



ARCS International Company was established on 2011 and responsible all exporting sales and services for ARCS manufactory. It reaches to offer the professional and quickly service for all distributors worldwide.

The ARCS Automatic non-contact video measuring system works through the optical system to capture the image, and the measuring speed is 10 times faster than the traditional design. It can reduce the measuring times, increase efficiency and complete Perform the function of geometric measuring. The humanized design is very easy to use, allowing the operator to spend just a short time for learning. The design won the SBIR award of ministry from the Economic Affairs (MOEA) in Taiwan in 2007. All applications of ARCS Noncontact measuring system can be used to perform high precision measurements for the purpose of developing the technology of related manufactory and maintaining the high quality of the products.

In order to offer the total service for customers, ARCS strengthened the technical cooperation, and established length of calibration laboratory (TAF), which is reached CNLA standard in 2006. To offer high accuracy products, reliable quality, develop technology and offer satisfactory service to customers all the time then reach the meaning of our brand "ARCS" (Accuracy, Reliability, Creation and Satisfaction). Complete marketing network, professional R&D and service team: make the product in demand worldwide and the quality is comparable to European and American manufactories.







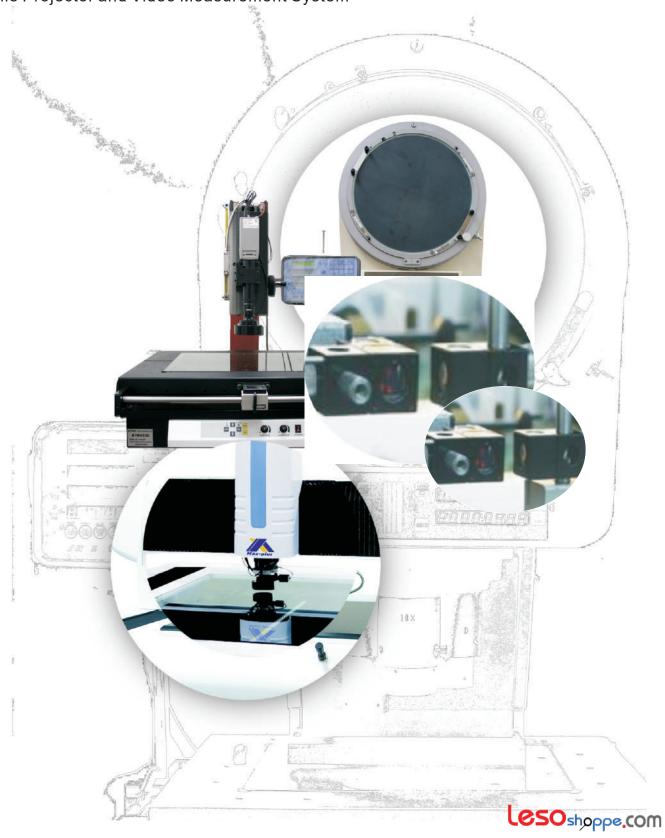


Length of Calibration Laboratory

ARCS Precision Technology Co., Ltd. Length of Calibration Laboratory (Established on 2006)

Calibration items:

Profile Projector and Video Measurement System





Length of Calibration Laboratory









Certificate No.L1548-150116

財團法人全國認證基金會 Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Arcs Precision Technology Co.,Ltd. Length of calibration Laboratory

No.69-1, Sioujhong St., Sioushuei Township, Changhua County 504, Taiwan (R.O.C.)

is accredited in respect of laboratory

Accreditation Criteria : ISO/IEC 17025:2005

Accreditation Number : 1548

Originally Accredited : January 18, 2006

Effective Period : January 18, 2015 to January 17, 2018

Accredited Scope : Calibration Field, see described in the Appendix

Jay-San Chen

President, Taiwan Accreditation Foundation

Date: January 16, 2015

P1, total 2 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix







Manual Type Non-Contact Video Measuring System

This non-contact vision measuring system comprises of high resolution and accuracy CCD, monocular lens with continuous zoom magnification system, high-precision linear scales and stage. It is an optical precision measuring system with high precision and efficiency, which is widely applied in various precision industries.

Usage: Rapid detection the dimension of contour, surface, angle and position for complex, precision parts. Especially in the inspection and quality control of micro-precision parts .It can be use for product development, two-dimensional scanner and other fields.

INDEX:

- ► HIM 2015 (Horizontal)
- ► KIM CU Series (Vertical)
- ► KIM U Series (Vertical)
- ► PIS-1516(Protable)

Application (please refer to P.17)
Accessories (Please refer to P.18~19)







Horizontal Non-Contact Video Measuring System

HIM-2015/HIM-3015

Technology Features:

► High resolution & high Accuracy CCD-Japan Made

► Magnification: 0.3x ~1.8x (10x~60x) Step lens Optional: 0.7~4.5(17.5~112.5x) step lens

▶ Illumination: Adjustable surface and contour illumination

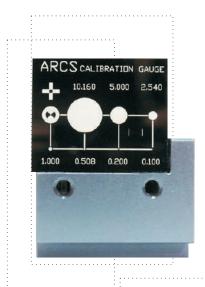
Linear scale: 0.5µm on X.Y - axis
 Length Accuracy: ±(3+L/75) µm
 Repeatability: 3µm on X.Y - axis

► Connection: RS-232 Output + Metrology software

► Power supply: 1~, AC110~230V, 50/60Hz

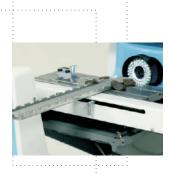
► Monitor: 17 inch touch panel

► Software: SI-101











Model No	HIM-2015	HIM-3015
Travel Size (X. Y)	200x 130	300x 130
Focus Distance (mm)	130	130
Stage Size (mm)	340 x 130	440 x 130
Stage Load Capacity	25 kg	25 kg
Dimension (mm)	935 x 680 x 970	995 x 880 x 970
Net Weight	143 kg	159 kg







Vertical Non-Contact Video Measuring System

Lesoshoppe.com

KIM-CUS eries

Technology Features:

- ► High resolution & High Accuracy CCD
- ▶ Magnification: 0.7~4.5 (17.5~112.5x) Zoom lens
- ▶ Illumination: Adjustable surface and contour illumination
- ▶ Linear scale: 0.5µm on X.Y.Z-axis
- ► Length Accuracy: ±(3+L/150) µm on X, Y-axis
- ► Repeatability: 3 µm on X.Y-axis

