

















+INSIZE+

Can be used in shop floor, with the following features:

- Temperature compensation system, suitable for wide temperature range
- Water and oil resistance
- Compact design, small size
- Three sides open, easy to load and unload workpieces
- Without compress air
- Easy installation

ATTENTION: ROTATION OF PROBE HEAD IS MANUAL

ATTENTION: MEASUREMENT ON THE LEFT SIDE OF WORKPIECES IS LIMITED

MINI CNC CMM (SHOP FLOOR TYPE) CODE CMM-MN432





CMM-MN432

FEATURES

- Integrated control system, safe, reliable and easy to operate
- High precision linear guide rail and ball screw for three axes
- 4 temperature sensors for X, Y, Z three axes and workpiece, suitable for wide temperature range

CONTROL SYSTEM

- Double computer control systems
- Driven by DC servo motor
- The control system supports communication with machine tools
- The control system has 12 buttons for customize

NET-DMIS SOFTWARE

- Can measure point, straight line, curve, circle, ellipse, plane, groove, cylinder, sphere, cone, ring, edge point, corner point, polygon, straightness, flatness, circularity, cylindricity, profile of a line, profile of a surface, perpendicularity, parallelism, angularity, coaxiality, concentricity, symmetry, position, composite position, circular runout and total runout
- Modular software structure, can support: temperature compensation, turning table, I/O interface
- Can program in offline mode and do virtual measurement based on CAD model, can extract the element features of CAD for programming
- Support dynamic point measurement and import DMO theoretical point coordinates for vector point measurement
- Can import and convert CAD model (SAT, IGES, STEP)
- Can select multi language, metric and inch, polar and straight coordinate system
- Have multiple export ways: export measured data (SAT, IGES, STEP), report windows (PDF, HTML, MHT, RTF, EXCEL, CSV, txt, images, WORD, etc.), custom EXCEL template
- Support uploading the measuring result to server



SPECIFICATION

Code	CMM-MN432
Measuring range (X×Y×Z)	400×200×300mm
Resolution	0.1µm
Repeatability	1µm
Accuracy (L is measuring range in mm)	±(4.5+L/200)µm (15°C~30°C, variation≤2°C/h) ±(5.5+L/200)µm (10°C~15°C, 30°C~40°C, variation≤2°C/h)
Probe error	±5µm
Temperature	10°C~40°C, variation≤2°C/h
Humidity	40~60%
Power	220V±10%, 50Hz
Max. load	50kg
Dimension (L×W×H)	1270×1110×1630mm
Weight	280kg

STANDARD DELIVERY

STANDARD DELIVERT		
Main unit		1 pc
	probe head *	1 pc
Probe system	probe*	1 pc
	styli **	1 set
Calibration system	datum sphere (Ø25mm)	1 pc
Cambration system	pivot pillar	1 pc
Computer system	computer	1 pc
Computer system	printer	1 pc
Temperature compensation system		1 pc
Software		1 pc

^{*}The probe head and probe are Renishaw brand

PROBE (included) SPECIFICATION

	angular movement with horizontal axis	0°~90° in 15 steps
	angular movement with vertical axis	±180° in 15 steps
Probe head	control mode	manual
	number of positions	168
	probe mounting	M8
	weight	210g
	detect direction	±X, ±Y, +Z
Probe	styli mounting	M2
	rating life	>1000,000 times
	weight	22g

EXTENSION (included) SPECIFICATION

Code	Material	Stem diameter	Length	Quantity
SE4	atainlass ataal	Ø2	10mm	1 pc
SE5	stainless steel	stainless steel Ø3mm	20mm	1 pc

STYLUS (included) SPECIFICATION

Code	Material	Ball diameter	Length	Stem diameter	Effective working length	Quantity
PS2R	ruby ball /	SØ2mm	20mm	Ø1.4mm	14mm	1 pc
PS17R	stainless steel stem	SØ4mm	20111111	Ø1.5mm	20mm	1 pc

PS1

23

^{**} The styli system includes styli and extensions





COORDINATE MEASURING MACHINES

FEATURES

- X&Z axis beam are made of aviation aluminum
- RENISHAW steel scale
- High precision, rigid, pre-loaded air bearings on all axis

RENISHAW UCC CONTROL SYSTEM

■ High speed measurement & servo control system

RATIONAL-DMIS SOFTWARE

- Unique operation interface, complete drag-and-drop operation
- Instructional programming allows users to replace text
- Intelligent recognition of the construction, calculation and output of relevant geometric elements
- Seamless link with CAD data

RENISHAW PROBE BODY

- The TP20 is a touch trigger probe
 The TP200B is a touch triggered probe of electronic strain sensing technology, with high measurement accuracy and operate life
- The SP25M is high performance scanning and touch trigger probe



