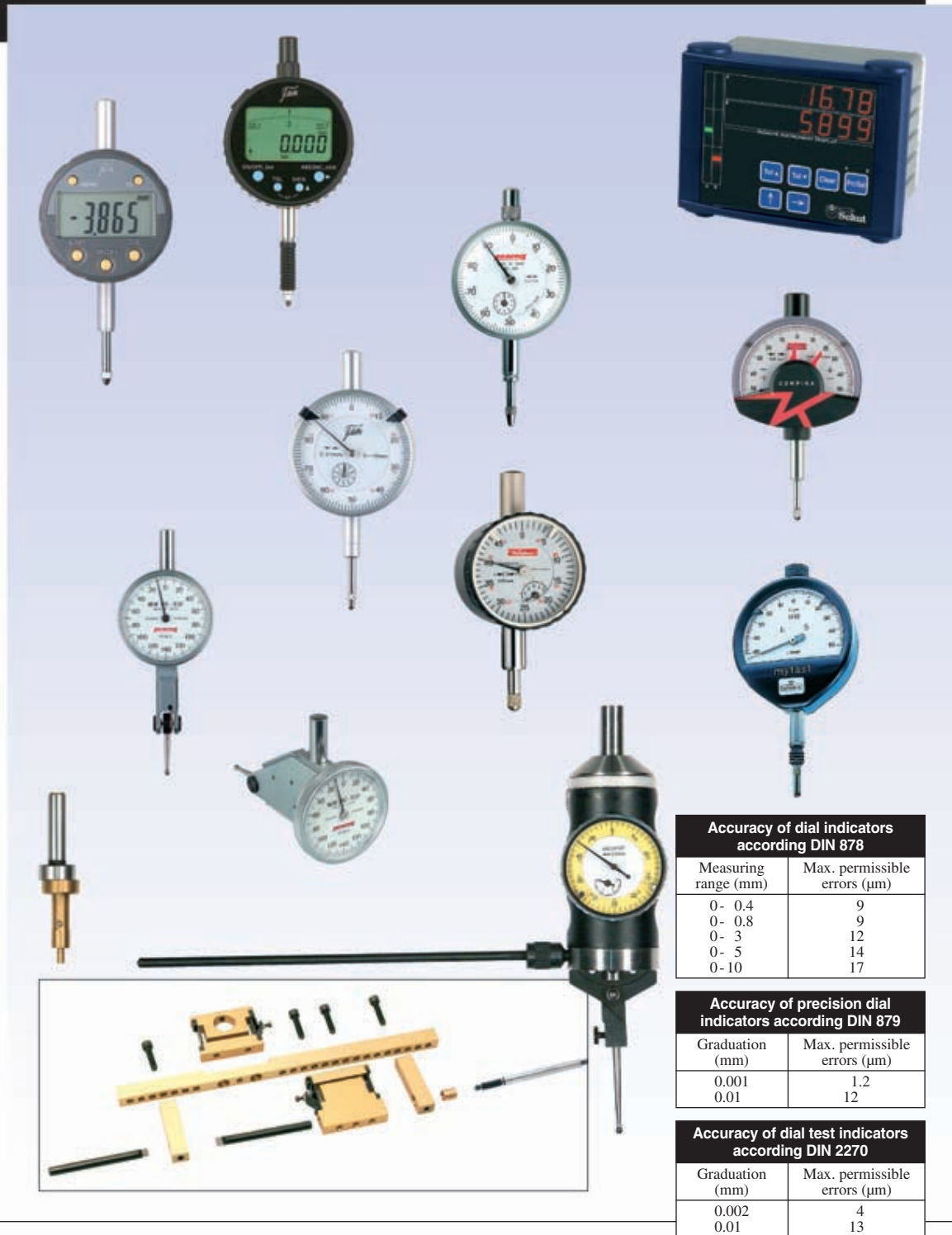


**Dial indicators / Dial test indicators / Center instruments  
Edge finders / Probes / MF measuring fixture system**



Accuracy of dial indicators according DIN 878	
Measuring range (mm)	Max. permissible errors (µm)
0- 0.4	9
0- 0.8	9
0- 3	12
0- 5	14
0-10	17

Accuracy of precision dial indicators according DIN 879	
Graduation (mm)	Max. permissible errors (µm)
0.001	1.2
0.01	12

Accuracy of dial test indicators according DIN 2270	
Graduation (mm)	Max. permissible errors (µm)
0.002	4
0.01	13

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## Digital dial indicators 0.01 and 0.001 mm

Digital dial indicators for a favourable price.

- Measuring range: 0 - 50 mm.
- Resolution: 0.01 or 0.001 mm.
- mm/inch conversion.
- ABS/INC switchable.
- On/off switch.
- Reset.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 57 mm.
- Adjustable tolerance limits.
- Flat back and additional back with lug.
- Delivery with an inspection report.
- Power supply: 1 battery type CR2025.



**NEW**

**Schut**

**PRICE**

Item No.	Measuring range/mm	Accuracy mm	Price
<b>With resolution 0.01 mm:</b>			
907.634	0 - 12.5	$\pm 0.02$	
907.649	0 - 25	$\pm 0.03$	
907.652	0 - 50	$\pm 0.04$	
<b>With resolution 0.001 mm:</b>			
907.646	0 - 12.5	$\pm 0.015$	
<b>Options:</b>			
495.214	Spare battery		
909.446	USB connector		
937.179	Foot switch		

### USB connector:

- For data transfer to PC (e.g. Excel, Word).
- Operating system: Windows 2000/XP/Vista/7.
- PC connection: USB data output (cable length 2 m).
- No software or driver to install.
- Foot switch (optional).



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## Digital dial indicators

Digital dial indicators with digital and digital-analog read-out.

- Measuring range: 0- 12.5 mm.
- Resolution: 0.002 or 0.001 mm.
- mm/inch conversion.
- ABS/INC switchable.
- RS232C data output.
- On/off switch.
- Automatic switch-off.
- Reset/preset.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 62 mm.
- Dial 360° rotatable.
- Reversible measuring direction.
- With determination of the reversal point.
- Adjustable tolerance limits.
- Power supply: 1 battery type CR2032.



909.251

Item No.	Measuring range/mm	Resolution mm	Accuracy mm	Measuring force/N	Price
909.250	0-12.5	0.002	$\pm 0.015$	1.8-3.0	
909.251	0-12.5	0.001	$\pm 0.006$	2.2-3.5	

**Option:**  
495.157 Spare battery

## Digital dial indicators

Universal digital indicators with both digital and digital-analog display of the measuring value, and can also be rotated over 340° to ensure easy read-out in all positions.

- Measuring range: 0- 12.7 mm.
- Resolution: 0.001 mm.
- Analog resolution: 0.001/0.002/0.01/0.02/0.05 mm.
- mm/inch conversion.
- ABS/INC switchable.
- On/off switch.
- Automatic switch-off.
- Reset/preset.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 61 mm.
- Dial 340° rotatable.
- Reversible measuring direction.
- With determination of the reversal point.
- Adjustable tolerance limits.
- Protection: IP54.
- Power supply: 1 battery type CR2032.