Professional Option:

- ▶ Japan Made CCD
- ► German Made Screw Friction Drive
- ▶ Japan Made Guide ways
- ► Length Accuracy: ±(3+L/200) µm on X, Y-axis



Model No	KIM-2010CU	KIM-3020CU
Travel Size (X. Y. Z)	200 x 100 x 200 mm	300 x 200 x 200 mm
Stage Size (mm)	355 x 255	505 x 355
Stage Load Capacity	25 kg	25 kg
Dimension (mm)	650 x 535 x 975	855 x 655 x 995
Net Weight (kg)	150 kg	230 kg





Vertical Non-Contact Video Measuring System

KIM-US eries

Technology Features:

Video System:

- ► Navitar Step Zoom Lens-USA Made
- ▶ 1/2" High resolution & High Accuracy CCD- Japan Made
- ► Magnification: 0.7~4.5(17.5~112.5x) (Optional 0.5x or 2x Objection Lens)
- ▶ Illumination: Adjustable surface and contour illumination
- ► Linear Scale: 0.5µm on X.Y.Z-axis
- ► Length Accuracy: ±(3+L/200)µm on X, Y-axis
- ► Repeatability: 2 µm on X.Y-axis



Model No	KIM-2010U	KIM-3020U	KIM-4530U
Travel Size (X. Y. Z) Stage Size (mm) Stage Load Capacity Dimension (mm) Net Weight (kg)	200x 100 x200	300x 200 x200	450x 300 x200
	355x 255	505x 355	705x 505
	25 kg	25 kg	25 kg
	563 x 592 x 870	785x 800 x 900	1070 x 1090 x770
	130 kg	185 kg	340 kg





Vertical Non-Contact Video Measuring System

KIM-US eries (N-Type)

Technology Features:

- ► High resolution & High Accuracy CCD
- ► Magnification: 0.7~4.5 (17.5~112.5x) Auto Zoom lens
- ► Guide Ways-Japan Made
- ► Screw Friction Drive: German Made
- ▶ Illumination: LED Adjustable surface and contour illumination (High Brightness illumination)
- ► Linear scale: 0.5µm on X.Y.Z-axis
- ▶ Length Accuracy: ±(2+L/200) µm on X , Y-axis
- ► Repeatability: 2 µm on X.Y-axis
- ▶ Precision Granite Base
- ► Multi-function image measuring Software: SI-101A





Model No
Travel Size (X. Y. Z)
Stage Size (mm)
Stage Load Capacity
Dimension (mm)
Net Weight (kg)

KIM-2010U(N-Type) 200x 100x 200 mm 355x 255 25 kg 563 x 592 x 870 130 kg







Protable Non-Contact Video Measuring System

PIS-1516

Technology Features:

- This design is Easy installation, good for on-line and simple measurement. (It could connect to the notebook)
- ▶ Enlarge the part of the working piece for inspection the surface.
- ▶ Scan the shape of the working piece, dimension remark and complete report
- ▶ Video System: 0.3M Web Cam /Resolution 640x480
- ► Magnification: 5x ~ 135x zoom lens
- ▶ Illumination: LED reflection illumination
- ► Repeatability: 0.05mm

► Visible scope: 3x2 mm~50x40 mm

▶ Base: SS400 rolled steel

► Column of Z-axis: High Carbon-Chromium Bearing Steel

► Interface: USB2.0

▶ Base of Calibration: U Type Shaft construction

► Including the Calibration Kit, Aluminum suitcase

▶ Built-in Measuring Software: SV-1000



Model No	PIS-1516
Stage size(mm)	96mm x 150mm
Stage load capacity	10kg
Dimersion (mm)	150x 165 x 290
Net weight(kg)	4.5kg





This non-contact vision measuring system comprises of image processing and automated features such as light source control, movement, focus and zoom magnification. The X and Y-axis movement are constructed on high precision linear stage with fast traveling speed, and the Z-axis constructed on a highly rigid transmission mechanism. This system is a high precise, efficient, and automated optical measuring system combined with automatic multi-functional image- measuring software.

It is widely applied in different industries that require accuracy, such as in the creation of electronics parts, precision molding, screw, precision cutting tools, plastic injection molding, camera, bicycle, automotive, display component, components of the optical communication, PCB, flexible board, and other metal industries.

INDEX

- ► KAM Series
- ► Max-Plus Series

Application (Please refer to P17) Accessories (Please refer to P.18~19)





MR#S

Automatic Non-Contact Video Measuring System

K A M-3020

Technology Features:

- ► Video system: High Resolution & high Accuracy CCD/High Speed Video Capture Card
- ► Magnification: 0.7x~4.5x(17.5x~112.5x) Standard Coaxial Zoom lens Optional Objection Lens: 2x, 5x or 10x.
- ► Illumination: Adjustable surface and contour illumination High Brightness Ring illumination/ 26 Channel Multi-Sections Illumination

► Linear scale: 0.5µm on X, Y, Z-axis

► Length Accuracy: ±(2+L/100) µm on X, Y-axis

► Repeatability: 2 µm on X.Y-axis

► Motor: X, Y, Z Servo Motor Motor Operation: Mouse program (Optional: Joystick)

► Power supply: 1~, AC220~230V, 50/60Hz

► Base: Precision granite table

➤ Support software: SI-901 Optional functions:

SI-901B-with Touch Probe Function;



3 4			-	-
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KAM-3020

Travel Size (X. Y. Z)
Stage Size (mm)
Stage Load Capacity (kg)
Travel Speed (Max.)(X. Y. Z)
Dimension (mm)
Net Weight (kg)

300x 200x 200 mm 505x 355 25 kg 120 mm/sec. 1075 x 850 x 1900 440 kg







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Max-Plus Series

Technology Features:

▶ Video system: High Resolution & High Accuracy CCD / High Speed Video Capture Card

▶ Magnification: 0.7x~4.5x (17.5x~112.5x) Standard Zoom lens

Optional: Co-axial Lens
Optional: Objection Lens:
0.5x lens (For Standard Lens)

2x lens (For Standard or Co-axial Lens) 5x or 10x lens (For Co-axial Lens)



