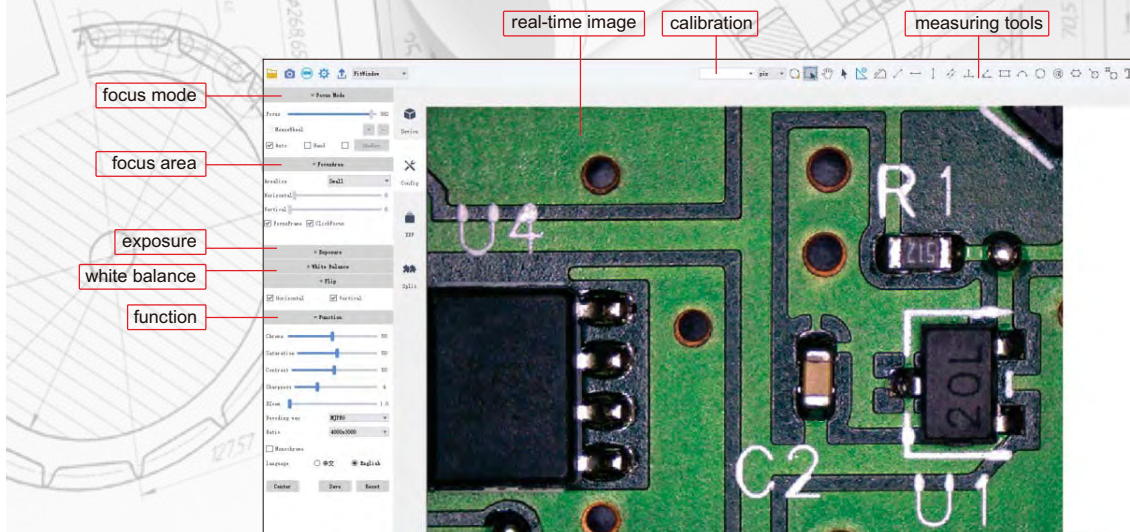
MAGNIFICATION AND MEASURING ACCURACY (on 13.3" LCD)

Objective magnification	Image magnification	Measuring accuracy
0.75X	15X	±20µm
1X	20X	±20µm
1.5X	30X	±20µm
2X	40X	±20µm
2.5X	50X	±20µm
3X	60X	±20µm
3.5X	70X	±20µm
4X	80X	±10µm
4.5X	90X	±10µm
5X	100X	±10µm

SOFTWARE FOR LCD (INCLUDED)



SOFTWARE FOR COMPUTER (INCLUDED)



AUTO FOCUS DIGITAL MICROSCOPE CODE 5303-AF103

AUTO FOCUS

TAKE PICTURES
AND VIDEOS

MEASUREMENT

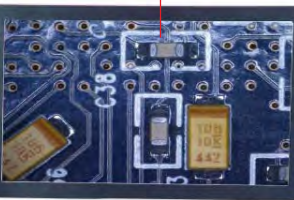


USB port
HDMI port power

13.3" LCD (included)

0.75X~5X
zoom lens

LED light



focus adjustment



mouse



16G USB flash disk
(included)

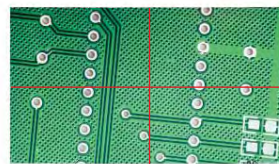


0.5X camera adapter
(included)



1X auxiliary objective
(included)

- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to USB flash disk
- Picture review, picture compare
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse



display cross hair
(blue/green/red/yellow/
black/brown colors)



1X camera adapter
(optional)



2X auxiliary objective
(optional)



X-Y glass stage
(optional)
(X-Y travel: 100×86mm)

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	20~123X	40~246X
	focus distance	48~84mm	48~84mm
	view field	13×7~2.2×1mm	6.3×3.5~1.1×0.5mm
2X (optional)	magnification	40~246X	80~492X
	focus distance	24~42mm	24~42mm
	view field	6.5×3.5~1.1×0.5mm	3.3×1.8~0.6×0.3mm
	measuring accuracy	±0.02mm	±0.02mm

AUTO FOCUS DISTANCE

Zoom objective scale	0.75X	1X	1.5X	2X	2.5X
Auto focus distance (mm)	48~84	50~78	55~73	62~71	65~70
Zoom objective scale	3X	3.5X	4X	4.5X	5X
Auto focus distance (mm)	66~70	67~70	68~70	68~70	68~70

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	page 626~627
Auxiliary objective	page 628

SPECIFICATION

Magnification	20X~123X
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

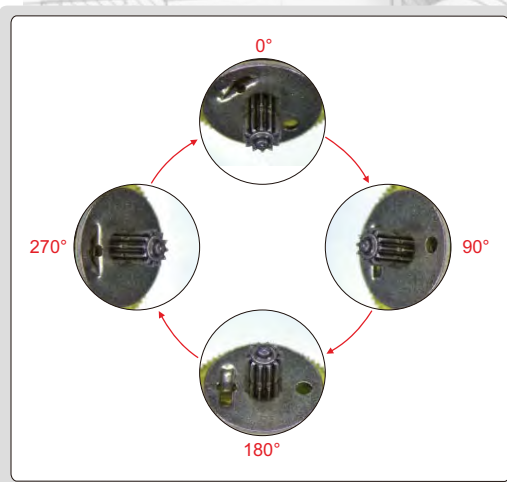
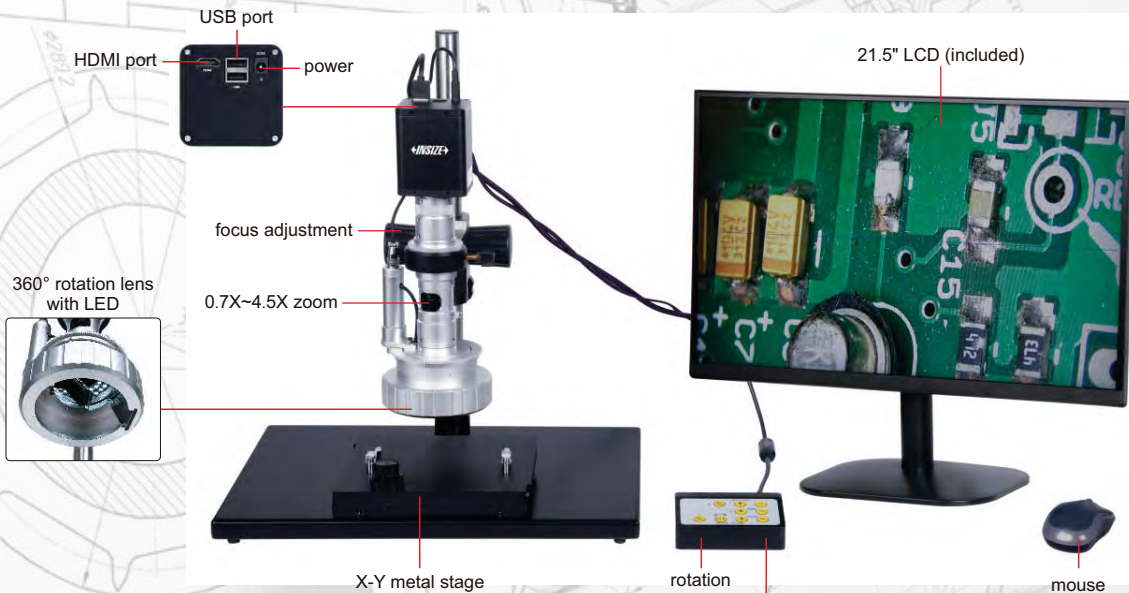
STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

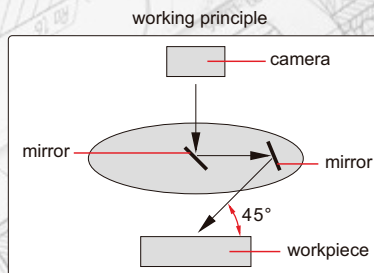
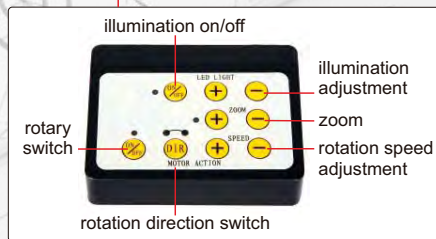
TAKE PICTURES AND VIDEOS

SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLE

3D MOTORIZED ROTATION MICROSCOPE CODE 5301-D400



360° rotation observation



SPECIFICATION

Magnification	15X~100X
View field	4.2×2.7mm~28×18mm
Focus distance	40mm
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Rotation speed	2~4RPM
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	570×300×430mm
Weight	10kg

- 1080P high-definition 3D image
- Take pictures and videos, save to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio and gain are adjustable

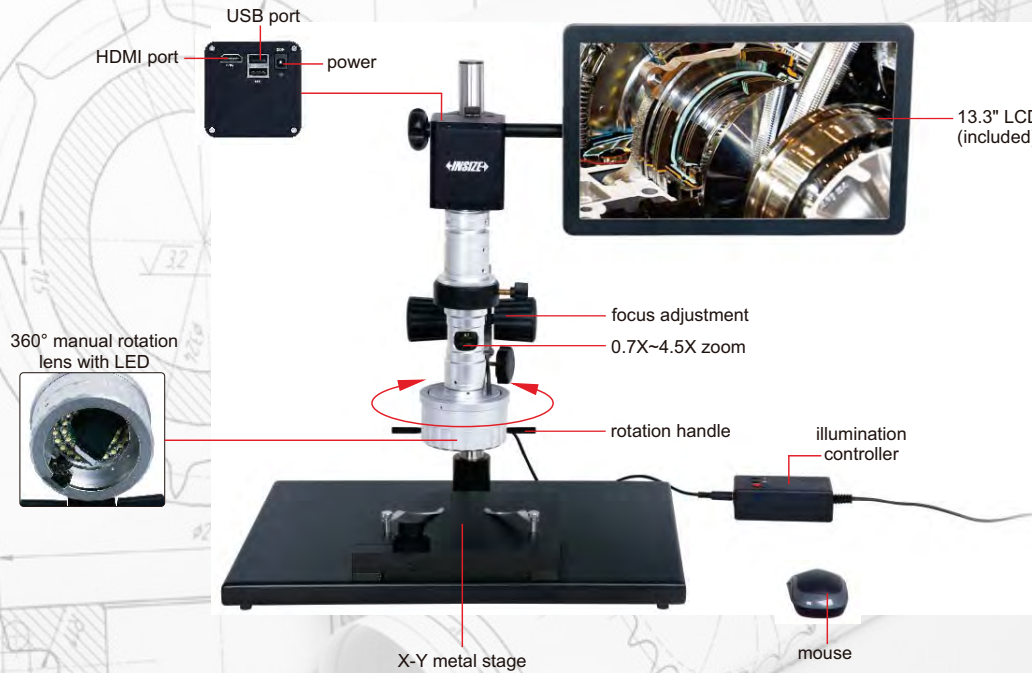
STANDARD DELIVERY

Main unit	1 pc
Rotation controller	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

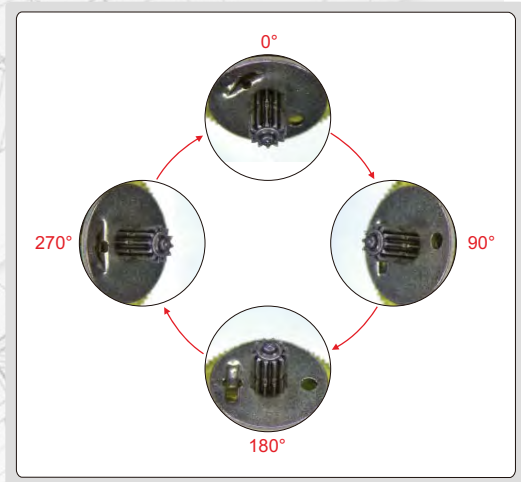
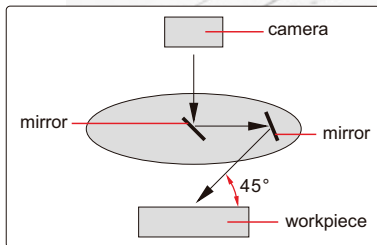
3D MANUAL ROTATION MICROSCOPE CODE 5313-S407

TAKE PICTURES AND VIDEOS

SUITABLE TO CHECK CONVEX OBJECTS
AND WALL OF HOLES



working principle



360° rotation observation

SPECIFICATION

Magnification	18X~120X
View field	2.4×1.5mm~16×9mm
Focus distance	20mm
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	220V, 50/60Hz
Dimension (L×W×H)	570×300×430mm
Weight	10kg

STANDARD DELIVERY

Main unit	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

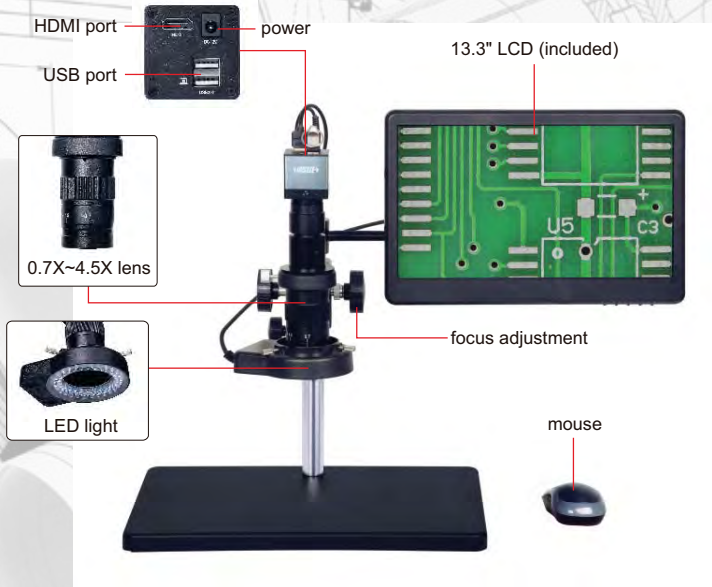
DIGITAL MEASURING MICROSCOPE (BASIC TYPE) CODE 5318-MD60

MEASUREMENT

TAKE PICTURES

BUILT-IN SOFTWARE WITHOUT COMPUTER

POPULAR MODEL



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

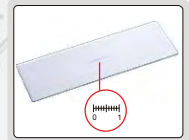
Magnification	12.5X~80X
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Measuring accuracy	±0.02mm
Lines	cross lines, scale lines (number, color and position of lines are adjustable)
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	380×260×350mm
Weight	4.5kg



16G USB flash disk (included)



white/black plate (included)



glass calibration rule (graduation 0.1mm, included)

MAGNIFICATION AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter
		0.5X (included)
0.5X (optional)	magnification	6.2~40X
	view field	47×26~7.4×4mm
1X (included)	magnification	12.5~80X
	view field	23.5×13~3.7×2mm
2X (optional)	magnification	25~160X
	view field	11.8×6.5~1.8×1mm

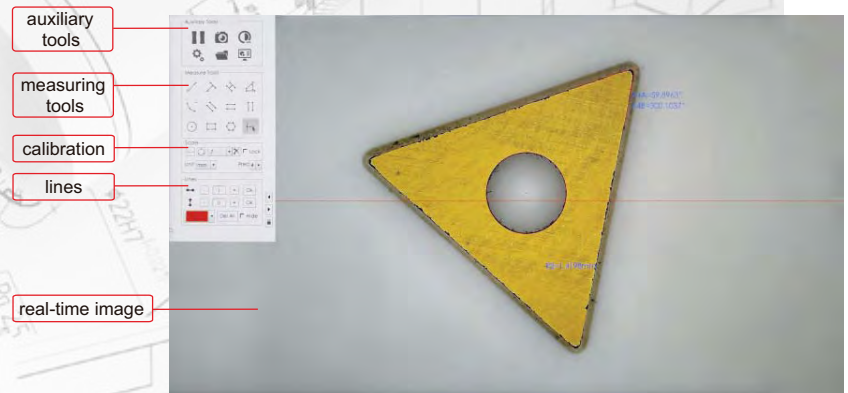
STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
White/black plate	1 pc
Glass calibration rule	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

0.5X auxiliary objective	5318-OB05X
2X auxiliary objective	5318-OB2X

MEASURING SOFTWARE (INCLUDED)



auxiliary tools

measuring tools

calibration

lines

real-time image

DIGITAL MEASURING MICROSCOPES

BUILT-IN SOFTWARE WITHOUT COMPUTER

MEASUREMENT

TAKE PICTURES



0.5X camera adapter (included)



1X auxiliary objective (included)



calibration plate (included)



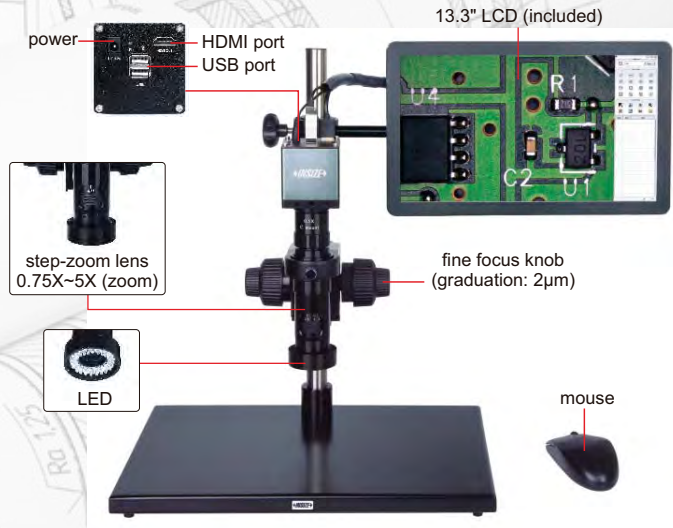
16G USB flash disk (included)



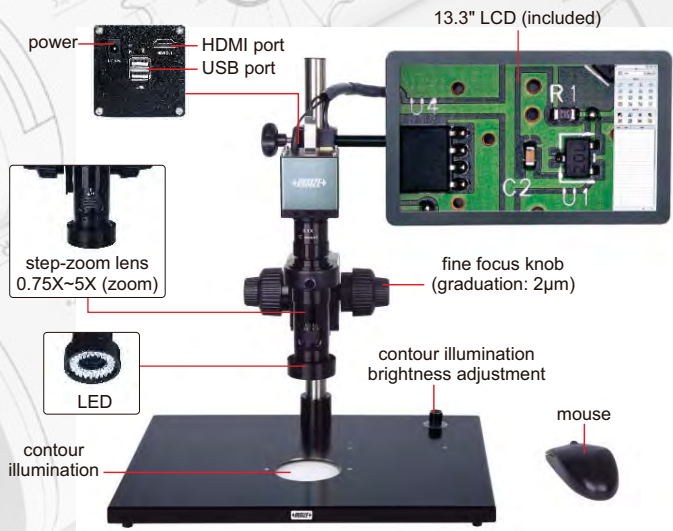
1X camera adapter (optional)



2X auxiliary objective (optional)



ISM-DL300 (without contour illumination)



ISM-DL301 (with contour illumination)

- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

Code	ISM-DL300 (without contour illumination)	ISM-DL301 (with contour illumination)
Magnification	15X~100X	
Sensor	1/2" CMOS	
Pixel	2M	
Resolution	1920×1080	
Frame rate	60fps	
Output	HDMI	
Power supply	power adapter	
Dimension (L×W×H)	570×300×430mm	
Weight	6.5kg	

To be continued

Continued from previous page

STANDARD DELIVERY

Code	ISM-DL300	ISM-DL301
Main unit	1 pc	1 pc
0.5X camera adapter	1 pc	1 pc
1X auxiliary objective	1 pc	1 pc
Calibration plate	1 pc	1 pc
16G USB flash disk	1 pc	1 pc
White/black plate	1 pc	1 pc
Mouse	1 pc	1 pc
HDMI cable	1 pc	1 pc
Power adapter	2 pcs	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	page 626~627
Auxiliary objective	page 628

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy*
0.75X	15X	±8µm
1X	20X	±7µm
1.5X	30X	±6µm
2X	40X	±6µm
2.5X	50X	±6µm
3X	60X	±5µm
3.5X	70X	±5µm
4X	80X	±4µm
4.5X	90X	±4µm
5X	100X	±4µm

* When measuring the contour of workpieces, please use **ISM-DL301** to ensure accuracy.



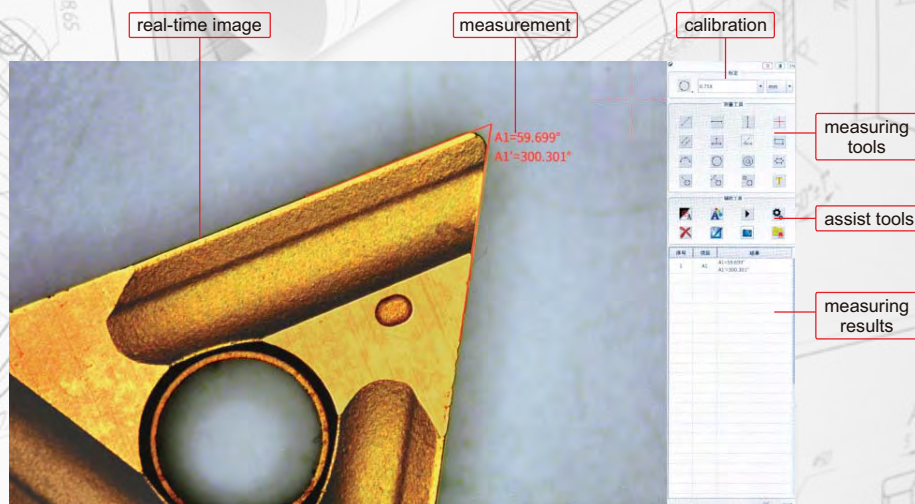
X-Y glass stage (optional)
(X-Y travel: 100×86mm)

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

SOFTWARE (INCLUDED)

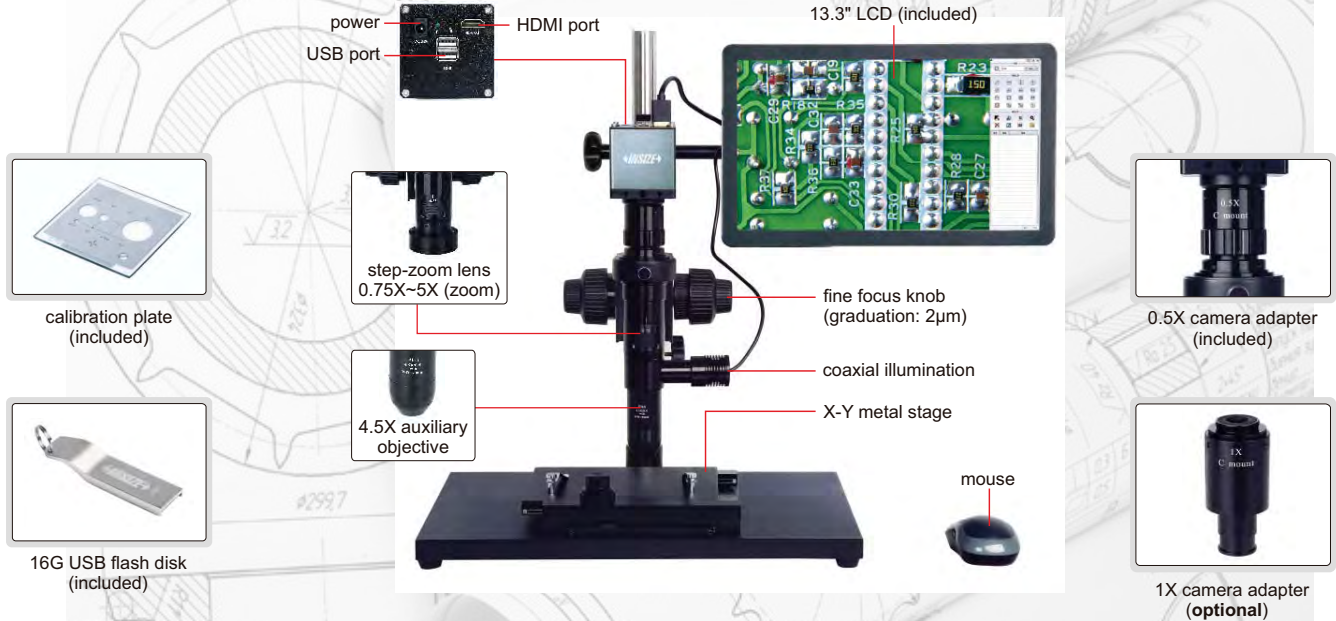
- Refer to page 623 for details



HIGH MAGNIFICATION MEASURING MICROSCOPE CODE ISM-DL302

SOFTWARE IS INCLUDED,
REFER TO PAGE 623 FOR DETAILS

OBSERVATION AND MEASUREMENT
AT HIGH MAGNIFICATION



- 1080P high-definition image
- Maximum 1000X optical magnification (using camera adapter 1X, optional)
- Built-in software without computer, operated by mouse
- Solid base and column to avoid lens shaking during focusing
- Software is included, refer to page 623 for details

SPECIFICATION

Magnification	78X~504X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	15kg

SATNDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
4.5X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
X-Y metal stage	1 pc

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
LED light	page 626~627

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.75X	78X	±5µm
1X	102X	±4µm
1.5X	153X	±4µm
2X	204X	±4µm
2.5X	255X	±4µm
3X	305X	±4µm
3.5X	356X	±4µm
4X	408X	±4µm
4.5X	458X	±4µm
5X	504X	±4µm

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

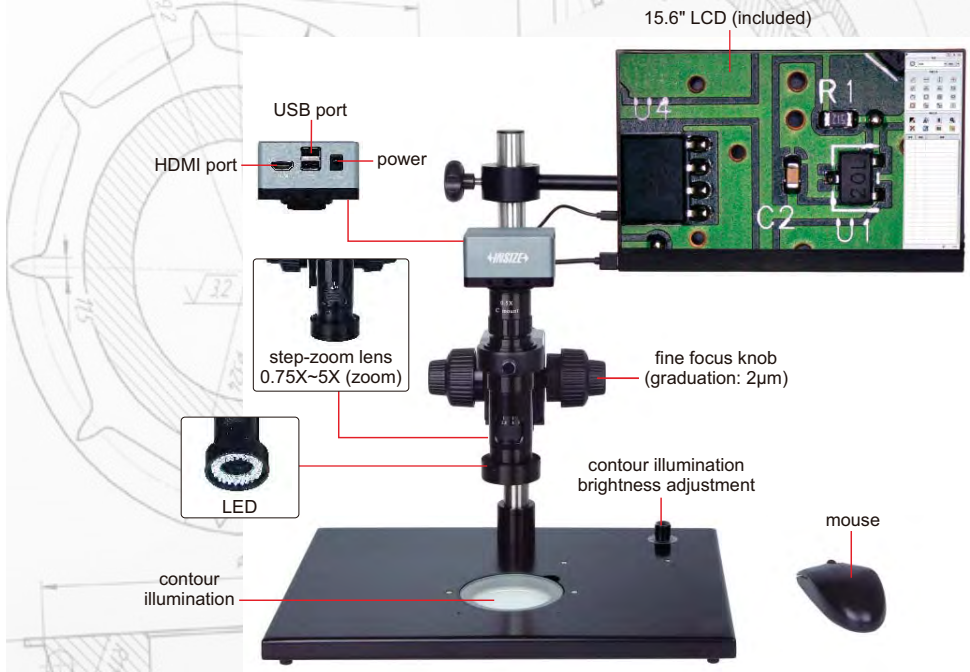
Camera adapter	0.5X (included)	1X (optional)
Magnification	78~504X	156~1008X
Focus distance	14±2mm	14±2mm
View field	2.8×1.7~0.5×0.3mm	1.4×0.9~0.3×0.2mm

BUILT-IN SOFTWARE
WITHOUT COMPUTER

TAKE
PICTURES

MEASUREMENT

4K DIGITAL MEASURING MICROSCOPE CODE 5310-DL401



- 4K high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

Magnification	17.6X-120X
Sensor	1/2.3" CMOS
Pixel	8M
Resolution	3840×2160
Frame rate	4K: 30fps, 1080P: 60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg



To be continued

Continued from previous page

MAGNIFICATION, VIEW FIELD AND MEASURING ACCURACY

Objective magnification	Image magnification	View field	Measuring accuracy
0.75X	17.6X	19.5×11.5mm	±5µm
1X	23.7X	14.0×8.0mm	±5µm
1.5X	36.6X	9.0×5.0mm	±5µm
2X	49X	7.0×4.0mm	±5µm
2.5X	62X	5.5×3.0mm	±4µm
3X	73X	4.5×2.5mm	±4µm
3.5X	85X	4.0×2.2mm	±4µm
4X	97X	3.5×2.0mm	±3µm
4.5X	109X	3.0×1.8mm	±3µm
5X	120X	2.7×1.5mm	±3µm

STANDARD DELIVERY

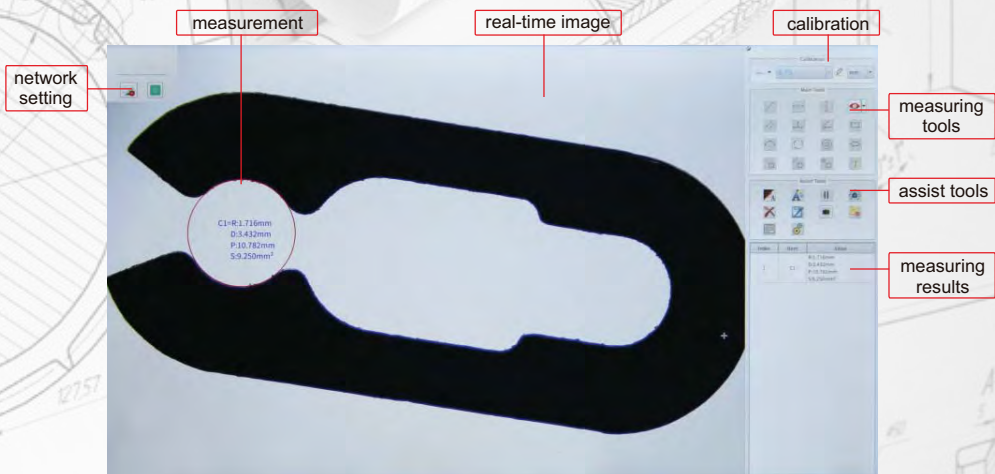
Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
X-Y metal stage (travel: 100×86mm)	ISM-DL-STAGE1
LED light	page 626~627
Auxiliary objective	page 628