907.879

Item No.	Measuring range/mm	Accuracy mm	Price
907.879	0-12.7	$\pm 0.01$	
907.878	0-12.7	$\pm 0.005$	

**Option:**  
495.157 Spare battery

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## Dial indicators 0.01 mm

Indicators with an excellent price-performance ratio.

- Measuring range: 0 - 10 mm.
- Graduation: 0.01 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 55 mm.
- Rotatable dial.
- Shockproof.
- Adjustable tolerance markers.
- Flat back.
- Delivery with an inspection report.

**NEW**



907.930



Item No.	Measuring range/mm	Price
907.928	0 - 3	
907.929	0 - 5	
907.930	0 - 10	

## Dial indicators 0.01 mm

Indicators with a large dial and a locking screw. Shockproof design.

- Measuring range: 0 - 10 mm.
- Graduation: 0.01 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 60 mm.
- Rotatable dial.
- Shockproof.
- Adjustable tolerance markers.
- Locking screw.
- Flat back.
- Delivery with an inspection report.

**NEW**



907.933



Item No.	Measuring range/mm	Price
907.931	0 - 3	
907.932	0 - 5	
907.933	0 - 10	



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## Dial indicators 0.01 mm

Indicators with a large measuring range. Shockproof design.

- Measuring range: 0 - 100 mm.
- Graduation: 0.01 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Rotatable dial.
- Shockproof.
- Adjustable tolerance markers (except 907.916).
- Locking screw.
- Flat back.
- Delivery with an inspection report.

**NEW**



Item No.	Measuring range/mm	Dial $\varnothing$ /mm	Price
907.934	0 - 25	60	
907.935	0 - 30	60	
907.936	0 - 50	76	
907.916	0 - 100	80	



## Splashproof dial indicators 0.01 mm

Indicators with splashproof design.

- Measuring range: 0 - 10 mm.
- Graduation: 0.01 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 55 mm.
- Rotatable dial.
- Shockproof.
- Adjustable tolerance markers.
- Locking screw.
- Back with lug.
- Protection: IP54.
- Conforms to factory standard.



Item No.	Measuring range/mm	Price
908.777	0 - 3	
908.778	0 - 5	
908.779	0 - 10	



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## Miniature dial indicators 0.01 and 0.001 mm

Indicators with very small dimensions and an excellent price-performance ratio. Shockproof design.

- Measuring range: 0 - 10 mm.
- Graduation: 0.01 or 0.001 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 40 mm.
- Rotatable dial.
- Shockproof.
- Adjustable tolerance markers.
- Locking screw.
- Flat back.
- Delivery with an inspection report.

**NEW**

**PRICE**

Item No.	Measuring range/mm	Price
<b>Graduation 0.01 mm:</b>		
907.925	0 - 3	
907.926	0 - 5	
907.927	0 - 8	
907.914	0 - 10	
<b>Graduation 0.001 mm:</b>		
907.920	0 - 1	



## Dial indicators 0.001 mm

Indicators with micrometer reading. Shockproof design.

- Measuring range: 0 - 5 mm.
- Graduation: 0.001 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 60 mm.
- Rotatable dial.
- Scale numbering: 0 - 100 - 0.
- Shockproof.
- Adjustable tolerance markers.
- Locking screw.
- Flat back.
- Delivery with an inspection report.

**NEW**

**PRICE**

Item No.	Measuring range/mm	Price
907.921	0 - 1	
907.922	0 - 2	
907.923	0 - 3	
907.924	0 - 5	



**Schut**

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## Peacock dial indicators 0.1 and 0.01 mm

- Measuring range: 0- 80 mm.
- Graduation: 0.1 or 0.01 mm.
- Clamping stem: ø 8, 10 or 14 mm.
- Rotatable dial.
- Adjustable tolerance markers.
- Flat back or back with lug\*.
- DIN 878.
- Delivery in a case.

Item No.	Measuring range/mm	Clamping stem ø/mm	Dial ø/mm	Price
<b>Graduation 0.01 mm:</b>				
855.547	0- 4	8	36	
855.536	0- 3	8	40	
855.517	0- 5	8	53	
855.507	0-10	8	53	
855.508*	0-10	8	53	
855.527*	0-20	8	66.5	
855.537*	0-30	8	76	
855.557*	0-50	10	83	
<b>Graduation 0.1 mm:</b>				
855.589*	0-80	14	112	

\* Back with lug.



855.547



855.517



855.507/8



855.527



855.537



855.589



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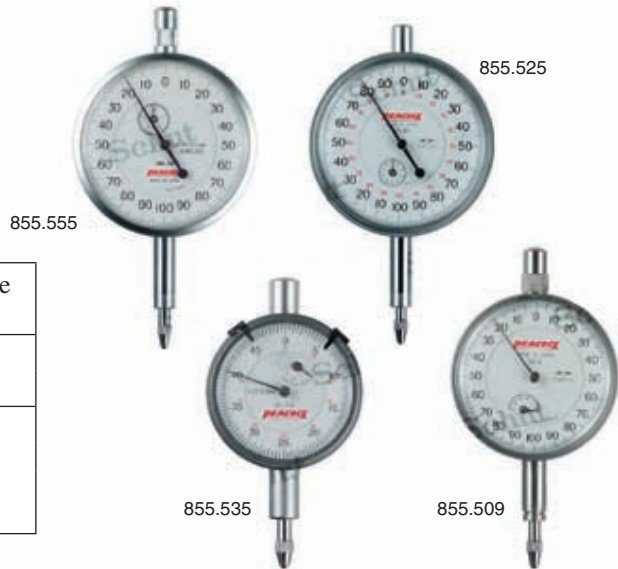
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## Peacock dial indicators 0.005 and 0.001 mm

- Measuring range: 0-5 mm.
- Graduation: 0.005 or 0.001 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Rotatable dial.
- Flat back or back with lug\*.
- DIN 878.
- Delivery in a case.



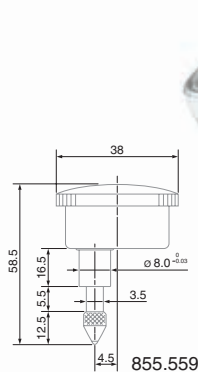
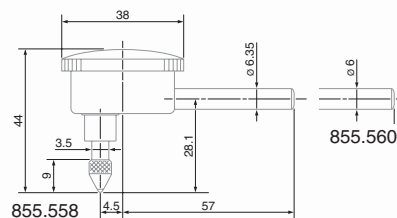
Item No.	Measuring range/mm	Dial $\varnothing$ /mm	Price
<b>Graduation 0.005 mm:</b>			
855.535*	0-3	47	
<b>Graduation 0.001 mm:</b>			
855.509	0-1	53	
855.525*	0-2	66.5	
855.555*	0-5	66.5	

\* Back with lug.

