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.

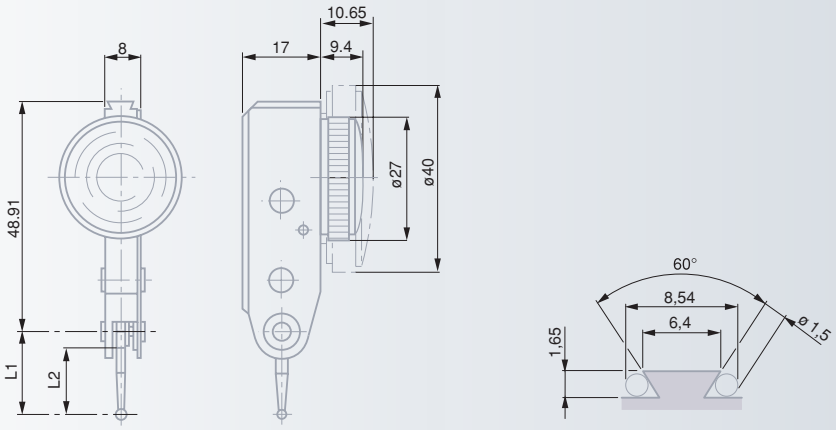
Inch Versions

		in	in	Ø mm		Insert* L_1 in	L_2 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

		mm	mm	Ø mm		Insert* L_1 mm	L_2 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.

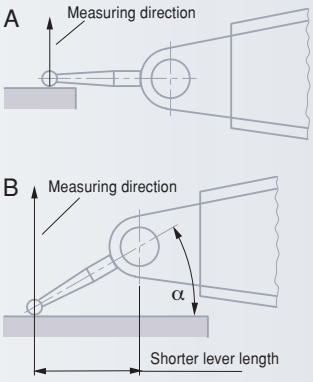


Maximum permissible errors for a metrological characeristic (MPE)

	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 µm	3 µm
Total deviation span, f_{ges}	*0.0005 in*	*0.00015 in*	13 µm	4 µm
Repeatability limit, f_w	*0.00015 in*	*0.00006 in*	3 µm	1 µm
Max. hysteresis, f_u	*0.00015 in*	*0.00008 in*	3 µm	1 µm

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 α 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.



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		in	in	Ø in		Insert* L_1 in	L_2 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		mm	mm	Ø mm		Insert* L_1 mm	L_2 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

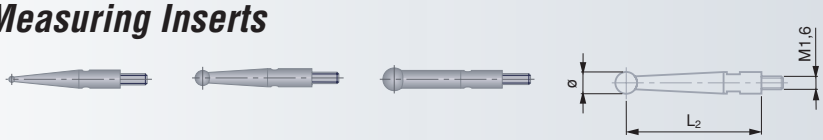
* For both sizes L1 and L2, see on page F-14

Maximum permissible errors for a metrological characeristic (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 µm	24 µm	13 µm
Total deviation span, f_{ges}	*0.0008 in*	*0.0012 in*	*0.0006 in*	20 µm	30 µm	15 µm
Repeatability limit, f_w	*0.00015 in*	*0.00025 in*	*0.0001 in*	3 µm	6 µm	1,5 µm
Max. hysteresis., f_u	*0.00015 in*	*0.00025 in*	*0.0001 in*	3 µm	6 µm	1,5 µm

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

Measuring Inserts

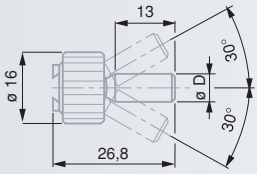


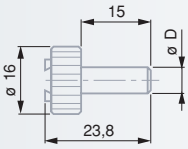
ø 0,8 mm	2 mm	3 mm	Insert length L_2	Series 300	Series TOP Quality
Inch Models					
01866010	***01866007***	***01866017***	*0.5278 in*	*01826001 01826003 01826004*	
01866011	***01866005***	***01866018***	*0.5724 in*	*01826002*	*01826011 01826012 01826015 01826016*
01866013	***01866001***	***01866020***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

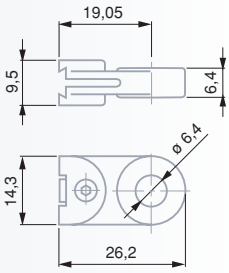
Attachments for MERCER Series 300 and TOP Quality Lever-Type Dial Test Indicators

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.

№	=	D
Mounting rods and lug with dovetail grip		
01850106	*Mounting rod swivelling through ± 30°*	*Ø 1/4 in*
01850107	*Rigid mounting rod*	*Ø 1/4 in*
01840106	Mounting rod swivelling through ± 30°	Ø 8 mm
01840107	Rigid mounting rod	Ø 8 mm
01840108	Mounting rod swivelling through ± 30°	Ø 4 mm
01840109	Rigid mounting rod	Ø 4 mm
03238013	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.