SOFTWARE (INCLUDED)

- Refer to page 623 for details



MOTORIZED FOCUS STACKING

BUILT-IN SOFTWARE WITHOUT COMPUTER

MOTORIZED FOCUS STACKING MICROSCOPE (LARGE DEPTH OF VIEW) CODE ISM-DL520



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Motorized focus stacking
- Send photos and measurement data via ethernet (TCP/IP)
- Name photos and measurement data files with serial number of workpieces read by scanner

SPECIFICATION

Magnification	24.5X~204.5X
View field	2.8×1.6~18×10mm
Focus distance	65mm
Sensor	1/1.2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	30fps
Output	RJ45
Power supply	power adapter
Dimension (L×W×H)	320×260×500mm
Weight	7kg

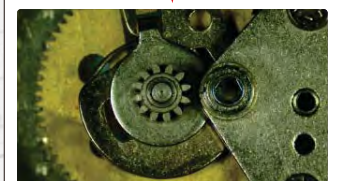
focus stacking



focus on the top

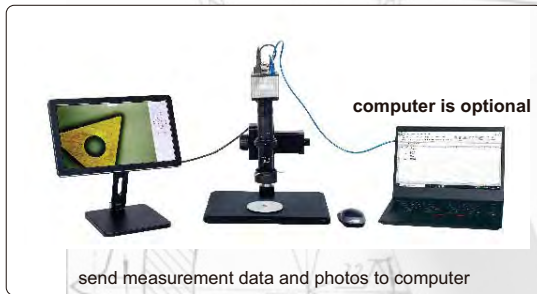


focus on the bottom



clear image of both top and bottom

Continued from previous page



MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.6X	24.5X	±8μm
0.8X	32.7X	±7μm
1X	40.9X	±6μm
1.5X	61.3X	±6μm
2X	81.8X	±6μm
2.5X	102.2X	±5μm
3X	122.7X	±5μm
3.5X	143.1X	±4μm
4X	163.6X	±4μm
4.5X	184.0X	±4μm
5X	204.5X	±4μm



calibration plate (included)



16G USB flash disk (included)

STANDARD DELIVERY

Main unit	1 pc
1X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
LED ring light	1 pc
White/black plate	1 pc
Power adapter	3 pcs

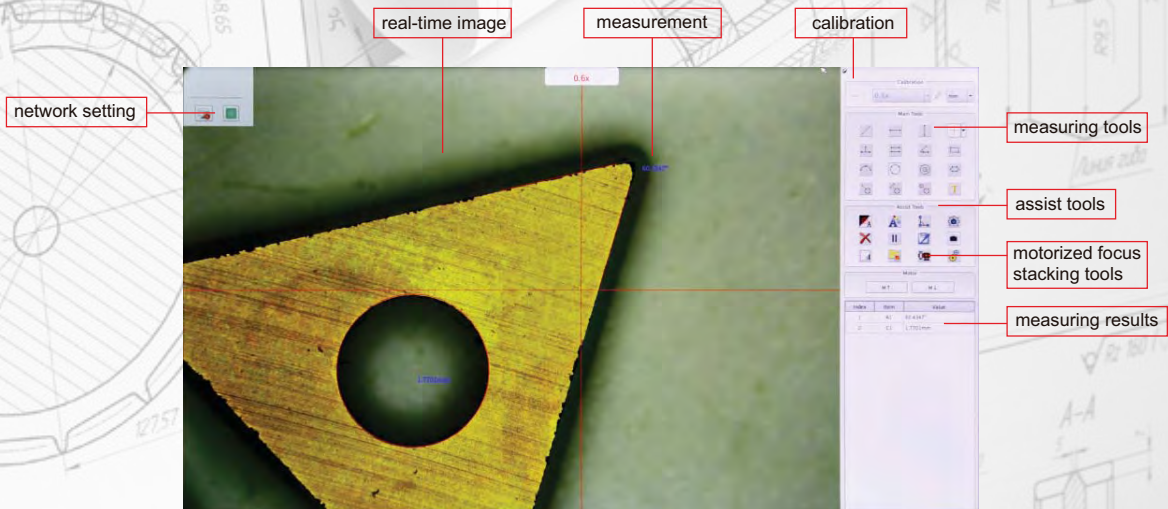


OPTIONAL ACCESSORY

X-Y metal stage (travel: 100×86mm)	ISM-DL-STAGE1
------------------------------------	---------------

SOFTWARE (INCLUDED)

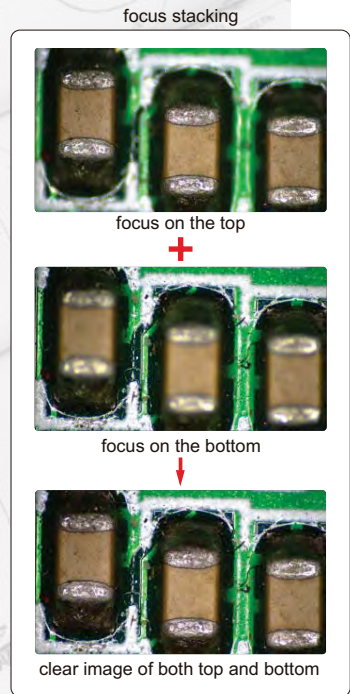
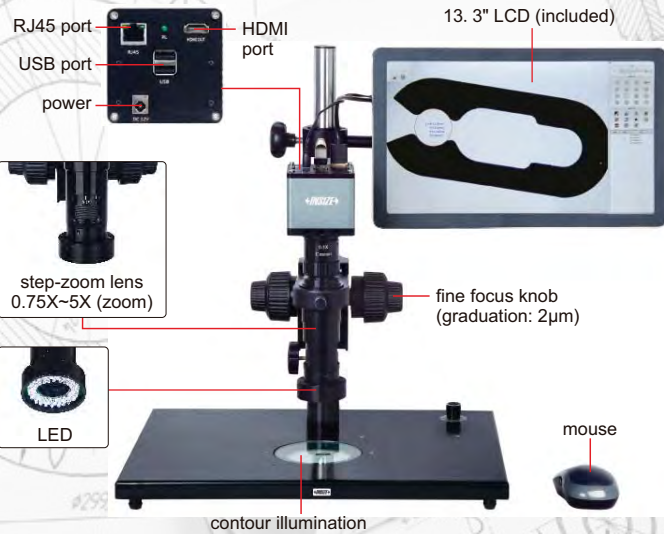
Refer to page 623 for details



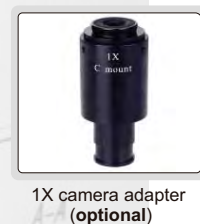
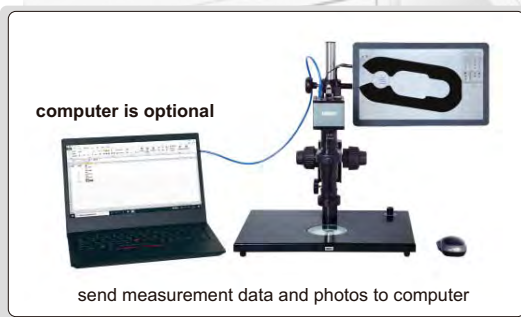
BUILT-IN SOFTWARE
WITHOUT COMPUTER

MANUAL FOCUS STACKING MICROSCOPE (LARGE DEPTH OF VIEW) CODE ISM-DL510

FOCUS
STACKING



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Focus stacking
- Send photos and measurement data via ethernet (TCP/IP)
- Name photos and measurement data files with serial number of workpieces read by scanner



SPECIFICATION

Magnification	15X~100X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
Scanner and hub	7328-SCAN
LED light	page 626-627
Auxiliary objective	page 628

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.75X	15X	±8µm
1X	20X	±7µm
1.5X	30X	±6µm
2X	40X	±6µm
2.5X	50X	±6µm
3X	60X	±5µm
3.5X	70X	±5µm
4X	80X	±4µm
4.5X	90X	±4µm
5X	100X	±4µm



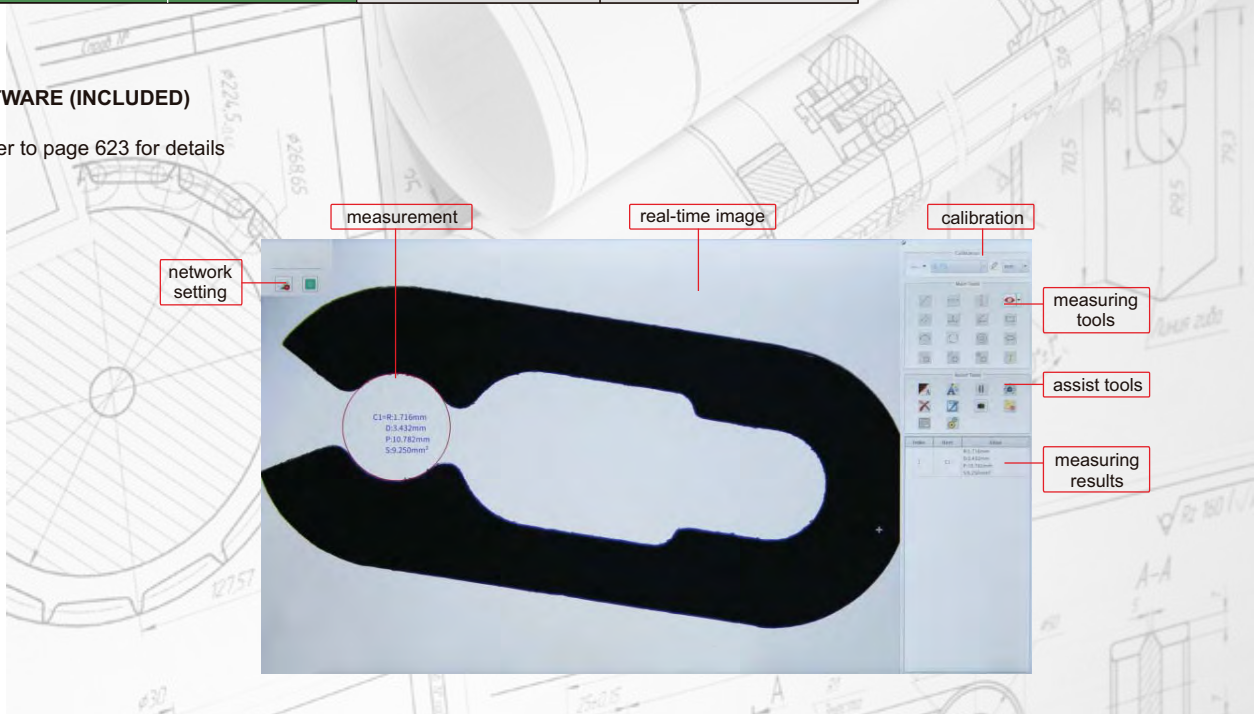
MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

25

SOFTWARE (INCLUDED)

- Refer to page 623 for details



HORIZONTAL MICROSCOPE CODE 5316-HM810



**BUILT-IN SOFTWARE
WITHOUT COMPUTER**

**TAKE
PICTURES**



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)



plastic calibration rule
(included, graduation 1mm)



16G USB flash disk
(included)

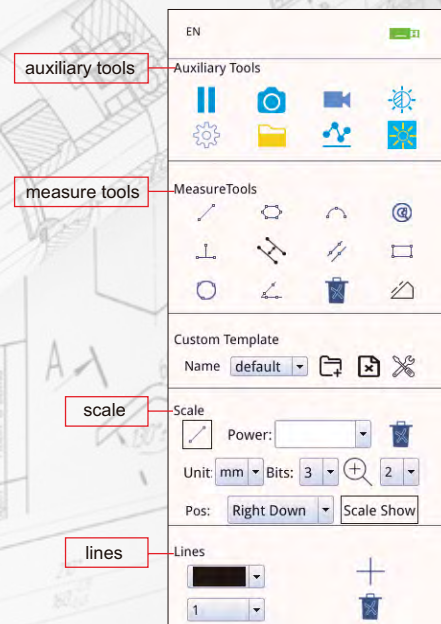
SPECIFICATION

Magnification	10.5X~62.5X
View field	4.5×2.5~28×12.3mm
Focus distance	115mm
Measuring accuracy	±0.02mm
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	1080P: 60fps/50fps
Output	HDMI
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	500×200×200mm
Weight	7kg

STANDARD DELIVERY

Main unit	1 pc
1X camera adapter	1 pc
1X auxiliary adapter	1 pc
Plastic calibration rule	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
LED ring light	1 pc

SOFTWARE (INCLUDED)

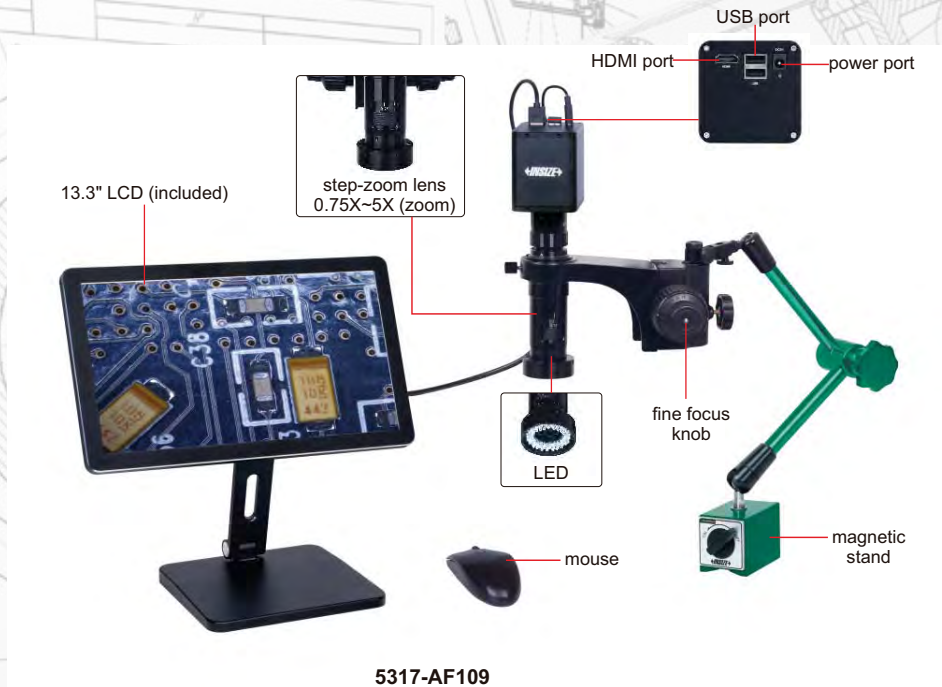


FLEXIBLE ARM AUTO FOCUS DIGITAL MICROSCOPES

AUTO FOCUS

TAKE PICTURES AND VIDEOS

MEASUREMENT

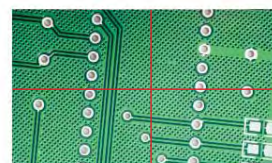


5317-AF109



5317-AF110

- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to USB flash disk
- Picture review, picture compare
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse
- Flexible arm



display cross hair (blue/green/red/yellow/black/brown colors)

To be continued

Continued from previous page

SPECIFICATION

Code	5317-AF109 (with magnetic stand)	5317-AF110 (with desktop clamp)
Magnification	20X~123X	
Sensor	1/2.8" CMOS	
Pixel	2M	
Resolution	1920×1080	
Frame rate	60fps	
Power supply	power adapter	
Dimension (height)	480mm	600mm
Weight	5.6kg	8.5kg



calibration plate
(included)



16G USB flash disk
(included)



0.5X camera adapter
(included)



1X auxiliary objective
(included)

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	20~123X	40~246X
	focus distance	48~84mm	48~84mm
	view field	13×7~2.2×1mm	6.3×3.5~1.1×0.5mm
	measuring accuracy	±0.02mm	±0.02mm
2X (optional)	magnification	40~246X	80~492X
	focus distance	24~42mm	24~42mm
	view field	6.5×3.5~1.1×0.5mm	3.3×1.8~0.6×0.3mm
	measuring accuracy	±0.02mm	±0.02mm

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

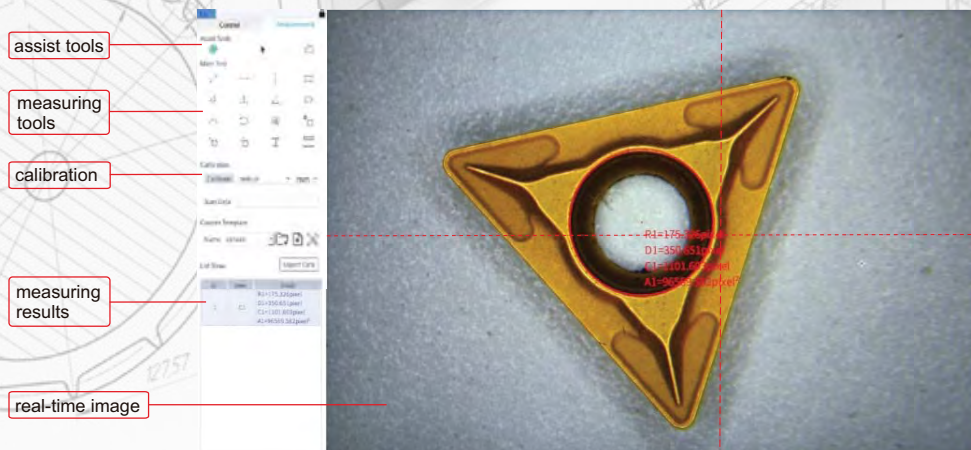
AUTO FOCUS DISTANCE

Zoom objective scale	0.75X	1X	1.5X	2X	2.5X
Auto focus distance	48~84mm	50~78mm	55~73mm	62~71mm	65~70mm
Zoom objective scale	3X	3.5X	4X	4.5X	5X
Auto focus distance	66~70mm	67~70mm	68~70mm	68~70mm	68~70mm

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
Auxiliary objective	page 628

MEASURING SOFTWARE (INCLUDED)



DIGITAL MEASURING MICROSCOPE (BASIC TYPE) CODE 5307-ID100A

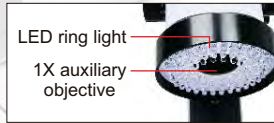
ELECTRONIC MAGNIFICATION
FEEDBACK LENS

BUILT-IN SOFTWARE
WITHOUT COMPUTER



- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed
- Two methods of LED brightness adjustment, knob adjustment and software adjustment
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel

adjustable display angle



11.6" LCD (included)

USB ports

objective magnification adjustment (0.7X~4.5X)

focus adjustment

illumination brightness adjustment

power on/off

mouse

SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	12~77X
Focus distance	65mm
View field	3.2×1.8~20.9×11.7mm
Max. workpiece height	60mm
Frame rate	60fps
Output	USB/HDMI
Power supply	power adapter
Dimension (L×W×H)	260×320×500mm
Weight	5.2kg

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Magnification	Measuring accuracy
0.7X	12X	±9µm
1X	17X	±9µm
1.5X	26X	±8µm
2X	35X	±7µm
2.5X	43X	±7µm
3X	51X	±7µm
3.5X	60X	±6µm
4X	68X	±6µm
4.5X	77X	±5µm

STANDARD DELIVERY

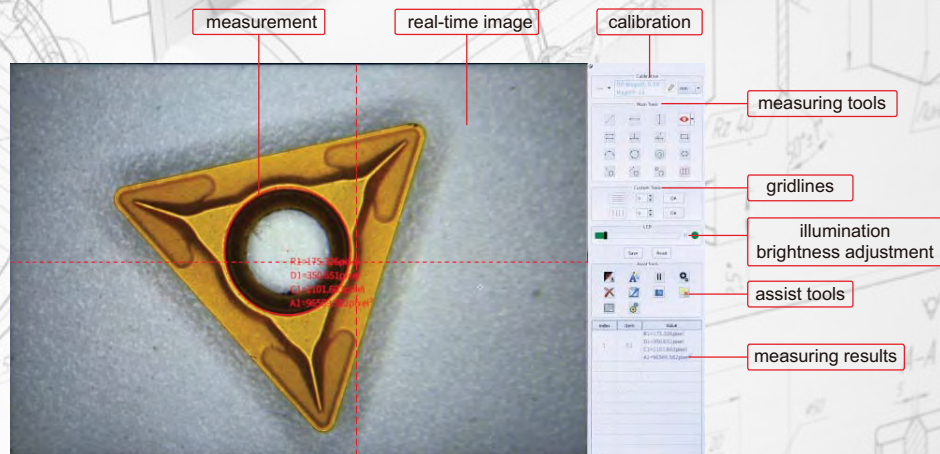
Main unit	1 pc
Calibration plate	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc

OPTIONAL ACCESSORY

0.5X auxiliary objective	5307-ID100A-OB05X
0.75X auxiliary objective	5307-ID100A-OB075X
2X auxiliary objective	5307-ID100A-OB2X

SOFTWARE (INCLUDED)

- Refer to page 623 for details



measurement

real-time image

calibration

measuring tools

gridlines

illumination brightness adjustment

assist tools

measuring results

LARGE DEPTH OF VIEW DIGITAL MEASURING MICROSCOPE (ADVANCED TYPE) CODE 5322-ID250A

DUAL SCREEN
OPERATION

FOCUS
STACKING

ELECTRONIC MAGNIFICATION
FEEDBACK LENS

PROGRAMMABLE
SEGMENTED RING LIGHT



adjustable display angle



eight-zone LED ring light



- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed
- Send photos and measurement data via ethernet (TCP/IP)
- Digital magnification
- Can be connected to display and computer at the same time
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel



16G USB flash disk (included)



calibration plate (included)

SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	12~77X
Focus distance	60mm
View field	3.2×1.8~20.9×11.7mm
Max. workpiece height	53mm
Frame rate	60fps
Output	USB/HDMI/LAN
Power supply	power adapter
Dimension (L×W×H)	260×320×500mm
Weight	5.2kg

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Magnification	Measuring accuracy
0.7X	12X	±9μm
1X	17X	±9μm
1.5X	26X	±8μm
2X	35X	±7μm
2.5X	43X	±7μm
3X	51X	±7μm
3.5X	60X	±6μm
4X	68X	±6μm
4.5X	77X	±5μm

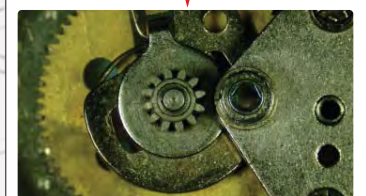
focus stacking



focus on the top



focus on the bottom



clear image of both top and bottom

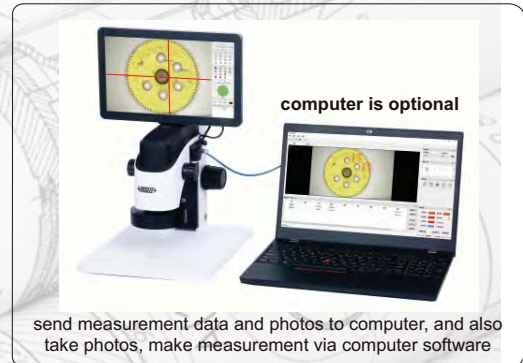
Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
Calibration plate	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc

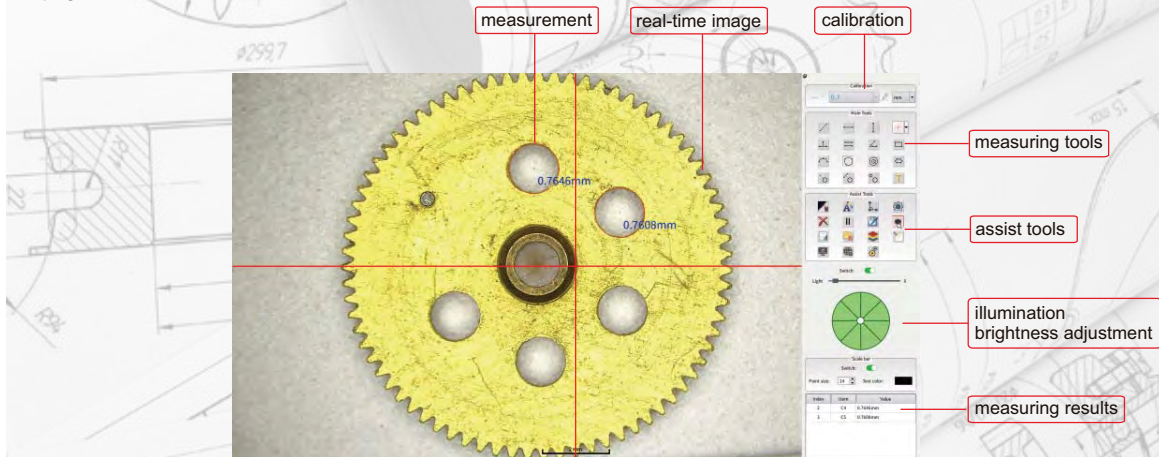
OPTIONAL ACCESSORY

0.5X auxiliary objective	5307-ID100A-OB05X
0.75X auxiliary objective	5307-ID100A-OB075X
2X auxiliary objective	5307-ID100A-OB2X

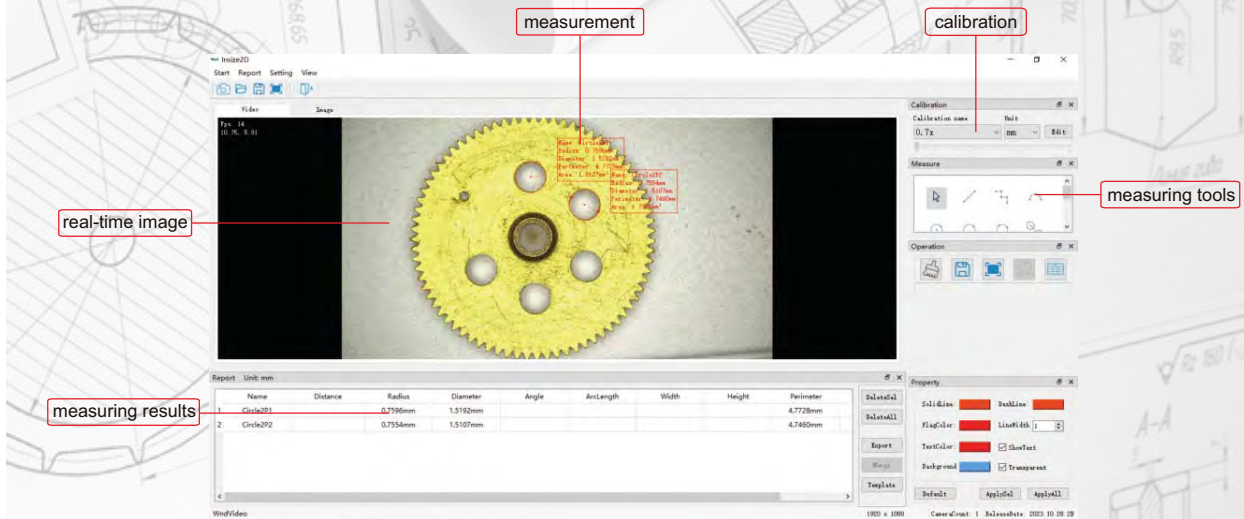


SOFTWARE FOR LCD (INCLUDED)

■ Refer to page 623 for details



SOFTWARE FOR COMPUTER (INCLUDED)



- NO CALIBRATION AFTER ZOOM
- TAKE PICTURES AND VIDEOS
- MEASUREMENT
- MOTORIZED ZOOM
- MOTORIZED LIGHT CONTROL
- AUTO FOCUS

AUTO FOCUS DIGITAL MICROSCOPE (PROFESSIONAL TYPE) CODE 5319-AF290



- Auto focus camera
- Take pictures and videos
- Built-in measuring software
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display actual magnification
- Digital magnification
- Shortcut keyboard operation
- Display cross hair and gridline (blue/green/red/yellow/black/white colors)

shortcut keyboard (included)

Shortcut keyboard function

- Take picture: take a picture and save it
- Video: record a video
- Freeze: the image can be frozen
- Manual focus-: reduce the manual focus value
- Manual focus+: increase the manual focus value
- Zoom+: increase the magnification
- Zoom-: reduce the magnification
- AF/MF: switch to auto focus or manual focus
- FBL: center the camera motor
- Mirror: image horizontal flipover
- Flip: image vertical flipover
- Focus: achieve one-key focus
- Zoom 1, 2, 3, 4: save the current magnification
- Brightness+: increase the brightness of the light
- Brightness-: reduce the brightness of the light

SPECIFICATION

Magnification	27.4X~163X
Sensor	1/2.8" CMOS
Pixel	2M
Measuring accuracy	±0.02mm
Resolution	1920×1080
Frame rate	50/60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	600×280×390mm
Weight	6.5kg

STANDARD DELIVERY

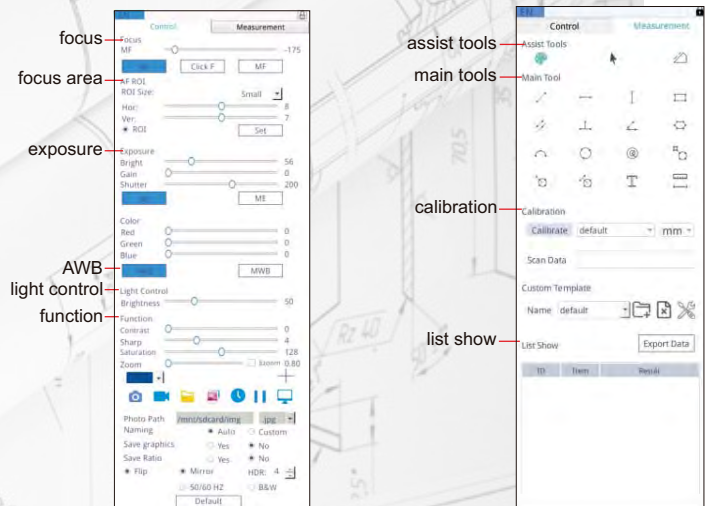
Main unit (with stand)	1 pc
21.5" LCD	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Calibration plate	1 pc
White/black plate	1 pc
Shortcut keyboard	1 pc
Power adapter	2 pcs