## Peacock dial indicators with back plunger

The back plunger dial indicator is characterized with easy handling since the spindle with the contact point is moving in the direction perpendicular to the dial face and the gauge is more compact. The dial indicator of this type is convenient for use in achieving a parallelism of the table of the machine tool, with measuring jigs, in restricted areas and on locations where scale reading is difficult.

- Measuring range: 0-5 mm.
- Graduation: 0.01 mm.
- Repeatability: 0.005 mm.
- Hysteresis:  $\pm$  0.006 mm.
- Measuring force: 1.4 N.
- Rotatable dial.
- Scale numbering: 0-100.
- DIN 878.
- Delivery in a case.



Item No.	Measuring range/mm	Clamping stem $\varnothing$ /mm	Accuracy mm	Price
855.558	0-5	6.35	$\pm$ 0.02	
855.560	0-5	6	$\pm$ 0.02	
<b>Clamping stem on back side:</b>				
855.559	0-5	8	$\pm$ 0.02	

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### Käfer dial indicators 0.01 mm

These recently developed Käfer dial indicators are very stable and have a very good price-performance ratio. Also available in a shockproof design, where blows against the plunger can not damage the mechanics.

- Measuring range: 0 - 5 mm.
- Graduation: 0.01 mm.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 40 mm.
- Scale numbering: 0 - 50.
- Adjustable tolerance markers.
- Flat back.
- Clamping stem and measuring pin out of hardened stainless steel.
- DIN 878.
- Delivery in a case.

Item No.	Measuring range/mm	Graduation mm	Price
852.350	0 - 3	0.01	
852.352	0 - 5	0.01	
<b>Shockproof design:</b>			
852.351	0 - 3	0.01	
852.353	0 - 5	0.01	



### Käfer dial indicators 0.01 mm

These dial indicators have an almost constant measuring force of 1 N over the total measuring range. This is achieved through a built-in lever construction. The shockproof design protects the mechanics against harsh blows and reduces the possibility of damage. The shockproof design has an unbreakable cover glass.

- Measuring range: 0 - 10 mm.
- Graduation: 0.01 mm.
- Measuring force: approx. 1 N.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 58 mm.
- Scale numbering: 0 - 100.
- Adjustable tolerance markers.
- Flat back.
- DIN 878.
- Delivery in a case.

Item No.	Measuring range/mm	Graduation mm	Price
852.354	0 - 10	0.01	
<b>Shockproof design:</b>			
852.355	0 - 10	0.01	



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## Käfer dial indicators 0.01 mm

These Käfer dial indicators combine a large measuring range with a high accuracy. The clear dials ensure an easy read-out. Thanks to the special construction, these dial indicators have an almost constant measuring force on the whole measuring range.

- Measuring range: 0 - 50 mm.
- Graduation: 0.01 mm.
- Measuring force: approx. 1 N.
- Clamping stem:  $\varnothing$  8 mm.
- Dial diameter: 58 mm.
- Rotatable dial.
- Adjustable tolerance markers.
- Flat back.
- Clamping stem and measuring pin out of hardened stainless steel.
- Conforms to factory standard.
- Delivery in a case.



Item No.	Measuring range/mm	Accuracy mm	Scale numbering	Price
852.356	0 - 30	$\pm 0.02$	0 - 100	
852.357	0 - 50	$\pm 0.025$	0 - 100	

## Käfer Feinika dial indicators 0.001 mm

The Käfer Feinika dial indicators have a special construction without gear wheels, comparable to the precision dial indicators. A special lever construction enlarges the measuring range up to 1 mm. This lever construction gives the Feinika a very low hysteresis of maximal 1.5  $\mu$ m, making it very suitable for very accurate comparative measurements where a large measuring range is necessary. Just like the precision dial indicators the Feinika has a resolution of 0.001 mm.

- Measuring range: 0 - 1 mm.
- Graduation: 0.001 mm.
- Hysteresis:  $\leq 0.0015$  mm.
- Clamping stem:  $\varnothing$  8 mm.
- Shockproof.
- Adjustable tolerance markers.
- Conforms to factory standard.
- Delivery in a case.



Item No.	Measuring range/mm	Accuracy mm	Dial $\varnothing$ /mm	Scale numbering	Price
852.358	0 - 1	$\pm 0.004$	40	0 - 100	
852.359	0 - 1	$\pm 0.004$	58	0 - 100	

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## Precision dial indicator

Highly accurate shockproof dial indicator for measurements from a fixed reference point. Very suitable for internal measuring instruments and dial indicator stands for example.

- Measuring range: 0.1 mm.
- Graduation: 0.001 mm.
- Measuring force: <2 N.
- Clamping stem:  $\varnothing$  8 mm.
- Travel: 3 mm.
- Adjustable tolerance markers.
- Fine adjustment.
- Conforms to factory standard.

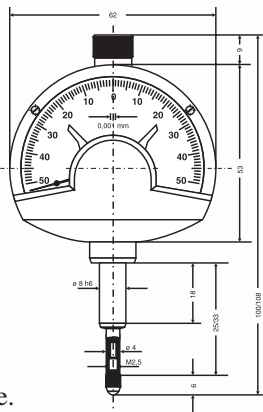


Item No.	Measuring range/mm	Dial $\varnothing$ /mm	Price
907.939	0.1	63.5	

## Käfer Compika precision dial indicators

Accurate precision dial indicators with stable, multiple ball-bearing mechanics. Because of that the Compika has a very low hysteresis. Easy to set by the fine adjustment on top of the dial indicator, that has a protective knob to prevent unintentional displacement of the pointer.

- Measuring range: 0.1 mm.
- Graduation: 0.001 mm.
- Measuring force: approx. 1 N.
- Clamping stem:  $\varnothing$  8 mm.
- Max. probe travel: 3 mm.
- Ball bearing probe rod.
- Protective knob.
- Shockproof.
- Waterproof (only 852.386).
- Adjustable tolerance markers.
- Fine adjustment.
- Clamping stem and measuring pin out of hardened stainless steel.
- DIN 879.
- Delivery in a case with a lifting cable.