SPECIFICATION

Code	Range (X×Y×Z)	Probe body	MPEE	MPEP	Max. dimension of workpiece	Max. weight of workpiece	Overall dimension	Weight
	mm		μm	μm	mm	kg	mm	kg
CMM-ST454A		TP20	±(2.1+3.3L/1000)	±2.2				570
CMM-ST454B	400×500×400	TP200B	±(1.8+3.3L/1000)	±1.9	525×995×600	500	1000×1240×2240	
CMM-ST454C		SP25M	±(1.0 · 0.0L/1000)	21.0				
CMM-ST564A		TP20	±(2.1+3.3L/1000)	±2.2				
CMM-ST564B	500×600×400	TP200B	±(1.8+3.3L/1000)	±1.9	625×1095×600	500	1100×1340×2240	700
CMM-ST564C		SP25M	±(1.013.3L/1000)	11.5				
CMM-ST686A		TP20	±(2.2+3.3L/1000)	±2.3				
CMM-ST686B	600×800×600	TP200B	±(1.9+3.3L/1000)	±2.0	730×1400×800	700	1200×1650×2660	960
CMM-ST686C		SP25M	±(1.9+3.3L/1000)	12.0				
CMM-ST8106A		TP20	±(2.2+3.3L/1000)	±2.3				
CMM-ST8106B	800×1000×600	TP200B	±(1.9+3.3L/1000)	±2.0	930×1600×800	1000	1400×1850×2660	1270
CMM-ST8106C		SP25M	±(1.9+3.3L/1000)	12.0				
CMM-ST10128A		TP20	±(2.7+3.3L/1000)	±2.7				
CMM-ST10128B	1000×1200×800	TP200B	±(2.4+3.3L/1000)	±2.4	1190×1814×1040	1800	1690×2370×3150	2460
CMM-ST10128C		SP25M	±(2.4+3.3L/1000)	±2.¬				
CMM-ST10158A		TP20	±(2.7+3.3L/1000)	±2.7				
CMM-ST10158B	1000×1500×800	TP200B	±(2.4+3.3L/1000)	±2.4	1190×2114×1040	1800	1690×2670×3150	2820
CMM-ST10158C		SP25M	±(2.4+3.3L/1000)	12.4				
CMM-ST10208A		TP20	±(2.7+3.3L/1000)	±2.7				
CMM-ST10208B	1000×2000×800	TP200B	±(2.4+3.3L/1000)	±2.4	1190×2614×1040	1800	1690×3270×3150	3410
CMM-ST10208C		SP25M	±(2.4+3.3L/1000)	12.4				
CMM-ST121510A		TP20	±(3.0+3.3L/1000)	±3.0				
CMM-ST121510B	1200×1500×1000	TP200B	±(2.7+3.3L/1000)	±2.7	1390×2200×1200	2000	1890×2750×3330	3330
CMM-ST121510C		SP25M	±(2.7 · 3.3L/ 1000)	12.7				
CMM-ST122010A		TP20	±(3.0+3.3L/1000)	±3.0				
CMM-ST122010B	1200×2000×1000	TP200B	±(2.7+3.3L/1000)	±2.7	1390×2700×1200	2000	1890×3350×3330	3910
CMM-ST122010C		SP25M	_(



SPECIFICATION

Code	Range (X×Y×Z)	Probe body	MPEE	MPEP	Max. dimension of workpiece	Max. weight of workpiece	Overall dimension	Weight
	mm	200,	μm	μm	mm	kg	mm	kg
CMM-ST152010A		TP20	±(3.3+3.3L/1000)	±3.3				
CMM-ST152010B	1500×2000×1000	TP200B	±(3.0+3.3L/1000)	±3.0	1690×2700×1200	3000	2190×3350×3370	5220
CMM-ST152010C		SP25M	±(3.0 · 3.3L/ 1000)	±0.0				
CMM-ST152510A		TP20	±(3.3+3.3L/1000)	±3.3				
CMM-ST152510B	1500×2500×1000	TP200B	±(3.0+3.3L/1000)	±3.0	1690×3200×1200	3000	2190×3850×3400	6680
CMM-ST152510C		SP25M	±(0.0+0.0L/1000)	±0.0				
CMM-ST153010A		TP20	±(3.5+4L/1000)	±3.5				
CMM-ST153010B	1500×3000×1000	TP200B	±(3.2+4L/1000)	±3.2	1690×3700×1200	3000	2260×3910×3420	8120
CMM-ST153010C		SP25M		10.2				
CMM-ST152512A		TP20	±(3.5+4L/1000)	±3.5				
CMM-ST152512B	1500×2500×1200	TP200B	±(3.2+4L/1000)	±3.2	1690×3200×1400	3000	2190×3850×3870	6730
CMM-ST152512C		SP25M		10.2				
CMM-ST152515A		TP20	±(3.8+4L/1000)	±3.8				
CMM-ST152515B	1500×2500×1500	TP200B	±(3.5+4L/1000)	±3.5	1680×3330×1700	3000	2190×3980×4500	6950
CMM-ST152515C		SP25M	,					
CMM-ST153015A		TP20	±(4.0+4L/1000)	±4.0				
CMM-ST153015B	1500×3000×1500	TP200B	±(3.7+4L/1000)	±3.7	1680×3830×1700	3000	2260×4040×4520	8440
CMM-ST153015C		SP25M	,					
CMM-ST163515A		TP20	±(4.0+4L/1000)	±4.0				
CMM-ST163515B	1600×3500×1500	TP200B	±(3.7+4L/1000)	±3.7	1780×4330×1700	3000	2360×4540×4520	9960
CMM-ST163515C		SP25M	2(0.1 * 12/1000)	20.7				
CMM-ST203015A		TP20	±(4.5+4L/1000)	±4.5				
CMM-ST203015B	2000×3000×1500	TP200B	±(4.0+4L/1000)	±4.0	2180×3930×1700	6000	2760×4240×4520	11200
CMM-ST203015C		SP25M	,					
CMM-ST203018A		TP20	±(4.5+4L/1000)	±4.5				
CMM-ST203018B	2000×3000×1800	TP200B	±(4.0+4L/1000)	±4.0	2180×3930×2000	6000	2760×4240×5120	11200
CMM-ST203018C		SP25M	±(4.0+4L/1000)	±4.0				

STANDARD DELIVERY

Main unit	1 pc		
	probe head (Renishaw)	1 pc	
Probe system	probe body (Renishaw)	1 pc	
	styli (Renishaw)	1 set	
Calibration sphere	Ø19mm	1 pc	
Computer		1 pc	
Printer	1 pc		
Software	Software		

OPERATION ENVIRONMENT

Air pressure	0.5~1.0MPa
Air supply	0.3~0.45m³/min
Temperature	20±2°C
Humidity	55%~65%
Power	220V±10%, 50/60Hz

STYLI INCLUDED IN SP25M

Material	Ball diameter	Length	Quantity
	SØ2mm	21mm	2 pcs
	SØ3mm	21mm	2 pcs
on the all t	SØ4mm	21mm	2 pcs
ruby ball/ stainless steel stem	SØ2mm	30mm	2 pcs
Stairiic33 Stoci Storii	SØ3mm	40mm	2 pcs
	SØ4mm	50mm	2 pcs
	SØ6mm	75mm	2 pcs
stainless steel stem	_	20mm	1 pc

