



DIN 2270  
NF E 11-053

## TESATAST Dial Test Indicators

These lever-type dial test indicators are especially intended for use on the shop floor or in the inspection room – Ideally suited for comparative measurements on a surface plate, for instance – Determine form, shape and position deviations as well as axial and runout errors.

- Bidirectional measuring with automatic reversal inside the movement.
- Continuous clockwise pointer rotation providing error-free reading.
- Insensitive to magnetic fields.
- Jewelled movement with 7 rubies.
- Ball-bearing lever system with measuring insert swivelling through to 240°.
- Very low measuring force.
- Full-metal construction giving exceptional robustness.
- Monobloc housing with 3 countersunk dovetail attachments.

### Standard Models

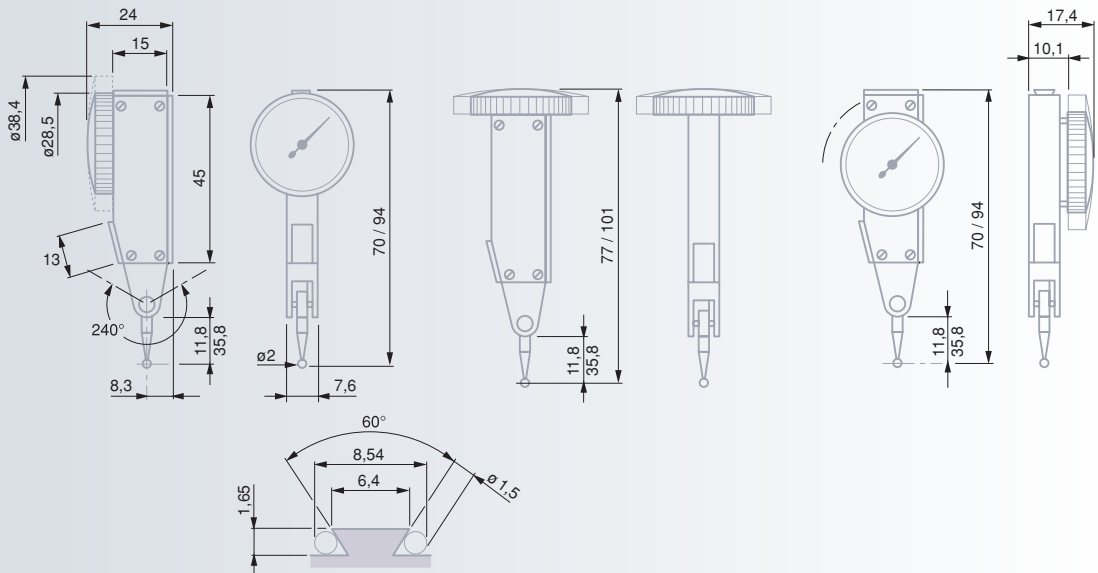
Well-proven dial test indicators with dial face mounted parallel to insert's axis.

### Perpendicular Models

Dial test indicators with dial face mounted at right angle to insert's axis.

### Lateral Models

Dial test indicators with dial face mounted parallel to insert's axis, but on the flat side of the dial housing.



### Permissible limits of a metrological characteristic (MPE/MPL)

			0,02 mm	0,01 mm	0,002 mm
	Deviation span, $f_e$		27 $\mu\text{m}$	10 $\mu\text{m}$	2 $\mu\text{m}$
	Deviation span within the local measuring span, $f_l$	0,20 mm	12 $\mu\text{m}$		
		0,10 mm		5 $\mu\text{m}$	
		0,02 mm			1 $\mu\text{m}$
Total deviation span, $f_{ges}$		31 $\mu\text{m}$	13 $\mu\text{m}$	3,5 $\mu\text{m}$	
	Repeatability limit, $f_w$		4 $\mu\text{m}$	3 $\mu\text{m}$	1 $\mu\text{m}$
	Max. hysteresis, $f_h$		4 $\mu\text{m}$	3 $\mu\text{m}$	1,5 $\mu\text{m}$
	Measuring force with insert lengths				
		12,53 mm		0,15 N	0,15 N
		36,53 mm	0,06 N	0,06 N	



### TESATAST Standard Models



	NP	A	mm	Ø	Insert
<b>01810005</b>	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
<b>01810006</b>	0,01	0,8	38	0 ÷ 0,4 ÷ 0	12,53
<b>01810007</b>	0,01	0,5	28	0 ÷ 0,25 ÷ 0	36,53
<b>01810008</b>	0,01	0,5	38	0 ÷ 0,25 ÷ 0	36,53
<b>01810009</b>	0,002	0,2	28	0 ÷ 100 ÷ 0	12,53
<b>01810010</b>	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53
<b>S18001695</b>	0,001	0,2	38	0 ÷ 100 ÷ 0	12,53