FOCUS DISTANCE AND VIEW FIELD

Optical magnification	0.8X	1X	2X	3X	4X	4.76X
Focus distance	88~133mm	88~133mm	98~123mm	103~115mm	108~111mm	108~111mm
View field (mm)	19.4×11~15.8×8.8	15×8.3~12.7×7.2	7.1×4~6.7×3.8	4.8×2.7~4.5×2.5	3.6×2~3.3×1.8	3×1.7~2.8×1.6

* The optical zoom lens can be arbitrarily zoomed between 0.8X and 4.76X

SOFTWARE (INCLUDED)

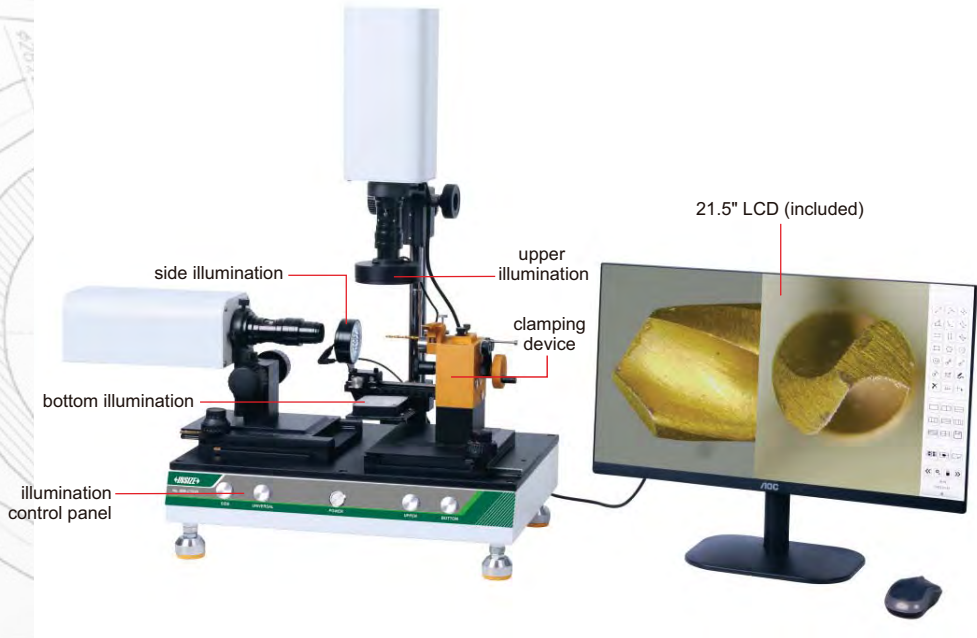


CUTTING TOOLS MICROSCOPE CODE ISM-CT820

TAKE PICTURES
AND VIDEOS

BUILT-IN SOFTWARE
WITHOUT COMPUTER

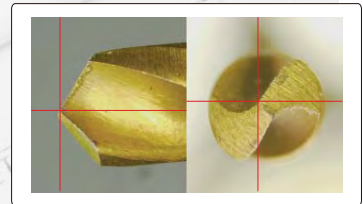
SPLIT SCREEN
DESIGN



- Split screen design, zoom in and out independently
- One mouse can operate two cameras
- Display cross hairs
- Brightness, contrast ratio, white balance are adjustable
- Basic measuring tools including point to point, point to line, line to line, angle, three-point circle, etc.



glass calibration plate (included)



display cross hairs separately (movable)

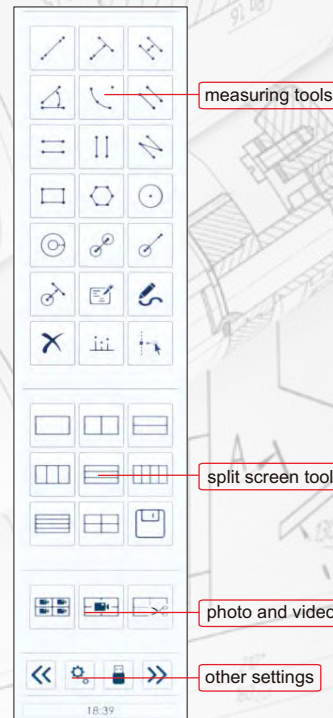
SPECIFICATION

Cutting tools range	Ø4~12mm, length 30-75mm
Lens	step-zoom lens
Output	HDMI
Resolution	1920×1080
Frame rate	60fps
Focus distance	85mm
View field	2×3.5~13.2×23.9mm
Magnification	20-132X
Power supply	AC 100-240V
Dimension (L×W×H)	450×300×700mm
Weight	20kg

STANDARD DELIVERY

Main unit	1 pc
Display	1 pc
32G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Glass calibration plate	1 pc
Anti-dust cover	1 pc

SOFTWARE (INCLUDED)



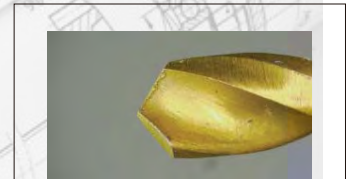
measuring tools

split screen tool

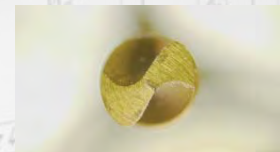
photo and video

other settings

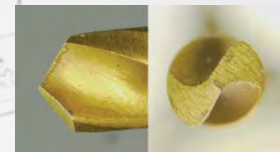
screen display



single screen display



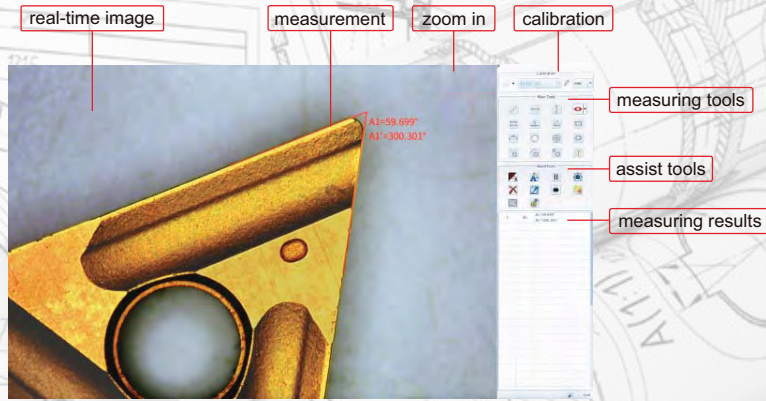
single screen display



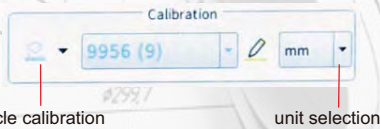
split screen display

SOFTWARE CAN BE CUSTOMIZED

MEASURING SOFTWARE OF DIGITAL MICROSCOPES



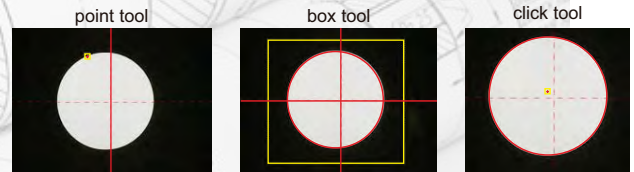
- Included in digital microscopes (ISM-DL300, ISM-DL301, 5310-DL401, ISM-DL302, ISM-DL510, ISM-DL520, 5307-ID100A)
- Language: Simplified Chinese, Traditional Chinese, English, Korean
- Calibration:



circle calibration

unit selection

Edge-detection:



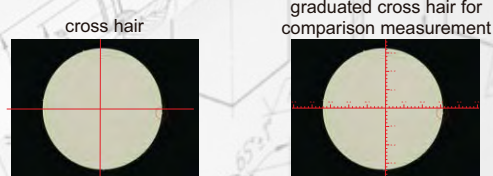
Measurement tools:

- | | | |
|--|---|---|
| measure length of line or distance between two points | measure length of line or distance between two points in horizontal direction | measure length of line or distance between two points in vertical direction |
| measure angle from horizontal line | measure angle from vertical line | measure angle of two lines |
| measure distance between two parallel lines | measure distance between two parallel lines | measure distance between multiple parallel lines |
| measure distance between point and line | measure radius, length and angle of arc | measure girth and area of polygon |
| measure radius, diameter, girth and area of circle with three points | measure radius, diameter, girth and area concentric of circles | measure length, width, girth and area of rectangle |
| measure minimum distance between point and circle | measure distance between point and center of circle | measure maximum distance between point and circle |
| measure minimum distance between line and circle | measure distance between line and center of circle | measure maximum distance between line and circle |
| measure minimum distance between two circles | measure center distance between two circles | measure maximum distance between two circles |
| add text | measure radius, diameter, girth and area of circle with two points | cross hair and graduated cross hair |

Assist tools:

- | | |
|--------------------------------------|-----------------------------------|
| manual/automatic point selection | delete images |
| line width and color settings | export measurement data to U disk |
| freeze screen | take pictures and save |
| camera parameter settings | review pictures |
| layout settings of measurement items | system settings |

Cross hair:



Grid comparison measurement:



full-screen grid for comparison measurement, adjustable grid number

Output to Excel:

1	A1	A1=59.699°
		A1'=300.301°

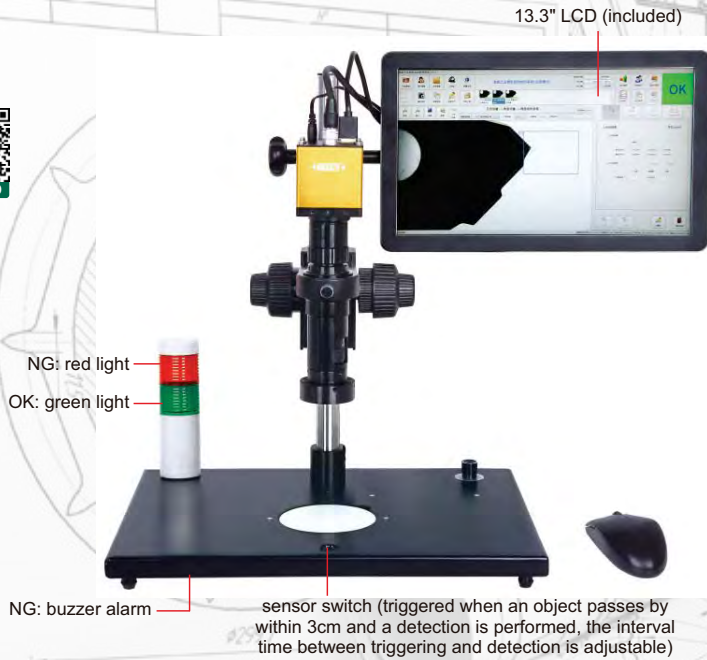
Comparison:

set the standard workpiece as the background image, superimpose the measured workpieces on the image for quick comparison

SMART MICROSCOPE CODE ISM-DL400

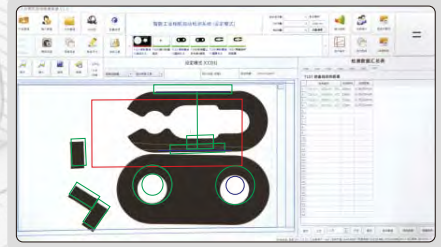
**AUTOMATICALLY LOCATE WORKPIECES
REGARDLESS OF POSITION AND DIRECTION**

**BUILT-IN SOFTWARE
WITHOUT COMPUTER**



- camera function
- surface defect detection
 - dimension measurement
 - read barcode
 - burr detection
 - contour matching
 - character recognition
 - color detection
 - read QR code
 - object counting
 - thread measurement

detect different workpieces at one time



- Automatically identify different workpieces
- Automatically locate workpieces regardless of position and direction
- Built-in software, PLC control input and output interface
- Including multiple detection tools
- Automatically calculate, store the test results and sent to Excel

report showing the perform times of each tool, quantity of OK and NG, the report can be saved

Serial	Part Name	Detection time	OK Count	NG Count	Unit Price	Detection rate
T102	Part Name	400	100	100	100.00	50.00%
T103	Cluster	100	10	20	10.00	33.33%
Summary		500	200	200	200.00	50.00%

report of each detection is automatically created and saved

Serial	Detection Number	Detection time	Detection color	Number of lights	Maximum value
1	T00101_001001_001	31ms	白色	0	0.0000mm
2	T00101_001101_001	31ms	白色	0	0.0000mm
3	T00101_001201_001	31ms	白色	0	0.0000mm

SPECIFICATION

Magnification	15X~100X
Resolution	1920×1080
Pixel	2M
Single pixel size	3.75×3.75μm
Frame rate	60fps
Sensor	1/2" CMOS
Chip structure	FPGA+ARM
Operation system	Linux 3.10
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

OPTIONAL ACCESSORY

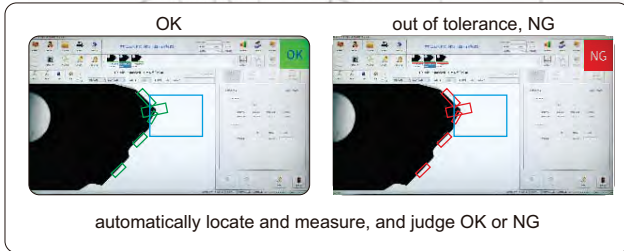
1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
LED light	page 626~627
Auxiliary objective	page 628

To be continued

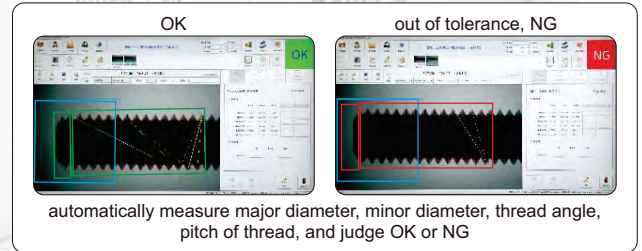
Continued from previous page

■ APPLICATION EXAMPLES:

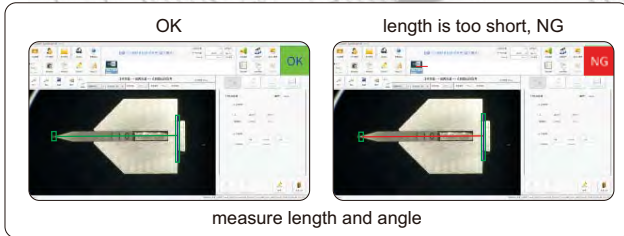
dimension measurement



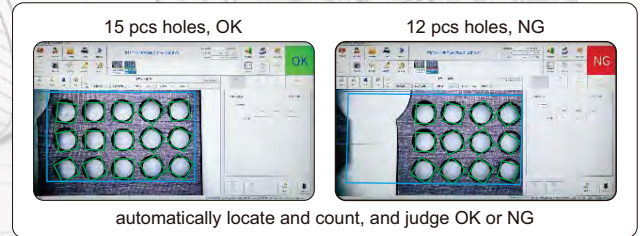
thread measurement



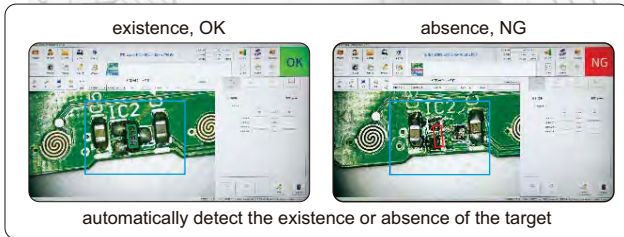
cutting tools measurement



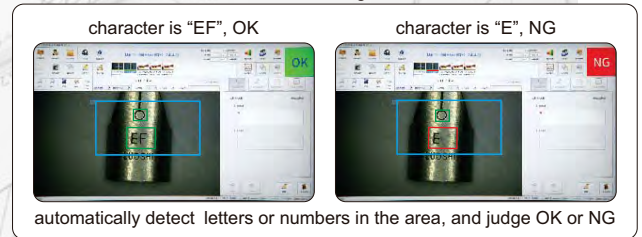
counting



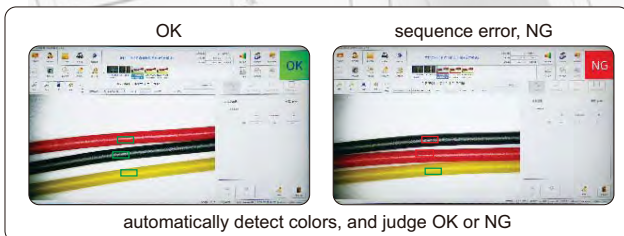
existence or absence



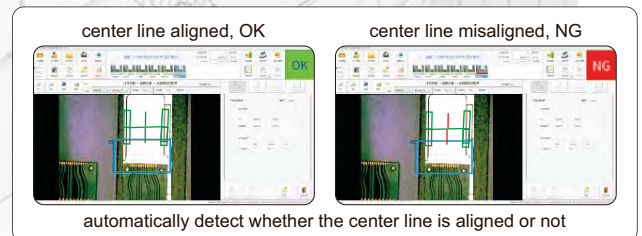
character recognition



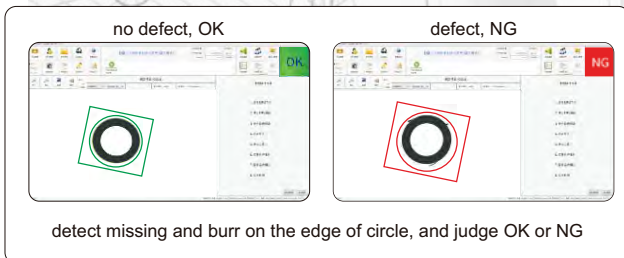
color detection



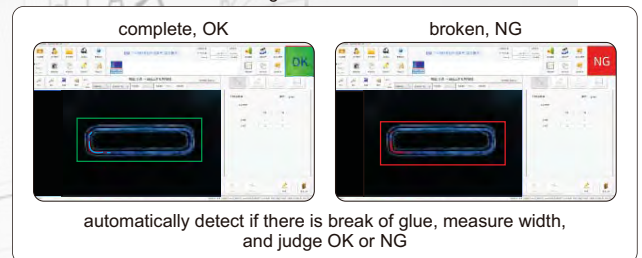
location detection



surface defect detection



glue detection



X-Y METAL STAGE CODE ISM-DL-STAGE1

- Suitable for digital microscopes 5315-S710, 5301-D400, 5313-S407, 5310-DL401, 5303-AF103, ISM-DL300, ISM-DL301, ISM-DL302, ISM-DL520

SPECIFICATION

X-Y travel range	100×86mm
Dimension (L×W×H)	180×180×50mm
Weight	2.3kg



LED RING LIGHT CODE ISM-LED-9245R

- Diffuser plate is included to reduce the reflective effect on workpieces
- Suitable for digital microscopes 5303-AF103, 5310-DL401, ISM-DL300, ISM-DL301, ISM-DL302, ISM-DL400, ISM-DL510, 5315-S710

SPECIFICATION

Light color	white
Power supply	24V
Power	5.5W
Angle	45°
Outside/inside diameter	92/52mm

RED, GREEN, BLUE, INFRARED AND UV LIGHT CAN BE CUSTOMIZED

ATTENTION: MUST BE USED WITH LIGHT BRACKET AND LIGHT CONTROLLER



LED SQUARE LIGHT CODE ISM-LED-100L4

- Diffuser plate is included to reduce the reflective effect on workpieces
- Angle and brightness can be adjusted independently
- Suitable for digital microscopes 5303-AF103, 5310-DL401, ISM-DL300, ISM-DL301, ISM-DL302, ISM-DL400, ISM-DL510, 5315-S710

SPECIFICATION

Light color	white
Power supply	24V
Power	10.36W
Angle	0~90°
Dimension (L×W×H)	154×154×30mm

RED, GREEN, BLUE, INFRARED AND UV LIGHT CAN BE CUSTOMIZED

ATTENTION: MUST BE USED WITH LIGHT BRACKET AND LIGHT CONTROLLER



DIGITAL LIGHT CONTROLLER CODE ISM-LED-CTRL

- 256 (0-255) steps of brightness adjustment
- With power off memory function and short circuit protection function
- Suitable for ISM-LED-100L4, ISM-LED-9245R

SPECIFICATION

Power supply	100~240V, 50/60HZ
Output power (rated)	60W
Output voltage (rated)	24V
Dimension (L×W×H)	145×118×83mm



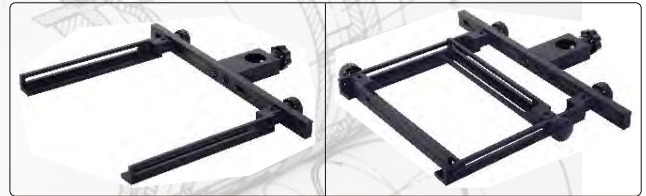
BRACKET FOR LIGHTS CODE ISM-LED-BRACKET



L-shape metal

- 4 pcs L-shape bars are included, multiple combinations can be realized
- Suitable for ISM-LED-100L4, ISM-LED-9245R

application



SPECIFICATION

Size (L×W×H)	260×300×20mm
Weight	0.7kg

DUAL HEAD LED LIGHT CODE ISM-ZS-LED

- Adjustable illumination
- For digital and stereo microscopes

SPECIFICATION

Power	3W
Power supply	100~240V
Working	10000h
Illumination	10000lux



application



LED AUXILIARY LIGHT CODE ISM-DL-LED

- Suitable for digital microscopes 5303-AF103, 5310-DL401, ISM-DL300, ISM-DL301, ISM-DL302, ISM-DL400, ISM-DL510, 5315-S710

SPECIFICATION

Power	8W
Diameter of mounting hole	Ø25mm
Power supply	10~12V, 0~300mA



brightness adjustment knob



illumination direction and brightness are adjustable

COAXIAL LIGHT CODE ISM-DL-COAXIAL

- Suitable for digital microscopes 5303-AF103, 5310-DL401, ISM-DL300, ISM-DL301, ISM-DL302, ISM-DL400, ISM-DL510, 5315-S710

SPECIFICATION

Power	1W
Power supply	0~3.4V, 0~400mA



brightness adjustment knob



for smooth surfaces and small holes, brightness is adjustable

AUXILIARY OBJECTIVES



0.3X auxiliary objective*
ISM-DL-OB03X



0.5X auxiliary objective*
ISM-DL-OB05X



0.75X auxiliary objective*
ISM-DL-OB075X



1X auxiliary objective
ISM-DL-OB1X



1.5X auxiliary objective
ISM-DL-OB1D5X



2X auxiliary objective
ISM-DL-OB2X

- Suitable for digital microscopes 5303-AF103, 5310-DL401, ISM-DL300, ISM-DL301, ISM-DL302, ISM-DL400, ISM-DL510, 5315-S710, 5317-AF109, 5317-AF110

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD (5303-AF103)

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
0.3X (optional)	magnification	6~37X	12~74X
	focus distance	120~310mm	120~310mm
	view field	52×30~8×5mm	26×15~4×2.5mm
0.5X (optional)	magnification	10~61X	20~123X
	focus distance	78~230mm	78~230mm
	view field	37×20~5×3mm	18×10~2.5×1.5mm
0.75X (optional)	magnification	15~92X	30~184X
	focus distance	60~125mm	60~125mm
	view field	21×13~3.4×2mm	10×6.5~1.7×1mm
1X (included)	magnification	20~123X	40~246X
	focus distance	48~84mm	48~84mm
	view field	15×8~2.5×1.5mm	7.5×4~1.3×0.7mm
1.5X (optional)	magnification	30~184X	60~368X
	focus distance	36~63mm	36~63mm
	view field	10×6~1.7×1mm	5×3~0.9×0.5mm
2X (optional)	magnification	40~246X	80~492X
	focus distance	24~42mm	24~42mm
	view field	7.5×4~1.3×0.7mm	3.8×2~0.7×0.4mm

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD (ISM-DL300, ISM-DL301, ISM-DL510)

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
0.3X (optional)	magnification	5~34X	10~68X
	focus distance	287±2mm	287±2mm
	view field	42×26~6.5×4.5mm	21×13~3.3×2.3mm
0.5X (optional)	magnification	9~56X	18~112X
	focus distance	166±2mm	166±2mm
	view field	25.6×16.8~5×3.5mm	12.8×8.4~2×1.3mm
0.75X (optional)	magnification	13~84X	26~168X
	focus distance	105±2mm	105±2mm
	view field	17×10.5~2.6×1.7mm	8.5×5.3~1.3×0.9mm
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view field	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
1.5X (optional)	magnification	26~168X	52~336X
	focus distance	42±2mm	42±2mm
	view field	8.5×5.2~1.3×0.9mm	4.3×2.6~0.7×0.5mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view field	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

*For auxiliary objectives 0.3X, 0.5X, 0.75X, use contour illumination of ISM-DL301, ISM-DL510, 5310-DL401 or LED light

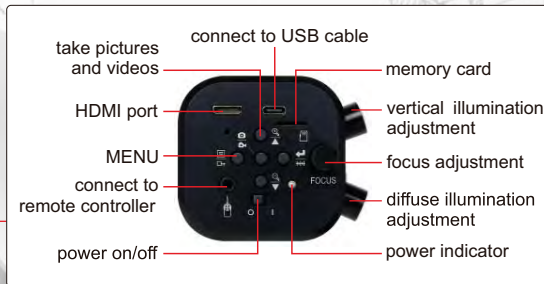
DIGITAL MICROSCOPES

MEASUREMENT

TAKE PICTURES AND VIDEOS



5309-DM50



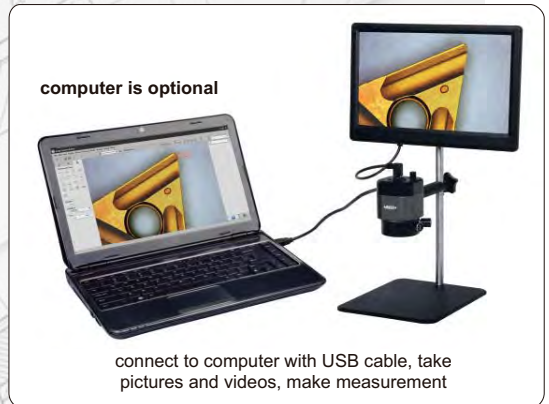
5309-DM51

- Independent control of vertical illumination and diffuse illumination
- Back focus adjustment extends working distance
- Take pictures and videos, save to memory card



SPECIFICATION

Code	5309-DM50	5309-DM51
Arm type	straight	universal
Sensor	1/2.8" CMOS	
Pixel	2M	
Resolution	1920×1080	
Exposure	real-time auto, single auto, manual adjustment	
White balance	real-time auto, single auto, manual RGB adjustment	
Record format	pictures: JPG videos: MOV	
Record media	memory card	
Working distance	45~169mm	42~195mm
Magnification	9~41X	7.6~49.4X
View field	7.6×4~38.5×21.7mm	7×4~45×25mm
Power supply	DC12V 3A	



USE COMPUTERS, OPTIONAL

Image magnification	View field	Measuring accuracy
9.0X	38.5×21.7mm	±0.02mm
13.0X	26.6×15.0mm	±0.02mm
17.0X	20.5×11.7mm	±0.02mm
22.0X	16.0×9.0mm	±0.02mm
28.5X	11.9×6.3mm	±0.02mm
34.0X	9.8×5.5mm	±0.01mm
41.0X	7.6×4.1mm	±0.01mm

STANDARD DELIVERY

Main unit	1 pc
Memory card and holder	1 pc
Plastic calibration rule (graduation 1mm)	1 pc
White/black plate	1 pc
Remote controller	1 pc
USB cable	1 pc
Measuring software	1 pc
Power adapter	1 pc

To be continued

Continued from previous page



remote controller (included)



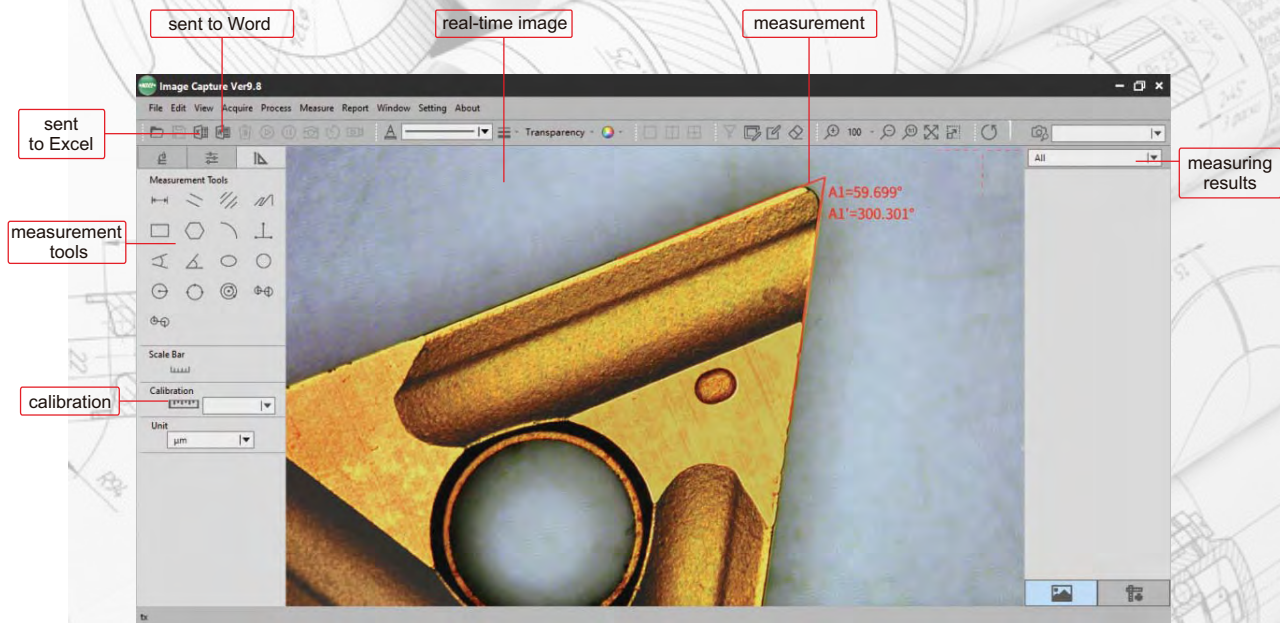
white/black plate (included)



plastic calibration rule (graduation 1mm, included)