PROBE HEAD SPECIFICATION

Probe head (PH10T)	angular movement with horizontal axis	0°~105° in 7.5 steps
	angular movement with vertical axis	±180° in 7.5 steps
	number of positions	720
	probe mounting	M8
	max. output torque	0.45N.m
	max. extension length	300mm
	weight	645g
Probe body	detect direction	±X, ±Y, +Z
	styli mounting	M2
	rating life	>1000,000 times

STYLI INCLUDED IN TP20 AND TP200B

Material	Ball diameter	Length	Quantity
	SØ1mm	10mm	1 pc
	SØ2mm	20mm	1 pc
	SØ3mm	20mm	1 pc
ruby ball/	SØ3mm	30mm	1 pc
stainless steel stem	SØ4mm	10mm	1 pc
	SØ4mm	30mm	1 pc
	SØ4mm	40mm	1 pc
	SØ5mm	20mm	1 pc
	SØ5mm	50mm	1 pc
	_	10mm	1 pc
stainless steel stem	_	20mm	1 pc
	_	30mm	1 pc





COORDINATE MEASURING MACHINES

FEATURES

- Classic bridge structure, integrated workbench
- High precision air bearing
- Unique Z-axis anti torque design to reduce rotation error

RENISHAW SYSTEMS

- Precision grating system, including grating and data acquisition device
- UCC control system, including control box and manual operator
- Probe system, including probe head, probe body and styli

VISUSAL DMIS CNC CAD+SOFTWARE

- The software is designed and developed based on the DMIS standard, with excellent compatibility and versatility
- Geometric element measurement, evaluation of shape and position
- Bidirectional data transfer with mainstream CAD systems, complete graphical display
- Optional specialized modules, such as gear module, worm module, pipeline module, blade module, SPC data analysis module, etc.



CMM-LM564A

SPECIFICATION

Code	Dange (VvVv7)	Probe system		Accuracy		Max. weight	Overall	Weight
Code	Range (X×Y×Z)	head	body	MPEE (µm)	MPEP	of workpiece	dimension (mm)	(kg)
CMM-LM564A	500×600×400mm	MH20i	TP20	±(2.3+L/250)	2.4µm	500kg	1420×1135×2350	900
CMM-LM564B	300^000^40011111	PH10T	11 20	1(2.311/230)	2.4μπ	Sooky	1420^1133^2330	300
CMM-LM686A		MH20i	TP20	±(2.6+L/250)	2.7µm			
CMM-LM686B	600×800×600mm	PH10T	1720	±(2.0+L/230)	2.7 μπ	800kg	1740×1420×2760	1300
CMM-LM686C		PH10M	SP25M	±(2.1+L/250)	2.1µm			
CMM-LM8106A		MH20i	TP20	±(2.7+L/250)	2.8µm			
CMM-LM8106B	800×1000×600mm	PH10T	11 20	±(2.7+L/230)	2.0μπ		1940×1620×2760	1700
CMM-LM8106C		PH10M	SP25M	±(2.2+L/250)	2.2µm			
CMM-LM8126A		MH20i	TP20	±(2.7+L/250)	2.8µm			
CMM-LM8126B	800×1200×600mm	PH10T	1720	±(2.7+L/230)	2.0μπ	1000kg	2140×1620×2760	1900
CMM-LM8126C		PH10M	SP25M	±(2.2+L/250)	2.2µm			
CMM-LM8156A		MH20i	TP20	±(2.7+L/250)	2.8µm			
CMM-LM8156B	800×1500×600mm	PH10T	11-20	±(2.1+L/250)	2.0μπ		2440×1620×2760	2200
CMM-LM8156C		PH10M	SP25M	±(2.2+L/250)	2.2µm			



OPERATION ENVIRONMENT

Air pressure	0.6-0.8MPa
Air supply	200L/min
Temperature	20°C±2°C; <0.5°C/h, <1°C/24h
Humidity	30%~70%
Max. power	1000W
Power supply	220V±5%, 50HZ

STANDARD DELIVERY

STANDARD DELIVERT				
Main unit		1 pc		
Probe system	probe head	1 pc		
	probe body	1 pc		
System	styli	1 set		
Control sy	stem	1 set		
Calibration	sphere	1 pc		
Universal s	sphere seat	1 pc		
Computer		1 pc		
Printer		1 pc		
Software		1 set		
Table and chair		1 set		

PH10T AND PH10M SPECIFICATION

Angular movement with horizontal axis	0°~105° in 7.5 steps
Angular movement with vertical axis	±180° in 7.5 steps
Number of positions	720
Steering mode	motorized
Max. output torque	0.45N.m
Max. extension length	300mm
Weight	649g

MH20i SPECIFICATION

Angular movement with horizontal axis	0°~105° in 15 steps
Angular movement with vertical axis	±180° in 15 steps
Number of positions	168
Steering mode	manual
Max. extension length	75mm
Weight	210g

STYLI SET INCLUDED IN TP20

Name	Material	Ball diameter	Length	Stem diameter	Effective working length	Quantity
Styli ruby ball/ stainless steel stem	,	SØ2.5mm	20mm	SØ1.4mm	14mm	4 pcs
	SØ4mm	2011111	004 5	20mm	1	
	SØ3mm	10mm	SØ1.5mm	7.5mm	1 pc	

Name	Material	Diameter	Length	Quantity
Extension		(X) ma ma	20mm	
Extension	stainless steel	Ø3mm	30mm	1 pc
Center base		Ø7mm	7.5mm	

STYLI SET INCLUDED IN SP25M

Name	Material	Ball diameter	Length	Stem diameter	Effective working length	Quantity
		SØ1.5mm		Ø1mm	14mm	1 pc
	ruby ball/	SØ2mm	21mm	Ø1.4mm	8mm	1 pc
Styli	stainless steel stem	SØ3mm		Ø1.5mm	12mm	4 pcs
Styli		SØ4mm	31mm	Ø2.5mm	27mm	1 pc
car	ruby ball/	SØ5mm	50mm	Ø3mm	42.5mm	1 pc
	carbon fiber stem	SØ6mm	75mm	Ø4mm	75mm	1 pc