- ► Illumination: Adjustable surface and contour illumination (High Brightness Ring illumination) (Option: 26 Channel Multi-Sections Illumination)
- ► Linear scale: 0.5µm on X, Y, Z- axis
- ► Length Accuracy: ± (2+L/100) µm on X, Y-axis
- ► Repeatability: 2µm on X, Y axis
- ► Motor: X, Y, Z Servo Motor
- ► Motor Operation: Mouse program (Optional: Joystick)
- ▶ Base: Precision granite table
- ► Power supply: 1~, AC220~230V, 50/60Hz
- ➤ Support software: SI-901 Optional functions:
 - SI-901A-Import Excellon File;
 - SI-901B-with Touch Probe Function;
 - SI-901C-with Rise Shrinks Bracket Function;
 - SI-901D-with Image Capture Function;
 - SI-901G-with Laser Measurement Function

Model No	MAX-2010	MAX-3020	MAX-4530
Travel- X. Y axis	200x100mm	300x200mm	450x300mm
Travel - Z axis	200 mm	200 mm	200 mm
Stage Size	355 x 255mm	505 x 355mm	705 x 505mm
Stage Load Capacity	25 kg	25 kg	25 kg
Travel Speed (Max.)	120mm / sec.	120mm / sec.	120mm / sec.
$L \times W \times H (mm)$	1070 x 850 x 1900	1075 x 850 x 1900	1185 x 1275 x 1900
Net Weigh	432 kg	440 kg	642 kg





Max-Plus Series (With Metallurgical Microscope)

Technology Features:

- ▶ Video system: High Resolution & High Accuracy CCD / High Speed Video Capture Card
- ▶ Nikon Metallurgical microscope: LV Modular CF160 System

A.MQD42000 C-Mount CCTV Adaptor

B.MBB63420 LV-T13 Trinocular Tube

C.Eyepiece CFI UW 10X-F. O. V. 25MM

D.Objective:

CFIL Plan EPI - 2.5X: W.D. =8.8mm, N.A.=0.075mm

CFIL Plan Fluor EPI - 5X: W.D. =23.5mm, N.A.=0.15mm

CFIL Plan Fluor EPI – 10X: W.D. =17.3mm, N.A.=0.30mm

CFIL Plan Fluor EPI - 20X: W.D. =4.5mm, N.A.=0.45mm

E.LV-UEPI Universal Epi- illuminator (12V, 50W)

F.Contour illuminator: 1W

G.NCB11 - color balancing Filter

H.Nosepiece: LV-NU5A Motorized Nosepiece (Include LV- NCNT

Controller)

► Linear scale: 0.5µm on X, Y, Z - axis

► Length Accuracy: ±(2+L/100) µm on X, Y-axis

► Repeatability: 2µm on X, Y- axis

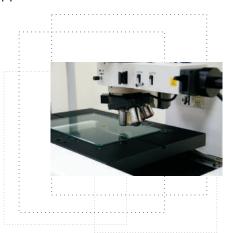
► Motor: X, Y, Z Servo Motor

► Motor Operation: Mouse program (Optional: Joystick)

▶ Base: Precision granite table

► Power supply: 1~, AC220~230V, 50/60Hz

► Support software: SI-901



Model	No	

Travel Size (X. Y. Z)

Stage Size

Stage Load Capacity Travel Speed (Max.)

Dimension (mm)

Net Weight

MAX-4530 (OM)

300x 200x 200 mm

705mm x 505mm

25 kg

120mm / sec.

1185 x 1275 x 1900

670 k









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Max-Plus Series

Technology Features:

► Video system: High Resolution & High Accuracy CCD / High Speed Video Capture Card

▶ Magnification: 0.7x~4.5x (17.5x~112.5x) Standard Zoom lens

Optional: Co-axial Lens
Optional Objection Lens:
0.5x lens (For Standard Lens)
2x lens (For Standard or Co-axial Lens)
5x or 10x lens (For Co-axial Lens)

► Illumination: Adjustable surface and contour illumination (High Brightness Ring illumination)

(Option: 26 Channel Multi-Sections Illumination)

► Linear scale: 0.5µm on X ,Y ,Z – axis

► Length Accuracy:

 $\pm (3.5 + L/100) \mu m \text{ on X, Y-axis}(MAX-6272)$

 $\pm (5+L/100)\mu m$ on X, Y-axis(MAX-90120 and MAX120150)

► Repeatability: 2µm on X, Y– axis

▶ Motor: X, Y, Z Servo Motor▶ Motor Operation: Mouse program (Optional: Joystick)

▶ Base: Precision granite table

▶ Power supply: 1~, AC220~230V, 50/60Hz

➤ Support software: SI-901 Optional functions:

SI-901A-Import Excellon File;

SI-901B-with Touch Probe Function;

SI-901C-with Rise Shrinks Bracket Function;

SI-901D-with Image Capture Function;

SI-901G-with Laser Measurement Function



Model No	MAX-6272	MAX-90120	MAX-120150
Travel- X. Y axis	620 x 720mm	200 x 1200mm	1200 x 1500mm
Travel - Z axis	200 mm	200 mm	200 mm
Stage Size	840 x 1180mm	1150 x 1730mm	1450 x 2000 mm
Stage Load Capacity	25 kg	25 kg	25kg
Travel Speed (Max.)	180mm / sec.	180mm / sec.	180mm / sec.
$L \times W \times H (mm)$	1780 x 1500 x 1700	2280 x 1800 x 1780	2570 x 1800 x 1780
Net Weight	1200 kg	2300 kg	$3400 \mathrm{kg}$



MR#S

Automatic Non-Contact Video Measuring System

Max-6272AF

Technology Features:

▶ Video system: High Resolution & High Accuracy CCD / High Speed Video Capture Card

► Illumination: Adjustable surface and contour illumination (High Brightness Ring illumination) (Option: 26 Channel Multi-Sections Illumination)

► Linear scale: 0.5µm on X, Y, Z - axis

► Length Accuracy: ± (3.5+L/100) µm on X, Y-axis

► Motor: X, Y, Z Servo Motor

► Motor Operation: Mouse program (Optional: Joystick)

▶ Base: Precision granite table

► Power supply: 1~, AC220~230V, 50/60Hz

➤ Support software: SI-901

Nikon LV Microscope Systems Auto Focus Systems

► Auto focus controller

► Auto focus Microscope

► Focusing by Line sensor method

► Limiting resolution 0.078µm

► Auto focus Repeatability: 4µm

► Travel: 4µm

► Search time: 0.5sec.