SOFTWARE FOR COMPUTER

- Language: Chinese (Simplified), English, French, Chinese (Traditional), Portuguese, Korean, Japanese
- Operation system: Windows 7/8/8.1/10 (64bit)

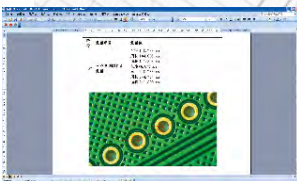


Measurement tools:

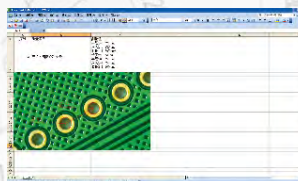
- | | | | |
|--|-------------------------------------|--|---------------------------------------|
| straight line distance measurement | parallel lines distance measurement | centre distance between parallel lines measurement | polyline line measurement |
| rectangular measurement | polygon measurement | arc measurement | three-vertical-line measurement |
| four-point perspective measurement | angle measurement | ellipse measurement | round measurement |
| circle measurement by radius | circle measurement by 3-point | torus measurement | center distance measurement by radius |
| center distance measurement by 3-point | | | |

Data is sent to Word or Excel:

sent to word



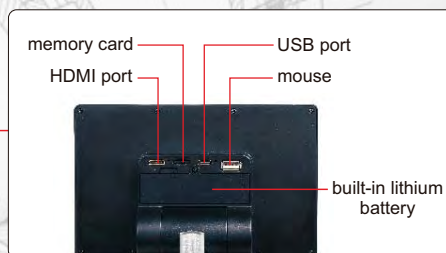
sent to excel



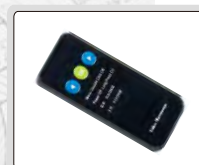
TAKE PICTURES AND VIDEOS

BUILT-IN LITHIUM BATTERY

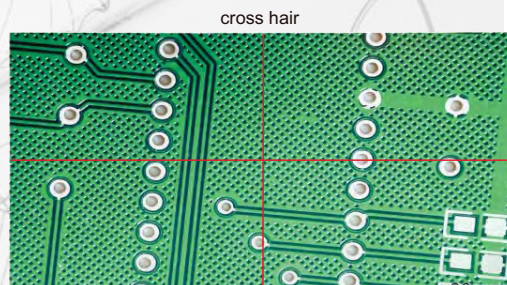
MINI DIGITAL MICROSCOPE (ECONOMIC TYPE) CODE 5311-M710



8G memory card and holder (included)



infrared ray remote controller (included)



cross hair



grid (color, line width and positions are adjustable)

SPECIFICATION

Display resolution	1024×600
Sensor	1/3" CMOS
Sensor resolution	1280×960
Single pixel size	2μm×2μm
Frame rate	60fps/30fps
Magnification	1X~16X
White balance	auto/manual (10 levels RGB)/calibration
Exposure control	AE lock/exposure compensation (10 levels)
Image control	contrast/saturation/sharpness
Record media	memory card
Output	HDMI
Power supply	built-in lithium battery/power adapter
Dimension (L×W×H)	174×200×350mm
Weight	1.5kg

STANDARD DELIVERY

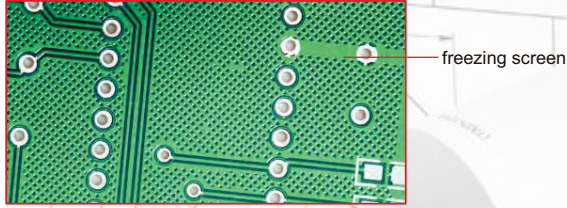
Main unit	1 pc
USB cable	1 pc
HDMI cable	1 pc
IR remote controller	1 pc
8G memory card and holder	1 pc
Plastic calibration rule	1 pc
Power adapter	1 pc

To be continued

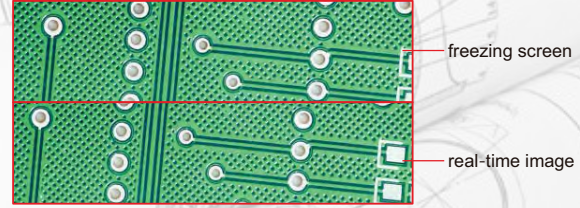
Continued from previous page

■ **Screen freezing:**

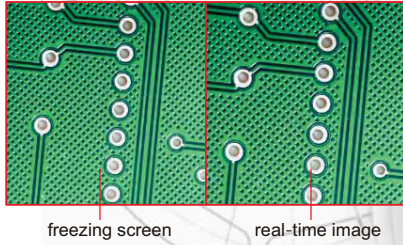
full screen



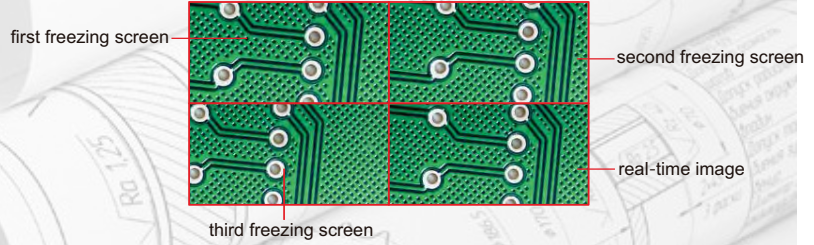
up-down split screen



left-right split screen



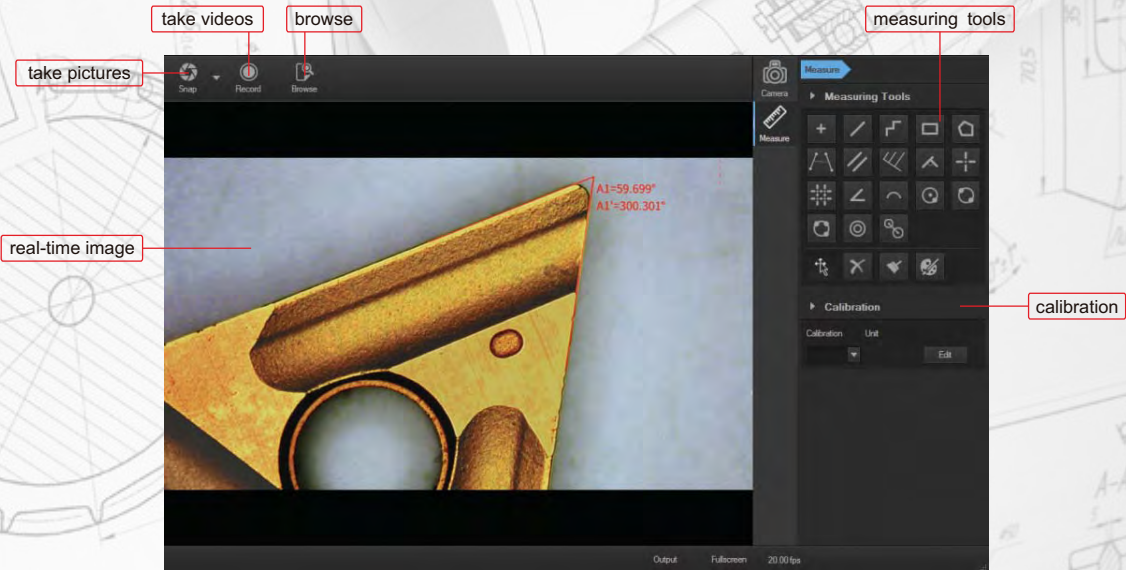
1/4 split screen



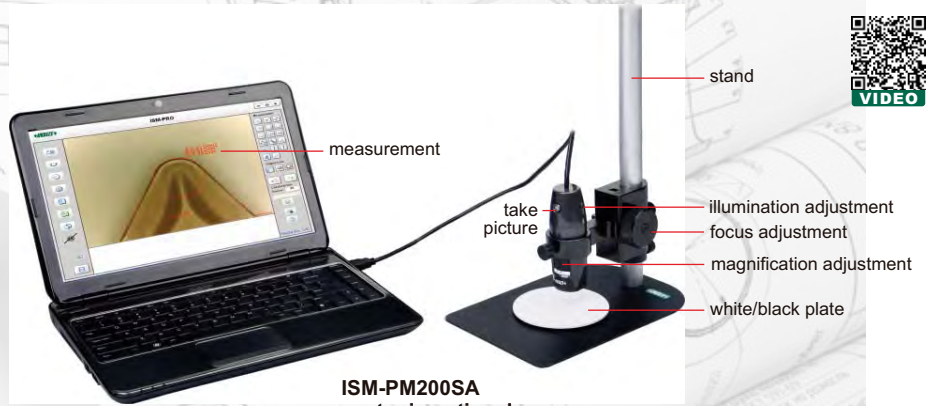
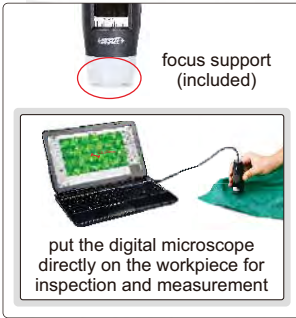
SOFTWARE FOR COMPUTER (included)

- **Language:** Chinese (Simplified), English
- **Operation system:** Windows 7/8/8.1/10 (64bit)
- **Port:** USB2.0 or above
- **Measuring accuracy:** 0.02mm

- | | | | |
|------------------------------|--------------------------------------|---------------------------------|---|
| point counting | straight line length | continuous line length | area of a rectangle |
| area of a polygon | distance between 2 lines | distance between parallel lines | distance between line and first parallel line |
| point-line distance | cross line | double cross line | angle |
| arc | radius of a circle | radius of a 2-point circle | radius of a 3-point circle |
| center distance of 2 circles | center distance of concentric circle | | |



DIGITAL MEASURING MICROSCOPES



- Can take pictures and videos
- Supplied with software
- Calibration rules (graduation 0.1 and 1mm) are included
- With focus support

ISM-PM200SA
computer is optional

SPECIFICATION

Code	ISM-PM200SA	ISM-PM200SB
Magnification	10X~200X	10X~200X
Stand	standard	universal
Pixel	2M (resolution: 1600×1200)	
Illumination	built-in adjustable LED	
Power supply	USB 2.0 cable (voltage required: 5±0.1V)	

universal stand (included in ISM-PM200SB)



filter (optional)



OPTIONAL ACCESSORY

Green filter	ISM-PM-GREEN
Yellow filter	ISM-PM-YELLOW
Blue filter	ISM-PM-BLUE



software flash disk (included)

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1×6.4mm	30µm
100X	13mm	3.9×3.1mm	15µm
150X	16mm	2.6×2.1mm	10µm
200X	19mm	1.8×1.5mm	8µm

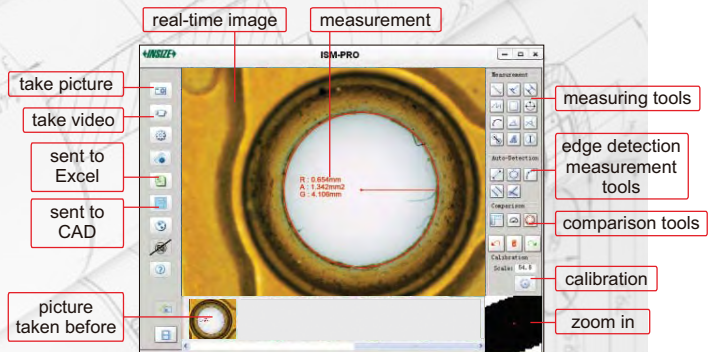
SOFTWARE

- Language:** English, Japanese, Korean, German, Turkey, Portuguese, Chinese
- Operation system:** Windows 7/8/XP/Vista
- Measuring tools:**

- | | |
|---|--|
| measure length of line or distance between two points | measure radius, length and angle of arc |
| measure area of rectangle | add number with circle |
| measure distance between two circles | measure length of continuous line |
| measure distance between two parallel lines | measure angle with three points |
| measure angle with two lines | measure radius, girth and area of circle |
| measure distance between point and line | add text |

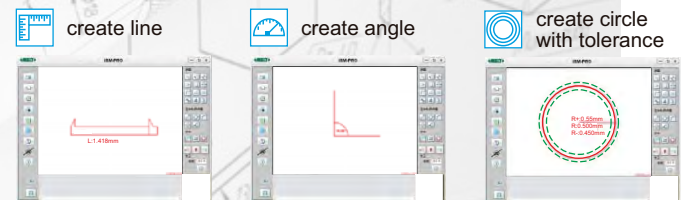
Edge detection measurement tools:

- detect two parallel lines automatically and calculate distance
- detect circle automatically, and calculate radius, girth and area
- detect arc automatically, and calculate radius, angle and arc length
- detect two lines automatically, and calculate angle
- detect line automatically, and calculate length



Comparison tools:

Create line, angle or circle with desired size, to compare with workpieces



Data is sent to CAD or Excel:



WIFI DIGITAL MEASURING MICROSCOPE CODE ISM-WF200



- Maximum working distance is 5m under WIFI mode
- Can be connected to multiple iPads, Android devices or computers together under WIFI mode
- Take pictures and videos
- Supplied with software



software flash disk (included)

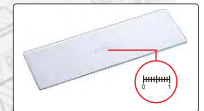
stand (code ISM-PM-STAND, optional)



filter (optional)



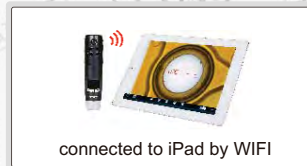
plastic calibration rule (graduation 1mm, included)



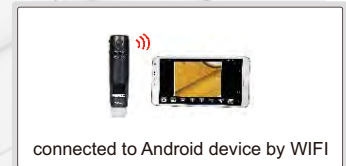
glass calibration rule (graduation 0.1mm, included)

SPECIFICATION

Magnification	10X~200X
Pixel	1.3M (resolution: 1280×1024)
Illumination	built-in adjustable LED
Power supply	built-in rechargeable battery



connected to iPad by WIFI



connected to Android device by WIFI

STANDARD DELIVERY

Microscope	1 pc
Focus support ring for 80X/150X	1 pc
Focus support ring for 60X/200X	1 pc
Glass calibration rule (graduation 0.1mm)	1 pc
Plastic calibration rule (graduation 1mm)	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc



connected to computer by WIFI



connected to computer by USB cable

OPTIONAL ACCESSORY

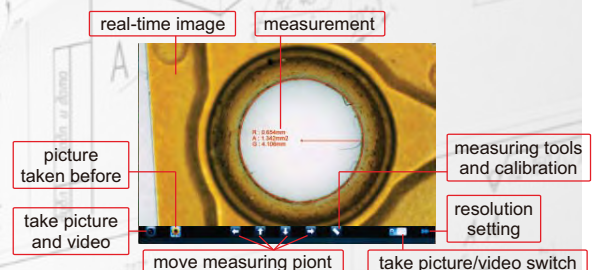
Stand	ISM-PM-STAND
Green filter	ISM-PM-GREEN
Yellow filter	ISM-PM-YELLOW
Blue filter	ISM-PM-BLUE

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1×6.4mm	30μm
100X	13mm	3.9×3.1mm	15μm
150X	16mm	2.6×2.1mm	10μm
200X	19mm	1.8×1.5mm	8μm

1 Software ISM-PAD (for iPad by WIFI)

- measure length of line or distance between two points
- measure radius, girth and area of circle with three points
- measure angle

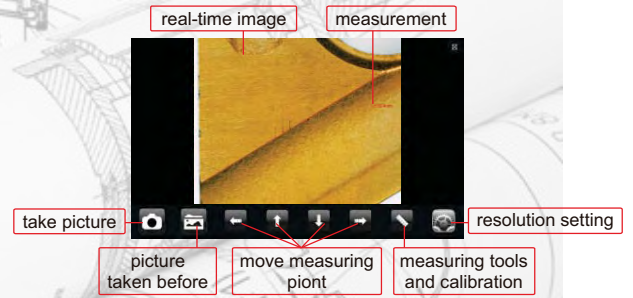


To be continued

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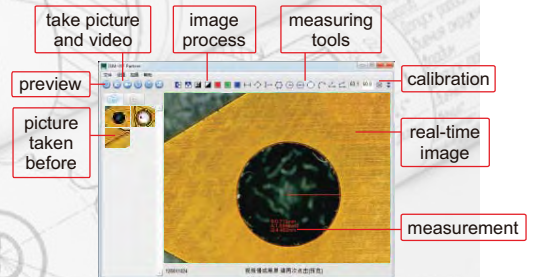
2 Software ISM-APK (for Android devices by WIFI)

- measure length of line or distance between two points
- measure radius, girth and area of circle with three points
- measure angle



3 Software ISM-WF Partner (for computer by WIFI)

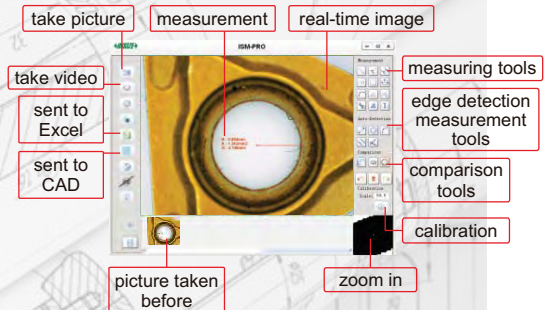
- measure length of line or distance between two points
- measure area of polygon
- measure angle with three points
- measure radius, girth and area of circle with center point
- measure length of continuous line
- measure radius, girth and area of circle with three points
- measure angle with two lines
- measure radius, girth and area of circle with two points
- measure distance between point and line
- measure radius, length and angle of arc
- measure area of rectangle



4 Software ISM-PRO (for computer by USB cable)

Measuring tools:

- measure length of line or distance between two points
- measure length of continuous line
- measure radius, length and angle of arc
- measure distance between two circles
- measure distance between two parallel lines
- measure radius, girth and area of circle
- measure distance between point and line
- measure area of rectangle
- measure angle with two lines
- add number with circle
- measure angle with three points
- add text



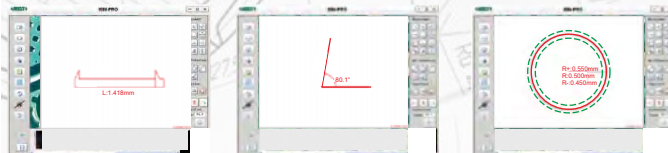
Edge detection measurement tools:

- detect line automatically, and calculate length
- detect arc automatically, and calculate radius, angle and arc length
- detect circle automatically, and calculate radius, girth and area
- detect two lines automatically, and calculate angle
- detect two parallel lines automatically and calculate distance

Comparison tools:

Create line, angle or circle with desired size, to compare with workpieces

- create line
- create angle
- create circle with tolerance



Data is sent to CAD or Excel:



INDUSTRIAL MICROSCOPES



5101-M500

- Infinite optical system, polarization observation, dark field observation
- Kohler illumination system provides uniform illumination field
- Objective 50X is spring type

SPECIFICATION

Code	5101-M500 (bright field objectives)				5101-M500BD (bright & dark field objectives)			
Illumination	6V/30W halogen lamp, brightness is adjustable				12V/50W halogen lamp, brightness is adjustable			
Objective (infinite plan achromatic)	bright field objectives				bright & dark field objectives			
Working distance	5X	10X	20X	50X	5X	10X	20X	50X
Numerical aperture	0.12	0.25	0.40	0.70	0.12	0.25	0.40	0.70
Magnification	50X~500X							
Eyepiece (wide field)	10X (view field: Ø22mm)							
Stage	double layer							
	size: 160×140mm travel: 35x30mm							
Pupil distance	53~75mm							
Diopter adjustment	±5 diopter (one eyepiece)							
Power supply	220V, 50/60Hz							
Dimension (L×W×H)	415×345×380mm							
Weight	14kg							

STANDARD DELIVERY

Main unit	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Bright & dark field objective (for 5101-M500BD)	PL40X	5101-M-BD40X
	PL60X	5101-M-BD60X
	PL80X	5101-M-BD80X
	PL100X	5101-M-BD100X
10X dividing eyepiece (0.1mm/div.)		5101-M-EPD10X
Bright field objective (for 5101-M500)	PL40X	5101-M-OB40X
	PL60X	5101-M-OB60X
	PL80X	5101-M-OB80X
	PL100X	5101-M-OB100X
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S
Camera adapter*		5101-M-ADAPTER

*Digital camera must be used with camera adapter



INDUSTRIAL INSPECTION MICROSCOPE (LARGE STAGE) CODE 5104-M700



- For observation and inspection of large IC and chip in IT industry

SPECIFICATION

Magnification	40X~400X			
Eyepiece (wide field)	10X (view field: Ø22mm)			
Objective (plan achromatic)	4X	10X	20X	40X
Numerical aperture	0.10	0.25	0.40	0.60
Working distance	17.8mm	10mm	5.8mm	2.9mm
Stage	double layer, size: 300×268mm, travel: 250×200mm			
Kohler illumination	6V/20W halogen lamp, brightness is adjustable built-in green, blue, yellow and frosted glasses			
Pupil distance	48~75mm			
Diopter adjustment	±5 diopter (two eyepieces)			
Power supply	220V, 50/60Hz			
Dimension (L×W×H)	647×268×376mm			
Weight	12kg			

STANDARD DELIVERY

Main unit	1 pc
Camera connector	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Bright field objective	5X plan achromatic objective (focus distance: 15.5mm)	5104-M700-OB5X
	50X plan achromatic objective (focus distance: 0.32mm)	5104-M700-OB50X
	100X plan achromatic objective (focus distance: 2mm)	5104-M700-OB100X
Polarizer and analyzer		5104-M700-AP
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S
Camera adapter 0.5X*		ISM-MAS-ADAPTER

*Digital camera must be used with camera adapter

METALLURGICAL MICROSCOPES



5102-M600

- Infinite optical system, observation in reflected or transmitted illumination, polarizing observation
- Kohler illumination system provides uniform illumination field
- Objectives 40X, 60X are spring type



blue filter (included)



frosted glass filter (included)

SPECIFICATION

Code	5102-M600 (bright field objectives)				5102-M600BD (bright & dark field objectives)			
Illumination	6V/30W (transmitted)		6V/30W (reflected)		12V/30W (transmitted)		12V/50W (reflected)	
Objective (infinite plan achromatic)	bright field objectives				bright & dark field objectives			
	5X	10X	40X	60X	5X	10X	20X	40X
Working distance	26.1mm	20.2mm	3.98mm	3.18mm	9.70mm	9.30mm	7.20mm	3.00mm
Numerical aperture	0.12	0.25	0.60	0.70	0.12	0.25	0.40	0.70
Magnification	50X~600X				50X~400X			
Eyepiece (wide field)	10X (view field: Ø22mm)							
Stage	double layer							
	size: 210×140mm							
	travel: 75×50mm							
Pupil distance	53~75mm							
Diopter adjustment	±5 diopter (one eyepiece)							
Power supply	220V, 50/60Hz							
Dimension (L×W×H)	456×260×498mm							
Weight	11kg							

STANDARD DELIVERY

Main unit	1 pc
Anti-dust cover	1 pc
Filter (blue/frosted glass)	1 pc of each

OPTIONAL ACCESSORY

Bright & dark field objective (for 5102-M600BD)	PL50X	5101-M-BD50X
	PL60X	5101-M-BD60X
	PL80X	5101-M-BD80X
	PL100X	5101-M-BD100X
10X dividing eyepiece (0.1mm/div.)		5101-M-EPD10X
Bright field objective (for 5102-M600)	PL20X	5101-M-OB20X
	PL50X	5101-M-OB50X
	PL80X	5101-M-OB80X
	PL100X	5101-M-OB100X
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S
Camera adapter*		5101-M-ADAPTER

*Digital camera must be used with camera adapter

METALLURGICAL MICROSCOPES (PROFESSIONAL TYPE)



- Infinite chromatic aberration correction optical system
- Three way observation tube with infinite hinge
- Translucent and reflective frame, front low-hand position coarse and fine coaxial focus adjustment mechanism, with adjustment elastic device to prevent sliding and random upper limit device
- Bright and dark field five-hole converter with DIC slot
- Adopt digital dimming, with light intensity reset and setting function
- With polarizer insert plate and 360° rotating analyzer insert slot



5108-M3000

SPECIFICATION

Code	5108-M3000 (standard type)				5108-M3000H (high-definition type)			
Eyepiece	high eye point large field SWH10X-H (view field: Ø25mm, adjustable visibility)							
Objective (infinite long working distance bright and dark field semi achromatic)	5X	10X	20X	50X	5X	10X	20X	50X
Working distance	15mm	8.4mm	10.3mm	3.0mm	20mm	11mm	3.0mm	1.0mm
Numerical aperture	0.15	0.30	0.40	0.75	0.15	0.30	0.45	0.80
Optical magnification	50X~500X (up to 1000X with optional 100X objective)							
Digital magnification	170X~1700X (on 21.5" monitor), up to 3400X with optional 100X objective							
Stage	double layer							
	size: 310×240mm travel: 150×100mm							
Condenser	roll-out achromatic condenser (numerical aperture 0.9)							
Illumination	5W LED, transmitted and reflected							
Observation tube	inverse image, distance adjustment: 50~76mm, two grade spectral ratio binocular: trinocular=100:0							
Diopter adjustment	±5 diopter (two eyepieces)							
Power supply	AC 100-240V							
Dimension (L×W×H)	310×600×500mm							
Weight	27kg							

STANDARD DELIVERY

Main unit	1 pc
Anti-dust cover	1 pc
0.65X camera adapter (adjustable focus)	1 pc
Polarizer and analyzer	1 pc of each

OPTIONAL ACCESSORY

Camera and software	ISM-CM63
Glass calibration rule	ISM-MAS-SCALE
Computer	5108-M-COMPUTER
2.5X infinite long working distance bright field semi achromatic objective	5108-M-OB2D5X
100X infinite long working distance bright and dark field semi achromatic objective	5108-M-BD100X
50X infinite long working distance bright and dark field achromatic objective	5108-M-APO50X
100X infinite long working distance bright and dark field achromatic objective	5108-M-APO100X
Differential interference module (DIC)	5108-M-DIC

METALLURGICAL MICROSCOPES



- Infinite optical system, polarization observation
- Kohler illumination system provides uniform illumination field
- Objectives 50X, 100X are spring type

SPECIFICATION

Code	5103-M1000 (bright field objectives)				5103-M1000BD (bright & dark field objectives)			
illumination	6V/30W halogen lamp, brightness is adjustable				12V/50W halogen lamp, brightness is adjustable			
Objective (infinite plan achromatic)	bright field objectives				bright & dark field objectives			
	10X	20X	50X	100X	5X	10X	20X	50X
Working distance	20.2mm	8.80mm	3.68mm	0.40mm	9.70mm	9.30mm	7.23mm	2.50mm
Numerical aperture	0.25	0.40	0.70	0.85	0.12	0.25	0.40	0.70
Magnification	100X~1000X				50X~500X			
Eyepiece (wide field)	10X (view field: Ø22mm)							
Stage	double layer							
	size: 242×200mm travel: 30x30mm							
Pupil distance	53~75mm							
Diopter adjustment	±5 diopter (one eyepiece)							
Power supply	220V, 50/60Hz							
Dimension (L×W×H)	614×250×394mm							
Weight	13kg							

STANDARD DELIVERY

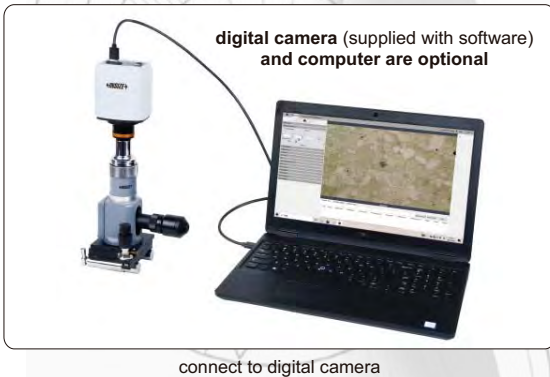
Main unit	1 pc
Polarizer and analyzer	1 pc of each
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Bright & dark field objective (for 5103-M1000BD)	PL40X	5101-M-BD40X
	PL60X	5101-M-BD60X
	PL80X	5101-M-BD80X
	PL100X	5101-M-BD100X
10X dividing eyepiece (0.1mm/div.)		5103-M-EPD10X
Bright field objective (for 5103-M1000)	PL5X	5101-M-OB5X
	PL40X	5101-M-OB40X
	PL60X	5101-M-OB60X
	PL80X	5101-M-OB80X
Digital camera		ISM-CM63
Camera adapter *		5101-M-ADAPTER

*Digital camera must be used with camera adapter

PORTABLE METALLURGICAL MICROSCOPE CODE 5109-PM500



- Illumination is powered by batteries
- Aperture diaphragm improves image quality and increases depth of field
- Magnetic base with on/off switch can adhere on metal workpieces
- Can be connected to digital cameras

SPECIFICATION

Magnification	100X-500X	
Eyepiece (wide field)	10X/12.5X	
Objective (plan achromatic)	10X (included)	40X (included)
Numerical aperture	0.25	0.64
Illumination	3W LED, built-in batteries	
Stage	double layer, size: 15×12mm	
Dimension (L×W×H)	210×160×95mm	
Weight	1.5kg	

STANDARD DELIVERY

Main unit	1 pc
Eyepiece	2 pcs
Objective	2 pcs
Battery (AAA)	3 pcs

OPTIONAL ACCESSORY

Objective	5X plan achromatic	5109-PM500-OB5X
	20X plan achromatic	5109-PM500-OB20X
	100X plan achromatic	5109-PM500-OB100X
Eyepiece	5X	5109-PM500-EP5X
	15X	5109-PM500-EP15X
Digital camera *		ISM-CM20, ISM-CM63, ISM-ZS70-S
Camera adapter 0.5X		ISM-MAS-ADAPTER