Name	Material	Diameter	Length	Quantity	
F. danaian		Ø5mm	10mm		
Extension	stainless steel	Ø4mm	20mm	1 pc	
Center base		Ø10mm	13mm		



MEASURING ARMS



- In accordance with ISO 10360-12
- Internal balance
- Dual high performance batteries

- Equivalent-arm design
 High-speed WiFi performance
 Aerospace grade carbon-fiber material
- Automatic power off
- U-shaped anti-collision design of the base



CMM-CM30

HIGH PRECISION, CM SERIES, 6-AXIS

(mm)

Code	Measuring range	Maximum permissible error				
Code	Measuring range	SPAT	Euni	Psize	Pform	LDIA
CMM-CM15	1500	0.018	0.025	0.009	0.016	0.026
CMM-CM20	2000	0.020	0.028	0.010	0.018	0.032
CMM-CM25	2500	0.023	0.030	0.012	0.022	0.038
CMM-CM30	3000	0.034	0.042	0.016	0.032	0.052
CMM-CM35	3500	0.043	0.056	0.020	0.038	0.066
CMM-CM40	4000	0.052	0.066	0.024	0.044	0.083
CMM-CM45	4500	0.061	0.089	0.038	0.078	0.108

HIGH PRECISION, CM SERIES, 7-AXIS

(mm)

Code	Measuring range		error			
	Weasuring range	SPAT	Euni	Psize	PFORM	LDIA
CMM-CM20S	2000	0.022	0.030	0.012	0.022	0.040
CMM-CM25S	2500	0.027	0.032	0.013	0.025	0.048
CMM-CM30S	3000	0.042	0.053	0.020	0.035	0.078
CMM-CM35S	3500	0.055	0.066	0.024	0.043	0.092
CMM-CM40S	4000	0.065	0.082	0.029	0.048	0.102
CMM-CM45S	4500	0.073	0.099	0.043	0.082	0.132

STANDARD PRECISION. BE SERIES. 6-AXIS

(mm)

STANDARD PRECISIC	ANDARD PRECISION, BE SERIES, 0-AXIS							
Code	Measuring range		Maximum permissible error					
	Weasuring range	SPAT	Еим	Psize	PFORM	LDIA		
CMM-BE15	1500	0.028	0.036	0.015	0.029	0.038		
CMM-BE20	2000	0.030	0.040	0.018	0.035	0.041		
CMM-BE25	2500	0.035	0.045	0.020	0.038	0.050		
CMM-BE30	3000	0.055	0.065	0.028	0.045	0.080		
CMM-BE35	3500	0.075	0.080	0.035	0.058	0.098		
CMM-BE40	4000	0.090	0.100	0.044	0.068	0.116		
CMM-BE45	4500	0.112	0.120	0.048	0.086	0.128		





Single-point articulation test



Distance measurement error between two points



Sphere form measurement error



Sphere size measurement error



Sphere diameter obtained from performing the articulated location test (diameter of the spherical zone containing the centers of a sphere measured from multiple orientations)

SPECIFICATION

SPECIFICATION				
Temperature rate	3°C/5min			
Battery life	5h for one battery; 10h for two batteries			
Output	USB, WIFI			
Operation temperature	5°C~45°C			
Operation humidity	0~95%, non-condensing			
Power	100~240VAC, 50/60HZ			
Weight	8.8kg~10.6kg			



3mm zircon ball probe (included)



6mm zircon ball probe (included)



calibration cone (included)

STANDARD DELIVERY

Main unit	1 pc
3mm zircon ball probe	1 pc
6mm zircon ball probe	1 pc
Calibration cone	1 pc
Lithium batteries	2 pcs
USB cable	1 pc
Power adapter	1 pc
Dust cover	1 pc



magnetic base (optional)



electric vacuum base (optional)



DELL laptop (optional)

OPTIONAL ACCESSORY

DELL laptop	CMM-CEM-PCE
Polyworks software	CMM-CEM-PW
Adjustable tripod	CMM-CEM-FAT
Electric vacuum base	CMM-CEM-EVCP
Magnetic base	CMM-CEM-IMM
Magnetic cones	CMM-CEM-MC
Magnetic spheres	CMM-CEM-MS
Point probe	CMM-CEM-PP
2mm ruby ball probe	CMM-CEM-RP2
5mm zircon ball probe	CMM-CEM-ZP5
10mm zircon ball probe	CMM-CEM-ZP10
3" straight probe extension	CMM-CEM-SPE3
4" straight probe extension	CMM-CEM-SPE4
60° probe adapter	CMM-CEM-DP60
90° probe adapter	CMM-CEM-DP90
3mm extended ball probe	CMM-CEM-EPB3
6mm extended ball probe	CMM-CEM-EPB6
Probe adapter	CMM-CEM-PA

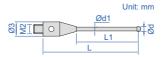


adjustable tripod (optional)



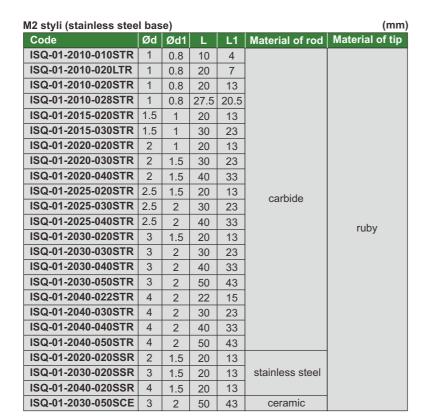


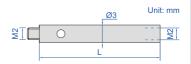
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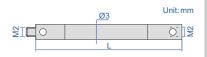


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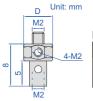




M2 extension rods of	(mm)	
Code	L	Material
ISQ-02-2030-005ST	5	
ISQ-02-2030-010ST	10	
ISQ-02-2030-020ST	20	stainless steel
ISQ-02-2030-030ST	30	Steel
ISQ-02-2030-040ST	40	