	A	in
<b>01820006</b>	0.0005	0.030
<b>01820007</b>	0.0005	0.030
<b>01820008</b>	0.0005	0.020
<b>01820009</b>	0.0005	0.020
<b>01820010</b>	0.001	0.030
<b>01820011</b>	0.0001	0.008
<b>01820012</b>	0.0001	0.008
<b>01820013</b>	0.00005	0.008

### SWISSTAST Standard Models



	NP	A	mm	Ø	Insert
<b>01811000</b>	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
<b>01811001</b>	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53

\* Same technical data as standard models, but equipped with a 2 mm dia. ruby ball tip  
No. 01860302.

### TESATAST Perpendicular Models



	NP	A	mm	Ø	Insert
<b>01810204</b>	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
<b>01810205</b>	0,01	0,5	28	0 ÷ 0,25 ÷ 0	36,53
<b>01810304</b>	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53



	A	in
<b>01820204</b>	0.0005	0.030
<b>01820304</b>	0.0001	0.008



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Rotating dial

Very low measuring force  
see table on page F-3

Movement with patented shock proof system

Lever system with friction drive to prevent overload

Accuracy:  
see table on page F-3

Supplied in a plastic case along with:  
1 Insert with a 2 mm dia.  
1 Wrench (No. 01860307)  
1 Mounting rod with a 8 mm dia. (No. 01840105)

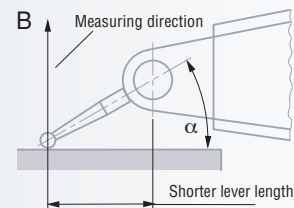
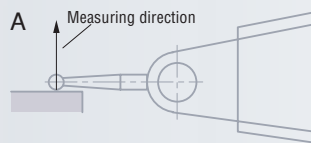
Identification number

Declaration of conformity



## TESATAST Lateral Models

<b>01810011</b>	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53	
<b>01810012</b>	0,02	2	38	0 ÷ 1,0 ÷ 0	36,53	
<b>01810013</b>	0,002	0,2	28	0 ÷ 100 ÷ 0	12,53	
<b>01820014</b>	0.0005	0.030	1.1	0 ÷ 15 ÷ 0	1/2	



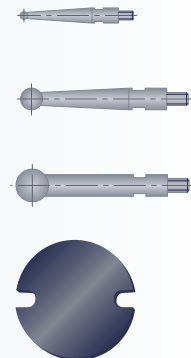
### Note on the use of TESATAST dial test indicators

With the measuring insert lying parallel to the workpiece surface (Fig. A), these indicators give true reading due to the amplification factor to 1:1.

In another measuring position (angle  $\alpha$  in Fig. B), the effective lever length changes so that the read value needs to be corrected. With respect to this, also refer to the instruction manual.

### Measuring inserts

Carbide ball tips	Ruby ball tips		mm
<b>01860201</b>	<b>01860301</b>	1	12,53
<b>01860202</b>	<b>01860302</b>	2	12,53
<b>01860203</b>	<b>01860303</b>	3	12,53
<b>01860211</b>	<b>01860304</b>	1	36,53
<b>01860212</b>	<b>01860305</b>	2	36,53
<b>01860213</b>	<b>01860309</b>	3	36,53
<b>01860307</b>	Wrench for measuring inserts		



### Note

The original measuring insert mounted on every TESATAST as well as any other insert with same nominal length but having a different ball tip diameter are fully interchangeable.



Tungsten carbide or ruby ball tip

M1.4 coupling thread



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Technical data are listed under each single product

