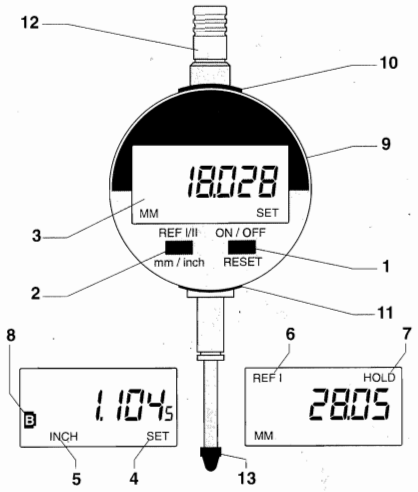
ectronic Indicator
struction for use



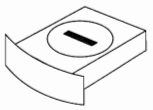
1 Press-button for ON/OFF, zero setting and memory (Hold)
2 Press-button for mm/inch conversion and mode setting
3 Combined display
- 4 Shows function of button 1
- 5 Shows function of button 2
- 6 Shows the reference
- 7 Indicate the measurement selected for memory (Hold)
- 8 Portrays termination of battery life

9 Rotating dial (270°)
0 Cable connection for RS 232 data output
1 Battery holder
2 Interchangeable lifting cap
3 Interchangeable measuring insert

ss-button activation

Press > 1 s Press < 1 s

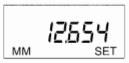
1. Battery (Type CR2032)



1. Pull out battery holder 11
2. Insert battery (– pole up)
3. Slide in battery holder

2. Switch on / Switch off

1. Switch on with ON/OFF (display shows stage before switch off)

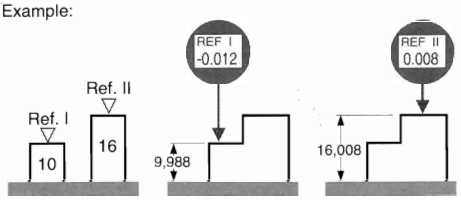


2. Switch off with ON/OFF
(The indicator keeps the indicated values in memory)

3. Working mode

Possibility to use 2 modes (Ref I or II)

Example:



Each mode offers the following possibilities:

- 0-setting of display (5)
- Blocking of 0-setting (6)
- Blocking of display (7, 8)
- Selection of unit (mm, in) (9)
- Pre-setting (10)
- Transfer of value (11)

4. Reference selection (I or II)

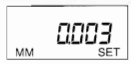
1. Key REF I/II until

2. Key REF I/II

3. Key REF I/II

5. Zero-setting of display

1. Key REF I/II until



2. Slide setting piece under the indicator and press RESET

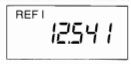
3. Repeat 2.

6. Blocking of zero-setting

1. Key REF I/II until

7. Blocking of diplayed value

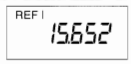
1. Key REF I/II until



2. Key RESET

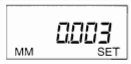
8. Cancellation of blocking

1. Key RESET



9. mm/inch conversion

1. Key mm/inch until



2. Key mm/inch

10. Presetting (e.g. 250.000)

1. Move setting piece 250 mm under the indicator
2. Key REF I/II until

3. Key RESET for – or + (+ is not indicated)

Move on 1st decade with REF I/II

Input number 2 RESET RESET

Move to next decade with REF I/II

Input number 5 RESET RESET RESET RESET RESET

End input with REF I/II until

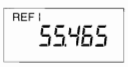
e: The electronic indicator cannot be switched off in presetting mode

Transfer of measured value

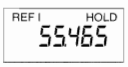
Pull out cage 10

Slide in cable with opto-RS232 connector

Key REF I/II until



Key RESET for transfer



Inversion of measuring sense

Unscrew back plate

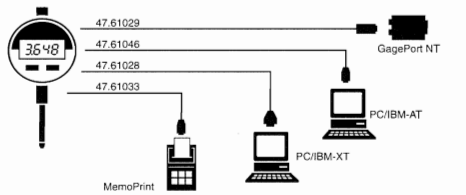
Move switch in small window on the left (+) or on the right (–)

Activation by pull out and slide in again battery.
Retract battery slide and return to activate.