* Digital camera must be used with camera adapter

ZOOM STEREO MICROSCOPE (PROFESSIONAL TYPE) CODE 5107-S70T



LED ring light (optional)



- Greenough optical system, clear observation, real color
- High working distance is convenient for operation
- Excellent flat image and large depth of field, make observation comfortable
- 6.7:1 large zoom ratio, allow quick observation adjustment

SPECIFICATION

Optical tube	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)
Objective	0.67X~4.5X (zoom)
Observation tube	45° trinocular tube inclination angle, built-in 0.5X adapter
Zoom ratio	6.7:1
Pupil distance	50~75mm
Diopter adjustment	-8~+5 diopter (both eyepieces)
Working distance of objective	110mm
Max. workpiece height	106mm
Illumination	adjustable LED light
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	330×300×368mm
Weight	3.5kg



frosted glass filter (included)



white/black plate (included)

STANDARD DELIVERY

Main unit	1 pc
10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

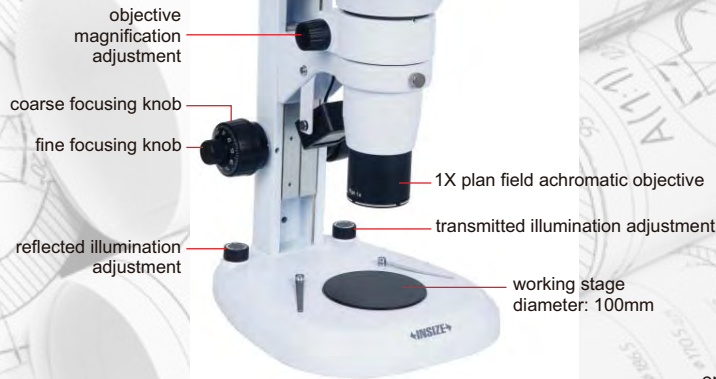
Auxiliary objective	0.5X	5107-S70T-OB05X
	1.5X	5107-S70T-OB15X
	2X	5107-S70T-OB20X
Eyepiece	15X (view field: Ø16mm)	5107-S70T-EP15X
	20X (view field: Ø12.5mm)	5107-S70T-EP20X
LED ring light		ISM-ZS-RL
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S

PARALLEL LIGHT PATH: REDUCE FATIGUE,
ACCESSORIES CAN BE ADDED INTO LIGHT PATH

PARALLEL LIGHT STEREO MICROSCOPE CODE ISM-ZS200



coaxial illumination (optional)



optical path splitter (optional)



iris diaphragm (optional)



- Infinity parallel optical system and 20° inclined optical tube reduce fatigue
- Coaxial illumination is optional for deep holes which cannot be observed by ring light
- Aperture diaphragm is optional for large depth of field and high quality image

SPECIFICATION

Optical tube	binocular (20° inclined)
Eyepiece (wide field)	10X (view field: Ø22mm)
Objective	0.8X~8X (zoom)
Zoom ratio	1:10
Pupil distance	55~75mm
Diopter adjustment	±5 diopter (both eyepieces)
Working distance of objective	78mm
Max. workpiece height	72mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	240×280×440mm
Weight	4.3kg

STANDARD DELIVERY

Main unit	1 pc
WF10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

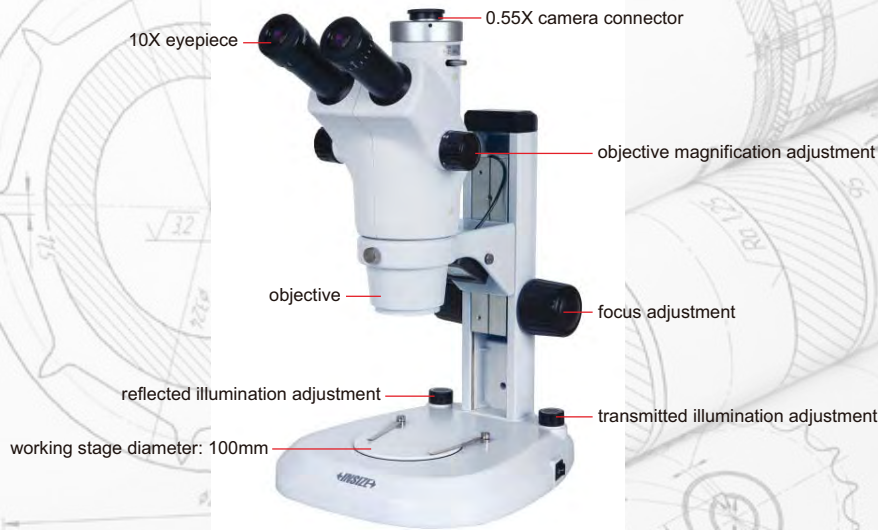
Objective	0.5X achromatic objective (focus distance: 186mm)	ISM-ZS200-OB05X *
	2X plan achromatic objective (focus distance: 32.5mm)	ISM-ZS200-OB2X
	0.5X plan apochromatic objective (focus distance: 126mm)	ISM-ZS200-APO05X *
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS200-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS200-EP20X
	WF30X (view field: Ø20mm)	ISM-ZS200-EP30X
Sleeve for objective		ISM-ZS200-ADAPTER
Iris diaphragm		ISM-ZS200-IRD
Optical path splitter		ISM-ZS200-OBS
Coaxial illumination		ISM-ZS200-COAXIAL
Digital camera **		ISM-CM20, ISM-CM63

* 0.5X auxiliary objective must be used with ISM-ZS200-ADAPTER

** Digital camera must be used with optical path splitter

ZOOM STEREO MICROSCOPES (ADVANCED TYPE)

LARGE ZOOM RATIO



ISM-ZS100T

connect to digital camera (for ISM-ZS100T)



LED ring light (optional)

SPECIFICATION

Code	ISM-ZS100	ISM-ZS100T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø23mm)	
Objective	0.6X~5X (zoom)	
Zoom ratio	1:8.3	
Pupil distance	55~75mm	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	75mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60HZ	
Dimension (L×W×H)	260×310×490mm	
Weight	4.9kg	

STANDARD DELIVERY

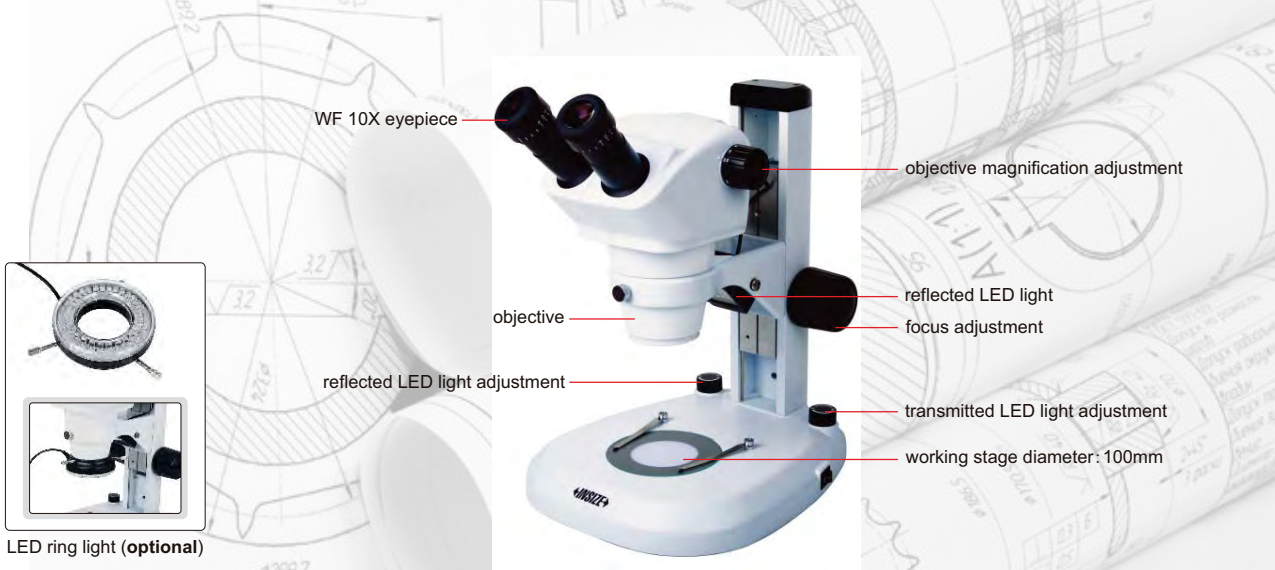
Main unit	1 pc
Camera connector 0.55X for ISM-ZS100T	1 pc
Digital camera adapter 1X for ISM-ZS100T	1 pc
WF10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X (focus distance: 220mm)	ISM-ZS100-OB05X *
	0.7X (focus distance: 125mm)	ISM-ZS100-OB07X
	2X (focus distance: 45mm)	ISM-ZS100-OB2X
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS100-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS100-EP20X
	WF30X (view field: Ø8mm)	ISM-ZS100-EP30X
Sleeve for auxiliary objective		ISM-ZS200-ADAPTER
LED ring light		ISM-ZS-RL
Digital camera for ISM-ZS100T		ISM-CM20, ISM-CM63, ISM-ZS70-S

* 0.5X auxiliary objective must be used with ISM-ZS200-ADAPTER

ZOOM STEREO MICROSCOPES (STANDARD TYPE)



ISM-ZS50

SPECIFICATION

Code	ISM-ZS50	ISM-ZS50T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)	
Objective	0.8X~5X (zoom)	
Zoom ratio	1:6.3	
Pupil distance	55~75mm (adjustable)	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	75mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60HZ	
Dimension (L×W×H)	290×260×480mm	
Weight	4.9kg	

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

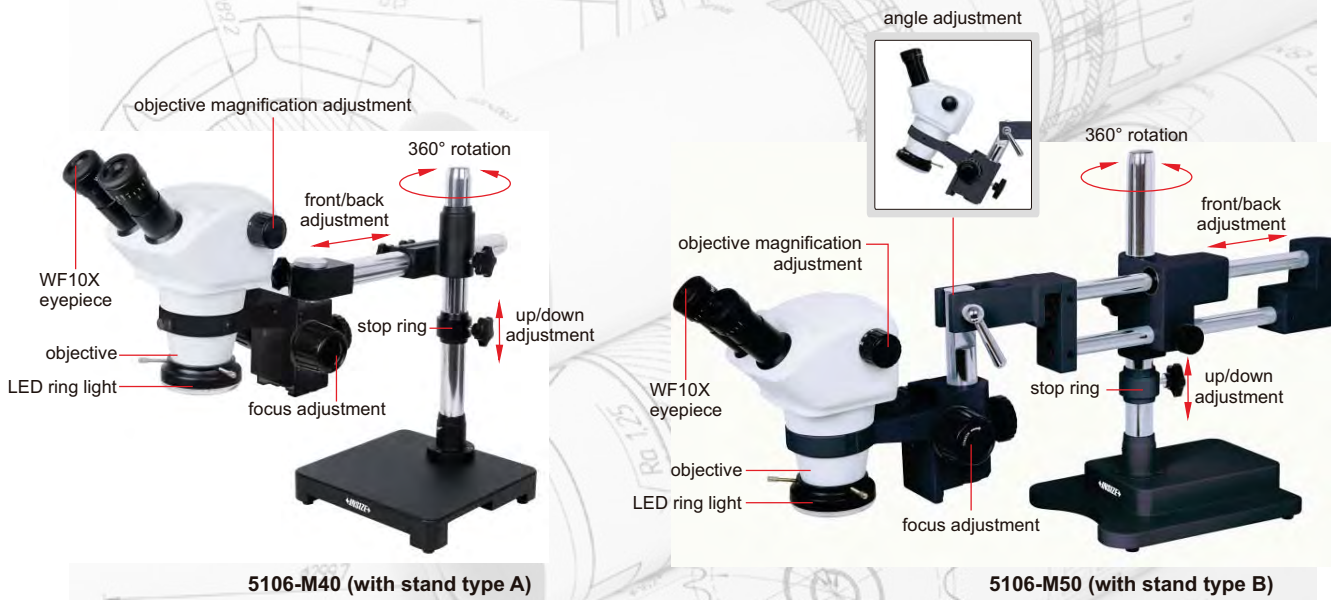
OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X*
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS200-ADAPTER
Digital camera for ISM-ZS50T		ISM-CM20, ISM-CM63, ISM-ZS70-S
Camera adapter 0.5X for ISM-ZS50T **		ISM-MAS-ADAPTER

* 0.5X auxiliary objective must be used with **ISM-ZS200-ADAPTER**

** Digital camera must be used with camera adapter 0.5X

ZOOM STEREO MICROSCOPES (WITH UNIVERSAL STAND)



5106-M40 (with stand type A)

5106-M50 (with stand type B)

SPECIFICATION

Code	5106-M40	5106-M40T	5106-M50	5106-M50T
Stand	type A		type B	
Optical tube	binocular	trinocular	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)			
Objective	0.8X~5X (zoom)			
Zoom ratio	1:6.3			
Pupil distance	55~75mm			
Diopter adjustment	±5 diopter (two eyepieces)			
Working distance of objective	115mm			
Max. workpiece height	300mm			
Illumination	adjustable reflected LED ring light			
Power supply	power adapter			
Dimension (L×W×H)	610×220×430mm		790×230×430mm	
Weight	13.7kg		20kg	

STANDARD DELIVERY

Main unit (with stand)	1 pc
WF10X eyepiece	2 pcs
LED ring light	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X*
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
Adapter sleeve		ISM-ZS30-ADAPTER
0.5X adapter for 5106-M40T/M50T		ISM-MAS-ADAPTER
Digital camera for 5106-M40T/M50T**		ISM-CM20, ISM-CM63

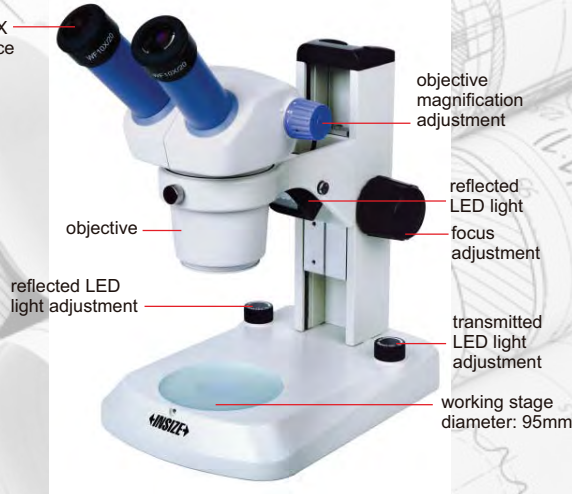
* 0.5X auxiliary objective must be used with ISM-ZS30-ADAPTER

** Digital camera must be used with 0.5X adapter ISM-MAS-ADAPTER



ZOOM STEREO MICROSCOPE (BASIC TYPE) CODE ISM-ZS30

WF 10X
eyepiece



objective
magnification
adjustment

reflected
LED light

focus
adjustment

reflected LED
light adjustment

transmitted
LED light
adjustment

working stage
diameter: 95mm

SPECIFICATION

Optical tube	binocular
Eyepiece (wide field)	10X (view field: Ø20mm)
Objective	1X~4.5X (zoom)
Zoom ratio	1: 4.5
Pupil distance	55~75mm (adjustable)
Diopter adjustment	±5 diopter (two eyepieces)
Working distance of objective	97mm
Max. workpiece height	60mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60HZ
Dimension (L×W×H)	260×190×400mm
Weight	4.3kg



LED ring light (optional)

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
Ø95mm glass plate	1 pc
Ø95mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS30-OB05X *
	0.63X	ISM-ZS30-OB06X *
	0.75X	ISM-ZS30-OB07X *
	2X	ISM-ZS30-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS30-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
Digital camera		ISM-CM63
Camera adapter 0.75X **		ISM-AD-0D75

* 0.5X, 0.63X and 0.75X auxiliary objectives must be used with ISM-ZS30-ADAPTER

** Digital camera must be used with camera adapter 0.75X

LONG WORKING DISTANCE STEREO MICROSCOPES (LOW MAGNIFICATION)



SPECIFICATION

Code	5305-ZS80 (with metal base)	5305-ZS90 (with magnetic base)
Magnification	8X	
Eyepiece (wide field)	10X (view field: Ø20mm)	
Objective	0.8X	
Pupil distance	55~75mm	
Diopter adjustment	±5 diopter (one eyepiece)	
Working distance of objective	115mm	
Max. workpiece height	100mm	140mm
Dimension (L×W×H)	280x160x370mm	280x180x410mm
Weight	3.7kg	2.1kg

STANDARD DELIVERY

Main unit	1 pc
10X eyepieces	1 pair
0.8X objective	1 pc
Anti-dust cover	1 pc

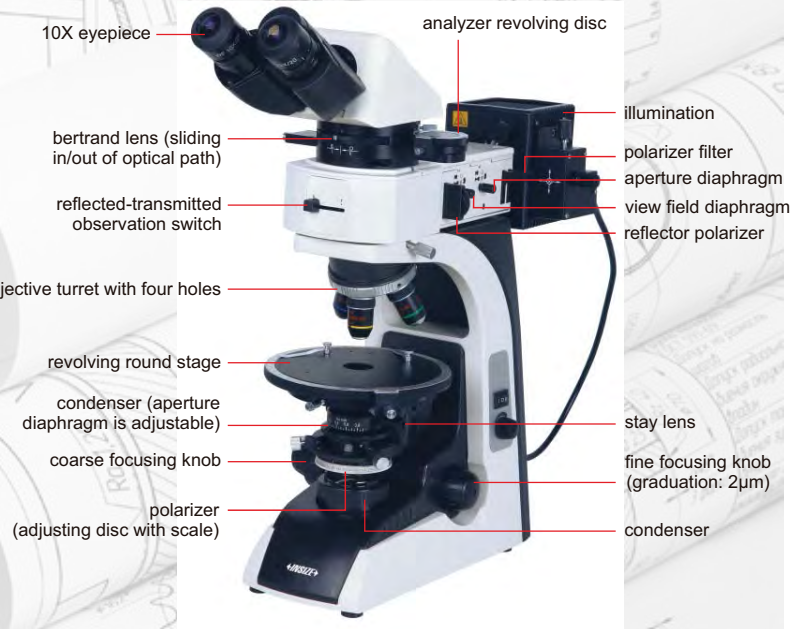
OPTIONAL ACCESSORY

Eyepiece	WF5X (view field: Ø20mm)	5305-ZS80-EP5X
	WF15X (view field: Ø15mm)	5305-ZS80-EP15X
	WF20X (view field: Ø10mm)	5305-ZS80-EP20X
LED ring light		ISM-ZS-RL



LED ring light (optional)

POLARIZING MICROSCOPE CODE ISM-POL1000



- Widely used in geology, mineralogy, fossil fuel exploration
- Single polarization, orthogonal polarization or conoscopic observation are available

SPECIFICATION

Magnification	40X~600X				
Eyepiece	10X (view field: Ø20mm)				
Infinite strain free plan achromatic objective	4X (transmitted/reflected)	10X (transmitted/reflected)	20X (transmitted)	40X (transmitted)	60X (transmitted)
Working distance	22.2mm	6.1mm	6.4mm	0.6mm	0.3mm
Numerical aperture	0.1	0.25	0.4	0.65	0.8
Stage	revolving round stage diameter: Ø160mm graduation: 1°, resolution: 6'				
Pupil distance	53~75mm				
Diopter adjustment	±5 diopter (one eyepiece)				
Illumination	12V/50W halogen lamp, brightness is adjustable (reflected illumination) 12V/20W halogen lamp, brightness is adjustable (transmitted illumination)				
Power supply	110/220V, 50/60HZ				
Dimension (L×W×H)	614×250×394mm				
Weight	13kg				

STANDARD DELIVERY

Main unit	1 pc
Micrometer	1 pc
Grid plate	1 pc
10X crossing eyepiece (view field: Ø20mm)	1 pc
10X dividing eyepiece (view field: Ø20mm, graduation 0.1mm)	1 pc
λ slip (first class red) and 1/4λ slip	1 pc
Quartz wedge	1 pc

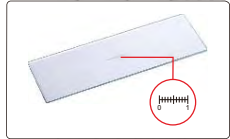
OPTIONAL ACCESSORY

Objective for reflected system	PL20X	ISM-POL1000-OBR20X
	PL40X	ISM-POL1000-OBR40X
	PL60X	ISM-POL1000-OBR60X
	PL100X	ISM-POL1000-OBR100X
Objective for transmitted system	PL100X	ISM-POL1000-OBT100X
Specimen presser		ISM-POL1000-SP

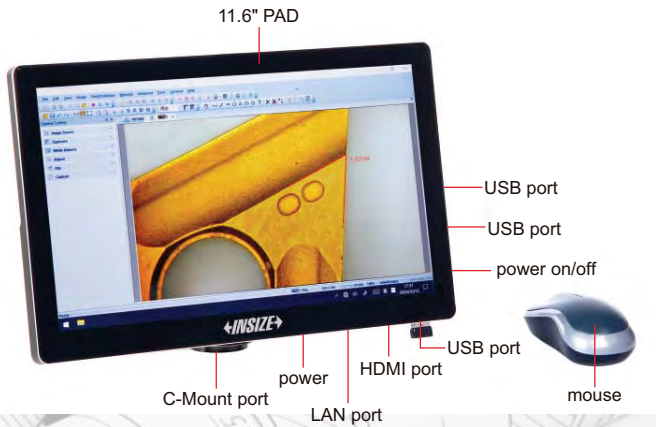
DIGITAL CAMERA FOR MICROSCOPES (WITH PAD) CODE ISM-ZS70-S

ATTENTION: CAMERA CONNECTOR AND ADAPTER ARE NEEDED ACCORDING TO MICROSCOPES

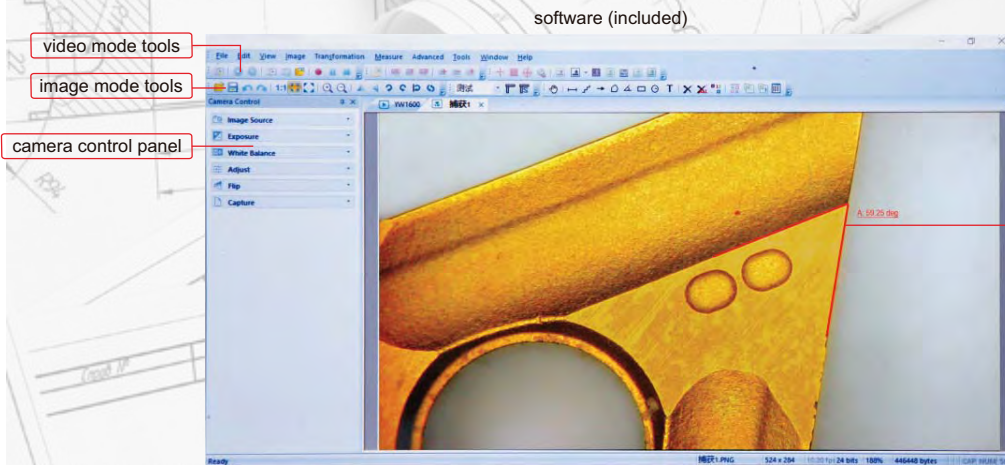
MEASUREMENT, TAKE PICTURES AND VIDEOS



glass calibration rule (included, graduation 0.1mm)



- Windows 10 operation system
- Built-in software, can take pictures and videos, can measure
- Language: Chinese, English, French, Japanese, German, Polish, Arabic
- Automatic exposure, white balance, brightness, contrast ratio, saturation are adjustable
- Image process feature: zoom in/out, flip, mirror, stitching and so on
- Output to Excel or CSV file



Measuring tools

- measure line
- measure meander line
- arrow mark
- measure polygon
- calibration
- measure angle
- measure rectangle
- measure circle
- text mark
- show/hide scale

SPECIFICATION

Sensor	1/2.3" CMOS
Pixel	16M
Resolution	800×600, 1600×1200, 1920×1080, 2048×1536, 2304×1728, 2592×1944, 4608×3456
Frame rate	30fps (1920×1080)
Output	HDMI, USB 3.0
Power supply	power adapter
Dimension (L×W×H)	280.3×177.4×12.5mm
Weight	0.9kg

STANDARD DELIVERY

Main unit	1 pc
Mouse	1 pc
Glass calibration rule (graduation 0.1mm)	1 pc
AC/DC adapter	1 pc

ATTENTION: ADAPTERS ARE NEEDED ACCORDING TO MICROSCOPES

DIGITAL CAMERA FOR MICROSCOPES CODE ISM-CM63

- To be used with computers
- Sony Exmor back-illuminated CMOS sensor
- USB3.0 transmission
- Automatic exposure, gain adjustment, white balance, chrominance adjustment, saturation adjustment, gamma correction, luminance adjustment, contrast adjustment



C-mount port

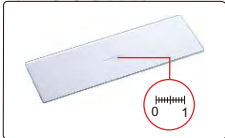
adapter 0.75X
(optional)



application

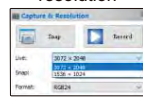


glass calibration rule
(included, graduation 0.1mm)

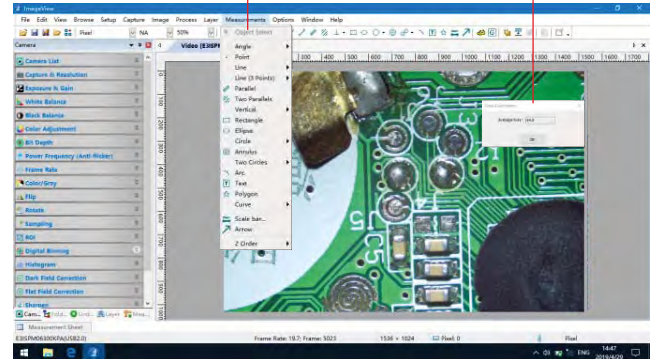


software (included)

selectable resolution



measurement items

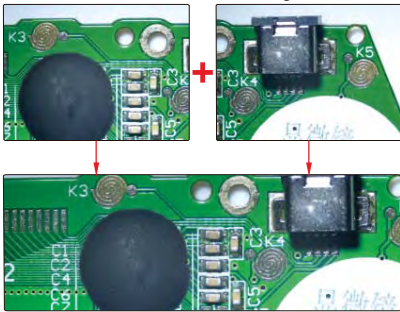


real time gray calibration

automatic image stitching (expand field of view)

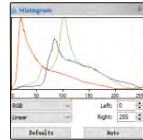
left side

right side



after stitching

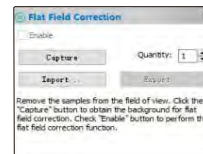
histogram
(quantify the distribution of color and brightness)



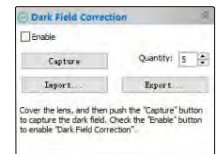
black balance
(reduce color difference)



flat field correction
(reduce brightness difference)



dark field correction
(reduce thermal noise)



counting

select counting tool

automatic counting



The software can control image completely, including measurement, image stitching, extend focus depth, image gray processing, RGB histogram observation, image color sampling, 3D plot (3D representation of image intensity), image exposure, white balance, black balance, image bit depth, flat field correction and dark field correction, etc.

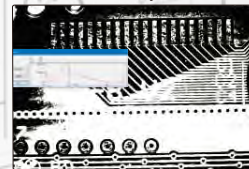
Measuring tools:

- measure length of line or distance between two points
- measure rectangle
- measure distance between two parallel lines
- measure width and diameter of ring
- measure angle
- measure diameter, length, perimeter angle of arc
- measure radius, girth and area of circle
- measure area of polygon
- measure axis lengths, girth and area of ellipse
- measure center distance between two circles
- measure length of open curve
- calibration

focus stacking



binary



separate target and background

3D plot



visualize the distribution of image brightness and color

To be continued

Continued from previous page

SPECIFICATION

Sensor (back-up)	1/1.8" CMOS
Resolution	3072×2048
Pixel	6.3M
Single pixel size	2.4×2.4μm
Spectral range	380-650nm (with infrared cut filter)
Frame rate	30fps
Sampling average	1×1
Exposure time	0.1ms~15s
Power supply	USB port
Weight	400g

COMPUTER REQUIREMENT

Operation system	Windows 7/8/10
CPU	Intel Core 2 2.8Hz or above
Memory	2GB or above
USB port	USB3.0 (recommand) or USB2.0
Display	17" or above

STANDAER DELIVERY

Camera (USB cable included)	1 pc
Software	1 pc
Glass calibration rule (graduation 0.1mm)	1 pc

OPTIONAL ACCESSORY

Adapter 0.75X	ISM-AD-0D75
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SMART CAMERA CODE ISM-MV10



- Built-in software, operated by mouse.
- Automatically calculate, store the test results and sent to Excel
- Camera with PLC control input and output interface, can be integrated with automation equipment
- Functions: presence or absence of objects, position tilt correction, object counting, color detection, stain detection, dimension measurement, position guide, etc.

SPECIFICATION

Chip structure	FPGA+ARM
Operation system	Linux 3.10
Kernel structure	dual-core Cortex-A9
Frequency	1GHZ
I/O port	3 sets of input and output (can be connected to photoelectric switch, wire switch, PLC, etc.)
Operation temperature	-10~70°C
Sensor	1/2" CMOS
Single pixel size	3.75×3.75μm
Resolution	1920×1080
Frame rate	60fps
Video output	HDMI port
Lens connection	standard C port

SOFTWARE

presence or absence of objects



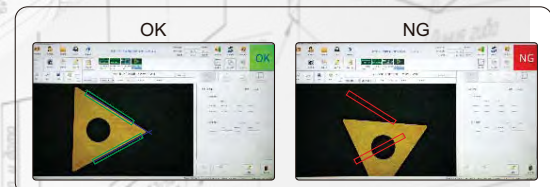
select the area and specify the target, the camera will automatically detect the presence or absence of the target.

automatic counting



select the area and specify the target, the camera will automatically calculate the number of targets.

dimension measurement



measuring angle, distance, radius, center distance, etc.