► Illuminator Systems
a.Illuminator power supply
b.Communication: RS485 to
RS232

► Power Transformer: 220V - 110V



Table with the vacuum design (For Special request)

Model No	MAX-6272AF
Travel Size (X. Y. Z)	720 x 720 x200 mm
Stage Size	840 x 1180mm
Stage Load Capacity	25 kg
Travel Speed (Max.)	180mm / sec.
Dimension (mm)	1780 x 1500 x 1700
Net Weight	$1550\mathrm{kg}$







G A M-6120

GAM-6120 is the biggest Non-Contact Measuring System designed for the measurement of Screen Printing. It is using the special customized Jig for the parts, and then it could make the operator very easy to move up and change the parts quickly. This customized design especially increasing the capacity for LCD panel Industry.

Technology Features:

- ▶ Video system: High Resolution & High Accuracy CCD / High Speed Video Capture Card
- ► Magnification: 0.7x~4.5x (17.5x~112.5x) Co-axial Lens Optional 2x Objection Lens (35x~225x)
- ▶ Illumination: Adjustable surface and contour illumination (High Brightness Ring illumination)
- (Optional: 26 Channel Multi-Sections Illumination)

 ▶ Open Linear scale: 0.5µm on X, Y, Z-axis
- ► Length Accuracy: ±(5+L/100) µm on X,Y-axis
- ► Repeatability: 3µm on X, Y-axis
- ► Motor: X, Y, Z Servo Motor
- ► Motor Operation: Mouse program (Optional: Joystick)
- ▶ Base: Precision granite table
- ▶ Power supply: 1~, AC220~230V,50/60Hz
- ► Support software: SI-901





Model No

Travel Size (X. Y. Z)

Stage Size

Stage Load Capacity

Travel Speed (Max.) X. Y-Axis

Travel Speed (Max.) Z-Axis

Dimension (mm)

Net Weigh

GAM-1620

1600 x 2000 x80 mm

2330 x 2518mm

 $50 \, \mathrm{kg}$

200mm / sec.

100mm / sec.

2960 x 2980 x 2160

7000 kg

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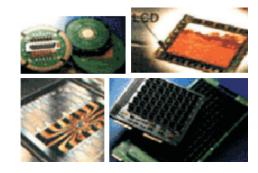


AIR#S

Application

Application of ARCS Non-Contact Video Measuring System is as follow:

- ➤ Semiconductor: Lead Frame, Package, etc.
- ▶ PCB products : Printing Circuit Board, etc.
- ► TFT-LCD : Back Light
- ▶ Press and Electrical products : Lead Frame, etc.
- ► Rubber : Oil ring, Connector, etc.
- ► Stamping products : Motor Core, etc.
- Non-contact products : Shadow Mask, etc.
- ► Accuracy measuring : Small Machine, etc.



PCB: Package board, Module PCB, Flexible PCB component.





Flexible PCB



Display component:



BLU

Shadow Mask

Semi-conductor package: Measuing semi-conductor package component.





SOP,QFP

BGA, CSP







Wafer Pattern

MEMS Product

Machine component:

Accuracy die, Motor parts, Electrical goods Camera components / Measuring products





The accuracy mold

The accuracy metal plate

Components of the Optional Communication:

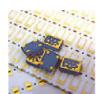




Ferrule

Electrical component: Socket, MLB,MLCC,Sensor

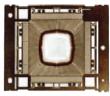




The electronic element

The element package







LEAD FRAME

COF







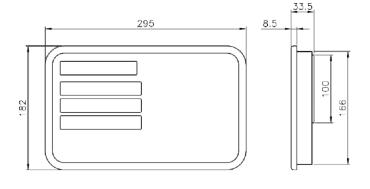
ACCESSORIES

CS-6000



Axis: 3 axes

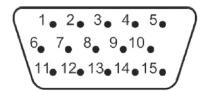
Dimensions:



Multifunctional Data Processing Digital Readout

Technology Features:

- ► Measure basic and special elements: point, line, circle, rectangle, screw thread, etc.
- ► Preset or create (by basic elements): point, line, circle, distance, angle etc.
- ▶ Save and recall measured data for comparison.
- ▶ Skew and shift coordinate functions.
- ▶ It has the ability to preset up to a maximum of ten measurement preferences. Each preference has 100 steps that can all be specifically modified and defined by the user, and with the preset, repeated measurement can be carried out with same preferences and precision each time.
- ► "INC/ABS" and "Polarity / Cartesian" coordinate conversion functions.
- ▶ Preset 3 axes coordinate.
- ► Linear error compensation and segmented linear error compensation for linear scale.
- Easy measurement function: Automatically judges' basic metrology element from the measurement processing.
- ▶ RS232 connection with PC for data process.
- ▶ Parameter setting for count direction and printer.
- Print selective date: current position coordinate, basic element measurement and user's program.
- ▶ Optical edge detector (optional) and foot switch advantage functions.
- ► Resolution selectable.
- ▶ Auto saving function when power interrupted.
- ► Switching power supply AC110-220V



1	2	3	4	5	6	7	8
+5V	OV	Α	В	RI	FG	NC	NC
9	10	11	12	13	14	15	
NC	NC	NC	NC	NC	NC	NC	

Standard 15 Pin D-Type Assignments (F) NC: No Connection FG: Frame Ground





Top-Field Vision Measuring Systems

ACCESSORIES



Learning Kit TG0001

Calibration Kit FY1001



Rotary Table Φ100m/m AMD5-0100



Rotary Table Φ200m/m AMD5-0200



Fixture 350-570-XXX W

0.5x Object Lens LCB2-05X160110 (For KIM, KAM and Max-Plus Series)



2x Object Lens LCB2-20X160113 (For KIM, KAM and Max-Plus Series)



2x Object Lens LCB2-0745D20X 0.5x Object LensLCB2-0745D05X (For KIM-CU Series)



0318D Step Lens Magnification: 19"W LCD:10x~60x (For KIM-CU Series and HIM-2015)





Single Sine Plate with Magnetic Chuck AMD6-SEN024













The SI software has the user-friendly operation interface for multi-purpose measuring tools. This diverse and convenient gathering tool can conform to many current ways of measuring work pieces in complex industries, which gives the user a fast, accurate, and complete measurement.

