



Offset and Position Detection Tools

COMPACT SENSOR SERIES

BIG DAISHOWA SEIKI CO LTD

CATALOG No. **EXi 68**

**High precision Compact Sensor Series
enhances accurate machining.**

Measuring Device

BASE MASTER
BASE MASTER MICRO
POINT MASTER

BASE MASTER GOLD
TOOL MASTER
ACCU CENTER





Tool Offset Sensors

BASE MASTER Series

Precision tool to define work offsets and tool lengths.

- LED lamp illuminates at exactly 2.000" from the reference surface.
- Repeatability of $\pm .00004"$
- Safety over-travel of sensor plate prevents damage to tooling.
- Magnetic base mounts vertically, horizontally, or at any angle.



BASE MASTER

For cutting tools, workpieces and machine tools using conductive materials.

Model	BM-2
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Integrated contact switch

BASE MASTER GOLD

For all materials, including non-conductive cutting tools, workpieces, and machine tools.

Model	BM-2G
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Pre-set .002" dia. tools.
Considerable reduction of set-up time for small dia. tools.

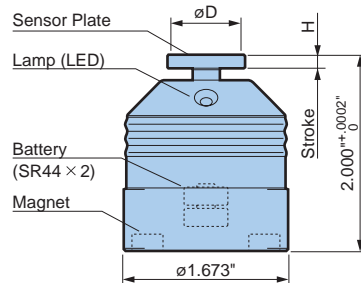


Integrated contact switch

BASE MASTER MICRO

Light pressure activation for small tools. Suitable for all cutting tools, workpieces, and machine tools.

Model	BM-2M
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Model	Plate Diameter øD	Plate Material	Stroke H
BM-2	.709	Steel	.118
-2G	.551	Ceramic	.118
-2M	.276		.039

- BM-2 will not work with non-conductive cutting tools, workpieces, or machine tool spindles.
- For cutting tools under .040", feed slowly and touch the sensor plate carefully. 50mm Units available upon request.

TOOL MASTER

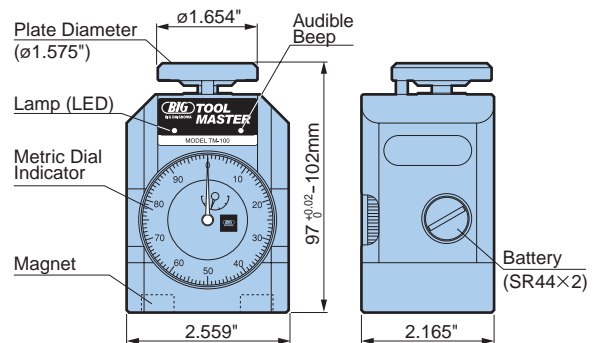
Precision tool to define work offsets and tool length.

- Large dial is easily viewed and includes approach LED lamp and sound.
- Adjustable height.
- Magnetic base mounts vertically, horizontally, or at any angle.



For all materials, including non-conductive cutting tools, workpieces, and machine tools.

Model	TM-100
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- Height : 100mm (After compressed by approx. 2mm)
- Stroke : 5mm
- Dial Graduation : 0.01mm



Touch Probe & Edge Finder

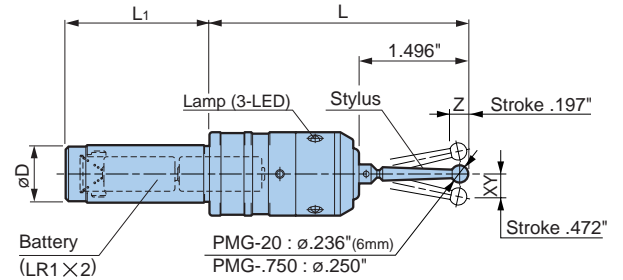
POINT MASTER Series

3-D Touch sensor to quickly find measurement locations.

- Repeatability of $\pm .00008"$ with safety over-travel
- Replaceable probes for different applications
- Compact design



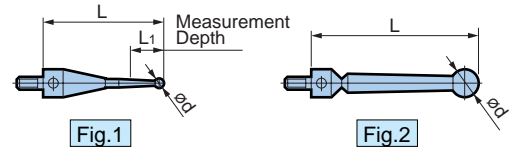
For use with conductive cutting tools, workpieces, and machine tools.



