

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.



DIN 2270 and factory standard

Rotating dial

See table opposite

Lever system with friction clutch acting as load inhibitor

Tungsten carbide ball tips

Supplied in a suited plastic case including:
1 insert with a 2 mm dia.
1 rigid rod with a 1/4 dia.
(No. 01850107).

A 8 mm dia. rod or a mounting lug (No. 01840107 or No. 03238013) can also be used instead of the rigid rod.

Both are provided at no extra cost if specified on order.

Identification number

Declaration of conformity



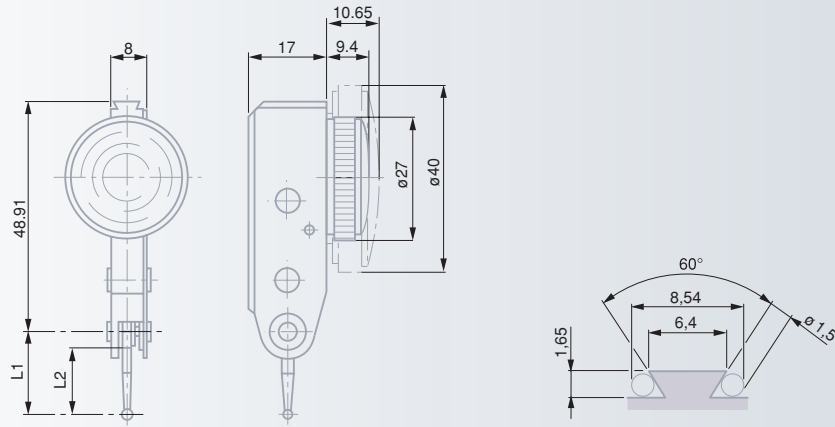
Inch Versions

No	=	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

No	=	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.



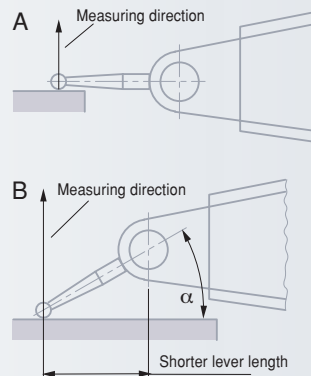
Maximum permissible errors for a metrological characteristic (MPE)

	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 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_h	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.



DIN 2270 and factory standard

Rotating dial

See table opposite

Lever system with friction clutch acting as load inhibitor

Tungsten carbide ball tips

For sizes see on previous page F-14

Supplied in a suited plastic case including:
1 insert with a 2 mm dia.
1 rigid rod with a 1/4 in dia. (No. 01850107).
A 8 mm dia. rod or a mounting lug (No. 01840107 or No. 03238013) can also be used instead of the rigid 1/4 in dia. rod. Both are provided at no extra cost if specified on order.

Identification number

Declaration of conformity



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

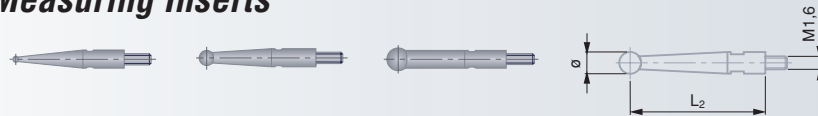
* For both sizes L₁ and L₂, see on page F-14

Maximum permissible errors for a metrological 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 μ m	24 μ m	13 μ m
	Total deviation span, f_{ges}	0.0008 in	0.0012 in	0.0006 in	20 μ m	30 μ m	15 μ m
	Repeatability limit, f_w	0.00015 in	0.00025 in	0.0001 in	3 μ m	6 μ m	1,5 μ m
	Max. hysteresis., f_0	0.00015 in	0.00025 in	0.0001 in	3 μ m	6 μ m	1,5 μ m

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

Measuring Inserts



Tungsten carbide ball tips

M1.6 coupling thread

Original inserts mounted on every Mercer indicators as well as any other inserts with same nominal length but having different tip diameters are fully interchangeable.

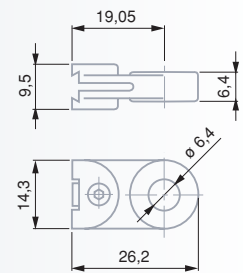
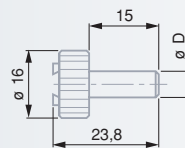
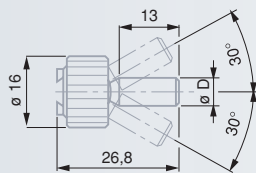
	0,8 mm	2 mm	3 mm		Insert length L_2		Series 300		Series TOP Quality
<i>Inch Models</i>									
01866010	01866007	01866017		0.5278 in			01826001 01826003 01826004		
01866011	01866005	01866018		0.5724 in			01826002		01826011 01826012 01826015 01826016
01866013	01866001	01866020		1.2035 in			01826006		
01866012	01866008	01866019		1.6527 in			01826005		
01866024	01866009	01866025		1.2924 in					01826013 01826014
<i>Metric models</i>									
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.

<i>Mounting rods and lug with dovetail grip</i>		
01850106	Mounting rod swivelling through $\pm 30^\circ$	$\varnothing 1/4$ in
01850107	Rigid mounting rod	$\varnothing 1/4$ in
01840106	Mounting rod swivelling through $\pm 30^\circ$	$\varnothing 8$ mm
01840107	Rigid mounting rod	$\varnothing 8$ mm
01840108	Mounting rod swivelling through $\pm 30^\circ$	$\varnothing 4$ mm
01840109	Rigid mounting rod	$\varnothing 4$ 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.