INDEX

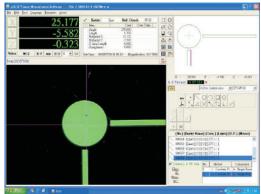
- ➤ SI-102 Cross - Hair image measuring software
- ➤ SI-101
 Multi-function image measuring software
- ► SI-901 Automatic Vision measurement software







SI-102



Cross-Hair image measuring software

- ▶ It comes with the Windows-based operation system, which is simple and easier for user to install.
- **▶** Measuring Functions:

Measuring Toolbar



Framing Toolbar

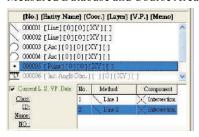


Complete Report:

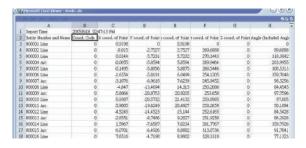
Data Area

\checkmark	Entity:	Circle	Ref. Coor	rd. WCS
1	Item		Data	Over Toler.
	Radius		2.371	
	Diameter		4.742	

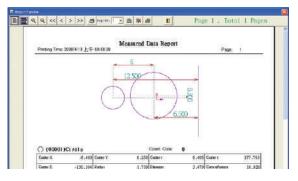
Measured Database and Course Area



Export to Excel



Print



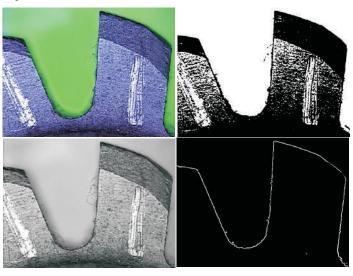






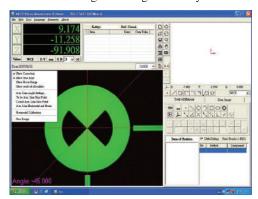
► Methods for image process:

It could offer Normal/Gray/Binary/Edge four Filters and good for different working piece measurement.



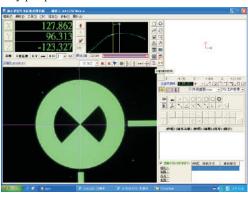
► Show Cross-Hair and Aux Line

It could simulate the comparator function and get the angle directly.



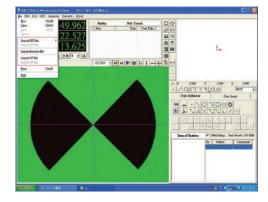
► Manual Auxiliary Focus:

This function could reduce the error by people.



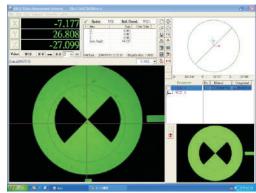
File Format:

Import Export DXF File Import Export SIF File Import Excellon File(For SI-901A)



► SI Format:

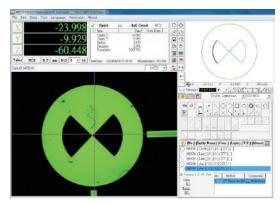
It has a reminder function, so the user does not need to remember the original point and positions of the axis.







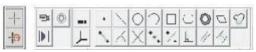
SI-101



Multi-function image measuring software

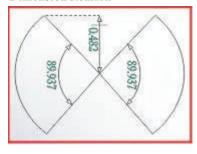
► Measuring Functions:

Framing Toolbar

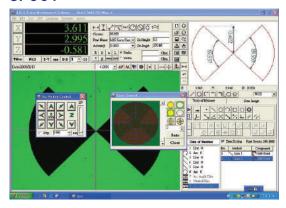


▶ Dimension Remark and CAD elementary drawing.

Dimension Remark



SI-901



CNC Vision measurement software

CAD Drawing Toolbar

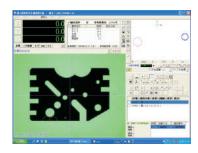


The measuring tolerance setting function can facilitate the data judgment.

Total Class	O 4 Gade	*	their.			
Disability William				Trimmer(VALgoverny)	demonster of other	(beilg VX disk)
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Det	N000	0000	1000	SE CINEMANDS	Rhet I	
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Owite 1	1000	0.000	sim		Ones 1	
Salar	1000	0.000	11000		State	
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Scothers	11000	0.000	1000		Chrombook	
fum .	1000	0.000	3000		Arm.	

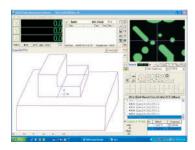
► Program Guidance:

The user only needs to follow the guidance to finish the measurement. It doesn't need the special operator.



▶ 3-Dimensional Diagram:

The user could depend on the measuring graphic to select the Top View, Front View, Side View or ISO View.



► Easy and Fast measurement function:

The function of Move/Rotation/ Array/Mirror could help the user to measure the complicated or Multi-entities working piece in short time.





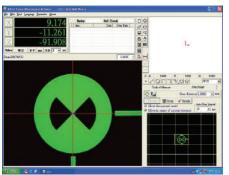


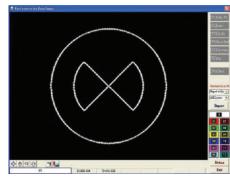


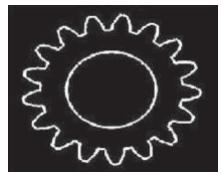
► Scan Function:

Post-Process for scan image of points

It could scan the shape of the working piece and correspond to current CAD Reverse Engineering.



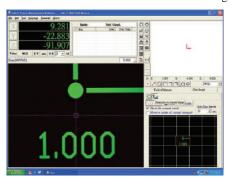




Sample: Gear

Dimension Remark on the image

It could remark the dimension on the image for the complete working piece and save in JPG format.

