

## DIAL TEST INDICATORS (LEVER-TYPE)

### MERCER Series 300

- Bidirectional measuring through automatic reversal inside the movement.
- Continuous clockwise pointer rotation providing clear, unambiguous reading.
- Insensitive to magnetic fields.
- Jewelled Movement with rubies.
- Ball-bearing lever system with measuring insert swivelling through 240°.
- Full-metal construction giving exceptional robustness.
- One-piece housing with dovetail attachment on 3 faces.



#### Inch Versions

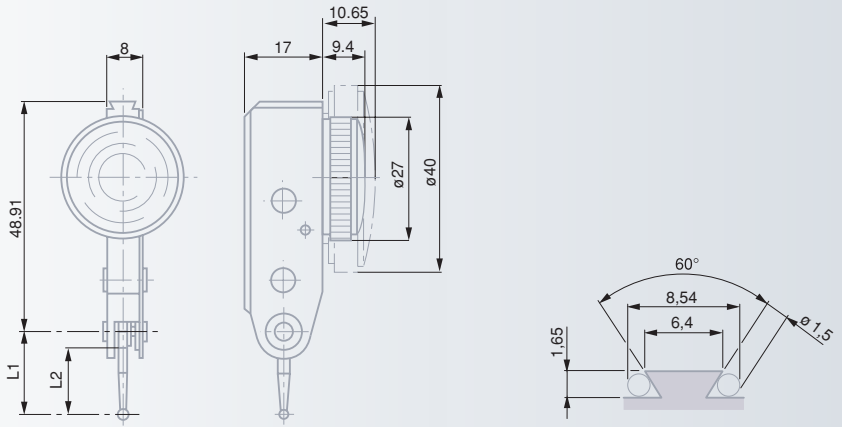
No	=							
		in	in	Ø mm		Insert* L <sub>1</sub> in	L <sub>2</sub> in	N
01826001	301-1	0.0005	0.030	27	0 ÷ 15 ÷ 0	0.6754	0.5278	≤ 0,25
01826002	303-1	0.0001	0.008	27	0 ÷ 4 ÷ 0	0.7200	0.5724	≤ 0,25
01826003	305-1	0.001	0.030	27	0 ÷ 15 ÷ 0	0.6754	0.5278	≤ 0,25
01826004	306-1	0.0005	0.030	40	0 ÷ 15 ÷ 0	0.6754	0.5278	≤ 0,25
01826005	310-1	0.001	0.080	27	0 ÷ 40 ÷ 0	1.800	1.6527	≤ 0,25
01826006	312-1	0.0005	0.060	40	0 ÷ 30 ÷ 0	1.440	1.2035	≤ 0,25

#### Metric Versions



No	=							
		mm	mm	Ø mm		Insert* L <sub>1</sub> mm	L <sub>2</sub> mm	N
01816001	302-1	0,01	0,8	27	0 ÷ 40 ÷ 0	18	14,26	≤ 0,25
01816002	304-1	0,002	0,2	27	0 ÷ 10 ÷ 0	18	14,26	≤ 0,25
01816003	307-1	0,01	0,8	40	0 ÷ 40 ÷ 0	18	14,26	≤ 0,25
01816004	311-1	0,025	2,0	27	0 ÷ 10 ÷ 0	45	41,26	≤ 0,25
01816005	313-1	0,01	1,6	40	0 ÷ 8 ÷ 0	36	32,26	≤ 0,25

\* For both sizes L1 and L2, see drawing on page F-14.

## DIAL TEST INDICATORS (LEVER-TYPE)



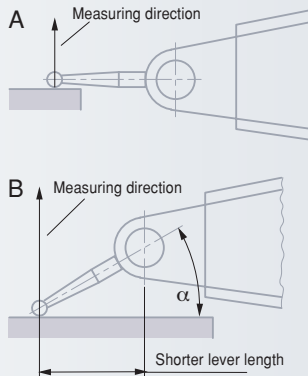
### Maximum permissible errors for a metrological characteristic (MPE)

		0.001 in 0.0005 in	0.0001 in	0,025 mm 0,01 mm	0,002 mm
 Deviation span, $f_e$		0.0004 in	0.00012 in	10 $\mu\text{m}$	3 $\mu\text{m}$
Total deviation span, $f_{ges}$		0.0005 in	0.00015 in	13 $\mu\text{m}$	4 $\mu\text{m}$
 Repeatability limit, $f_w$		0.00015 in	0.00006 in	3 $\mu\text{m}$	1 $\mu\text{m}$
 Max. hysteresis, $f_u$		0.00015 in	0.00008 in	3 $\mu\text{m}$	1 $\mu\text{m}$

### Note on the use of MERCER 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.



## DIAL TEST INDICATORS (LEVER-TYPE)

### MERCER TOP Quality Dial Test Indicators

Models with extra long measuring span.

- Bidirectional measuring through automatic reversal inside the movement.
- Continuous clockwise pointer rotation providing clear unambiguous reading.
- Insensitive to magnetic fields.
- Jewelled movement with rubies.
- Bell-bearing lever system with measuring insert swivelling through 240°.
- Full-metal construction giving exceptional robustness.
- One-piece housing with dovetail attachment on 3 faces.