852.360



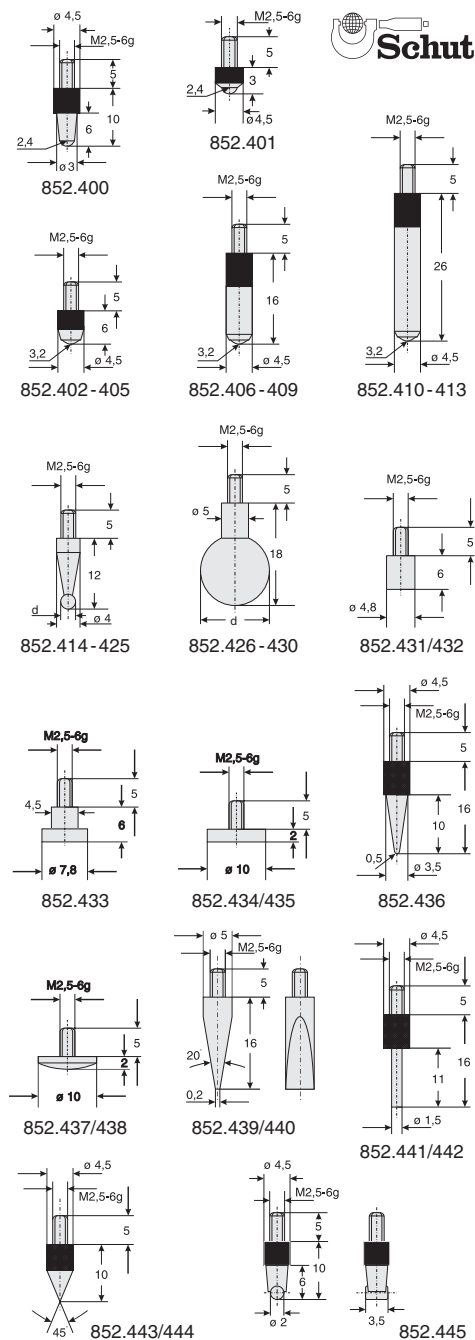
852.386

Item No.	Measuring range/mm	Waterproof	Dial $\varnothing$ /mm	Scale numbering	Price
852.360	0.1	no	62	50-0-50	
852.386	0.1	yes	62	50-0-50	

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## Käfer inserts

Inserts with thread M2.5. The inserts are made of steel unless otherwise indicated; tungsten carbide (TC), ruby (R) or sapphire (S).



Item No.	Description	Price
----------	-------------	-------

**Ball probes:**

852.400	d= 2.4 mm	l= 10 mm	
852.401	d= 2.4 mm	l= 3.0 mm	
852.402	d= 3.2 mm	l= 6.0 mm	
852.403	d= 3.2 mm	l= 6.0 mm	TC
852.404	d= 3.2 mm	l= 6.0 mm	R
852.405	d= 3.2 mm	l= 6.0 mm	S
852.406	d= 3.2 mm	l= 16 mm	
852.407	d= 3.2 mm	l= 16 mm	TC
852.408	d= 3.2 mm	l= 16 mm	R
852.409	d= 3.2 mm	l= 16 mm	S
852.410	d= 3.2 mm	l= 26 mm	
852.411	d= 3.2 mm	l= 26 mm	TC
852.412	d= 3.2 mm	l= 26 mm	R
852.413	d= 3.2 mm	l= 26 mm	S
852.414	d= 1.0 mm	l= 12 mm	
852.420	d= 1.0 mm	l= 12 mm	TC
852.415	d= 2.0 mm	l= 12 mm	
852.421	d= 2.0 mm	l= 12 mm	TC
852.416	d= 3.0 mm	l= 12 mm	
852.422	d= 3.0 mm	l= 12 mm	TC
852.417	d= 4.0 mm	l= 12 mm	
852.423	d= 4.0 mm	l= 12 mm	TC
852.418	d= 5.0 mm	l= 12 mm	
852.424	d= 5.0 mm	l= 12 mm	TC
852.419	d= 6.0 mm	l= 12 mm	
852.425	d= 6.0 mm	l= 12 mm	TC
852.426	d= 7.0 mm	l= 18 mm	
852.427	d= 8.0 mm	l= 18 mm	
852.428	d= 9.0 mm	l= 18 mm	
852.429	d= 10.0 mm	l= 18 mm	
852.430	d= 11.0 mm	l= 18 mm	

**Flat probes:**

852.431	d= 4.8 mm	l= 6 mm	
852.432	d= 4.8 mm	l= 6 mm	TC
852.433	d= 7.8 mm	l= 6 mm	
852.434	d= 10.0 mm	l= 2 mm	
852.435	d= 10.0 mm	l= 2 mm	TC

**Spherical probes:**

852.436	conical	l= 16 mm	
852.437	d= 10.0 mm	l= 2.0 mm	
852.438	d= 10.0 mm	l= 2.0 mm	TC

**Knife-edged probes:**

852.439	d= 5.0 mm	l= 16 mm	
852.440	d= 5.0 mm	l= 16 mm	TC

**Needle-shaped probes:**

852.441	d= 1.5 mm	l= 16 mm	
852.442	d= 1.5 mm	l= 16 mm	TC

**Tapered probes:**

852.443	d= 4.5 mm	l= 10 mm	
852.444	d= 4.5 mm	l= 10 mm	TC

**Probe with cylindrical measuring face:**

852.445	d= 2 x 3.5 mm	l= 10 mm	
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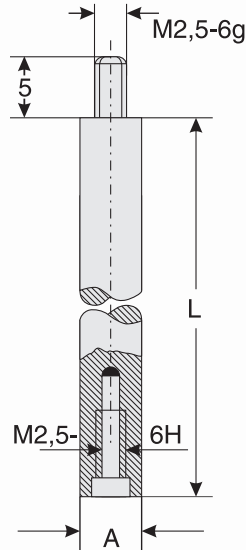
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## Extensions for inserts

Steel extensions for inserts with thread M2.5.

Item No.	Length mm	Price
<b>Extensions with A = <math>\phi</math> 4 mm:</b>		
852.446	10	
852.447	15	
852.448	20	
852.449	25	
852.450	30	
852.451	35	
852.452	40	
852.453	45	
852.454	50	
852.455	55	
852.456	60	
852.457	65	
852.458	70	
852.459	75	
852.460	80	
852.461	85	
852.462	90	
852.463	95	
852.464	100	

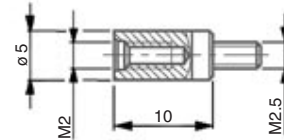


Item No.	Length mm	Price
<b>Extensions with A = <math>\phi</math> 5 mm:</b>		
852.465	10	
852.466	15	
852.467	20	
852.468	25	
852.469	30	
852.470	35	
852.471	40	
852.472	45	
852.473	50	
852.474	55	
852.475	60	
852.476	65	
852.477	70	
852.478	75	
852.479	80	
852.480	85	
852.481	90	
852.482	95	
852.483	100	

## Adapter for inserts

Adapter for attaching other inserts to dial indicators and probes with an interchangeable insert with thread M2.5.

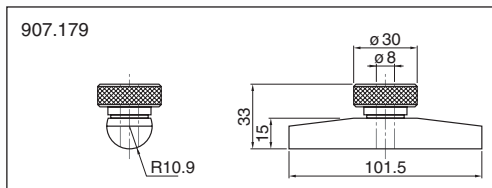
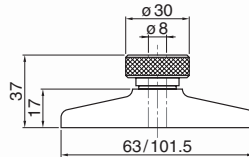
Item No.	External/internal thread	Price
783.034	M2.5/M2	



## Depth measuring bases for dial indicators

Bases which make dial indicators and probes suitable for depth measurements.

- Clamping shaft: 8H7.