STANDAER DELIVERY

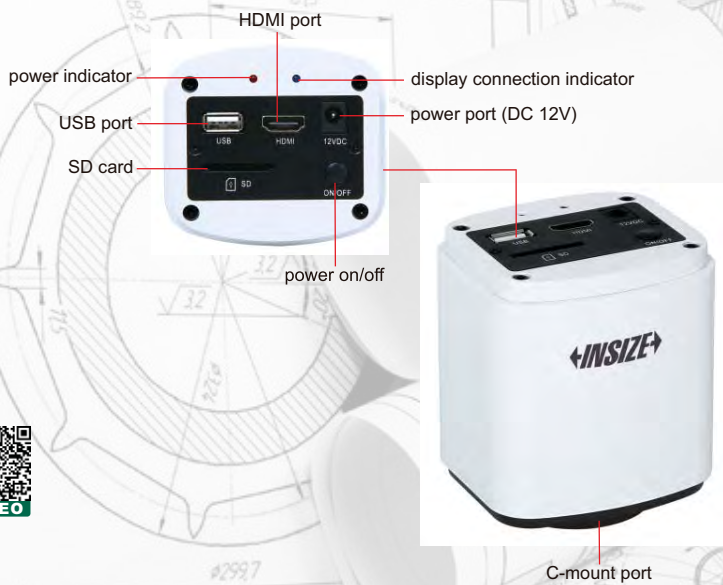
Camera (with HDMI cable)	1 pc
Software	1 pc

ATTENTION: ADAPTERS ARE NEEDED ACCORDING TO MICROSCOPES

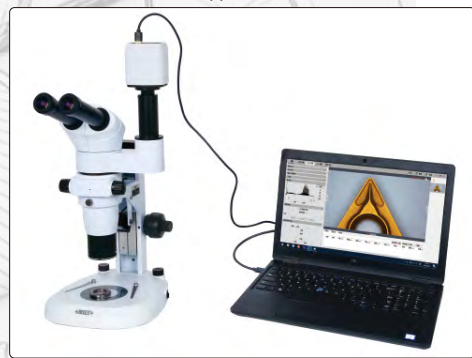
FOCUS STACKING

AUTOMATIC IMAGE STITCHING

DIGITAL CAMERA FOR MICROSCOPES CODE ISM-CM20



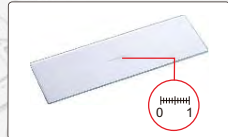
application



adapter 0.5X (optional)



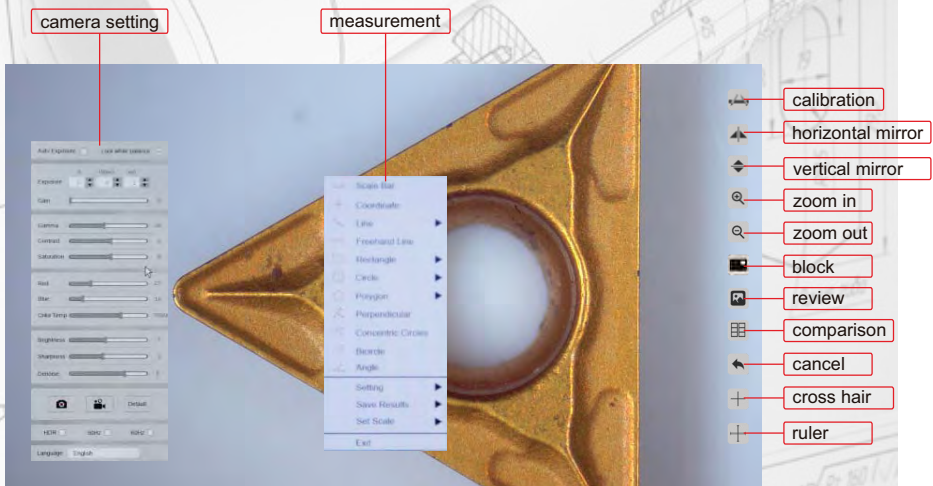
glass calibration rule (included, graduation 0.1mm)



- 1080P high-definition image
- Can be connected with displays or computers
- Built-in simple measuring software for displays, without computer
- Professional measuring software for computers is included
- For bright field, dark field or fluorescent field
- Automatic exposure, white balance, gain adjustment, gamma correction, brightness contrast adjustment, saturation adjustment, chroma sharpness adjustment
- Focus stacking, automatic image stitching

SIMPLE MEASURING SOFTWARE (BUILT-IN, FOR DISPLAYS)

- **Measuring tools:**
- ▢ measure length of line or distance between two points
- ▢ measure distance between point and line
- ▢ measure rectangle
- ⊙ measure concentric circles
- ⊙ measure circle
- ▢ measure curve
- ▢ measure polygon
- ⊙ measure center distance of two circles
- ▢ measure angle of two lines



auto exposure, white balance, gain adjustment, gamma, chroma contrast adjustment, brightness sharpness adjustment, size measurement

To be continued

Continued from previous page

PROFESSIONAL MEASURING SOFTWARE (INCLUDED, FOR COMPUTERS)

selectable resolution

flat field correction

white balance
(balance color based on actual light source)

metrics flow
(create templates, set tolerances and build metrics flow)

histogram
(quantify the distribution of color and brightness)

manual counting
(class counting)

image coloring, fluorescence synthesis, binary, image smoothing, color filter/color extraction/ color inversion, delay capture, focus stacking, automatic image stitching, metrics flow, manual counting, dynamic and static measurement, layered measurement, report generation and printing, delay record, flat field correction, image adjustment, histogram.

focus stacking

+
→

focus on the top

focus on the bottom

clear image of both top and bottom

automatic image stitching

+
→

+
→

slowly move the workpiece to generate a stitched image automatically (this image can not be used for size measurement)

SPECIFICATION

Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	30fps
Power supply	power adapter
Output	HDMI/USB
Lens connection	C-mount

COMPUTER (optional) REQUIREMENT

Operation system	Windows 7/8/10 (64 bit)
CPU	Intel Core i5 or above
Memory	8GB or above
USB port	USB 3.0

DISPLAY (optional) REQUIREMENT

Size	13" or above
Resolution	1080P or above
HDMI port	type A

STANDARD DELIVERY

Main unit	1 pc
16G memory card and holder	1 pc
Glass calibration rule (graduation 0.1mm)	1 pc
Mouse	1 pc
HDMI cable	1 pc
USB cable	1 pc
Power supply	1 pc

OPTIONAL ACCESSORY

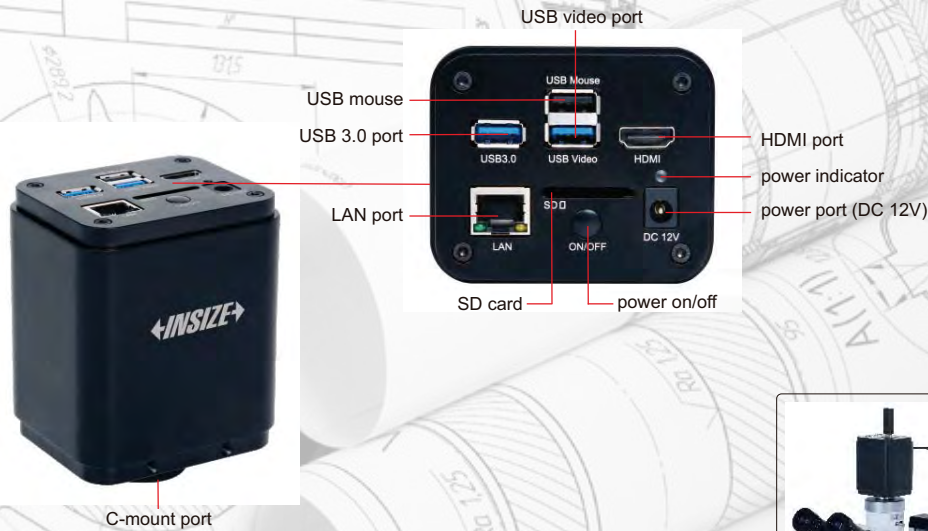
Adapter 0.5X	ISM-MAS-ADAPTER
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WIRELESS AD-HOC NETWORK

AUTOMATIC IMAGE STITCHING

FOCUS STACKING

WIFI 4K CAMERA FOR MICROSCOPES CODE ISM-MP8B



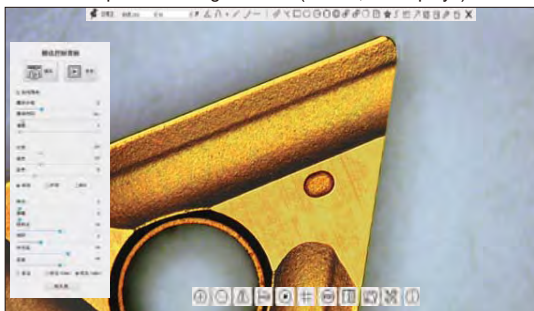
application



- 4K high-definition image
- Can be connected with displays or computers
- Built-in simple measuring software for displays, without computer
- Professional measuring software for computers is included
- 4K HDMI/LAN/USB multiple video outputs
- 4K/1080P automatically switched by display resolution
- Focus stacking, automatic image stitching
- Wireless network or wired network



simple measuring software (built-in, for displays)



professional measuring software (included, for computers)



SPECIFICATION

Sensor	1/1.2" CMOS
Pixel	8M
Resolution	3840×2160, 1920×1080
Single pixel	2.9×2.9µm
Frame rate	60fps@3840×2160 (HDMI) 30fps@3840×2160 (LAN) 30fps@3840×2160 (USB)
Binning	1×1
Exposure	0.04~1000ms
Output	HDMI/USB/LAN
Lens connection	C-mount
Power supply	DC 12V 1A
Dimension (L×W×H)	80×65×105mm
Weight	700g

CONNECTION

HDMI	comply with HDMI 2.0 standard 4K/1080P automatically switched by display resolution
LAN	H264 encoded video bandwidth adjustment in real time DHCP configuration or manual configuration unicast/multicast configuration
WLAN	connecting 5G WLAN adapter (USB 3.0 interface) in AP/STA mode
COMPUTER	connecting USB video port of PC for video transfer H264/MJPEG format video

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
32G SD card	1 pc
USB mouse	1 pc
HDMI2.0 cable	1 pc
USB3.0 cable	1 pc
USB wlan adapter	1 pc
Wlan cable	1 pc
Glass calibration ruler	1 pc
Calibration plate	1 pc
Software	1 pc
Power adapter	1 pc

OPTIONAL ACCESSORY













16G USB flash disk		IS-USBDISK-16G
Adjustable lens adapter	Ø23.2mm eyepiece tube	ISM-MP-2A075
	Ø31.75mm eyepiece tube	ISM-MP-3A075
Fixed lens adapter	Ø23.2mm eyepiece tube	ISM-MP-2F075
	Ø31.75mm eyepiece tube	ISM-MP-3F075
Adapter ring for Ø30.0mm eyepiece tube		ISM-MP-300R
Adapter ring for Ø30.5mm eyepiece tube		ISM-MP-305R

COMPUTER

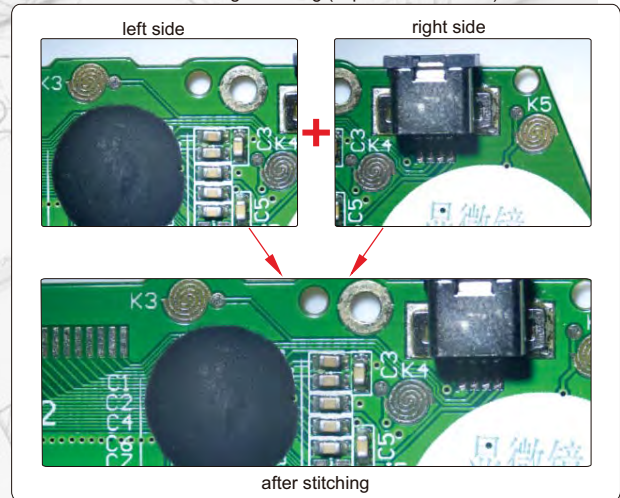
Operation system	Windows 7/8/10/11
CPU	Intel Core 2 2.8Hz
Memory	2GB
USB port	USB 3.0 or USB 2.0 port
Display	17"

PROFESSIONAL MEASURING SOFTWARE (INCLUDED, FOR COMPUTERS)

Measuring tools:

-  measure length of line or distance between two points
-  measure rectangle
-  measure distance between two parallel lines
-  measure width and diameter of ring
-  measure angle
-  measure diameter, length, perimeter angle of arc
-  measure radius, girth and area of circle
-  measure area of polygon
-  measure axis lengths, girth and area of ellipse
-  measure center distance between two circles
-  calibration
-  measure length of open curve

automatic image stitching (expand field of view)



focus stacking

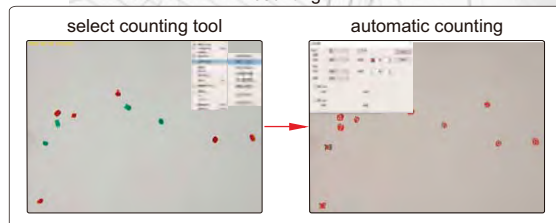


3D plot

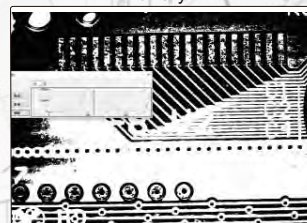


visualize the distribution of image brightness and color

counting



binary



separate target and background

METALLURGICAL ANALYSIS SOFTWARE AND CAMERA CODE ISM-MAS100

- More than 100 standards (ISO, ASTM, JIS, etc.)
- For metallurgical microscopes
- The camera can be inserted into the eyepiece tube or camera connector of microscopes
- Metallurgical analysis software is included, which can make comparative analysis, measurement and evaluation of various materials



application



software flash disk (included)



glass calibration rule (included)

metallurgical analysis software (included)

tool bar

gallery

this software can be used with variety of metallographic microscopes for acquisition, processing, analysis, report generation of metallurgical images

metallurgical module list

Select autoanalysis item

[001] METHOD OF AVERAGE GRAIN SIZE AREA OF METAL	<input type="checkbox"/>
[002] METAL AVERAGE GRAIN SIZE CUTTING POINT METHOD	<input type="checkbox"/>
[003] METAL AVERAGE GRAIN SIZE COMPARISON METHOD	<input type="checkbox"/>
[004] Details of Average Grain Size Testing for Other Metals and Alloys	<input type="checkbox"/>
[005] Standard for Dual Grain Size Characterization Test Method Area Fraction Evaluation Comparison Chart	<input type="checkbox"/>
[006] Standard for Dual Grain Size Characterization Test Method A1. Micrographs of Dual Grain Size Types	<input type="checkbox"/>
[007] Standard for Dual Grain Size Characterization Test Method X1. Micrographs of Dual Grain Size Types	<input type="checkbox"/>
[008] Standard for Dual Grain Size Characterization Test Method X2. Application of Statistical Program for Determining Grain Size Distribution	<input type="checkbox"/>
[009] Steel apparent grain size of micrographic estimating(planimetry) EM	<input type="checkbox"/>
[010] steel apparent grain size of micrographic estimating(transversal method) EM	<input type="checkbox"/>
[011] determination of nonmetallic inclusion content in steel by standard grading diagram	<input type="checkbox"/>
[012] Evaluation Method of Inclusion Content in Steel_method (Worst field of view method)	<input type="checkbox"/>
[013] Evaluation Method of Inclusion Content in Steel_method (Low Inclusion Content Method)	<input type="checkbox"/>
[014] Evaluation Method of Inclusion Content in Steel_method	<input type="checkbox"/>
[015] Metallurgical examination method. Microscopic examination of non-metallic impurities in high quality steel by metallographic diagram	<input type="checkbox"/>
[016] metallurgical examination of precious metal suprous oxide	<input type="checkbox"/>
[017] determination of decarburization depth of steel	<input type="checkbox"/>
[018] DETERMINATION OF FERRITE GRAIN SIZE OF LOW CARBON STEEL COLD ROLLED SHEET GRAIN ELONGATION	<input type="checkbox"/>
[019] determination of Phase Area Content of Stainless Steel	<input type="checkbox"/>
[020] Metallurgical Examination of Gray Cast Iron Graphite Distribution Shape	<input type="checkbox"/>
[021] Metallurgical Examination of Gray Cast Iron Graphite Length (Manual Analysis)	<input type="checkbox"/>
[022] Metallurgical Inspection of Gray Cast Iron Graphite Length (Automatic Analysis)	<input type="checkbox"/>
[023] Metallurgical Examination of Gray Cast Iron Number of Pearlite	<input type="checkbox"/>
[024] Metallurgical Examination of Gray Cast Iron Number of Carbides	<input type="checkbox"/>
[025] Metallurgical Examination of Gray Cast Iron Number of Phosphorus Eutectic	<input type="checkbox"/>
[026] Metallurgical Examination of Gray Cast Iron Determination of the Number of Eutectic Groups of Cast Iron	<input type="checkbox"/>
[027] Metallurgical examination of gray cast iron Phosphorus eutectic type etc.	<input type="checkbox"/>
[028] Quantitative metallurgical determination	<input type="checkbox"/>
[029] Iron cementite	<input type="checkbox"/>
[030] Pearlite in Low Carbon Deformed Steel	<input type="checkbox"/>
[031] Zonal tissue	<input type="checkbox"/>
[032] Manufacture History	<input type="checkbox"/>
[033] Microstructure Assessment of Steel Calculation of Troostite Content	<input type="checkbox"/>
[034] Metallurgical Martensite Needle Length Rating of Carburized Gear for Automobile	<input type="checkbox"/>
[035] Metallurgical Carbide Rating of Carburized Gears for Automobile	<input type="checkbox"/>
[036] Metallurgical Retained Austenite Rating of Carburized Gears for Automobile	<input type="checkbox"/>

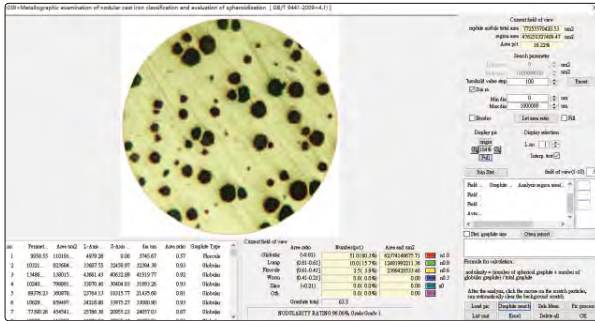
Multi-module grad

To be continued

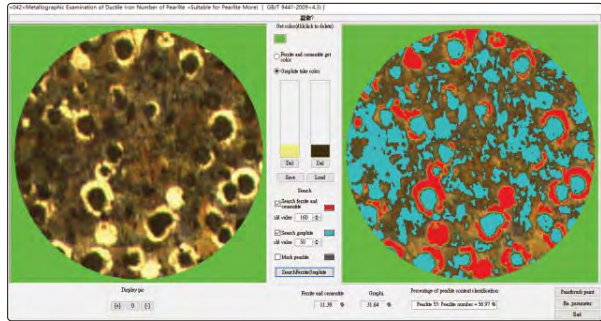
Continued from previous page

examples of metallurgical analysis

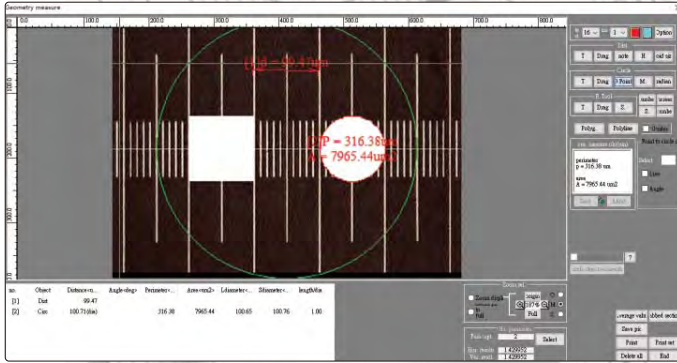
metallurgical analysis of ductile cast iron-spheroidizing grading



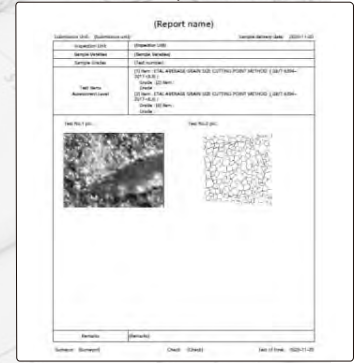
metallurgical analysis of ductile cast iron-pearlite quantity



dimension measurement



report



focus stacking

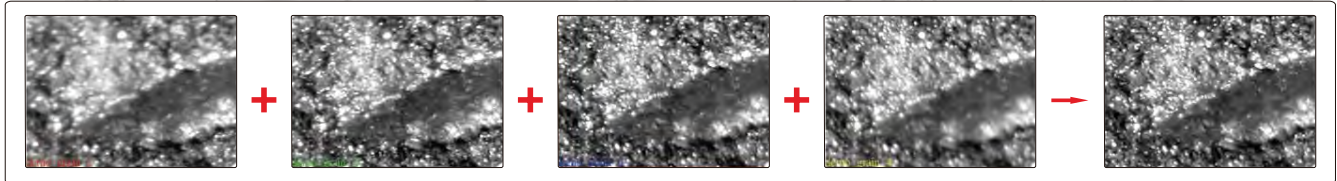
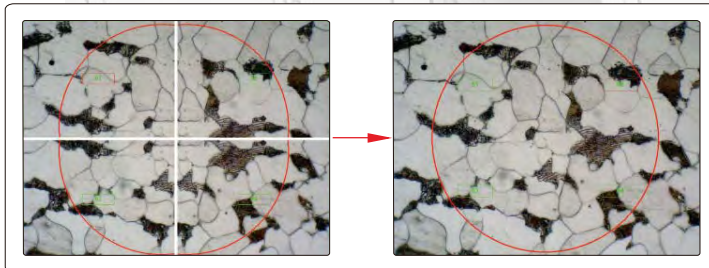
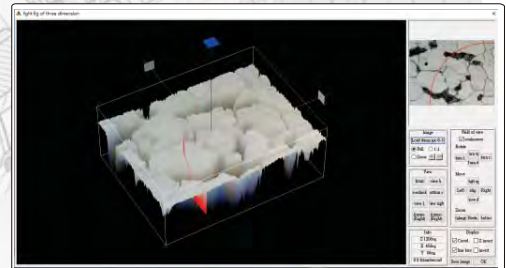


image stitch



three dimension map



SPECIFICATION

Sensor	1/1.8" CMOS
Pixel	6.3M
Resolution	3072x2048
Frame rate	30fps
Exposure time	0.1ms~15s
Power supply	USB port
Weight	400g

STANDARD DELIVERY

Camera (USB cable included)	1 pc
Software	1 pc
Glass calibration rule	1 pc

CAMERA ADAPTERS

- Ø23.2/30mm eyepiece adapter is included
- Suitable for digital cameras **ISM-CM20, ISM-CM63, ISM-ZS70-S**



Ø23.2/30mm eyepiece adapter (included)



0.5X camera adapter (fixed focus distance) ISM-AD-0D5



0.75X camera adapter (fixed focus distance) ISM-AD-0D75



0.5X camera adapter (adjustable focus distance) ISM-AD-A0D5



0.75X camera adapter (adjustable focus distance) ISM-AD-A0D75

application

inserted into eyepiece tube



inserted into camera connector



SPECIFICATION

Code	ISM-AD-0D5	ISM-AD-A0D5 *	ISM-AD-0D75	ISM-AD-A0D75
Type	fixed focus distance	adjustable focus distance	fixed focus distance	adjustable focus distance
Magnification	0.5X	0.41X~0.58X	0.75X	0.64X~0.86X

* There may be shadows on the edge of image when **ISM-AD-A0D5** is used

PORTABLE MEASURING MICROSCOPES



ISM-PM100

SPECIFICATION

Code	ISM-PM20	ISM-PM40	ISM-PM50	ISM-PM100
Total magnification	20X	40X	50X	100X
Eyepiece	10X with graduation	10X with graduation	10X with graduation	10X with graduation
Objective (achromatic)	2X (numerical aperture: 0.05)	4X (numerical aperture: 0.1)	5X (numerical aperture: 0.12)	10X (numerical aperture: 0.25)
Working distance	17.2mm	18mm	17.6mm	7mm
Graduation	0.05mm	0.025mm	0.02mm	0.01mm
Viewing field	Ø9mm	Ø4.5mm	Ø3.6mm	Ø1.8mm
Focus range	30mm			
Illumination	LED light			
Diameter of base	Ø63mm			
Height	210mm			
Weight	650g			

STANDARD DELIVERY

Main unit	1 pc
Pen light	1 pc
Battery (AAA)	2 pcs

TABLE MAGNIFIER WITH ILLUMINATION CODE 7517-3D

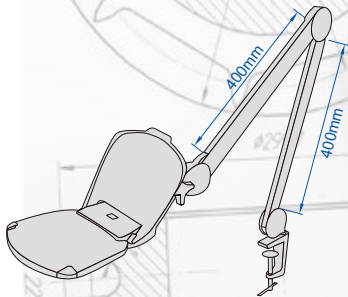
- Four steps brightness adjustment
- LED illumination, working life 20000h
- Resin lens

SPECIFICATION

Magnification	1.75X
Diopter	3D
Lens diameter	Ø125mm
Illumination	power: 3W, illumination: 260lm
Power supply	power adapter 12V, 1A



TABLE MAGNIFIERS WITH ILLUMINATION



- LED illumination, working life 20000h
- Resin lens

SPECIFICATION

Code	7520-320D	7521-3D
Magnification	two magnifications 1.75X/6X	1.75X
Diopter	3D/20D	3D
Lens dimension	160×127mm	Ø126mm
Illumination	power: 6W, illumination: 550lm	
Power supply	power adapter 12V, 1A	

6 pcs LED



lens cover

1.75X

6X



clamping holder
(clamping range
10~60mm)

7520-320D

6 pcs LED



lens cover



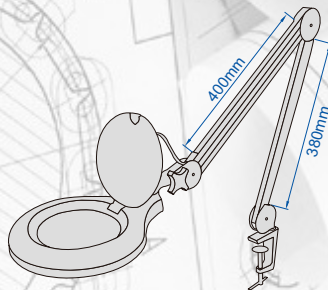
clamping holder
(clamping range
10~60mm)

7521-3D

25

TABLE MAGNIFIER WITH ILLUMINATION CODE 7516-5D

- LED illumination, working life 20000h



SPECIFICATION

Magnification	2.25X
Diopter	5D
Lens diameter	Ø122mm
Illumination	power: 7W, illumination: 420lm
Power supply	100~240V, 50~60Hz



60 pcs LED



lens cover

clamping holder
(clamping range
10~60mm)

7516-5D

European
power plug



DIGITAL MAGNIFIER CODE 7525-D4



after the handle is folded, the magnifier can be directly placed on the object for observation

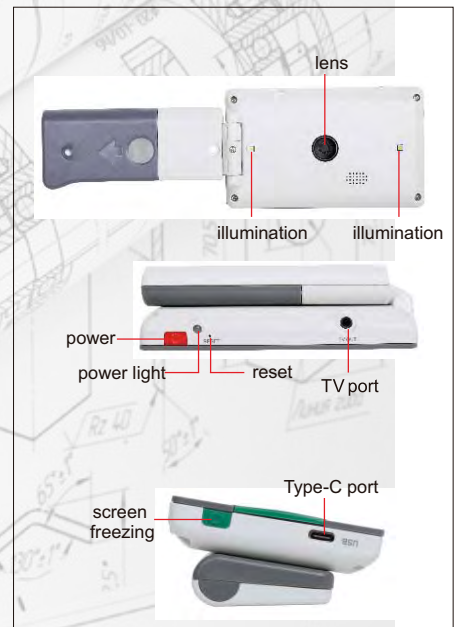


- 720P60 camera
- Auto focus
- With screen freezing function
- 26 color modes can be switched to meet the needs of different people
- Port to TV
- Automatic shutdown after 3 minutes

SPECIFICATION

Screen size	4.3 inch
Screen resolution	480x272
Magnification	2X-32X
Pixel	8M
Focus	manual/automatic
Color mode (26 modes)	color mode, color enhancement mode, negative mode, monochrome mode, black on white, white on black, blue on white, white on blue, yellow on black, black on yellow, yellow on blue, blue on yellow, green on white, white on green, orange on white, white on orange, red on black, black on red, orange on black, black on orange, yellow on green, green on yellow, red on white, white on red, yellow on white, white on yellow
Output	TV
Charging port	Type-C
Lithium battery	1600mAH (for 4 hours working)
Dimension (LxWxH)	123x39x76mm (when the handle is folded)
Weight	210g

side and back



STANDARD DELIVERY

Main unit	1 pc
Video output cable	1 pc
USB charging cable	1 pc
Power adapter	1 pc

DIGITAL MAGNIFIER CODE 7526-D5



- 720P60 (close view) and 1080P30 (far view) cameras
- Double autofocus
- 26 color modes can be switched to meet the needs of different people
- Adopt folding bracket
- Detachable handle design, suitable for left-handed or right-handed use
- TV and HDMI ports to TV and display
- Automatic shutdown after 3 minutes