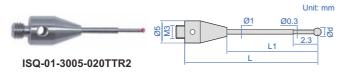
M2 extension rods of s	(mm)	
Code	L	Material
ISQ-02-2035-030SCF	30	
ISQ-02-2035-040SCF	40	
ISQ-02-2035-050SCF	50	carbon fibre
ISQ-02-2035-060SCF	60	libre
ISQ-02-2035-070SCF	70	



M2 multi way bases of	(mm)		
Code	D	Remark	Material
ISQ-03-2075-008ST	7.5	4-way	stainless
ISQ-03-2070-008ST	7	5-way	steel



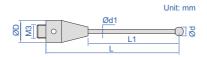
M2 thread converters		(mm)
Code	L	Material
ISQ-05-2040-005M3	5	stainless
ISQ-05-2040-007M3	7	steel



wis styll with step (stain)	(mm)					
Code	Ød	L	L1	Material of rod	Material of tip	
ISQ-01-3005-018TTR2	0.5	18	9	carbide	rubv	
ISQ-01-3005-020TTR2	0.5	20	11	Carbide	ruby	





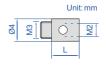


Unit: mm Ø4 _____<u>™</u> M3

ISQ-01-3020-030STR

M3 styli (stainless steel base) (mm							
Code	Ød	Ød1	L	L1	ØD	Material of rod	Material of tip
ISQ-01-3010-020TTR	1	0.8	20	11	5		
ISQ-01-3010-040TTR	1	0.8	40	31	5		
ISQ-01-3015-020TTR	1.5	1	20	11	5		
ISQ-01-3015-030TTR	1.5	1	30	21	5		
ISQ-01-3015-040TTR	1.5	1	40	31	5		ruby
ISQ-01-3020-014TTR	2	1	14	5	5	carbide	
ISQ-01-3020-040TTR	2	1.5	40	31	5		
ISQ-01-3020-050TTR	2	1.5	50	41	5		
ISQ-01-3030-050TTR	3	2	50	41	5		Tuby
ISQ-01-3040-030TTR	4	2	30	21	5		
ISQ-01-3040-040TTR	4	2	40	31	5		
ISQ-01-3040-050TTR	4	2	50	41	5		
ISQ-01-3020-030STR	2	1.5	30	22.5	4		
ISQ-01-3030-030STR	3	1.5	30	22.5	4		
ISQ-01-3030-050TCR	3	2	50	41	5	carbon	
ISQ-01-3030-075TCR	3	2	75	66	5	fibre	

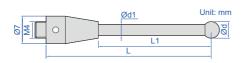
M3 extension rods of sty	/li	(mm)
Code	Material	
ISQ-02-3040-010ST	10	
ISQ-02-3040-020ST	20	
ISQ-02-3040-030ST	30	stainless
ISQ-02-3040-040ST	40	steel
ISQ-02-3040-050ST	50	

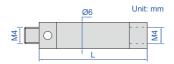


M3 thread converters		(mm)
Code	L	Material
ISQ-05-3040-005M2	5	
ISQ-05-3040-010M2	10	stainless steel
ISQ-05-3040-020M2	20	



ISQ-01-4060-100SCE





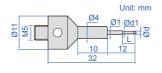
M4 styli (stainless steel	(mm)					
Code	Ød	Ød1	L	L1	Material of rod	Material of tip
ISQ-01-4010-020STR	1	0.8	20	10	carbide ruby	
ISQ-01-4020-020STR	2	1.5	20	10		
ISQ-01-4020-050STR	2	1.5	50	40		ruby
ISQ-01-4040-050SCE	4	3	50	33.5	coromic	
ISQ-01-4060-100SCE	6	4.5	100	83.5	ceramic	

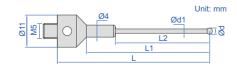
M4 extension rods of styl	(mm)	
Code	L	Material
ISQ-02-4070-030SCT	30	
ISQ-02-4070-050SCT	50	ceramic
ISQ-02-4070-100SCT	100	Ceramic
ISQ-02-4070-200SCT	200	





ISQ-01-5010-032STR





M5 styli with step (stainl	(mm)				
Code	Ød	Ød1	L	Material of rod	Material of tip
ISQ-01-5005-032STR	0.5	0.3	2.5		
ISQ-01-5008-032STR	0.8	0.6	4.8	carbide	ruby
ISQ-01-5010-032STR	1	0.8	5		

M5 styll with step (stai		(mm					
Code	Ød	Ød1	L	L1	L2	Material of rod	Material of tip
ISQ-01-5015-044STR	1.5	1	44	34	19		
ISQ-01-5020-044STR	2	1.5	44	34	19	carbide	ruby

ISQ-01-5020-058STR 2 1.5 58 48 33





b	ase		Ød	Unit: mm
M M 2	0			M5
		L		

M5 styli (stainless steel base)

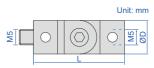
(mm)

Code	Ød	Ød1	L	L1	Material of rod	Material of tip
ISQ-01-5015-033STR	1.5	1	33	23		
ISQ-01-5015-040STR	1.5	1	40	30		
ISQ-01-5020-034STR	2	1.5	33.5	23.5		
ISQ-01-5020-040STR	2	1.5	40	30		
ISQ-01-5030-034STR	3	2	33.5	23.5		
ISQ-01-5030-050STR	3	2	50	40	carbide	
ISQ-01-5030-058STR	3	2	58	48	Carbide	
ISQ-01-5030-075STR	3	2	75	65		ruby
ISQ-01-5050-050STR	5	2.5	50	40		
ISQ-01-5050-075STR	5	2.5	75	65		
ISQ-01-5060-054STR	6	3	54	44		
ISQ-01-5080-115STR	8	4	114.5	101.5		
ISQ-01-5030-058SCR	3	2	58	48		
ISQ-01-5050-100SCR	5	3.5	100	90	carbon fibre	
ISQ-01-5080-100SCR	8	6	100	87		