Maintenance

p instrument clean (especially measuring shaft).
ıot lubricate shaft.

14. Connections



15. Delivery program

Electronic indicator

Measuring range (mm / in)	Resolution (mm / in)	N° TESA	N° MAUSER
12,5 / .5	0,01 / .0005	**19.30110**	**19.38005**
25 / 1	0,01 / .0005	**19.30111**	**19.38000**
50 / 2	0,01 / .0005	**19.30112**	
100 / 4	0,01 / .0005	**19.30113**	
12,5 / .5	0,001 / .00005	**19.30101**	**19.38001**
25 / 1	0,001 / .00005	**19.30100**	**19.38002**
50 / 2	0,001 / .00005	**19.30102**	
100 / 4	0,001 / .00005	**19.30103**	

Included: 1 lithium battery 3V CR2032 n° 19.61000, instruction for use and test certificate.

Accessories	**N° TESA / MAUSER**
Back plate with central lug	**19.61003**
Cable retract device	**19.61004**
Plunger retract lever	**19.60005**
Pneumatic retract device	**19.61006**
Pneumatic retract device with pedal	**19.61007**
MemoPrint (Printer & Memory)	**64.60000**
Connection cable with opto-electr. plug (length 2m)	
with 25-pin plug	**47.61028**
with 9-pin plug	**47.61046**
with 10-pin plug	**47.61029**
sans connecteur	**47.61027**
for MemoPrint	**47.61033**

16. Guarantee

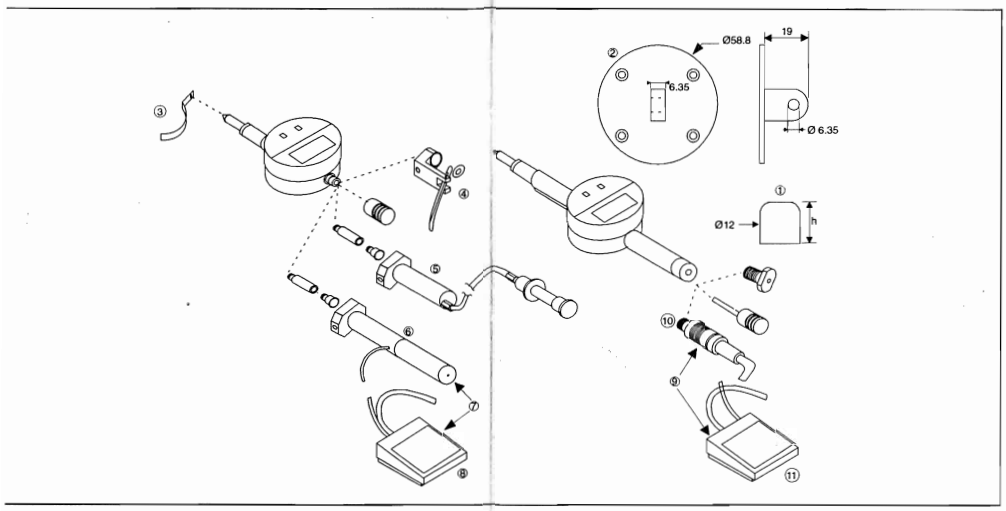
We guarantee this instrument against any fault of design, manufacture or material for a period of 12 months from the date of purchase. Any repair work carried out under the guarantee conditions is free of charge. Our responsibility is limited to the repair of the instrument or, if we consider it necessary, to its free replacement.
The following are not covered by our guarantee: batteries and damage due to incorrect handling, failure to observe the instruction manual, or attempts by any non-qualified party to repair the instrument; any consequences whatever which may be connected either directly or

17. Technical specifications

Measuring range (mm / in)	Accuracy (µm)	Measuring force (N) Standard	Low*	High*
12,5 / .5	10	0,7 ÷ 0,95	0,45 ÷ 0,6	1,15 ÷ 1,7
25 / 1	10	0,6 ÷ 1,1	0,4 ÷ 0,9	0,9 ÷ 1,8
50 / 2	20	2,0 ÷ 3.0		
100 / 4	20	2,3 ÷ 4,0		
12,5 / .5	5	0,7 ÷ 0,95	0,45 ÷ 0,6	1,15 ÷ 1,7
25 / 1	5	0,6 ÷ 1,1	0,4 ÷ 0,9	0,9 ÷ 1,8
50 / 2	12	2,0 ÷ 3.0		
100 / 4	15	2,3 ÷ 4,0		