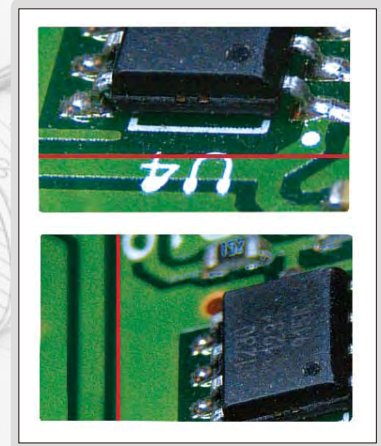
SPECIFICATION

Screen size	5 inch
Screen resolution	800x480
Magnification	2X-32X
Close view pixel	8M
Far view pixel	8M
Focus	manual/automatic
Color mode (26 modes)	color mode, color enhancement mode, negative mode, monochrome mode, black on white, white on black, blue on white, white on blue, yellow on black, black on yellow, yellow on blue, blue on yellow, green on white, white on green, orange on white, white on orange, red on black, black on red, orange on black, black on orange, yellow on green, green on yellow, red on white, white on red, yellow on white, white on yellow
Line	horizontal and vertical red lines
Function	screen freezing, image moving, photo playback, and high definition storage
Output	TV and HDMI
Storage	supports up to 32G TF card
Charging port	Type-C
Lithium battery	2500mAH (for 4 hours working)
Dimension (LxWxH)	145x30x85mm (when the handle is folded)
Weight	275g

STANDARD DELIVERY

Main unit	1 pc
HDMI cable	1 pc
Video output cable	1 pc
USB charging cable	1 pc
Power adapter	1 pc

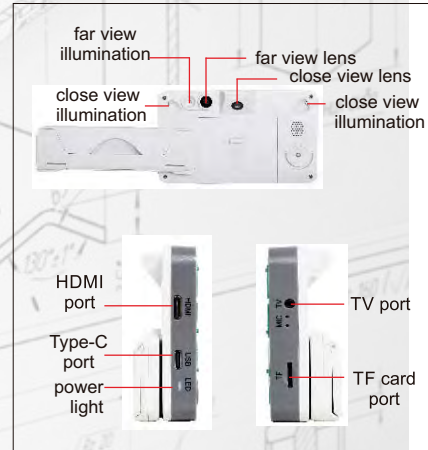
horizontal and vertical red lines



after the handle is folded, the magnifier can be directly placed on the object for observation



side and back



FOLDING MAGNIFIER

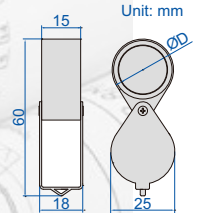
- Glass lens



7511-8



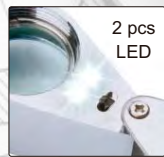
closed



Code	Magnification	Lens diameter (ØD)
7511-8	10X	Ø21mm

FOLDING MAGNIFIER WITH ILLUMINATION

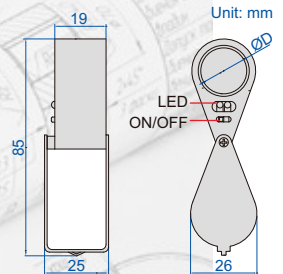
- Resin lens
- Powered by 3xLR927 batteries (included)



7515-10



closed



Code	Magnification	Lens diameter (ØD)
7515-10	10X	Ø21mm

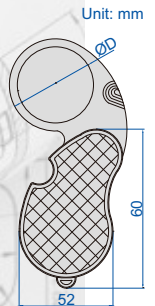
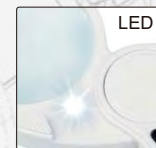
FOLDING MAGNIFIER WITH ILLUMINATION



- Resin lens
- Powered by 2xCR1620 batteries (included)
- LED lights up automatically when opened



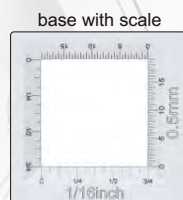
7514-1



Code	Magnification	Lens diameter (ØD)
7514-1	2.5X	Ø45mm

MAGNIFIER WITH ILLUMINATION

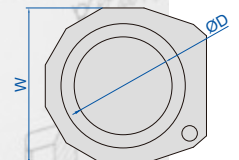
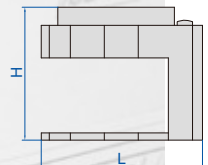
- Glass lens
- Powered by 3xAG7 batteries
- 3 pcs LED and 3 pcs UV
- Base with scale, graduation: 0.5mm, 1/16"



rotate lens to adjust focus



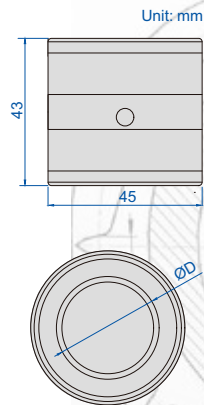
ON/OFF



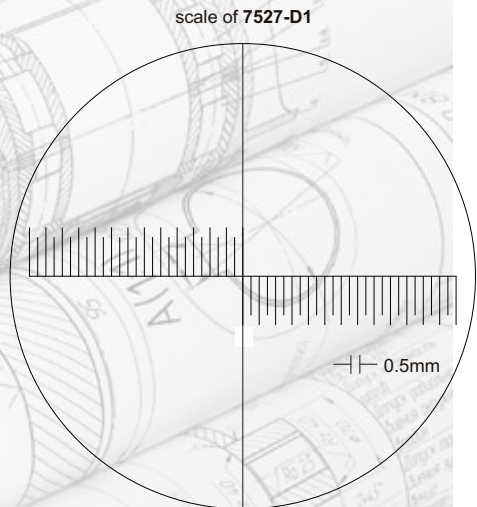
Code	Magnification	Lens diameter (ØD)	L	H	W
7524-10	10X	Ø30mm	60mm	50mm	56mm

7524-10

MEASURING MAGNIFIERS (WITH ILLUMINATION)

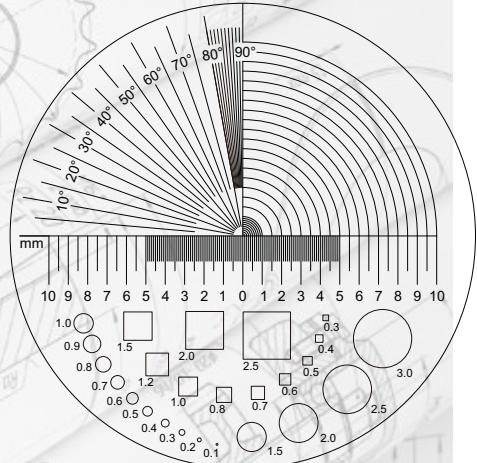
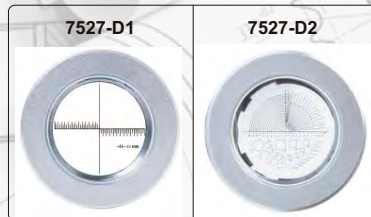


7527-D1



scale of 7527-D2
(0-5mm graduation: 0.1mm, 5-10mm graduation: 0.5mm)

base with scale



- Base with scale
- With 5 white LED and 5 UV LED
- Charging port: Type-C
- Work for 1.5h after fully charged

Code	Magnification	Lens diameter (ØD)
7527-D1	10X	Ø30mm
7527-D2	10X	Ø30mm

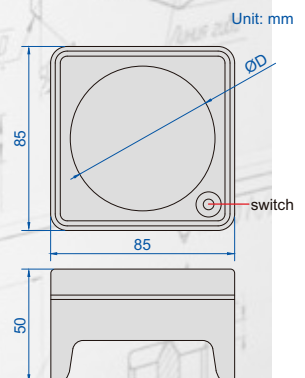
25

MAGNIFIER WITH ILLUMINATION

- Glass lens
- With 4 white LED, three levels brightness adjustment
- Charging port: Type-C



7528-3



Code	Magnification	Lens diameter (ØD)
7528-3	3X	Ø70mm

MAGNIFIERS WITH ILLUMINATION

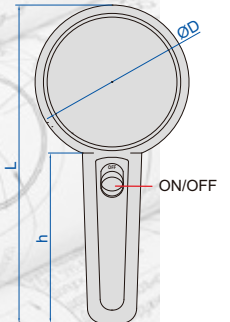


- Glass lens
- Powered by 3xAAA batteries (included)



7513-2

7513-4



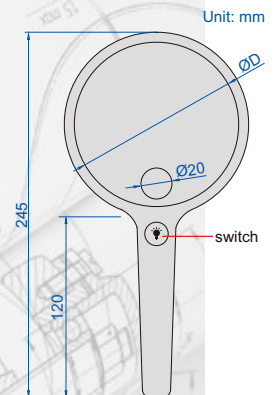
Code	Magnification	Lens diameter (ØD)	L	h
7513-2	2X	Ø75mm	170mm	90mm
7513-4	4X	Ø50mm	145mm	90mm

MAGNIFIER WITH ILLUMINATION

- Resin lens
- With 20 white LED, three levels brightness adjustment
- Charging port: Type-C



7529-24



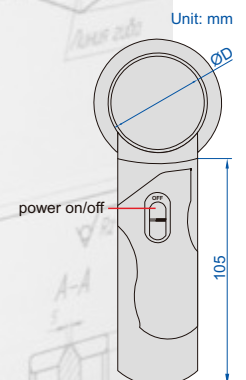
Code	Magnification	Lens diameter (ØD)
7529-24	2X/4X	Ø105mm

MAGNIFIER WITH TWO LENSES

- Resin lens
- Interchangeable lenses
- Powered by 3 pcs AAA batteries (included)



7522-610



Code	Lens number	Magnification	Lens diameter (ØD)
7522-610	2 pcs	6X	50mm
		10X	37mm

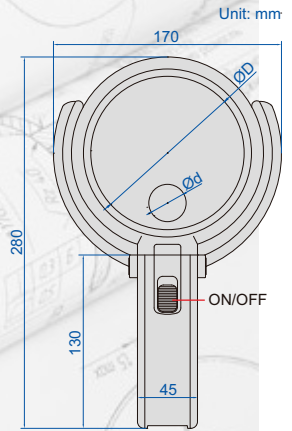
THREE WAYS MAGNIFIER WITH ILLUMINATION



three ways use



- Resin lens
- Powered by 2xAA batteries (included) or power adapter (110~240V, 50~60Hz)



7512-1

Code	Magnification	Lens diameter (ØD/Ød)
7512-1	2X/4X	Ø120mm/Ø28mm

MAGNIFICATION GLASSES



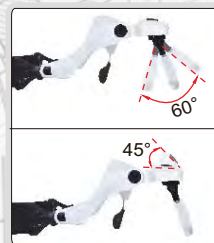
7523-3D5

- Resin lens
- Interchangeable lenses
- Powered by 3 pcs AAA batteries (included)

interchangeable lenses



adjustable lens and LED angle



head band (included)



adjustable holder angle



moveable lens for focus



2 pcs LED



Code	Lens number	Magnification
7523-3D5	5 pcs	1X
		1.5X
		2X
		2.5X
		3.5X

MAGNIFIER

using on table



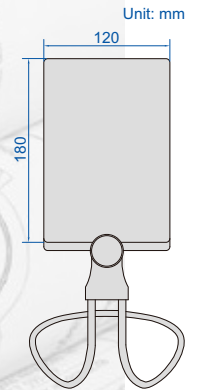
hanging around neck



- Resin lens
- Silicone hose can be shaped according to needs
- Can be used on table or hanging around neck



7530-1D8



Code	Magnification	Lens size
7530-1D8	1.8X	180x120mm

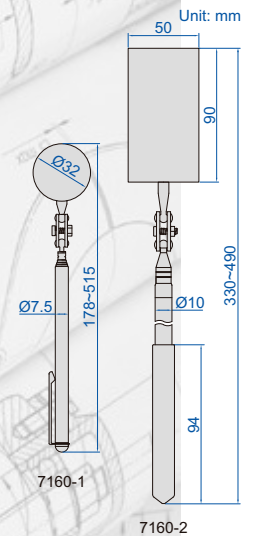
TELESCOPING INSPECTION MIRRORS

- Inspect hidden areas
- Rotation of the mirror: 360°
- Length of handle is adjustable, handle is made of stainless steel



7160-1

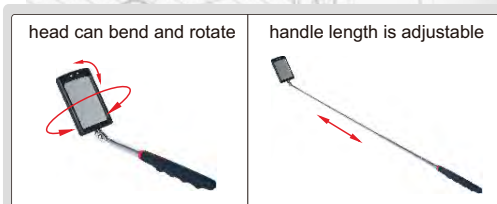
7160-2



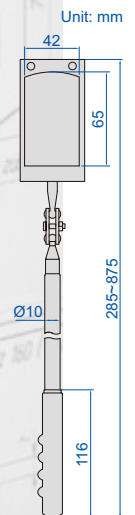
Code	Size of mirror	Length
7160-1	Ø32mm	178~515mm
7160-2	50x90mm	330~490mm

TELESCOPING INSPECTION MIRROR (WITH ILLUMINATION)

- Inspect hidden areas
- Head can bend and rotate
- Telescoping handle, made of stainless steel
- With two CR2032 batteries



7162-1



Code	Size of mirror	Length
7162-1	65x42mm	285~875mm

TELESCOPING MAGNETIC PICK-UP AND FLASHLIGHT



head can bend, handle length is extendible

handle is closed



7163-1



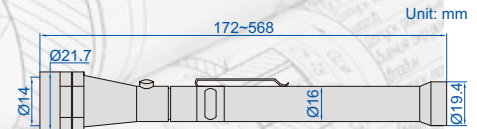
magnetic head



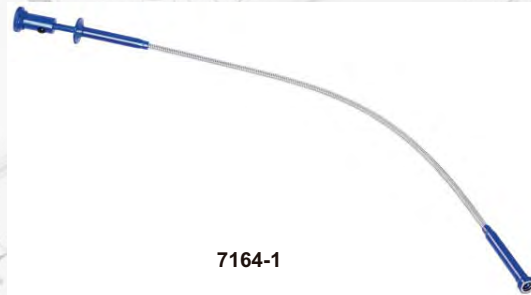
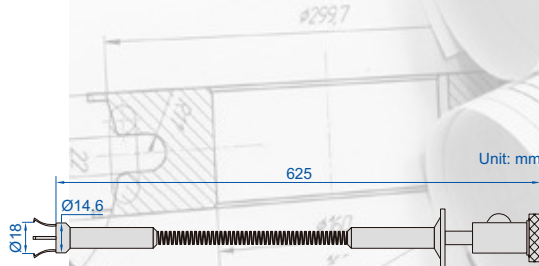
magnetic end to attach on steel surfaces

- For illumination and pick up steel parts in hidden areas
- Head can bend
- Telescoping handle, made of stainless steel
- Magnetic head and end
- With four LR44 batteries

Code	Magnetic force of the end	Magnetic force of the head	Flashlight range	Battery life	Length
7163-1	4kgf	2kgf	3m	8h	172~568mm



FLEXIBLE PICK-UP AND FLASHLIGHT



7164-1

- For illumination and pick up steel parts in hidden areas
- Flexible spring rod, made of stainless steel
- Three LR44 batteries

Code	Magnetic force	Flashlight range	Battery life
7164-1	0.9kgf	1m	24h



flexible spring rod



flashlight head

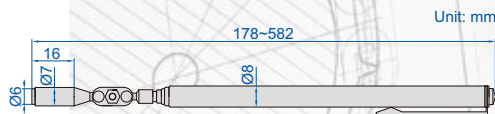


4 retractable claws



magnetic head

TELESCOPING MAGNETIC PICK-UP



- Pick up steel parts from hidden areas
- Rotation of magnetic head: 360°
- Length of handle is adjustable, handle is made of stainless steel



7161-1

Code	Size of magnetic tip	Magnetic force	Length
7161-1	Ø6mm	0.45kgf	178~582mm



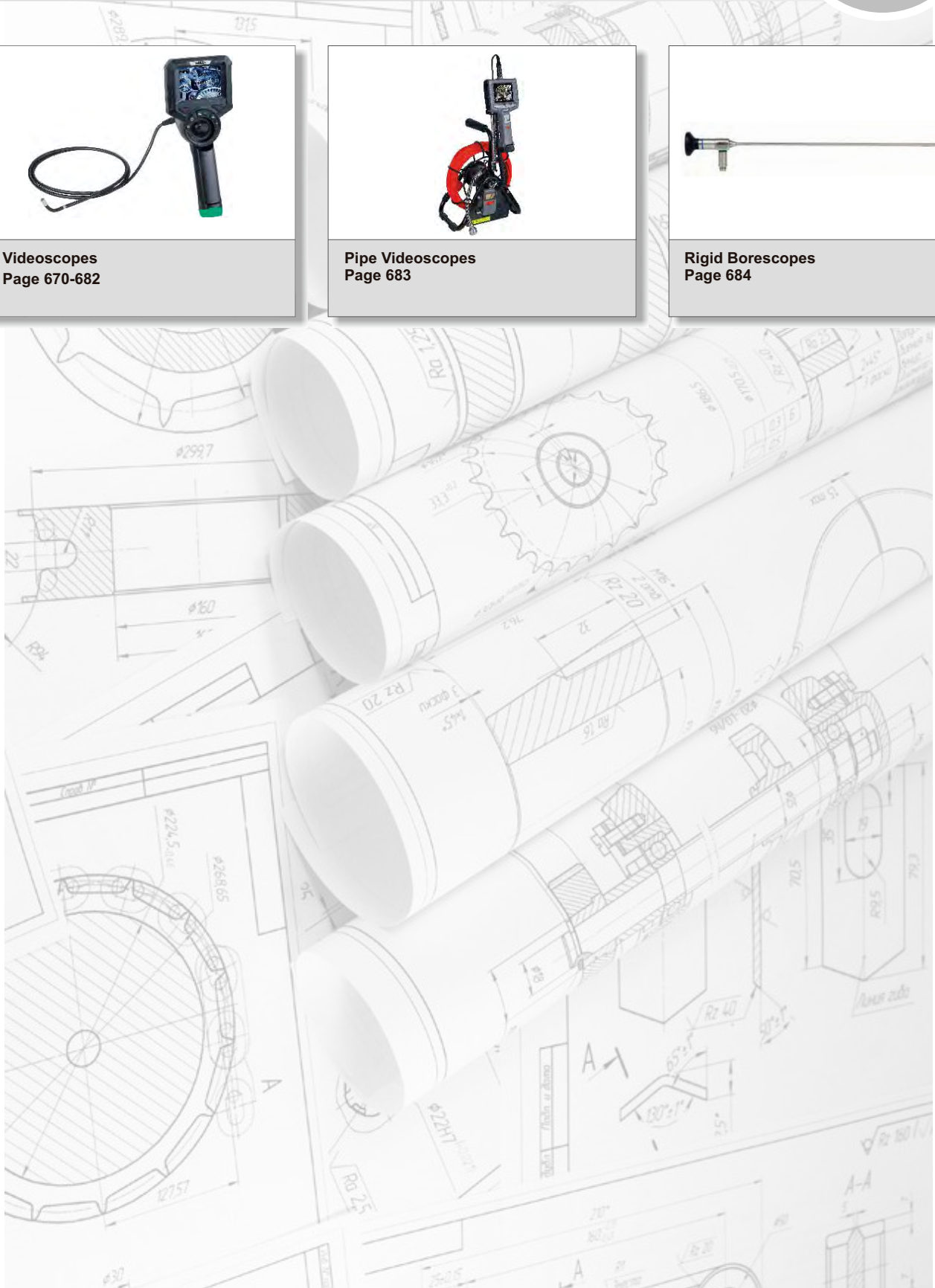
Videoscopes
Page 670-682



Pipe Videoscopes
Page 683

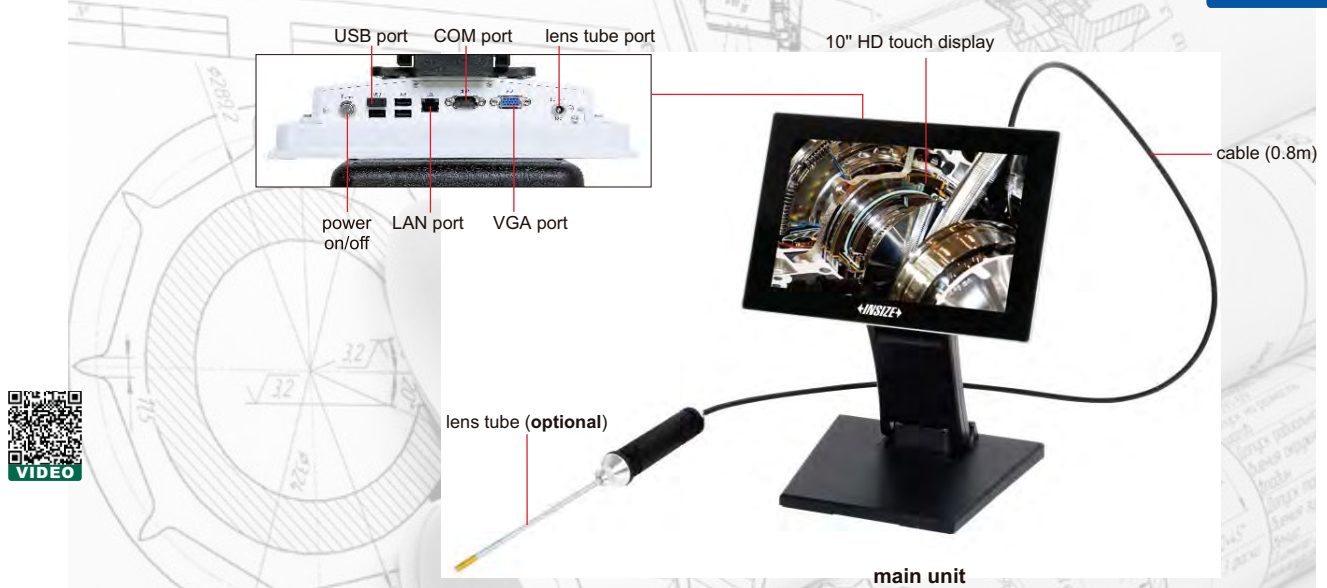


Rigid Borescopes
Page 684



VIDEOSCOPE (DESK TYPE)

REAR FIBER ILLUMINATION



MAIN UNIT (WITHOUT LENS TUBE)

Code	ISV-Y
Display	10" HD touch display
Function	take picture, take video
File format	picture: JPG, video: MP4
Memory	built-in hard disk or USB flash disk
Image process	image zoom (1X, 2X, 3X)
Image control	noise reduction, negative film, flip over, freeze, on-line edit
Illumination	stepless adjustment
Additional function	real-time dynamic annotation, real-time watermark, rapid defect mark
Output	USB, HDMI
Power supply	AC/DC adapter (for continuous working)
Weight	1000g

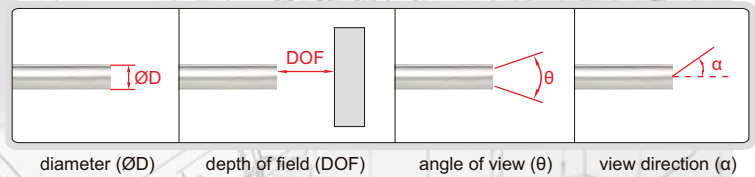
STANDARD DELIEVERY

Main unit	1 pc
USB disk	1 pc
Mouse	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Lens tube	refer to below details
Software for automatic defect identification	can be customized

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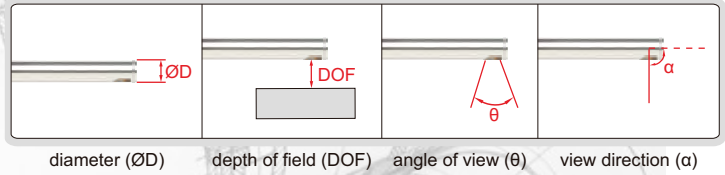


RIGID STRAIGHT LENS TUBE, FRONT VIEW

Code	Lens tube		Lens					
	diameter (ØD)	length (L)	pixel	illumination	angle of view (θ)	depth of field (DOF)	view direction (α)	dust/ waterproof
ISV-Y1210	1.2mm	90mm	0.04M	rear optical fiber	120°	3~70mm	0°	IP67
ISV-Y1810	1.8mm	120mm (optional 90-150mm)	0.16M			3~70mm	0°	
ISV-Y2010	2.0mm	120mm (optional 90-150mm)	0.16M			3~70mm	0°	
ISV-Y2410	2.4mm	150mm (optional 90-300mm)	0.16M			3~70mm	0°	
ISV-Y2810	2.8mm	150mm (optional 90-300mm)	0.16M			3~70mm	0°	
ISV-Y3910	3.9mm	200mm (optional 90-500mm)	1M			8~150mm	0° (optional 30°, 70°)	
ISV-Y6010	6.0mm	300mm (optional 90-1000mm)	1M			12~200mm	0° (optional 30°, 70°)	

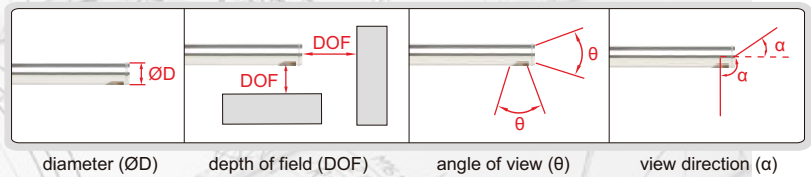
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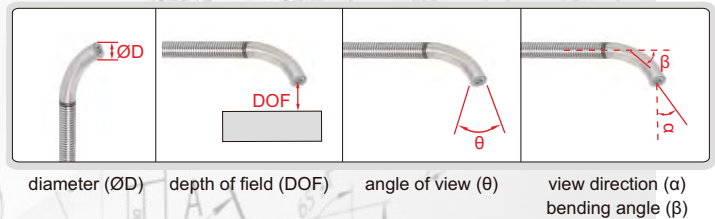
RIGID STRAIGHT LENS TUBE, SIDE VIEW

Code	Lens tube			Lens					
	diameter (ØD)	length (L)	pixel	illumination	angle of view (θ)	depth of field (DOF)	view direction (α)	dust/ waterproof	
ISV-Y2810C	2.8mm	150mm (optional 90-300mm)	0.16M	rear optical fiber	120°	3~70mm	90°	IP67	
ISV-Y3910C	3.9mm	200mm (optional 90-500mm)	1M			8~150mm			
ISV-Y4510C	4.5mm	250mm (optional 90-800mm)	1M			8~150mm			
ISV-Y6010C	6.0mm	300mm (optional 90-1000mm)	1M			12~200mm			



RIGID STRAIGHT LENS TUBE, FRONT VIEW & SIDE VIEW

Code	Lens tube			Lens					
	diameter (ØD)	length (L)	pixel	illumination	angle of view (θ)	depth of field (DOF)	view direction (α)	dust/ waterproof	
ISV-Y6010S	6.0mm	300mm (optional 90-1000mm)	1M	rear optical fiber	120°	front view: 12~200mm side view: 8~150mm	front view: 0° side view: 90°	IP67	

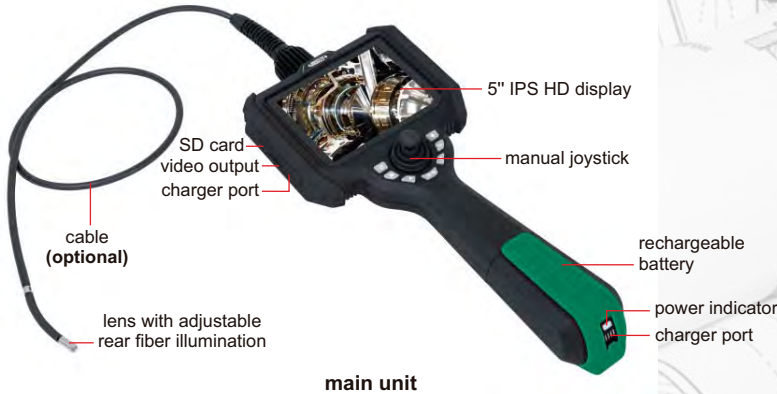


BENDING SPRING LENS TUBE

Code	Lens tube			Lens					
	diameter (ØD)	length (L)	pixel	illumination	angle of view (θ)	depth of field (DOF)	view direction (α)	bending angle (β)	dust/ waterproof
ISV-Y3010W	3.0mm	1000mm	0.16M	rear optical fiber	120°	8~150mm	0°	75° (can be customized)	IP65
ISV-Y5010W	5.0mm		1M			8~150mm			
ISV-Y7010W	7.0mm		1M			12~200mm			

VIDEOSCOPE

REAR FIBER ILLUMINATION



main unit



changeable lens cable



tripod (included)



ISV-L-HOOK (optional)



ISV-L-MAGNET (optional)

MAIN UNIT (WITHOUT CABLE)

Code	ISV-L
Display	5" high definition LCD
Resolution	1024×720
Function	take pictures, take videos
File format	picture: JPG, video: MP4
Image process	image zoom (1X, 2X, 3X, 4X)
Image control	freeze, flip over, playback and analog ruler
Memory	memory card
Output	USB, HDMI
Power supply	rechargeable lithium battery (working time ≥ 4hours) AC/DC adapter (for continuous working)
Weight	1000g



ISV-L-CLAMP (optional)

OPERATION ENVIRONMENT

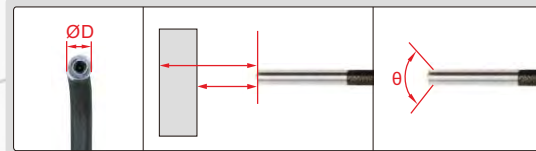
Main unit	-10~50°C, no preheat
Operation temperature	-20~70°C
Storage temperature	-20~60°C
Relative humidity	maximum 90%, no condensation

STANDARD DELIVERY

Main unit	1 pc
32G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Tripod	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Cable	please refer to details
WIFI output	ISV-L-WIFI (must be installed in factory, only for Android OS)
Temperature alarm	ISV-L-HTALARM (must be installed in factory, for Ø3.9mm, Ø4.5mm and Ø6.0mm)
Hook	ISV-L-HOOK (must be installed in factory, for Ø3.9mm, Ø4.5mm and Ø6.0mm)
Magnet	ISV-L-MAGNET (must be installed in factory, for Ø3.9mm, Ø4.5mm and Ø6.0mm)
Clamp	ISV-L-CLAMP



diameter (ØD)

depth of field (DOF)

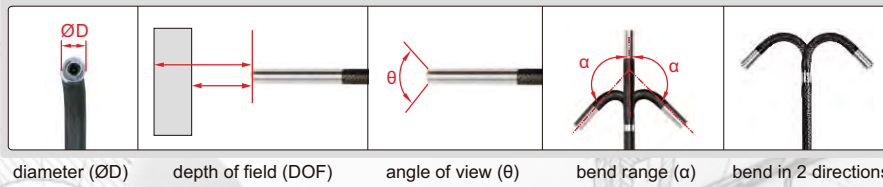
angle of view (θ)