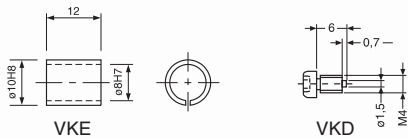
Item No.	Measuring face l x w/mm	Price
907.153	63 x 17	
907.165	101.5 x 17	
<b>With cylindrical measuring face:</b>		
907.179	101.5 x R10.9	

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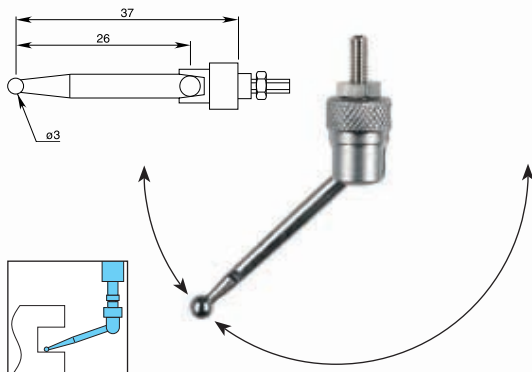
### Clamping bush



Item No.	Description	Price
780.398	Clamping bush VKE	
780.397	Clamping screw VKD	

### Swivel-type probe

Swivel-type probe for dial indicators with M2.5 thread. The probe can be oriented over 180°. Equipped with a steel ball probe  $\phi 3$  mm.



Item No.	Description	Price
900.391	Swivel-type probe	

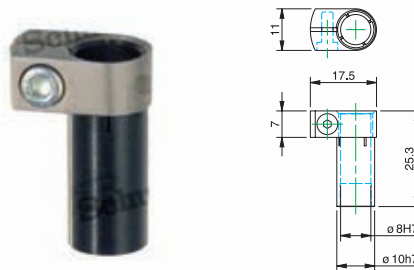
### Angle probe and special probe

Probes e.g. for checks and alignments of bores on lathes.

- Probe measuring range: 10 mm.
- Measuring depth: 30 mm (856.149) or 60 mm (856.150).
- Clamping stem:  $\phi 8$  mm.
- Clamping shaft:  $\phi 8$  mm.

Item No.	Description	Price
856.149	Angle probe	
856.150	Special probe	

### Clamping bush



Item No.	Description	Price
906.497	Clamping bush	

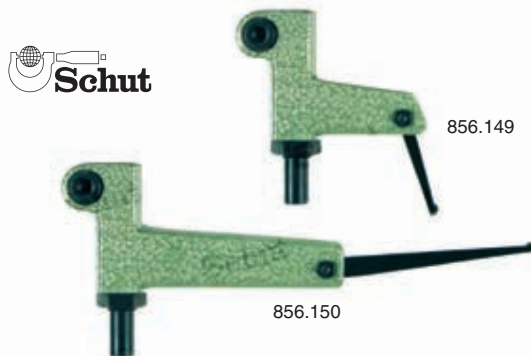
### Angle probe

Angle probe used for the transmission of the plunger movements up to 10 mm. Suited for dial indicators with a 0.01 mm graduation. Delivery incl. flat insert  $\phi 5$  mm.

- Probe measuring range: 10 mm.
- Clamping shaft:  $\phi 8$  mm.



Item No.	Description	Price
782.440	Angle probe	





## Lever-type digital test indicator

Lever-type digital test indicator with tolerance judgement. Suitable for measurements in both directions. Equipped with three dovetail mountings.

- Measuring range: 1 mm.
- Resolution: 0.01 mm.
- Accuracy:  $\pm 0.02$  mm.
- mm/inch conversion.
- Reset.
- Measuring force:  $\leq 0.6$  N.
- With dovetail joint and clamping stems  $\varnothing 4$  and  $\varnothing 8$  mm.
- Ruby stylus tip:  $\varnothing 2$  mm.
- $230^\circ$  adjustable measuring insert.
- Adjustable tolerance limits.
- Power supply: 1 battery type V357.



Item No.	Measuring range/mm	Resolution mm	Insert length/mm	Price
907.574	1	0.01	23	
<b>Option:</b>				
836.535	Spare battery			



## Lever-type test indicators

- Measuring range: up to 0.8 mm.
- Graduation: 0.01 or 0.002 mm.
- With dovetail joint and clamping stems  $\varnothing 6$  and  $\varnothing 8$  mm.
- Dial diameter: 40 mm.
- Rotatable dial.
- Stylus tip:  $\varnothing 2$  mm.
- Conforms to factory standard.



Item No.	Measuring range/mm	Graduation mm	Scale numbering	Insert length/mm	Price
907.941	0.8	0.01	0-0.4-0	19	
907.942	0.2	0.002	0-100-0	12	
<b>Options:</b>					
909.114	Spare stylus tip for 907.941				
909.115	Spare stylus tip for 907.942				

907.941

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## Peacock lever-type dial test indicators

- Measuring range: up to 1 mm.
- Graduation: 0.01, 0.002 or 0.001 mm.
- With dovetail joint and clamping stem  $\varnothing 6$  mm.
- Tungsten carbide stylus tip:  $\varnothing 2$  mm.
- Insert thread: M1.7.



### Inserts for lever-type dial test indicators

Item No.	Effective length (EL)/mm	Ball $\varnothing$ /mm	Price
<b>For 855.601:</b>			
859.016	17.74	2	
859.152	17.74	1	
859.151	17.74	0.8	
859.290	17.74	0.5	
<b>For 855.602:</b>			
859.126	39.00	2	
859.291	39.00	1	
859.292	39.00	0.8	
859.293	39.00	0.5	
<b>For 855.603 and 855.606:</b>			
859.200	14.18	2	
859.294	14.18	1	
859.295	14.18	0.8	
859.296	14.18	0.5	
<b>For 855.604:</b>			
859.259	8.13	2	
859.297	8.13	1	
859.298	8.13	0.8	
859.299	8.13	0.5	



Item No.	Measuring range/mm	Graduation mm	Dial $\varnothing$ /mm	Scale numbering	Insert	Total insert length (TL)/mm	Price
<b>Horizontal:</b>							
855.601	0.5	0.01	35	0-25-0	859.016	21.3	
855.602	1	0.01	35	0-50-0	859.126	42.8	
855.603	0.28	0.002	35	0-140-0	859.200	17.8	
855.604	0.14	0.001	30	0-70-0	859.259	11.7	
<b>Perpendicular:</b>							
855.606	0.28	0.002	35	0-140-0	859.200	17.8	

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## Käfer lever-type dial test indicators

Käfer lever-type dial test indicators have a very high accuracy because of the ruby ball bearing. The direction of the rotation is independent of the measuring direction. Equipped with three dovetail mountings. Are standard delivered with a clamping stem  $\varnothing 8$  mm.

- Measuring range: up to 0.8 mm.
- Graduation: 0.01 or 0.002 mm.
- With dovetail joint and clamping stem  $\varnothing 8$  mm.
- Rotatable dial.
- Tungsten carbide stylus tip:  $\varnothing 2$  mm.
- Insert thread: M1.6 (optional inserts on request).
- 240° adjustable measuring insert.
- Ruby ball bearing.
- DIN 2270.
- Delivery in a case incl. key.
- Various different models available.