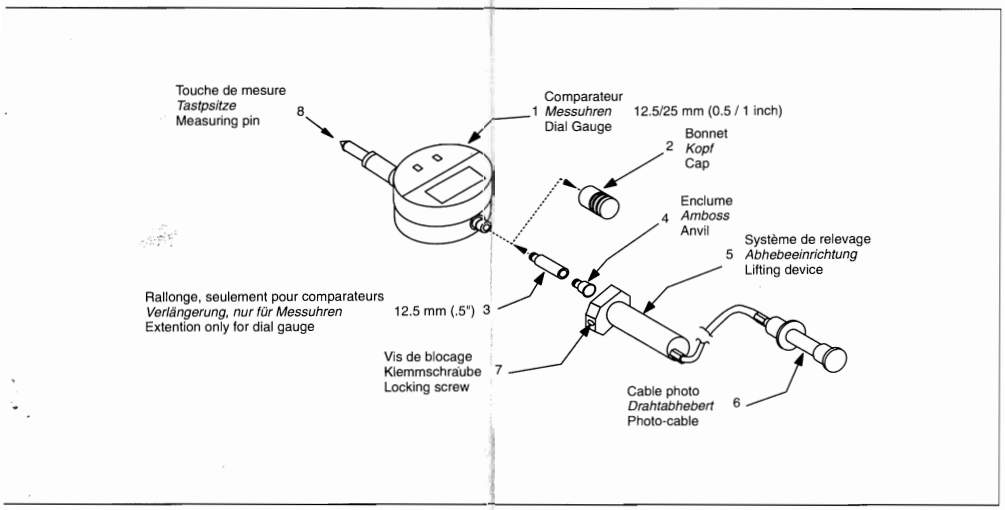
* in option

Repeatability	2 µm (±2 s)
Operational speed	1,5 m/s
Measuring units	mm / inch (true conversion)
Measuring system	Capacitive
Display	LCD, minus sign (–), 6 digits in mm (7 in inch), units and operating mode diplayed. Height of digits 8.5 mm / .34 in
Power supply	1 lithium battery 3V, type CR2032, capacity 190 mA, consumption 40 µA
Battery life	2 years when normally used (2000 work hours per year). When «B» is diplayed, the remaining battery life is some hours.
Working temperature	5 to 40 °C
Output	Compatible RS 232
Interface	RS 232 compatible interface cable with optoelectronic coupler
Characteristics	4800 Baud, parity even, 7 bits, 1 stop bit
Construction	- Aluminium case - Polyamide rotating dial (270°) - Measuring pin hardened and ground stainless steel
Holding device	Stem dia 8 mm h6
Measuring insert	Interchangeable M 2.5
Protection	IP 51 (according to IEC 529)



Special accessories

1	Dust cap	h = 23	19.61009
		h = 36	19.61010
2	Back with lug		19.61003
3	Plunger retract lever		19.60005
4	Plunger retract lever		19.61005
5	Cable retract device for dial gauge 12.5/25 mm (.5/1 inch)		19.61011
6	Pneumatic retract device, for dial gauge 12.5/25 mm (.5/1 inch)		19.61006
7	Pneumatic retract device with pedal		19.61007
8	Pedal for pneumatic retract device		19.61008
9	Vacuum lifting, for dial gauge 50/100 mm (2/4 inch)		S19.1431
10	Pressure controller		S19.1448
11	Vacuum pedal		S19.1447