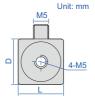


ISQ-03-5110-030TI



M5 extension rods of styli

M5 extension rods of	(mm)				
Code	Ød	L	Material	Material of base	
ISQ-02-5110-040SAL	11	40			
ISQ-02-5110-060SAL	11	60	aluminium		
ISQ-02-5110-080SAL	11	80			stainless
ISQ-02-5110-100SAL	11	100		steel	
ISQ-02-5110-020ST	11	20	stainless steel		
ISQ-02-5110-040TCF	11	40			
ISQ-02-5110-050TCF	11	50	carbon fibre	titanium	
ISQ-02-5110-060TCF	11	60		litariiuiii	
ISQ-02-5110-100TCF	11	100			



M5 rotating joints

(m	m)

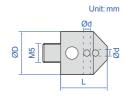
Code	L	ØD	Material
ISQ-03-5110-030TI	30	11	titanium
ISQ-03-5180-036TI	36	18	แลกเนก



M5 4-way cubes of styli

(mm)

Code	D	L	Material
ISQ-03-5150-150TI	15	15	titanium
ISQ-03-5200-200TI	20	20	utanium



Holder	s for	· pin	stvli

(mm)

				()
Code	L	Ød	ØD	Material
ISQ-03-5110-012H1	12	1	11	
ISQ-03-5110-012H1D5	12	1.5	11	stainless steel
ISQ-03-5110-012H2	12	2	11	31661



Unit: mm M5

ISQ-05-5110-090M3

wis tillead converters				(111111)
Code	L	ØD	Thread (T)	Material
ISQ-05-5110-090M2	10	11	M2	stainless
ISQ-05-5110-090M3	10	11	M3	steel



F	Pin styli							(mm)
	Code	L	Ød	L1	Ød1	Ød2	Material of rod	Material of tip
	ISQ-01-0008-016TR	15.8	0.8	4.8	1	0.6	carbide	ruby
	ISQ-01-0020-027TR	27	2	_	1.5	_		
	ISQ-01-0030-038TR	38	3	_	2	_		



STYLI FOR CMM

■ Roundness: 0.25µm

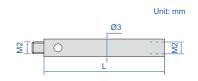


M2 styli						(mm)
Code	Ød	Ød1	L	L1*	Material of rod	Material of tip
ISQ-20-002	1	0.7	10	4.5		
ISQ-20-006	2	1	10	6		
ISQ-20-010	3	1.5	10	10	stainless	
ISQ-20-021	2	1.4	20	14	steel	
ISQ-20-025	3	1.5	20	17.5		
ISQ-20-027	4	2	20	20		ruby
ISQ-20-052	0.5	0.3	10	3		
ISQ-20-071	1	0.7	20	12.5	carbide	
ISQ-20-105	2	1.5	30	22.5		
ISQ-20-120	3	2	30	27.5	ceramic	
ISQ-20-201	4	3	50	50	carbon fibre	

^{*}L1 is the effective working length, which is the distance from the center of the tip to the section of the stem with the same diameter as the tip



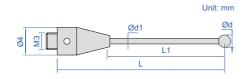
ISQ-25-125



M2 extension ro	i (mm)	
Code	L	Material
ISQ-25-105	10	stainless
ISQ-25-110	20	steel
ISQ-25-125	30	ceramic



ISQ-30-066

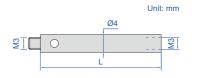


M3 styli (mm								
Code	Ød	Ød1	L	L1*	Material of rod	Material of tip		
ISQ-30-001	1	0.7	21	4				
ISQ-30-003	2	1.4	21	8				
ISQ-30-005	3	1.5	21	12	carbide	ruby		
ISQ-30-031	2	1.5	30	22.5		ruby		
ISQ-30-066	3	2	50	42.5	ceramic			
ISQ-30-080	6	4	75	75	carbon fibre			

^{*}L1 is the effective working length, which is the distance from the center of the tip to the section of the stem with the same diameter as the tip



ISQ-35-110

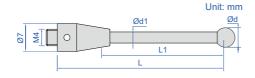


M3 extension re	li (mm)	
Code	L	Material
ISQ-35-101	10	-1-1-1
ISQ-35-105	20	stainless steel
ISQ-35-110	35	31001
ISQ-35-115	50	ceramic

To be continued



ISQ-40-195



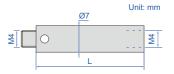
M4 styli (mm) Material of tip Code Material of rod Ød Ød1 L1 ISQ-40-113 3 2 18.5 13 stainless ISQ-40-208 6 4 50 36 steel ISQ-40-106 0.7 19.5 1 4 ISQ-40-109 2 1.4 19 8 ISQ-40-141 1 0.7 20 10 carbide ISQ-40-195 2 1.5 50 40 ruby ISQ-40-202 4 2 50 38 ISQ-40-173 5 4 50 34 ISQ-40-179 50 6 4 36 ISQ-40-222 6 4 75 63 ceramic ISQ-40-240 5 100 84 4

86

100



ISQ-45-025

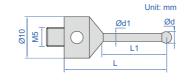


M4 extension re	styli (mm)	
Code	L	Material
ISQ-45-025	30	ceramic
ISQ-45-028	50	ceramic



6

4



			Ød	Onic	
M5	0				M5
		L			

M5 extension	(mm)				
Code	L	Ød	Material		
ISQ-55-012	20	10			
ISQ-55-014	30	10	stainless		
ISQ-55-016	50	10	steel		
ISQ-55-018	100	10			
ISQ-55-031	50	20			
ISQ-55-035	100	20	aluminum		
ISQ-55-039	200	20			

ISQ-50-059

REFER TO PAGE 330~331 FOR DETAILS

ISQ-40-245

M5 styli (mm)									
Code	Ød	Ød1	L	L1*	Material of rod	Material of tip			
ISQ-50-051	1	0.7	20	5					
ISQ-50-059	2	1.5	20	11	carbide				
ISQ-50-067	3	2	20	11		ruby			
ISQ-50-071	4	2	20	11					
ISQ-50-075	5	3	20	11					

^{*}L1 is the effective working length, which is the distance from the center of the tip to the section of the stem with the same diameter as the tip

CMM CHECK MASTERS





^{*}L1 is the effective working length, which is the distance from the center of the tip to the section of the stem with the same diameter as the tip