#### Inch Versions

No	Resolution	Scale	Insert	Ø	Range	Insert* L <sub>1</sub> in	L <sub>2</sub> in	N
01826011	0.0005	0.06	0.02	1.063	0 ÷ 10 ÷ 20	0.72	0.5724	≤ 0,35
01826012	0.0005	0.06	0.02	1.575	0 ÷ 10 ÷ 20	0.72	0.5724	≤ 0,35
01826013	0.0005	0.12	0.04	1.063	0 ÷ 20 ÷ 40	1.44	1.2924	≤ 0,20
01826014	0.0005	0.12	0.04	1.575	0 ÷ 20 ÷ 40	1.44	1.2924	≤ 0,20
01826015	0.0001	0.024	0.004	1.063	0 ÷ 20 ÷ 40	0.72	0.5724	≤ 0,30
01826016	0.0001	0.024	0.004	1.575	0 ÷ 20 ÷ 40	0.72	0.5724	≤ 0,30






#### Metric Versions

No	Resolution	Scale	Insert	Ø	Range	Insert* L <sub>1</sub> mm	L <sub>2</sub> mm	N
01816011	0,01	1,5	0,5	27	0 ÷ 25 ÷ 50	18	14,26	≤ 0,35
01816012	0,01	1,5	0,5	40	0 ÷ 25 ÷ 50	18	14,26	≤ 0,35
01816013	0,01	3,0	1,0	27	0 ÷ 50 ÷ 100	36	32,26	≤ 0,20
01816014	0,01	3,0	1,0	40	0 ÷ 50 ÷ 100	36	32,26	≤ 0,20
01816015	0,002	0,6	0,1	27	0 ÷ 50 ÷ 100	18	14,26	≤ 0,30
01816016	0,002	0,6	0,1	40	0 ÷ 50 ÷ 100	18	14,26	≤ 0,30

\* For both sizes L<sub>1</sub> and L<sub>2</sub>, see on page F-14

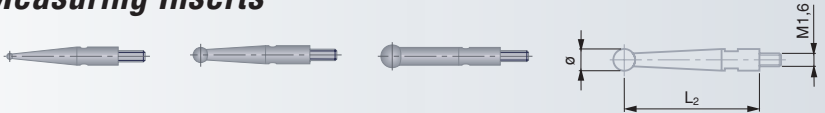
## DIAL TEST INDICATORS (LEVER-TYPE)

### Maximum permissible errors for a metrological characteristic (MPE)

	0.06 in	0.12 in	0.024 in	1,5 mm	3,0 mm	0,6 mm
	0.0005 in	0.0005 in	0.0001 in	0,01 mm	0,01 mm	0,002 mm
 Deviation span, $f_e$	0.0007 in	0.0009 in	0.0005 in	17 $\mu$ m	24 $\mu$ m	13 $\mu$ m
Total deviation span, $f_{ges}$	0.0008 in	0.0012 in	0.0006 in	20 $\mu$ m	30 $\mu$ m	15 $\mu$ m
 Repeatability limit, $f_w$	0.00015 in	0.00025 in	0.0001 in	3 $\mu$ m	6 $\mu$ m	1,5 $\mu$ m
 Max. hysteresis., $f_o$	0.00015 in	0.00025 in	0.0001 in	3 $\mu$ m	6 $\mu$ m	1,5 $\mu$ m

## Accessories for MERCER Dial Test Indicators – Series 300 and TOP Quality

### Measuring Inserts

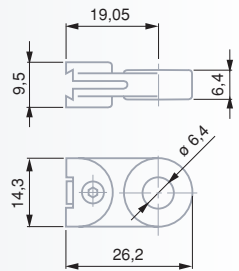
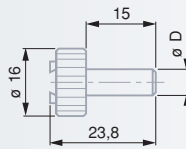
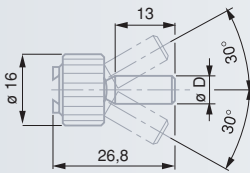


 0,8 mm	2 mm	3 mm	 Insert length $L_2$	 Series 300	 Series TOP Quality
<i>Inch Models</i>					
<b>01866010</b>	<b>01866007</b>	<b>01866017</b>	0.5278 in	01826001 01826003 01826004	
<b>01866011</b>	<b>01866005</b>	<b>01866018</b>	0.5724 in	01826002	01826011 01826012 01826015 01826016
<b>01866013</b>	<b>01866001</b>	<b>01866020</b>	1.2035 in	01826006	
<b>01866012</b>	<b>01866008</b>	<b>01866019</b>	1.6527 in	01826005	
<b>01866024</b>	<b>01866009</b>	<b>01866025</b>	1.2924 in		01826013 01826014
<i>Metric models</i>					
<b>01866014</b>	<b>01866003</b>	<b>01866021</b>	14,26 mm	01816001 01816002 01816003	01816011 01816012 01816016
<b>01866016</b>	<b>01866004</b>	<b>01866023</b>	32,26 mm	01816005	01816013 01816014
<b>01866015</b>	<b>01866006</b>	<b>01866022</b>	41,26 mm	01816004	

## Attachments for MERCER Series 300 and TOP Quality Lever-Type Dial Test Indicators

For a detailed description of the components shown in this catalogue as well as the complete accessory sets and order numbers, see on page F-6.

No	=	D
<i>Mounting rods and lug with dovetail grip</i>		
<b>01850106</b>	Mounting rod swivelling through $\pm 30^\circ$	$\varnothing 1/4$ in
<b>01850107</b>	Rigid mounting rod	$\varnothing 1/4$ in
<b>01840106</b>	Mounting rod swivelling through $\pm 30^\circ$	$\varnothing 8$ mm
<b>01840107</b>	Rigid mounting rod	$\varnothing 8$ mm
<b>01840108</b>	Mounting rod swivelling through $\pm 30^\circ$	$\varnothing 4$ mm
<b>01840109</b>	Rigid mounting rod	$\varnothing 4$ mm
<b>03238013</b>	Mounting lug	



### Additional Clamping Accessories

For a detailed description of the components listed in this catalogue as well as the complete accessory sets and order numbers, see on page F-6.