Plastic case

Identification number

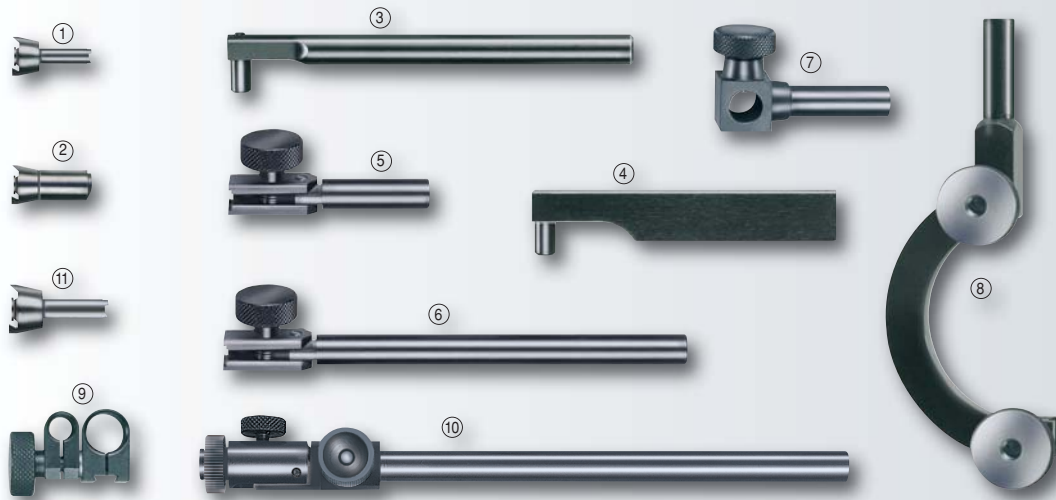
Declaration of conformity

## Indicator Sets with Small Support

<b>01630003</b>	Indicator sets with small support
<i>consisting of:</i>	
<b>01810005</b>	Dial test indicator (lever-type)
<b>01810010</b>	Dial test indicator (lever-type)
<b>01860203</b>	Measuring insert
<b>01840104</b>	Mounting rod
<b>01840105</b>	Mounting rod
<b>01860307</b>	Wrench for measuring inserts
<b>01639007</b>	INTERAPID small support UJ 15



## TESATAST Accessories



Nº	=		mm	Nº	in
<b>01840104</b>	①	Mounting rod with dovetail clamp	∅ 4	<b>01850104</b>	∅ 7/32
<b>01840105</b>	②	Mounting rod with dovetail clamp	∅ 8	<b>01850105</b>	∅ 1/4
<b>01840202</b>	③	Mounting rod with cylindrical body and clamping tenon	∅ 8 x 80 ∅ 5,6	<b>01850202</b>	∅ 3/8 x 3.5 ∅ 7/32
<b>01840203</b>	④	Mounting rod with right-angle body and clamping tenon	13 x 6 x 50 ∅ 5,6	<b>01850203</b>	1/2 x 1/4 x 2 ∅ 7/32
<b>01840404</b>	⑤	Short swivel holder with mounting rod and dovetail clamp	∅ 8 x 25	<b>01850404</b>	∅ 3/8 x 1
<b>01840405</b>	⑥	Long swivel holder with mounting rod and dovetail clamp	∅ 8 x 90	<b>01850405</b>	∅ 3/8 x 3.5
<b>01840406</b>	⑦	Angle holder with mounting rod Clamping bore	∅ 8 x 25 ∅ 8	<b>01850406</b>	∅ 3/8 x 1 ∅ 3/8
<b>01840501</b>	⑧	Centring shoulder for TESATAST Perpendicular with cylindrical rod Clamping point for mounting rod and dovetail clamp	∅ 8 x 25 ∅ 4	<b>01850501</b>	∅ 1/4 x 1
<b>01860401</b>	⑨	Dovetail clamp with tightening point	∅ 5,6 ∅ 9,5	<b>01860401</b>	
<b>01840407</b>	⑩	Long swivel holder with cylindrical rod and dovetail clamp as well as fine setting device	∅ 8 x 125		
<b>01860008</b>	⑪	Mounting rod with dovetail clamp	∅ 6		

### Sets of Accessories

Consisting of the following components:

Nº	mm	01840104	01840105	01840202	01840203	01840404	01840405	01840406	01840501	01860401
<b>01840001*</b>	Nº 1	●	●							
<b>01840100**</b>	Nº 2			●	●	●	●	●		●
<b>01840703***</b>	Nº 3			●	●	●	●	●	●	●

Nº	in	01850104	01850105	01850202	01850203	01850404	01850405	01850406	01850501	01860401
<b>01850001*</b>	Nº 1	●	●							
<b>01850100**</b>	Nº 2			●	●	●	●	●		●
<b>01850703***</b>	Nº 3			●	●	●	●	●	●	●

\* Supplied with one single insert No. 01860201, 01860202 and 01860203, one wrench No. 01860307 as well as a suited case No. 01860308.

\*\* Supplied in a suited case No. 01860608.

\*\*\* Supplied in a suited case No. 01860702.