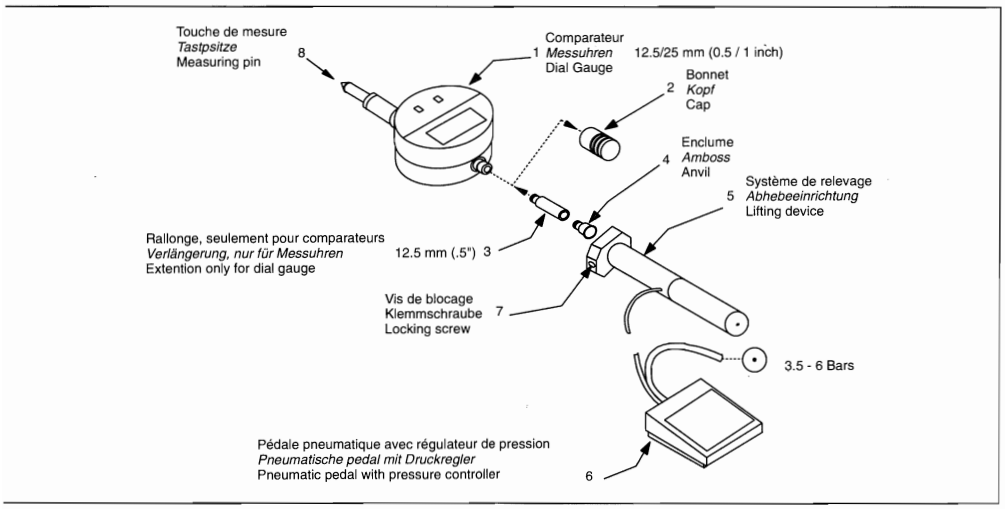


Lifting device with photo-cable, for dial gauge 12.5/25 mm (.5/1 inch)

No. 19.61011

Principle of the connexion

A Unscrew the cap (2)
B For dial gauges 12.5 mm (.5 in) only, screw the extention (3)
C Screw the anvil (4)
D Put the device (5) on the top of the gauge (1)
E Tighten the locking screw (7)
F Hold the photo-cable (6) in high position
G Push the measuring pin back (8) to clip it

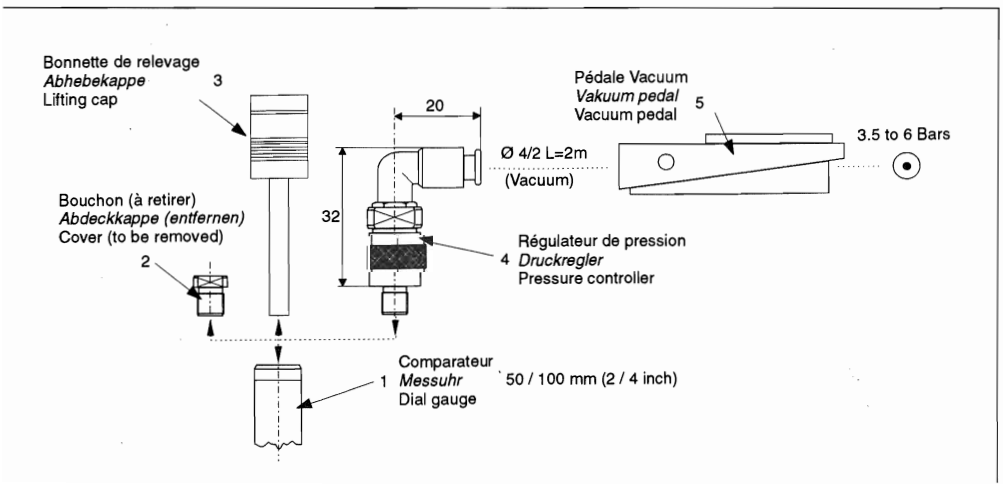


Pneumatic lifting device, for dial gauge 12.5/25 mm (.5/1 inch)

No. 19.61007

Principle of the connexion

A Unscrew the cap (2)
B For dial gauges 12.5 mm (.5 in) only, screw the extention (3)
C Screw the anvil (4)
D Put the device (5) on the top of the gauge (1)
E Tighten the locking screw (7)
F Push the measuring pin back (8) to clip it



Vacuum lifting, for dial gauge 50/100 mm (2/4 inch)