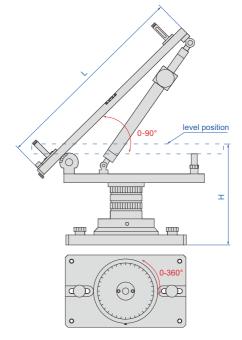
GAGE BLOCK STAND FOR CMM





- Made of aluminum
- Used with gage blocks to calibrate CMM
 Optional accessory: gage blocks (4101, 4103 and 4104 series)

(mm) Length (L) Height (H) Code 235, 355, 500, 600, 650, 700, 750, 6885-1000 800, 850, 900, 1000 475





height column (included, 2 pcs)



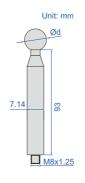
extension plate (included, 4 pcs)

CERAMIC BALL GAGES

- To calibrate CMM probes
- Zirconia material, high strength and hardness, extremly wear resistance and corrosion resistance good insulation, antistatic and magnetic resistance

 Mirror surface, with pole
- Supplied with manufacturer inspection certificate





4198-20

INSPECTION

High accuracy							
Code	Diameter (Ød)	Accuracy	Roundness				
4198-8	8mm	±5µm	0.5µm				
4198-10	10mm	±5µm	0.5µm				
4198-12D7	12.7mm	±5µm	0.5µm				
4198-13	13mm	±5µm	0.5µm				
4198-14	14mm	±5µm	0.5µm				
4198-15	15mm	±5µm	0.5µm				
4198-16	16mm	±5µm	0.5µm				
4198-17	17mm	±5µm	0.5µm				
4198-20	20mm	±5µm	0.5µm				
4198-25D4	25.4mm	±5µm	0.5µm				

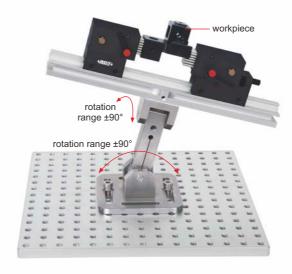
Standard accuracy							
Code	Diameter (Ød)	Accuracy	Roundness				
4198-8A	8mm	±5µm	1µm				
4198-10A	10mm	±5µm	1µm				
4198-12D7A	12.7mm	±5µm	1µm				
4198-13A 13mm		±5µm	1µm				
4198-14A 14mm		±5µm	1µm				
4198-15A	15mm	±5µm	1µm				
4198-16A	16mm	±5µm	1µm				
4198-17A	17mm	±5µm	1µm				
4198-20A	20mm	±5µm	1µm				
4198-25D4A	25.4mm	±5µm	1µm				







JIGS FOR CMM (ANVIL Ø2.5mm)



ISY-200







ISY-200-2



ISY-200-3



ISY-200-4



ISY-200-5



ISY-200-6

Code	Product	Remark	
ISY-200	jig set	including 1 pc ISY-200-1, 1 pc ISY-200-2, 1 pc ISY-200-3, 1 pc ISY-200-4, 1 pc ISY-200-5 and 2 pcs ISY-200-6	

(mm)	
------	--

Code	Product	Size	Anvil area	Anvil stroke
ISY-200-1	spring anvil	60×40×57	20.5×23	14
ISY-200-2	adjustable spring anvil (range 0-20mm)	70×40×57	20.5×23	14

Code	Product	Size	Hole size
ISY-200-3	base plate	300×300×12mm	M8

Code	Product	Size
ISY-200-4	guide	300×40×27
ISY-200-5	two-way adjustable stand	110×110×142
ISY-200-6	clamp handle	_

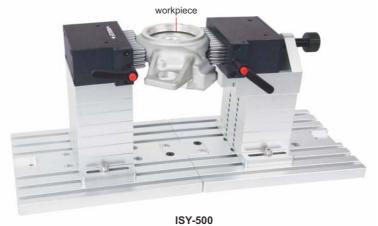
(mm)



JIGS FOR CMM (ANVIL Ø6mm)















ISY-500-2







ISY-500-4

ISY-500-5

ISY-500-7

Code	Product	Remark
ISY-500	jig set	including 1 pc ISY-500-1, 1 pc ISY-500-2, 2 pcs ISY-500-3, 10 pcs ISY-500-4, 2 pcs ISY-500-5, 1 pc ISY-500-6, 2 pcs ISY-500-7

(mm)

				()
Code	Code Product		Anvil area	Anvil stroke
ISY-500-1	spring anvil	134×90×90	36×100	24
ISY-500-2	adjustable spring anvil (range 0-40mm)	134×120×130	36×100	24

(mm)

Code	Product	Size
ISY-500-3 base plate		300×240×20
ISY-500-4	block	120×90×20
ISY-500-5	connecting plate	170×90×15
ISY-500-6	connecting block of base plate	80×50×10
ISY-500-7	clamp handle	_





JIGS FOR CMM (ANVIL Ø2.5mm)





ISY-300-1



ISY-300-2



ISY-300-3



ISY-300-4



ISY-300-5



ISY-300-6



ISY-300-7



ISY-300-8



ISY-300-9



ISY-300-10



ISY-300-11



ISY-300-12



ISY-300-13

Code	Product	Remark
ISY-300	jig set	including 1 pc ISY-300-1, 2 pcs ISY-300-2, 1 pc ISY-300-3, 2 pcs ISY-300-4, 14 pcs ISY-300-5, 2 pcs ISY-300-6, 8 pcs ISY-300-7, 6 pcs ISY-300-8, 2 pcs ISY-300-9, 2 pcs ISY-300-10, 2 pcs ISY-300-11, 2 pcs ISY-300-12, 2 pcs ISY-300-13

Code	Product	Size	Hole size
ISY-300-1	base plate	300×300×12mm	M8

,			٠.
(Ш	Ш	1)

Code	Product	Size	Anvil area	Anvil stroke
ISY-300-2	spring anvil	60×40×75	20.5×23	14
ISY-300-3	spring anvil	Ø26×73	3.1cm² (hexagon)	14