Item No.	Measuring range/mm	Graduation mm	Dial $\varnothing$ /mm	Scale numbering	Insert length/mm	Price
852.361	0.8	0.01	32	0-40-0	12	
852.362	0.5	0.01	32	0-25-0	35	
852.363	0.2	0.002	40	0-100-0	12	



## Käfer saw tooth indicator

By placing the indicator on the saw blade you can easily measure the flatness of the blade, enabling you to saw very precisely. With the indicator you can also measure the height difference between the saw blade and the tooth. This principal of differential measuring of thickness or heights is not only suited for saw blades, but has many other applications.

Because the indicator has a two-sided read-out, it is usable for left- as well as right-handers.

- Measuring range: 0-2 mm.
- Graduation: 0.05 mm.
- Rotatable dial.
- Adjustable tolerance marker.



Item No.	Description	Price
852.364	Saw tooth indicator	

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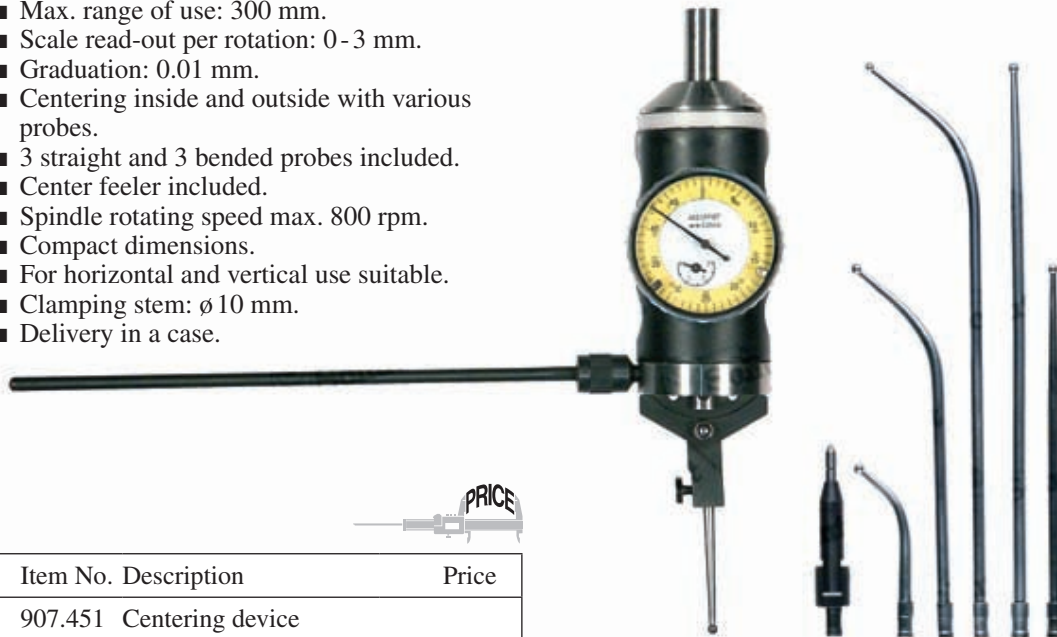
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## Centering device

Convenient tool to find and set up the position of a workpiece on vertical and horizontal machines. It can also be used to determine the position of a workpiece when the spindle is rotated by hand or automatic. Easy read-out from stationary dial indicator. Instrument with compact dimensions.

- Max. range of use: 300 mm.
- Scale read-out per rotation: 0 - 3 mm.
- Graduation: 0.01 mm.
- Centering inside and outside with various probes.
- 3 straight and 3 bended probes included.
- Center feeler included.
- Spindle rotating speed max. 800 rpm.
- Compact dimensions.
- For horizontal and vertical use suitable.
- Clamping stem:  $\varnothing$  10 mm.
- Delivery in a case.



Item No.	Description	Price
907.451	Centering device	

## 3D probe for centering

For easy and accurate centering of workpieces. Easy read-out from stationary dial indicator.

- Detection range:
  - radial:  $\pm 1$  mm,
  - axial:  $\pm 0.3$  mm.
- Radial graduation:
  - for detection range  $\pm 0.1$  mm: 0.01 mm,
  - for detection range 0.1 - 1.0 mm: 0.05 mm.
- Axial graduation:
  - for detection range  $\pm 0.1$  mm: 0.01 mm,
  - for detection range 0.1 - 0.3 mm: 0.05 mm.
- Accuracy: 0.01 mm.
- Clamping stem:  $\varnothing$  20 mm.



Item No.	Description	Price
907.450	Universal 3D probe	
<b>Option:</b>		
907.449	Spare insert	



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## Diebold 3D probes for centering and measuring

For easy and with high accurate setting the reference point of workpiece in all three axes (X, Y and Z), vertically and horizontally.

- Measuring range: max. 3 mm (rupture point in probe).
- Graduation: 0.01 mm.
- Repeatability: 0.01 mm.
- Clamping stem:  $\varnothing$  12,  $\varnothing$  16 or  $\varnothing$  20 mm (DIN 1835). Length: 48 mm.
- Stylus tip:  $\varnothing$  5 mm.
- Insert thread: M2.5.
- Dimensions housing:  $\varnothing$  52 x 100 mm.
- Protection: IP64.
- Delivery in a case.



Item No.	Insert length/mm	Total length/mm	Accuracy mm	Clamping stem $\varnothing$ /mm	Price
853.804	12	160	$\pm 0.01$	12	
853.802	12	160	$\pm 0.01$	16	
853.800	12	160	$\pm 0.01$	20	
853.805	22	170	$\pm 0.02$	12	
853.803	22	170	$\pm 0.02$	16	
853.801	22	170	$\pm 0.02$	20	

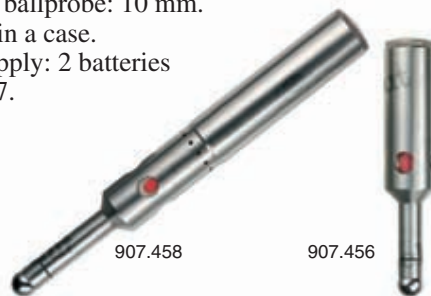
### Options:

- 853.819 Spare insert, length 12 mm
- 853.820 Spare insert, length 22 mm

## Edge finders

Edge finders for both stationary and rotating use. As soon as the workpiece is touched by the ballprobe the all around visible LED will light up due to galvanic contact. The ballprobe is held in place by a spring. When the pressure on the tip becomes too large the ball will flip away sideways. The edge finders are also available with additional sound signal for extra working comfort.

- Concentricity:  $< 0.01$  mm.
- Diameter ballprobe: 10 mm.
- Delivery in a case.
- Power supply: 2 batteries type V357.



Item No.	Clamping stem $\varnothing$ /mm	Length mm	Price
907.454	20	176	
907.455	32	176	
907.456	20	98	
907.457	32	98	
<b>With sound signal:</b>			
907.458	20	164	
907.459	32	164	
907.460	20	98	
<b>Option:</b>			
836.535	Spare battery (2 needed)		

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## Edge finders

Rotating edge finders for accurate edge location.