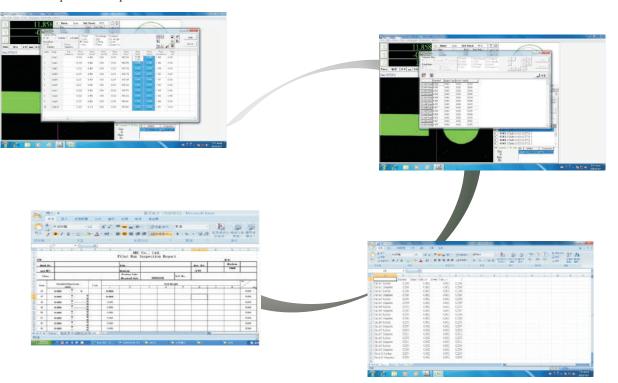






Sample: Gear

► Customize inspection Report

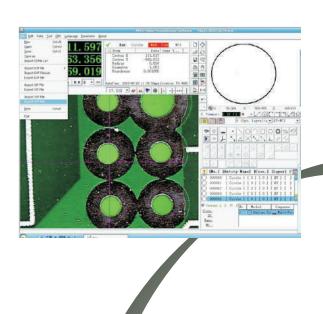


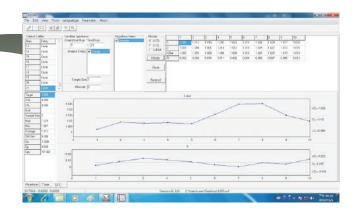


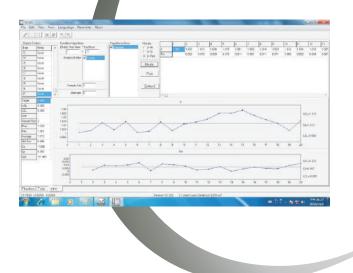


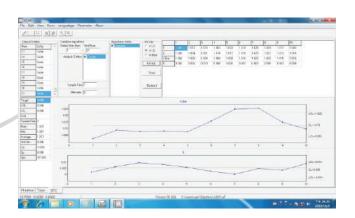


► SPCR eport















PMS (Proactive Measuring System)

is an excellent system that offers the best measuring path for the three-dimension spaces. The PMS controls the operation and data processes through the computer. Not only is it efficient and accurate in its measurement, it can also be widely used with various work pieces and satisfies all customer needs and requests.

INDEX

▶ PMS Series

► Software: Rational DMIS







PMSS eries

Technology Features

- ► Three Axes use the 000 level of high-precision granite guides and offer a measuring system with excellent stability.
- ➤ Three axes with the high-precision, preloading design of the Air Bearings, ring Configuration, Whole closed design, No abrasion, to provide the most accuracy and stability.
- ➤ Granite structure reduces temperature changes while also improving accuracy and providing vibration impedance effectively.
- ► This machine uses the Renishaw linear scale, probe, and controller to control the accuracy and stability of operations.
- ▶ Use the high quality and high accuracy of the Renishaw Probe.
 Provide various probes for option:
 MH20i Manual Indexing Probe/ TP20 Probe

MH20i Manual Indexing Probe/ TP20 Probe PH10T Motorized Indexing Head/ TP20 Probe PH10M Motorized Indexing Head/ TP20 Probe/ SP25M Scanning Probe

- ▶ It also uses the SMC high quality air filer and regulator from Japan. This ensures that the machines could be used long-term without losing effectiveness or stability.
- ➤ The Rational DMIS is very easy for user to learn, and it could help the operator easily completed measuring.
- ► The Z-axis is designed with pneumatic balance to increase movement features.
- ➤ The Renishaw UCC Control System with high speed, high accuracy, and an embedded 32-bit microprocessor allow for precise and immediate control.



Model No	PMS-564M	PMS-564C	PMS-8106C
Operation	Manual	Automatic	Automatic
Measuring Range	550x640x450mm	500 x 600 x 400mm	800 x1000 x 600mm
Measuring Accuracy	2.8+L/250µm	$2.8 + L/250 \mu m$	$3.2 + L/250 \mu m$
MPEE (10360-2)	·	(L: Travel Distance, mm))
MPEp (μm)		2.8	3.2
Resolution (µm)	0.5	0.5	0.5
Dimension (mm)	1120 x 1470 x 2400	1120 x 1470 x 2400	1450 x 2050 x 2800
Net Weight	845 kg	845 kg	1700 kg
Load Capacity	$600 \mathrm{kg}$	$600 \mathrm{kg}$	1200 kg
Power Supply		220V 50/60 Hz	
Temperature		20° C 2° C	
Humidity		$40\% \sim 70\%$	
Air Pressure		0.55Mpa	
Flow Rate		120L/ min.	
Probe System	Re	enishaw MH20i or PH10T+7	ГР20
Measuring		RationalDMIS	
Software			





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PMSS eries



► MH2 0i Manual Indexing Probe:

A axis indexing: 0° to 90° in 15° repeatable steps B axis indexing: ± 180° in 15° repeatable steps

Total number of positions: 168 Repeatable of position(2σ): 0.5 µm

Maximum extension bar: EM2 extension module

94.5 mm. Weight:210g

Mh20i Manual Index Probe Ø48 mm (1.89 in) Mh20i Mh20

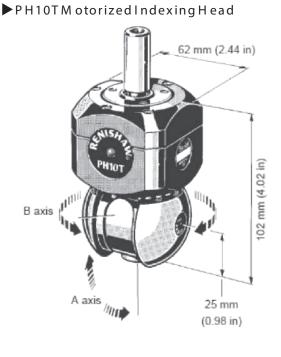
B axis ±180°

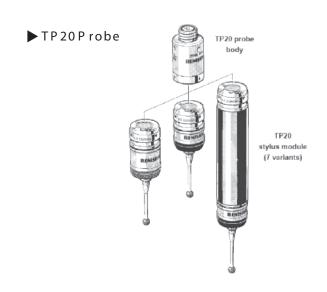
▶PH10TM otorizedIndexingHead:

Total number of positions: 720 Repeatable of position (2σ) :0.5 µm Maximum extension bar length: 300 mm

Weight: 645g

A axis indexing: 0° to 105° in 7.5° repeatable steps B axis indexing: $\pm 180^{\circ}$ in 7.5° repeatable steps





MIR#S

Coordinate Mears uing Machine



▶SP25MS canning Probe System:

The SP25M scanning probe system has a compact 25mm diameter body that supports scanning and touch trigger probe configurations. There are 4 scanning modules to support various length styli and one TP20 touch probe adapter to data point capturing.

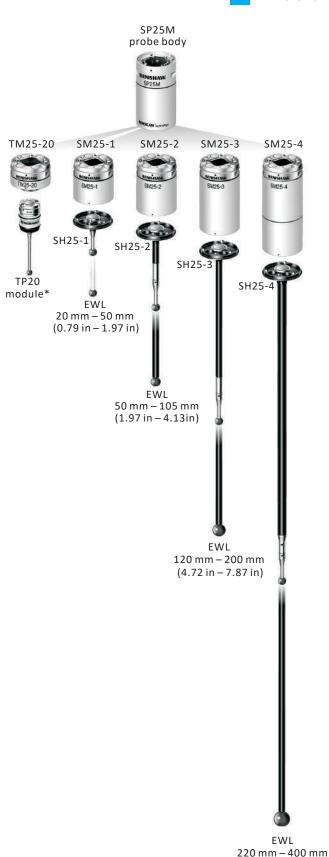
The SP25M system works with the UCC2 CMM Controller which provides full scanning and touch point operations. This system can be mounted on any Probe Head that supports the Autojoint with multiwire.