Model	ϕD h7	L	L1	Standard Stylus
PMG-20	.787	3.543	1.969	ST38-6P
- .750	.750			ST38-.25P

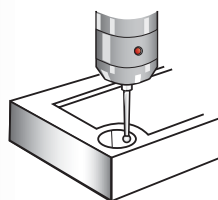
«Additional Stylus»

Multiple Stylus available for different applications

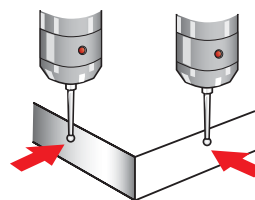


Model	Fig.	ϕd	L	L1	Material
ST28-1P	1	.040 (1mm)	1.102	.079	Carbide
-2P		.079 (2mm)		.315	
-3P		.118 (3mm)		-	
-4P		.157 (4mm)		-	
ST38-6P	2	.236 (6mm)	1.496	-	Stainless Steel
-25P		.250		-	

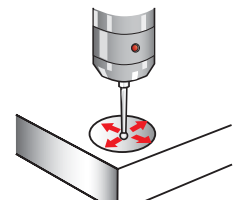
Application Examples



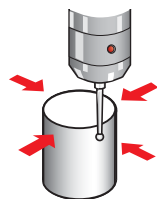
Hole Locations



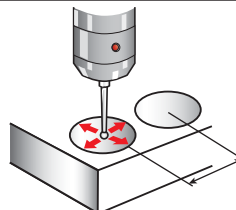
Workpiece Offsets



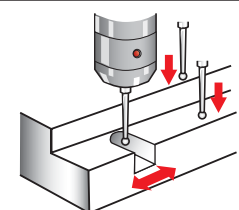
Bore Diameters



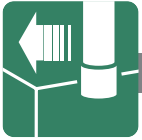
Boss Diameters



Distance between centers



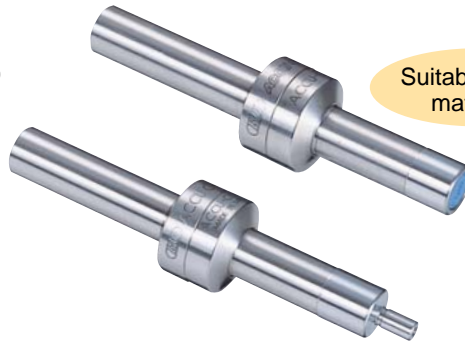
Feature Locations



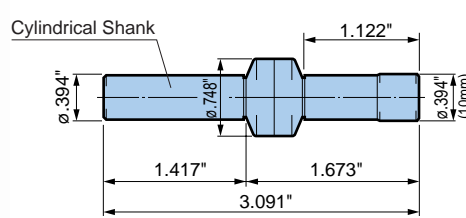
ACCU CENTER

Precision Edge Finder

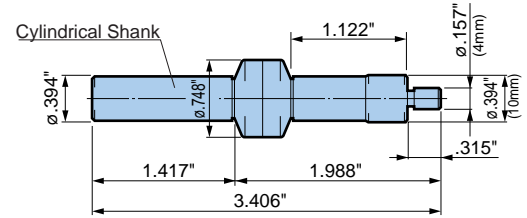
- Repeatability of .00012"
 - Hard chrome plated for extended life
 - Chrome plated cylindrical stylus.
- (Not for use with horizontal machine tools)



Suitable for all materials

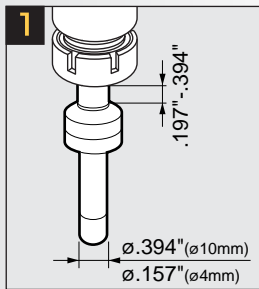


Model ACCU-C10

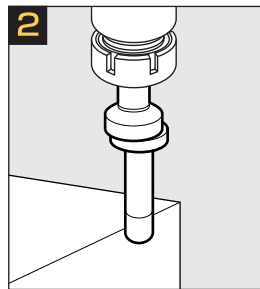


Model ACCU-C104

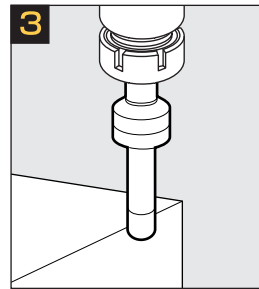
● Operation Instructions



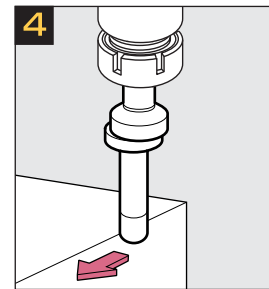
Clamp tool in a New Baby Collet Chuck.



Move the stylus off center, and rotate between 400 and 600 RPM.



Bring the tool into contact with the workpiece and advance slowly until the stylus lines up with the body.



If advanced too far the stylus will again move off center. Be sure to compensate location for half the stylus diameter.