- Resolution: 0.005 mm.
- Repeatability: 0.005 mm.
- Range of use: approx. 600 rpm.
- Hardness TiN measuring face: 2200 HV.

**NEW**



909.361

909.365

909.367

Item No.	Clamping stem ø/mm	Probe ø/mm	Material (measuring face)	Price
909.360	8	10	steel	
909.361	10	10	steel	
909.362	8	4 and 10	steel	
909.363	10	4 and 10	steel	
909.364	6	6	steel	
909.365	10	10	steel + ceramic	
909.366	10	10	steel + TiN	
909.367	10	4 and 10	steel + TiN	

**Options:**

909.368 Spring for 909.360/362  
 909.369 Spring for 909.364  
 909.359 Spring for 909.365  
 909.349 Spring for 909.361/363/366/367

## Edge finders

Rotating edge finders for accurate edge location.

- Resolution: 0.005 mm.
- Repeatability: 0.005 mm.
- Range of use: approx. 600 rpm.

Item No.	Clamping stem ø/mm	Probe ø/mm	Price
856.560	8	10	
856.561	10	10	
856.562	8	4 and 10	
856.563	10	4 and 10	
856.564	6	6	

**Options:**

859.143 Spring for edge finders with clamping stem ø 6 mm  
 859.037 Spring for edge finders with clamping stem ø 8 mm or ø 10 mm



856.560

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## Z-axis setting gauge

For easy presetting the Z-axis with a tool, with or without in combination with parallel blocks to set a specific height. As soon as the tool touches the setting gauge (with floating top) the built-in red LED illumination will light up. After this the axis will move in opposite direction until the lamp turns off, this is the turning point, and so the setting gauge, to determine the accuracy.

- Repeatability: 0.01 mm.
- With magnetic base.
- Galvanic contact principle.
- Dimensions:  $\varnothing 54 \times 50$  mm (precise height to determine with external measuring instrument).
- Weight: 450 g.
- Power supply: 2 batteries type V389.



Item No.	Description	Price
908.804	Z-axis setting gauge	
<b>Option:</b>		
498.823	Spare battery (2 needed)	



## Z-axis setting gauge

For easy presetting the Z-axis with a tool, with or without in combination with parallel blocks to set a specific height.

- Graduation: 0.01 mm.
- Repeatability: 0.02 mm.
- Diameter dial indicator:  $\varnothing 35$  mm.
- Dimensions:  $\varnothing 50 \times 50$  mm (precise height to determine with external measuring instrument).
- Weight: 654 g.
- Delivery with protective cover and reference pin (length 60 mm,  $\varnothing 15$  mm) for insert in tool holder.



Item No.	Description	Price
909.460	Z-axis setting gauge	



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## Tool presetters

Cost effective solution as an additional setup directly next to your machine, for setting up and accurately measuring length and diameter of milling, turning and drilling tools. Increase your machine up-time through rapid manual movement with release/hook-up button and fine adjustment using the hand wheel (only 837.928/916).

- Resolution: 0.01 mm.
- mm/inch conversion.
- RS232C data output.
- On/off switch.
- Preset.
- Interchangeable rotating chuck.
- Delivery incl. rotating chuck ISO 40.
- Conforms to factory standard.
- Delivery in a wooden case.
- Power supply: 2 batteries type CR2032.
- Various models with extended functionality available on request.



### Options

Item No.	Type	Price
<b>Rotating chuck:</b>		
837.930	ISO 30	
837.917	ISO 40	
837.931	ISO 45	
837.932	ISO 50	
837.933	HSK 40	
837.934	HSK 50	
837.935	HSK 63	
837.936	VDI 40	
837.937	DLBH-SKF 63	
<b>ISO reductions:</b>		
837.938	50-45	
837.939	50-40	
837.940	50-30	
837.941	40-30	
837.942	50HSK40	
837.943	50HSK50	
837.944	50HSK63	
<b>Spare battery:</b>		
495.157	CR2032	

Item No.	Measuring range/mm		Dimensions l x w x h/mm	Weight kg	Price
	X-axis	Z-axis			
<b>Without fine adjustment:</b>					
837.929	160(ø320)	320	420 x 150 x 755	20	
<b>With hand wheel for fine adjustment:</b>					
837.928	160(ø320)	320	584 x 150 x 520	25	
837.916	260(ø520)	520	684 x 150 x 848	30	

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## Display-unit for measuring probes

Easy to use modernly designed display units that can be employed in both simple and complex measurements. Both analog and digital display for 1 (display model Micro) or 4 (display model Multi) dimensions simultaneously, with (green, yellow, red) tolerance assessment per dimension. An optional I/O module makes it possible to externally control a number of functions and for example use Go/NG signals as feedback. Display model Multi contains functions with which configurations can be defined for determining roundness, conicity, angles, parallelism, diameter, flatness etcetera. The devices are very suitable for efficient quality control without the need for a PC in the workspace.

- Up to 31 gauges can be connected, max. 20 mm.
- Memory for max, min, difference, average.
- Dynamic or static measurements.
- mm/inch conversion.
- ABS/INC switchable.
- RS232C input and output.
- Hold function.
- 1 or 2 master definitions.
- Classification in 8 tolerance classes.
- Statistical functions are displayed graphically (histogram e.g.).
- Configuration protection by password.
- Software in 4 languages: English, French, German, Dutch.
- Optional I/O module.
- Optional trigonometrical calculations.
- Dimensions: 200 x 170 x 85 mm.
- Built-in power supply.

**NEW**

### Display model Micro

- Display 1 dimension.
- Store up to 50 measurement configurations.

### Display model Multi

- Display 4 dimensions.
- Store up to 10 measurement configurations.
- Extensive mathematical formulas employable.

### Software (optional)

- With the optional software and data cable you can program the various settings and measuring programs with even more ease from your PC.

### I/O module (optional)

- 4 inputs (hold, start dynamic measurement, data transfer RS232C and preset) and 12 configurable output channels: GO/NG and 8 class settings or lower tolerance per dimension, GO and upper tolerance output.

### Statistical module (optional)

- Display of: histogram with Gauss curve, "Henry slope", individual measurements and the values Cm, Cmk, standard deviation.
- 2 USB ports for data storage on e.g. USB-stick in CSV or QDAS ASCII format, and connecting a PCL5e printer.
- Internal memory for 16000 measurements.



857.871

Item No.	Description	Price
857.866	Display unit model Micro*	
857.871	Display unit model Multi*	
<b>Options:</b>		
857.875	Software	
857.876	RS232C cable 9p	
857.877	I/O module	
857.878	Statistical module	

\*These models connect to the digital, absolute measuring probes. Models for other probes on request.



**Schut**

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## MF measuring fixture system

MF is a universal construction system based on components to quickly and easily build custom measuring fixtures.

The system has been developed by Schut Geometrical Metrology. The parts of MF are made from high quality steel and colored, anodized aluminum.