► SP25MS canning and Touch Probe Modules:

The SP25M system has 4 scanning modules that provide a variety of stylus length, plus one TP20 touch probe adapter module to perform standard data point capturing.

Touch probing: Use TM25-20 adaptor module with a TP20 module

Scanning: Use SM25- 1/2/3/4 scanning modules with respective SH25-1/2/3/4 stylus holders to suit stylus EWL ranges from 20mm to 400 mm.



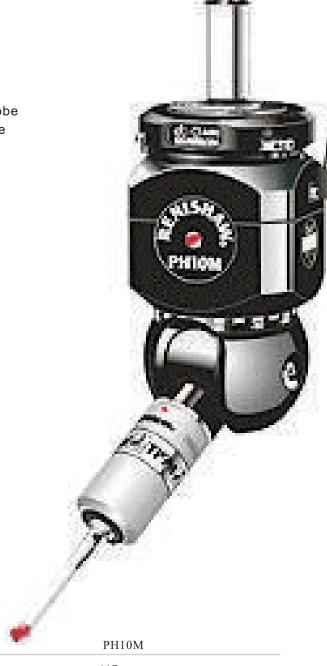


(8.66 in-15.75 in)



PMSS eries

▶PH10M Motorized Indexing Head:
The PH10M can carry long extension
bars and complex probes such as
SP600M or TP7M. The highly
repeatable autojoint allows rapid probe
or extension bar changing without the
need for re-qualification.



▶PH10MS pecification:

PH10N	V
	PH101

Length
Width
Weight
Probe Mounting
Head Mounting
Suitable controller
Repeatability of position
Total no. of position
Max. Recommended drive torque
Max. Extension bar

117 mm
62 mm
645 g
Autojoint (Multi-wire)
PH10M Shank to suit CMM
PHC 10-2
0.5 μm (0.00002 in) specified at a distance of 62 mm
720
0.45 Nm
300mm (11.8 in) using PAA3 extension

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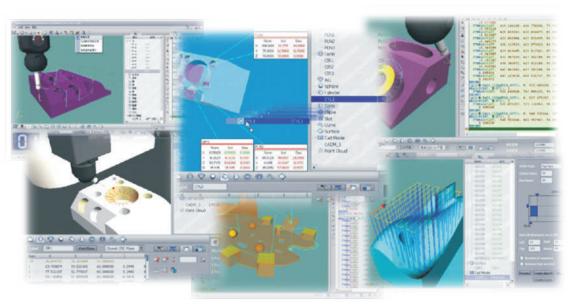




SOFTWARE

Rational DMIS is the professional measurings of tware for Coordinate Measuring Machines. The Features is as follow:

- ► Innovative unique operating system could make the operation easier. The graphic window could offer 100% full view in any time.
- ▶ Most functions could be finished by click the mouse. It is very easy for use and learning.
- ▶ Base on Standard and Independent CAD-CMM software. It could connect to the CAD data directly, and have the points of scanning features.
- ▶ Use the DMIS to be the internal edit program and process the edit depends on the working piece. It could be generated the related DMIS program for measuring element, probe replacement and variables automatically.
- ➤ Support the on-line and off-line two models at the same time. It could process the program edit and measuring simulate under the status of CMM or off-line.
- Provide the collision matching and automatic crash-proof functions. The path could help the user to finish the measuring program quickly.
- ▶ Wisdom inspection, Automatically Geometry detecting and calibration are adapt to the fast measurement calculation.
- ▶ Provide the traditional and graphic inspection report and support the output Of Excel and SPC charts at the same time.





Rational DMIS pass and get the approval by the world-renowned measurement and testing organization-Physikalisch Technische Bundesanstalt (PTB). It calculates of reliability and validity has been authority approved. Rational DMIS fully conform the DMIS standard and ISO 22093:2003 international standard.







Linear S cale and Digital R eadout

Accuracy Reliability & Continuing Service Linear Scale and Digital Readout

INDEX

► Linear Scale: LDOE Type
► Linear Scale: LDOS Type

➤ Digital Readout: CS3000 Series ➤ Digital Readout: CS5500 Series





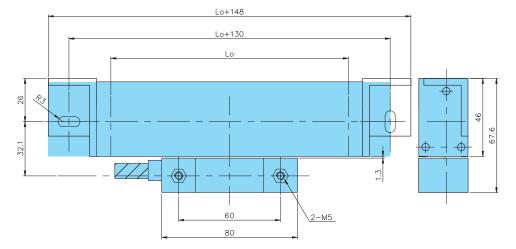






- ► Accuracy: ± (5 + L/200) µm
- ► Max. Response Speed: 60M/min. (5V); 20M/min. (1V)
- ► High accuracy optical glass linear scale
- ▶ Using 5 sets of bearing, to assure excellent repeatability positioning, good sliding and durability.
- ▶ Special process of aluminum alloy for water/oil proof and anti-dust
- ► Easy installation and maintenance

▶ Dimensions:



▶ Specification:

Res. /ML	50mm	100mm	150mm	200mm	250mm	300mm	350mm
0.005mm	LDOE0050-5A35	LDOE0100-5A35	LDOE0150-5A35	LDOE0200-5A35	LDOE0250-5A35	LDOE0300-5A35	LDOE0350-5A35
0.001mm	LDOE0050-1A35	LDOE0100-1A35	LDOE0150-1A35	LDOE0200-1A35	LDOE0250-1A35	LDOE0300-1A35	LDOE0350-1A35
Res./ML	400mm	450mm	500mm	600mm	700mm	800mm	900mm
0.005mm	LDOE0400-5A35	LDOE0450-5A35	LDOE0500-5A35	LDOE0600-5A35	LDOE0700-5A35	LDOE0800-5A35	LDOE0900-5A35
0.001mm	LDOE0400-1A35	LDOE0450-1A35	LDOE0500-1A35	LDOE0600-1A35	LDOE0700-1A35	LDOE0800-1A35	LDOE0900-1A35
Res./ML	1000mm	1100mm	1200mm	1300mm	1400mm	1500mm	1600mm
0.005mm	LDOE1000-5A35	LDOE1100-5A35	LDOE1200-5A50	LDOE1300-5A50	LDOE1400-5A50	LDOE1500-5A50	LDOE1600-5A50
0.001mm	LDOE1000-1A35	LDOE1100-1A35	LDOE1200-1A50	LDOE1300-1A50	LDOE1400-1A50	LDOE1500-1A50	LDOE1600-1A50
Res./ML	1800mm	2000mm	2200mm	2400mm	2600mm	2800mm	3000mm
0.005mm	LDOE1800-5A50	LDOE2000-5A50	LDOE2200-5A50	LDOE2400-5A50	LDOE2600-5A50	LDOE2800-5A50	LDOE3000-5A50
0.001mm	LDOE1800-1A50	LDOE2000-1A50	LDOE2200-1A50	LDOE2400-1A50	LDOE2600-1A50	LDOE2800-1A50	LDOE3000-1A50