ONE-DIRECTION CABLE (NO BENDING), FRONT VIEW

Code	Cable		Lens							
	length	type	view direction	diameter (ØD)	depth of field (DOF)	angle of view (θ)	illumination	pixel	resolution	dust/ waterproof
ISV-L09505	0.5m	spring tube	front view	0.95mm	3~30mm	>120°	rear fiber	0.16M	400×400	IP65
ISV-L09510	1m			1.2mm	3~30mm					
ISV-L1210	1m			1.5mm	3~70mm					
ISV-L1510	1m	tungsten wire weaved cable								
ISV-L1515	1.5m									

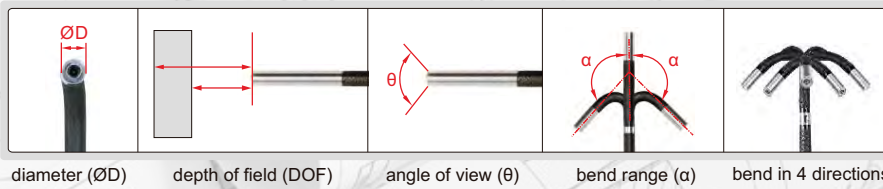
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TWO-DIRECTION BENDING CABLE, FRONT VIEW

Code	Cable		Lens									
	length	type	view direction	bend direction	diameter (ØD)	depth of field (DOF)	bend range (α)	angle of view (θ)	illumination	pixel	resolution	dust/ waterproof
ISV-L1810	1m	tungsten wire weaved cable	front view	two directions	1.8mm	3~30mm	±160°	>120°	rear fiber	0.16M	400×400	IP65
ISV-L2010	1m				2.0mm	3~30mm						
ISV-L2410	1m				2.4mm	3~70mm (optional 5~100mm)						
ISV-L2415	1.5m											
ISV-L2420	2m											

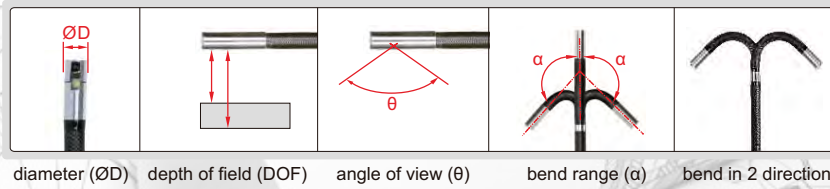


FOUR-DIRECTION BENDING CABLE, FRONT VIEW

Code	Cable		Lens									
	length	type	view direction	bend direction	diameter (ØD)	depth of field (DOF)	bend range (α)	angle of view (θ)	illumination	pixel	resolution	dust/ waterproof
ISV-L2810	1m	tungsten wire weaved cable	front view	four directions	2.8mm	3~70mm (optional 5~100mm)	±160°	>120°	rear fiber	0.16M	400×400	IP65
ISV-L2815	1.5m											
ISV-L2820	2m											
ISV-L2830	3m				3.9mm	8~150mm (optional 3~70mm)						
ISV-L3910	1m											
ISV-L3915	1.5m											
ISV-L3920	2m				6.0mm	12~200mm (optional 3~70mm, 8~150mm)						
ISV-L3930	3m											
ISV-L3940	4m											
ISV-L3950	5m				0.92M	1280×720				IP67		
ISV-L6010	1m											
ISV-L6015	1.5m											
ISV-L6020	2m											
ISV-L6030	3m				0.92M	1280×720				IP67		
ISV-L6040	4m											
ISV-L6050	5m											
ISV-L6060	6m	0.92M	1280×720	IP67								
ISV-L6070	7m											

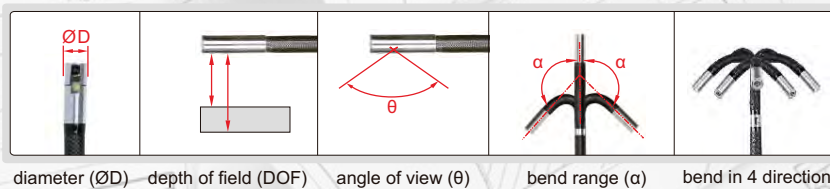
To be continued

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TWO-DIRECTION BENDING CABLE, SIDE VIEW

Code	Cable		Lens									
	length	type	view direction	bend direction	diameter (ØD)	depth of field (DOF)	bend range (α)	angle of view (θ)	illumination	pixel	resolution	dust/ waterproof
ISV-L1810C	1m	tungsten wire weaved cable	side view	two directions	1.8mm	3~30mm	±160°	>120°	rear fiber	0.16M	400×400	IP65
ISV-L1815C	1.5m											

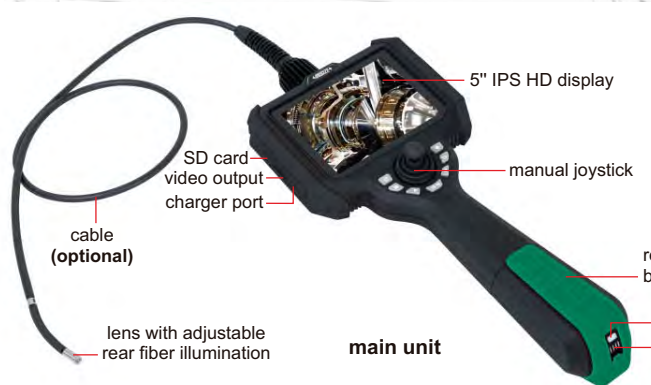


FOUR-DIRECTION BENDING CABLE, SIDE VIEW

Code	Cable		Lens									
	length	type	view direction	bend direction	diameter (ØD)	depth of field (DOF)	bend range (α)	angle of view (θ)	illumination	pixel	resolution	dust/ waterproof
ISV-L2810C	1m	tungsten wire weaved cable	side view	four directions	2.8mm	3~70mm	±160°	>120°	rear fiber	0.16M	400×400	IP65
ISV-L2815C	1.5m											
ISV-L2820C	2m											
ISV-L2830C	3m											
ISV-L4510C	1m				4.5mm	5~100mm (optional 8~150mm)				0.92M	960×720	IP67
ISV-L4515C	1.5m											
ISV-L4520C	2m											
ISV-L4530C	3m											
ISV-L6010C	1m				6.0mm	8~150mm (optional 5~100mm)						
ISV-L6015C	1.5m											
ISV-L6020C	2m											
ISV-L6030C	3m											
ISV-L6040C	4m											
ISV-L6050C	5m											

FRONT AND SIDE VIEW VIDEOSCOPE

REAR FIBER ILLUMINATION



MAIN UNIT (WITHOUT CABLE)

Code	ISV-S
Display	5" high definition LCD
Resolution	1024×720
Function	take pictures, take videos
File format	picture: JPG, video: MP4
Image process	image zoom (1X, 2X, 3X, 4X)
Image control	freeze, flip over, playback and analog ruler
Memory	memory card
Output	USB, HDMI
Power supply	rechargeable lithium battery (working time ≥ 4hours) AC/DC adapter (for continuous working)
Weight	1000g



changeable lens cable



tripod (included)



ISV-S-CLAMP (optional)



ISV-S-HOOK (optional)



ISV-S-MAGNET (optional)

STANDARD DELIEVERY

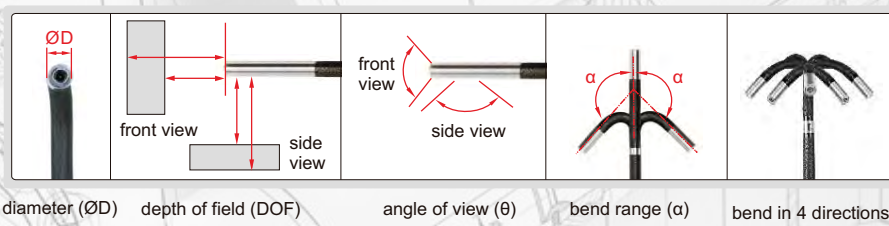
Main unit	1 pc
32G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Tripod	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Cable	please refer to details
WIFI output	ISV-S-WIFI (must be installed in factory, only for Android OS)
Temperature alarm	ISV-S-HTALARM (must be installed in factory)
Hook	ISV-S-HOOK (must be installed in factory)
Magnet	ISV-S-MAGNET (must be installed in factory)
Clamp	ISV-S-CLAMP

OPERATION ENVIRONMENT

Main unit	-10~50°C, no preheat
Operation temperature	-20~70°C
Storage temperature	-20~60°C
Relative humidity	maximum 90%, no condensation

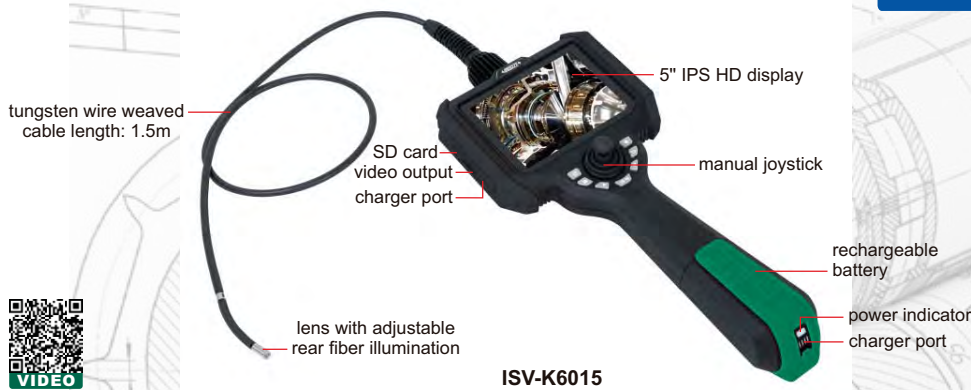


FOUR-DIRECTION BENDING CABLE, FRONT VIEW&SIDE VIEW

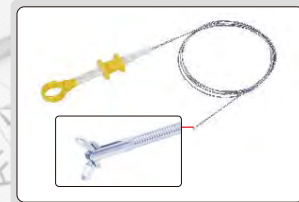
Code	Cable		Lens									
	length	type	view direction	bend direction	diameter (ØD)	depth of field (DOF)	bend range (α)	angle of view (θ)	illumination	pixel	resolution	dust/ waterproof
ISV-S6010	1m	tungsten wire weaved cable	front view and side view	four directions	6.0mm	front view: 12~200mm	±160°	>120°	rear fiber	0.92M	1280×720	IP67
ISV-S6015	1.5m					(optional 3~70mm)						
ISV-S6020	2m					side view: 8~150mm						
ISV-S6030	3m					(optional 3~70mm)						
ISV-S6040	4m											
ISV-S6050	5m											

VIDEOSCOPIES

REAR FIBER ILLUMINATION



changeable lens cable



ISV-K-CLAMP (optional)



ISV-K6015



ISV-K-HOOK (optional)



ISV-K-MAGNET (optional)



diameter (ØD)

depth of field (DOF)

angle of view (θ)

bend range (α)

bend

SPECIFICATION

Code	ISV-K1810	ISV-K2410	ISV-K2810	ISV-K3915	ISV-K6015	
Lens	diameter (ØD)	1.8mm	2.4mm	2.8mm	3.9mm	6.0mm
	pixel	0.16M				0.92M
	resolution	400×400				1280×720
	depth of field	3-30mm	3-70mm	3-70mm	8-150mm	12-200mm
	bending direction	two directions	two directions	four directions	four directions	four directions
	bending range (α)	±160°				
	angle of view (θ)	120°				
	illumination	rear fiber				
	lens	sapphire glass lens				
	dust/waterproof	IP65			IP67	
Cable	bend control	manual joystick				
	length	1m	1m	1m	1.5m	1.5m
Main unit	type	tungsten wire weaved cable				
	display	5" high definition LCD				
	function	take pictures, take videos				
	file format	picture: JPG, video: MP4				
	image process	image zoom (1X, 2X, 3X, 4X)				
	image control	freeze, flip over, playback and analog ruler				
	memory	memory card				
output	USB, HDMI					
power supply	rechargeable lithium battery (working time ≥ 4 hours), AC/DC adapter (for continuous working)					
Weight	1000g					

STANDARD DELIEVERY

Main unit	1 pc
32G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Tripod	1 pc
AC/DC adapter	1 pc

OPERATION ENVIRONMENT

Main unit	-10~50°C, no preheat
Operation temperature	-20~70°C
Storage temperature	-20~60°C
Relative humidity	maximum 90%, no condensation

OPTIONAL ACCESSORY

WIFI output	ISV-K-WIFI (must be installed in factory, only for Android OS)
Temperature alarm	ISV-K-HTALARM (must be installed in factory, for ISV-K3915 and ISV-K6015)
Hook	ISV-K-HOOK (must be installed in factory, for ISV-K3915 and ISV-K6015)
Magnet	ISV-K-MAGNET (must be installed in factory, for ISV-K3915 and ISV-K6015)
Clamp	ISV-K-CLAMP

**MOBILE PHONE VIDEOSCOPE
CODE ISV-P6**



the clamping range of mobile phone bracket L=56-95mm



mobile phone (optional)

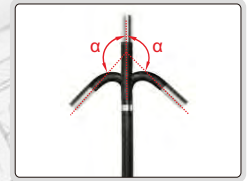
charge port
manual joystick to bend the lens in any direction

video output

indicator light

cable length: 1m

lens with adjustable illumination



bending of lens up to 180°



angle of view



lens with LED



bend in any direction

- For Android and IOS mobile phones

SPECIFICATION

Diameter of lens (ØD)	6±0.2mm
Length of cable	1m
Resolution	960×720, 1280×720 (switchable)
Depth of field	20mm~∞
Angle of view (θ)	100°
Bending range (α)	0~180°
Illumination	LED with 3 levels control
Cable type	wear resistant
Interface	USB, Type-C
Mobile phone system	Android, IOS
Power supply	rechargeable battery (for 2 hours working)
Dimension (L×W×H)	195×57×105mm
Weight	450g

STANDARD DELIVERY

Main unit (with cable)	1 pc
Type-C cable	1 pc
Micro USB cable	1 pc
Iphone cable	1 pc
Charging cable	1 pc

VIDEOSCOPIES (BASIC TYPE)

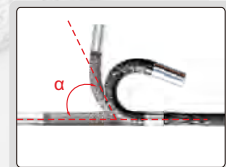
TUNGSTEN WIRE WEAVED CABLE
BREAK AND WEAR RESISTANCE



ISV-S106

SPECIFICATION

Code		ISV-T105	ISV-S106
Lens	diameter (ØD)	6mm	
	pixel	1M	
	resolution	1280×720	
	depth of field	20~150mm	
	bending direction	360°	
	bending range (α)	0°~220°	
	angle of view (θ)	120°	
	illumination	7 pcs LED, with 6 levels control	
	illuminance	25000 Lux	
	lens	sapphire glass lens	
	dust/waterproof	IP67	
	bend control	manual joystick	
temperature alarm	temperature sensor (optional)		
Cable	length	1m	1.5m
	type	tungsten wire weaved cable	
Main unit	display	3.5" IPS full-view display	
	display resolution	640×480	
	function	take pictures, take videos	
	file format	picture: JPG, video: MP4	
	image process	image zoom (1X, 2X, 3X, 4X, 5X)	
	memory	memory card (Maximum: 64G)	
	output	USB, HDMI, WIFI (optional)	
	dust/waterproof	IP65	
power supply	rechargeable lithium battery (working time ≥ 3 hours; optional: additional battery, working time ≥ 9 hours) AC/DC adapter (for continuous working)		
Weight	1000g		



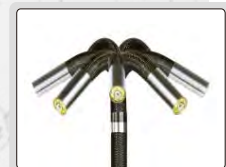
220° bending angle



120° view angle



LED 6 levels control



360° bending direction

STANDARD DELIVERY

Main unit (with cable & lens)	1 pc
16G SD card	1 pc
Card reader	1 pc
USB cable	1 pc
Battery	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Additional battery	ISV-S106-BATTERY (must be installed in factory)
WIFI output	ISV-S106-WIFI
Temperature alarm	ISV-S106-HT-ALARM

MEMORY CABLE CAN BE FIXED AT ANY SHAPE

IP67 WATERPROOF

VIDEOSCOPE (BASIC TYPE)
CODE ISV-E40



magnet pick up (included)



hook (included)



45° mirror (included)

SPECIFICATION

Lens	diameter (ØD)	8mm
	pixel	0.92M
	resolution	1280x720
	depth of field	30~80mm
	angle of view	77°
	illumination	3 levels
Cable	dust/waterproof	IP67
	length	1180mm
Main unit	type	memory (can be set at any shape)
	display	5" IPS LCD
	function	take picture, take video
	file format	picture: JPG, video: MOV
	image process	image zoom (1.5X, 2X, 3X, 4X)
	memory	memory card (optional)
	output	Type-C
	power supply	rechargeable lithium battery (for 5 hours working)
Weight	dimension	217×155×131mm
		506g

STANDARD DELIVERY

Main unit	1 pc
45° mirror	1 pc
Hook	1 pc
Magnet pick up	1 pc

OPTIONAL ACCESSORY

32G memory card	ISV-E40-CARD
Card reader	ISV-E40-READER

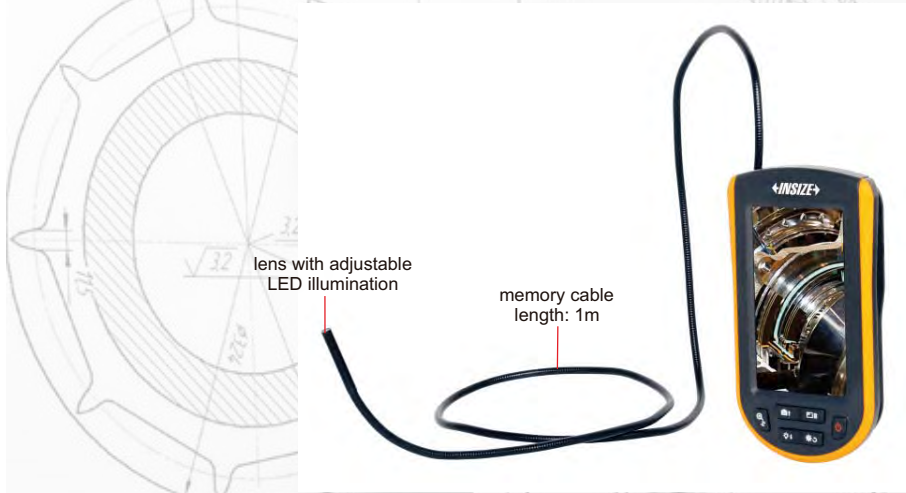
OPERATION ENVIRONMENT

Operation temperature	-10~50°C
Storage temperature	-20~60°C
Operation humidity	15%~85%

VIDEOSCOPE (ECONOMIC TYPE) CODE ISV-E30

MEMORY CABLE CAN
BE FIXED AT ANY SHAPE

IP67
WATERPROOF



magnet pick up (included)



hook (included)



cable can be wrapped around
the main unit

SPECIFICATION

Lens	diameter	5.2mm
	pixel	0.4M
	depth of field	30~80mm
	angle of view	72°
	illumination	8 levels
	dust/waterproof	IP67
Cable	length	1m
	type	memory (can be set at any shape)
Main unit	display	4.3" LCD
	function	take picture, take video
	file format	picture: JPG, video: AVI
	image zoom	2X
	memory card	memory card (optional)
	output	micro USB
	power supply	AA battery
dimension	154×32.5×87.5mm	
Weight		280g

STANDARD DELIVERY

Main unit	1 pc
Hook	1 pc
Magnet pick up	1 pc
AA battery	4 pcs

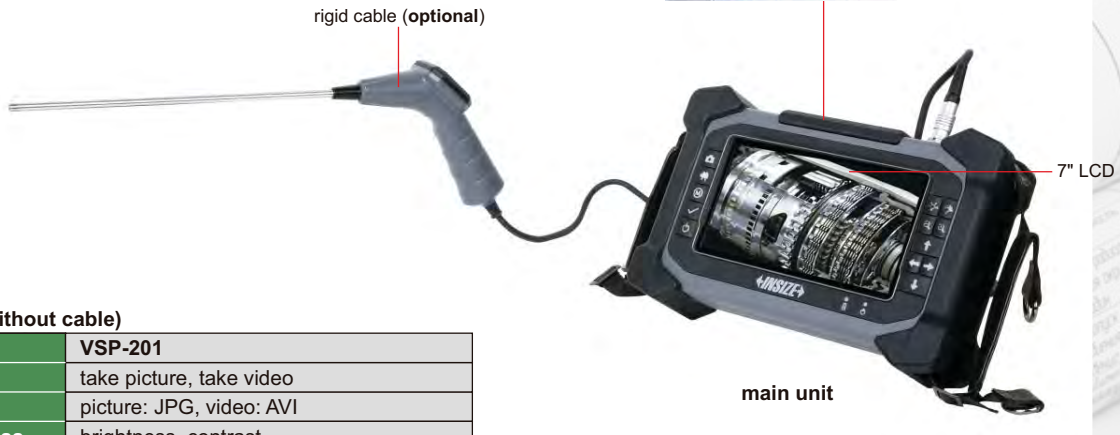
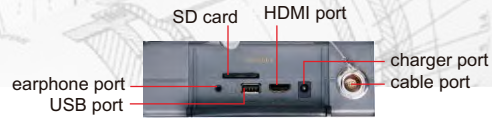
OPTIONAL ACCESSORY

32G memory card	ISV-E40-CARD
Card reader	ISV-E40-READER

OPERATION ENVIRONMENT

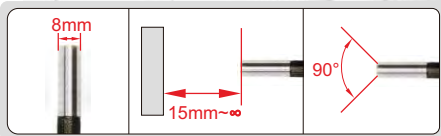
Operation temperature	-10~50°C
Storage temperature	-20~60°C
Operation humidity	15%~85%

MULTIPURPOSE VIDEOSCOPE



MAIN UNIT (without cable)

Code	VSP-201
Function	take picture, take video
File format	picture: JPG, video: AVI
Image process	brightness, contrast
Memory	64GB
Output	HDMI, USB
Power supply	rechargeable battery (for 4 hours working)
Dimension	260×170×65mm
Weight	1.2kg



diameter (ØD) focus distance (F) angle of view (θ)



bend in any direction 360° swivel in clockwise and counter-clockwise bend within 120°



FOUR-DIRECTION BENDING CABLE (FRONT VIEW)

Code	VSP-201D	
Cable	length	3m
	type	tungsten wire weaved cable
Lens	diameter (ØD)	8mm
	focus distance (F)	15mm~∞
	angle of view (θ)	90°
	illumination	6 pcs LED
	pixel	1M
	resolution	1280×720
	dust/waterproof	IP67



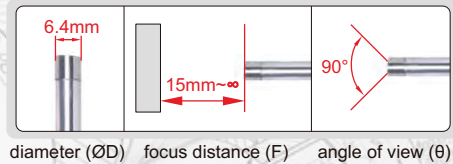
To be continued

Continued from previous page



RIGID CABLE

Code	VSP-201H	
Cable	length (L)	250mm
	type	stainless steel
Lens	diameter (ØD)	6.4mm
	focus distance (F)	15mm~∞
	angle of view (θ)	90°
	illumination	6 pcs LED
	pixel	1M
	resolution	1280×720
dust/waterproof		IP64



ROTATING LENS CABLE

Code	VSP-201R	
Cable	length	30m
	type	high strength glass fibre
Lens	diameter (ØD)	40mm
	focus distance (F)	3mm~∞
	angle of view (θ)	100°
	illumination	12 pcs LED
	pixel	1M
	resolution	1280×720
dust/waterproof		IP67
lens control		motorized



indicator of cable working length (resolution: 0.01m)

support wheel (included)



rotating lens



±90° rotation in radial direction, ±180° rotation in axial direction

diameter (ØD) focus distance (F)

WIDE-ANGLE LENS CABLE

Code	VSP-201W	
Cable	length	30m
	type	high strength glass fibre
Lens	diameter (ØD)	24mm
	focus distance (F)	25mm~∞
	angle of view (θ)	100°
	illumination	12 pcs LED
	pixel	1M
	resolution	1280×720
dust/waterproof		IP67



indicator of cable working length (resolution: 0.01m)

support wheel (included)



wide-angle lens



angle of view (θ) diameter (ØD) focus distance (F)

ADJUSTABLE SUPPORT

Code	Working diameter (ØD)	Remark
VSP-201-R200	60~200mm	for VSP-201R or VSP-201W



application



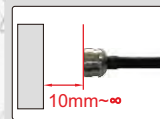
IP68
WATERPROOF

ATTENTION: RESISTANCE TO ACID AND ALKALI LIQUID (CONSULT IS NEEDED)

**PIPE VIDEOSCOPE
CODE ISV-VP280**



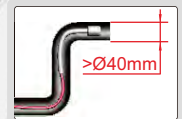
lens with adjustable LED illumination



focus distance



angle of view



can turn at least two times in the pipe (>Ø40mm)

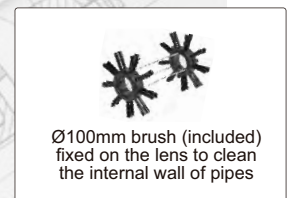


vertical use

horizontal use



Ø50mm centering ring (optional) fixed on the lens to center lens in the pipe



Ø100mm brush (included) fixed on the lens to clean the internal wall of pipes

SPECIFICATION

Lens	diameter	28mm
	dust/waterproof	IP68
	pixel	0.3M
	resolution	640×480
Cable	frame	30fps
	length	30m
	dust/waterproof	IP68
Main unit	type	semi-rigid
	function	take picture and video
	file format	picture: JPG, video: ASF
	image process	mirror, rotate, zoom (1.5X, 2X)
	memory	4G SD card
	output	TV, USB
	power supply	4×AA batteries
Weight		5kg

STANDARD DELIVERY

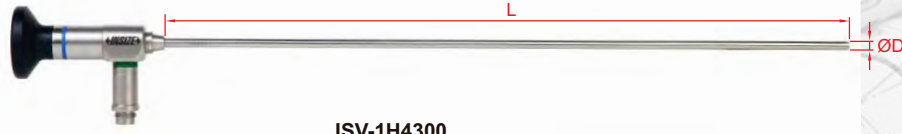
Main unit	1 pc
Cable with lens	1 pc
Stand	1 pc
Indicator of cable working length	1 pc
4G SD card	1 pc
Ø100mm brush	1 pc
AA battery	4 pcs
AAA battery	2 pcs
Video output cable	1 pc
USB cable	1 pc

OPTIONAL ACCESSORY

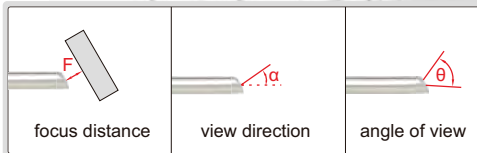
Ø50mm centering ring	ISV-VP280-R50
Ø150mm brush	ISV-VP280-B150

RIGID BORESCOPIES

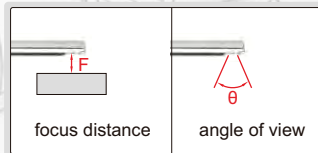
IP67
WATERPROOF



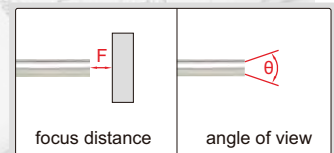
ISV-1H4300



view direction $\alpha=30^\circ$ or 70°



view direction $\alpha=90^\circ$



view direction 0°

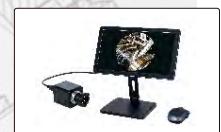
- Focus distance: 2mm, depth of view: 5~100mm
- Dust/waterproof level: IP67
- Can be used in liquid with temperature $-10^\circ\text{C} \sim 85^\circ\text{C}$



LED light handle
(optional)



adjustable LED light source
(optional)



camera and display
(optional)

SPECIFICATION

Code	Length (L)	View direction (α)	Diameter (\varnothing D)	Angle of view (θ)
ISV-1H4170	174mm	0°	4mm	$\geq 60^\circ$
ISV-1H4173	174mm	30°		
ISV-1H4177	174mm	70°		
ISV-1H4179	166mm	90°		
ISV-1H4300	302mm	0°		
ISV-1H4303	302mm	30°		
ISV-1H4307	302mm	70°		

OPTIONAL ACCESSORY

LED light handle	ISV-1HLED
Adjustable LED light source	ISV-1LED1
Camera and display	ISV-2CAM

**LED LIGHT HANDLE
CODE ISV-1HLED**

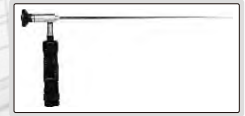
- For rigid borescopes



battery (included)



charger (included)



SPECIFICATION

Power	3W
Battery	3.7V rechargeable battery (for 2 hours working)
Dimension	120×27×27mm
Weight	300g

STANDARD DELIVERY

Main unit	1 pc
Battery	1 pc
Charger	1 pc

**ADJUSTABLE LED LIGHT SOURCE
CODE ISV-1LED1**

- For rigid borescopes
- High LED illumination and brightness is adjustable
- For long time work with low noise



SPECIFICATION

Color temperature	5600K
Cooling	fan cooling
Power	AC110~220V, 50/60Hz
Dimension	400×300×112mm
Weight	7kg

STANDARD DELIVERY

Main unit	1 pc
1.8m optical fiber cable	1 pc

TAKE PICTURES
AND VIDEOS

AUTO FOCUS



**CAMERA (WITH DISPLAY)
CODE ISV-2CAM**



- For rigid borescopes
- 1080P high-definition image
- Auto-focus camera
- Take pictures and videos, saved to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

SPECIFICATION

Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	350×100×430mm
Weight	2kg



STANDARD DELIVERY

Camera	1 pc
Connector	1 pc
13.3" LCD (with stand)	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs



16G USB flash disk (included)