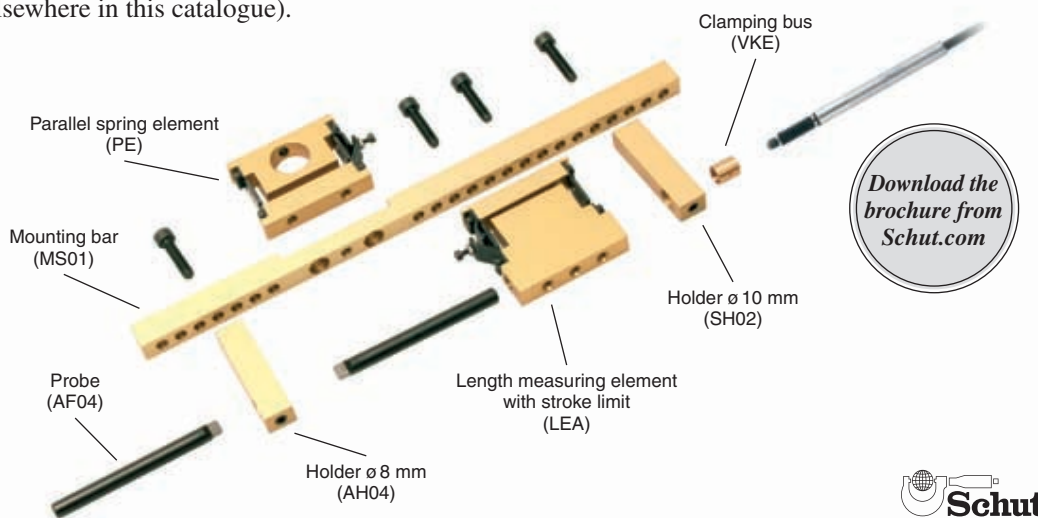
The system consists of, among other things, base plates, parallel spring elements, mounting bars, probe holders and probes. A stable product positioning is required for accurate measurements and because of the system's sophisticated composition, it is possible to generate a complete measuring system with only a few parts. Ideal for repeating measurements.

The components of MF are based on both horizontal support or vertical clamping. The wide range and shapes of probes make the system suitable for e.g. lathed parts but also for (more complicated) milling parts. For these various applications some complete sets are available, as a starter-set or for specific applications. Besides this, the variety of individual components and the ease of use enable almost endless possibilities of applying and incorporating MF in other measuring fixtures that may be custom built or composed of other construction systems.

All individual components are available separately, increasing flexibility of use. Schut Geometrical Metrology has incorporated MF many times in custom built measuring systems (see elsewhere in this catalogue).

MF's high quality and low price make an ideal addition to existing measuring systems and can be applied in production plants.

The universal properties of MF result in a highly flexible construction system. The use of internationally applied units of fit for e.g. dial indicators and electronic probes make the system's components widely applicable. With just some base elements it is very easy to create some individual measuring points on e.g. production machines.



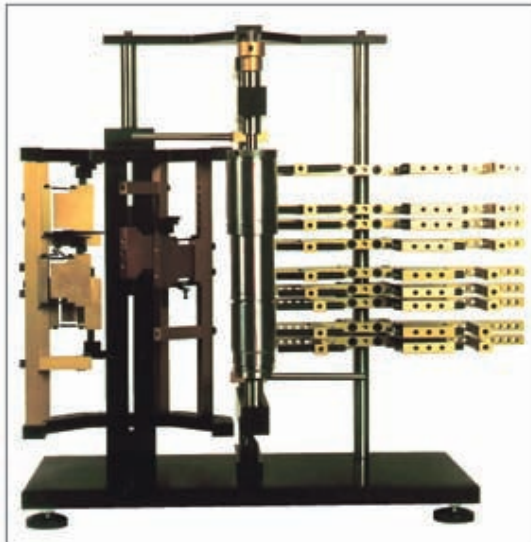
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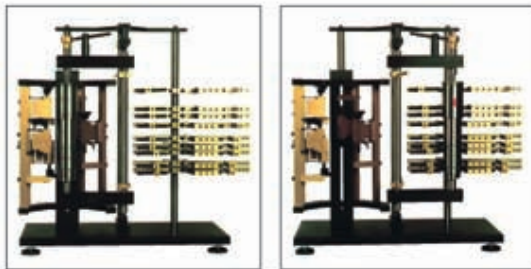
## MF measuring fixture system (continued)

For a quick start MF is also available in standard sets for a complete and quick solution for both horizontal support or vertical clamping.

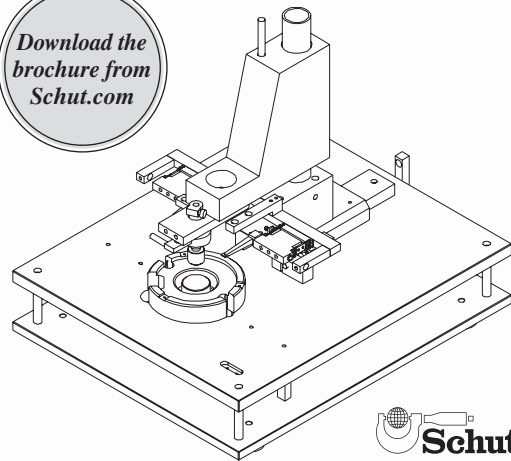
One of the big advantages of MF is the ease and flexibility to create a stable measuring fixture especially suitable for repeating measurements with only very little effort and investments. To make the start with MF as easy as possible some standard sets have been composed that can realize the most occurring measuring fixtures.



These sets consist of a composition of standard MF components, so it can be easily extended to your liking for specific applications. All in this catalogue depicted measuring fixtures are just a few of the many possibilities of MF.

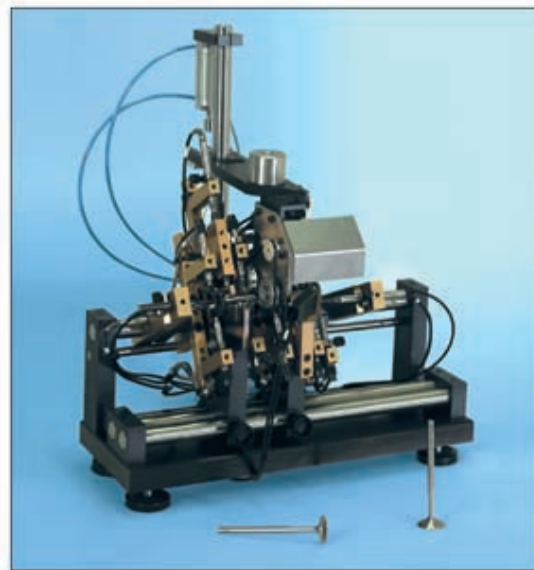


Download the brochure from [Schut.com](http://Schut.com)



The easy assembly and modular setup make MF especially suitable for application in tailor-made and designed measuring systems.

For many years now Schut has been developing tailor-made solutions in measuring systems for its customers nationwide and abroad. On many occasions MF parts have been incorporated in these systems. We would be pleased to inform you about the possibilities to have your measuring system custom built, updated or extended.



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