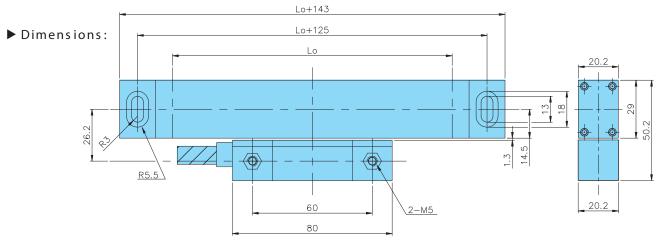
Linear Scale and Digital Readout

LDOSType



Technology Features:

- ▶ Resolution:0.005mm (standard); 0.001mm (optional)
- ► Measuring Length (ML),50mm~1100mm
- ► Output signal:5V,TTL (standard); RS-422 (optional)
- ► Accuracy: ±(5 + L/200) µm
- ► Max. Response Speed: 60M/min. (5V); 20M/min. (1V)
- ► High accuracy optical glass linear scale
- ▶ Using 5 sets of bearing, to assure excellent repeatability positioning, good sliding and durability.
- ▶ Special process of aluminum alloy for water/oil proof and anti-dust
- ► Easy installation and maintenance



▶ Specification:

Res. /ML	50mm	100mm	150mm	200mm	250mm	300mm	350mm
0.005mm	LDOS0050-5A35	LDOS0100-5A35	LDOS0150-5A35	LDOS0200-5A35	LDOS0250-5A35	LDOS0300-5A35	LDOS0350-5A35
0.001mm	LDOS0050-1A35	LDOS0100-1A35	LDOS0150-1A35	LDOS0200-1A35	LDOS0250-1A35	LDOS0300-1A35	LDOS0350-1A35
Res./ML	400mm	450mm	500mm	600mm	700mm	800mm	900mm
0.005mm	LDOS0400-5A35	LDOS0450-5A35	LDOS0500-5A35	LDOS0600-5A35	LDOS0700-5A35	LDOS0800-5A35	LDOS0900-5A35
0.001mm	LDOS0400-1A35	LDOS0450-1A35	LDOS0500-1A35	LDOS0600-1A35	LDOS0700-1A35	LDOS0800-1A35	LDOS0900-1A35
Res./ML	1000mm	1100mm	_				
0.005mm	LDOS1000-5A35	LDOS1100-5A35					
0.001mm	LDOS1000-1A35	LDOS1100-1A35					







Linear Scale and Digital Readout

CS3000S eries

 $Standardtype \, Digital \, R \, eadout$

(Axis: 2, 3 axes)

Technology Features:

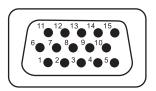
- ▶ Aluminum alloy case for anti-impact and excellent capability in EMS (2000V)
- ► Zero setting
- ► Halving values to locate work piece center.
- ▶ mm/inch conversion.
- ► INC/ABS conversion.
- ▶ Resolution selection: 0.005, 0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1, 5 and 10mm
- ► Rotary encoder: 1° ~ 0.0001
- ▶ Diameter/radius selection
- ▶ Dir.: setting the coordinate direction.
- ► Correction: linear compensation.
- ▶ Instant power failure memory.
- ▶ Self-diagnostic function for calculation error.
- ► RS-232 output
- ► Power supply: DC 8V-30V, 0.8A
- ► Switching power supply AC100-240V



Model No.	Axis
CS3000-2	2
CS3000-3	3

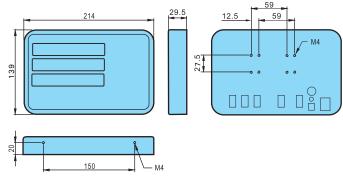
► Standard 15 P in D-type Assignments (F)

NC: No Connection FG: Frame Ground



1	2	3	4	5	6	7	8
+5V	0V	Α	В	RI	FG	NC	NC
9	10	11	12	13	14	15	
NC	NC	NC	NC	NC	NC	NC	

▶ Dimensions:









Linear Scale and Digital Readout

CS5500S eries

Multi-Functional type Digital Readout (Axis: 2, 3 axes)

Technology Features:

- ▶ Aluminum alloy case for anti-impact and excellent capability in EMS (2000V)
- ▶ 999 sets of SDM coordinates
- Zero setting
- ► Halving values to locate workpiece center.
- ▶ mm/inch conversion.
- ► INC/ABS conversion.
- Resolution selection:
 - $0.0001,\,0.0002,\,0.0005,\,0.001,\,0.002,\,0.005,\,0.01,\,0.02$ and 0.05mm
- ▶ Diameter / Radius selection
- ▶ Dir.: Setting the coordinate direction.
- ▶ Setting shrinkage factor
- ▶ Math's calculator
- ► Multiple matching modes:
 - (1) Pitch Circle Diameter (2) Pitch Line Divided
- ► Searching the Original Point (RI)
- ► Error correction: linear compensation
- Instant power failure memory
- ► RS-232 output
- ► Power supply: AC 100-240V / 0.2A

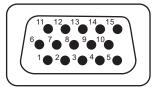


Model No.	Axis
CS5500-2	2
CS5500-3	3

▶ Dimensions:



295	33.5	-19 4C	0 0°
246 280			



NC: No Connection FG: Frame Ground

1	2	3	4	5	6	7	8
+5V	0V	Α	В	RI	FG	NC	NC
9	10	11	12	13	14	15	
NC	NC	NC	NC	NC	NC	NC	





► Standard 15 P in D-type Assignments (F)