		(11111)
Code	Product	Size
ISY-300-4	block	50×50×50
ISY-300-5	block	50×50×20
ISY-300-6	connecting plate	110×50×10
ISY-300-7	block	Ø26×20
ISY-300-8	block	Ø26×30
ISY-300-9	connecting plate	150×26×10
ISY-300-10	clip	65×11
ISY-300-11	clip	100×11
ISY-300-12	connecting block of clip stand	Ø26×20
ISY-300-13	clip stand	Ø8×75



JIGS FOR CMM (ANVIL Ø6mm)







ISY-400



ISY-400-1



ISY-400-2



ISY-400-3



ISY-400-4



ISY-400-5



ISY-400-6

Code	Product	Remark
ISY-400	jig set	including 3 pcs ISY-400-1, 9 pcs ISY-400-2, 9 pcs ISY-400-3, 1 pc ISY-400-4, 3 pcs ISY-400-5, 3 pcs ISY-400-6

(mm)

Code	Product	Size	Anvil area	Anvil stroke
ISY-400-1	spring anvil	135×60×90	36×100	24

(mm)

Code	Product	Size
ISY-400-2	block	120×60×20
ISY-400-3	block	120×60×30
ISY-400-4	base plate	500×500×12
ISY-400-5	connecting plate	130×120×12
ISY-400-6	clamp handle	_



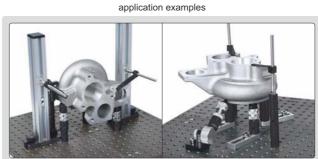


JIG SET FOR CMM **CODE ISY-100**



ISY-100





Product	Code	Size (mm)	Quantity	Application
stand	ISY-100-1001	Ø16×30	5	
	ISY-100-1002	Ø16×50	5	
	ISY-100-1003	Ø16×100	3	
stand	ISY-100-1004	Ø20×30	5	
	ISY-100-1005	Ø20×50	5	
	ISY-100-1006	Ø20×100	3	
stand with fine adjustment	ISY-100-2001	Ø16×45~60	2	height adjustment: 45~60mm
stand with fine adjustment	ISY-100-2003	Ø20×45~60	2	
horizontal spring stand	ISY-100-4001	_	2	

Product	Code	Size (mm)	Quantity	Application
horizontal screw stand	ISY-100-5001	_	2	i
magnetic stand (magnetic top surface)	ISY-100-7001	Ø20×25	3	
stand for slice parts	ISY-100-8001		2	ISY-100-8001 and ISY-100-8002 use cooperatively
clamping stand for slice parts	ISY-100-8002	Ø20×25	1	

To be continued



Product	Code	Size (mm)	Quantity	Application
clip	ISY-100-1201	_	2	
clip	ISY-100-1301	_	2	.
clip stand	ISY-100-1401	Ø6×60	2	
	ISY-100-1402	Ø6×100	2	
vertical square column	ISY-100-3003	30×30×250	2	
sliding support plate	ISY-100-1801	78×20×10	3	
clamping screw	ISY-100-2301	Ø8×20	6	
screw	ISY-100-2302	Ø8×20	6	
base plate	ISY-600- 400200	400×400×12 hole size: M8×1.25 hole center distance: 20	2 pieces	-
wrench	ISY-100-3701	Ø3.8×70	1	_
wrench	ISY-100-3801	M2.5	1	_
	ISY-100-3802	M5	1	_
	ISY-100-3803	M6	1	_
45° stand	ISY-100-9001	_	2	
V shaped support	ISY-100-1901	_	2	T

Product	Code	Quantity	Application
V shaped support	ISY-100-1902	2	
marker	ISY-6100-1501	52 *	
dust cleaner	ISY-100-3501	1	_
lubricating oil	ISY-100-3601	1	_

^{*}Letter A~Z, number 0~25

Product	Code	Quantity	Material	Application
support head	ISY-100-27016	2	aluminum	
7	ISY-100-27018	2	nylon	
support head	ISY-100-27026	2	aluminum	
7	ISY-100-27028	2	nylon	
support head	ISY-100-27036	2	aluminum	
79	ISY-100-27038	2	nylon	
support head	ISY-100-27046	2	aluminum	
WW	ISY-100-27048	2	nylon	
support head	ISY-100-27056	2	aluminum	
Ŋw	ISY-100-27058	2	nylon	
support head	ISY-100-27066	2	aluminum	
	ISY-100-27068	2	nylon	
support head	ISY-100-27076	2	aluminum	
Ą	ISY-100-27078	2	nylon	

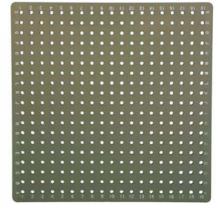




JIG SET FOR CMM CODE ISY-600







ISY-	600
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Product	Code	Size (mm)	Quantity
stand	ISY-600-P1301	Ø13×13	6
P1303 —	ISY-600-P1302	Ø13×20	6
	ISY-600-P1303	Ø13×26	6
stand	ISY-600-P1304	Ø13×32	6
P1306 .	ISY-600-P1305	Ø13×40	6
	ISY-600-P1306	Ø13×45	6
stand	ISY-600-P1902	Ø20×20	6
P1905	ISY-600-P1905	Ø20×38	6
	ISY-600-P2602	Ø26×20	6
spring stand	ISY-600-P1522	_	2
universal support	ISY-600-J1560	_	2
stand with fine adjustment	ISY-600-J1501	48~60	2
magnetic stand (magnetic top surface)	ISY-600-J2020	Ø20×20	4
adaptor	ISY-600-J2021	Ø20×19	2
V shaped support	ISY-600-J2520	Ø25×20	2
clamping screw	ISY-600-P2003	M8x1.25	4

Product	Code	Size (mm)	Quantity
sliding support plate	ISY-600-J2060	60×20×10	2
sliding support plate	ISY-600-J2060	60×20×10	2
clip	ISY-600-P1266	12×66	4
chuck support	ISY-600-JS201	I	2
clip stand	ISY-600-P0684	Ø6×74	4
aluminum support head	ISY-600-P2002	-	4
nylon support head	ISY-600-P2001	-	4
base plate	ISY-600-400	400×400×18 hole size: M8X1.25	1