No. S19.1431

Principle of the connexion

A Unscrew the cover (2), or take the cap (3) out of the tube in one brisk pull
B Screw the pressure controller (4)
C Connect the footpedal (5) using join pipe Ø 4/2.
D Adjust the downwards speed of the probe turning the knurled part of the pressure controller

Brown & Sharpe TESA SA

CERTIFICAT D'ETALONNAGE No 36760

KALIBRIERSCHEIN CALIBRATION CERTIFICATE

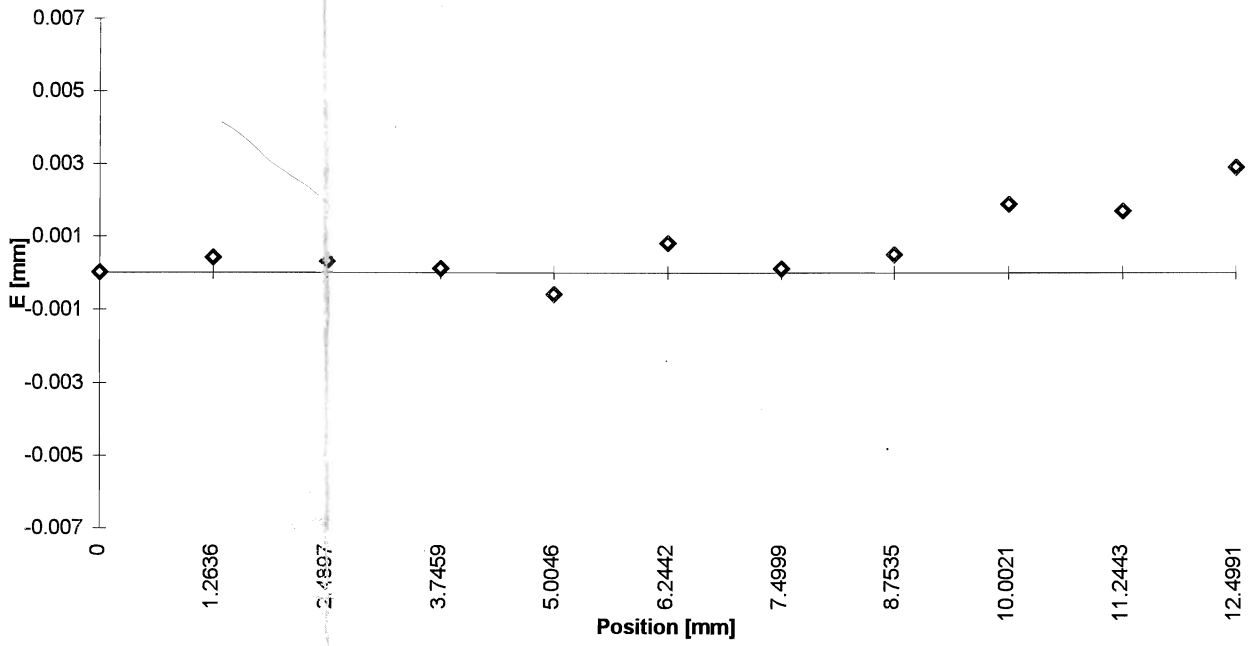
Messuhr Comparateur Dial Indicator

No de série Seriennummer Serial Number	36760		
Course de mesure Meßspanne Measuring Range	12.5 mm	Résolution Auflösung Resolution	0.001mm
Force de mesure Messkraft Measuring Force	0.7 - 0.95 N	Précourse Anhub Pretravel	0.197mm
Etalonné avec Kalibriert Calibrated with	**Unit No 026 / Probe No 1133**		

Nous certifions que cet instrument a été fabriqué et contrôlé selon nos normes internes de Qualité.
Les étalons utilisés ont une tracabilité reconnue.

Wir bestätigen, dass dieses Instrument gemäss internen Qualitätsnormen hergestellt und geprüft wurde.
Die verwendeten Referenzmasse verfügen über eine anerkannte Rückverfolgbarkeit.

We certifie that this instrument has been manufactured according to our Standard of Quality an
tested in reference with master of certified traceability.



Erreur Maximum
Maximale Abweichung
Maximum Error — 3.5µm

Contrôleur / Prüfer / Inspector 6.10.98