



EN ISO 463
Factory standard

0,01 mm

2,2 mm

Rotating dial.
Regular models
with dial lock.

Full-metal
case housing.
Fixing shank and
plunger in hardened stainless
steel.

High performance
shock proof system
in both directions

Adjustable
tolerance markers.
Insert with
M2,5 thread

3 mm dia.
ball tip, already
mounted.

Cardboard box

Identification
number

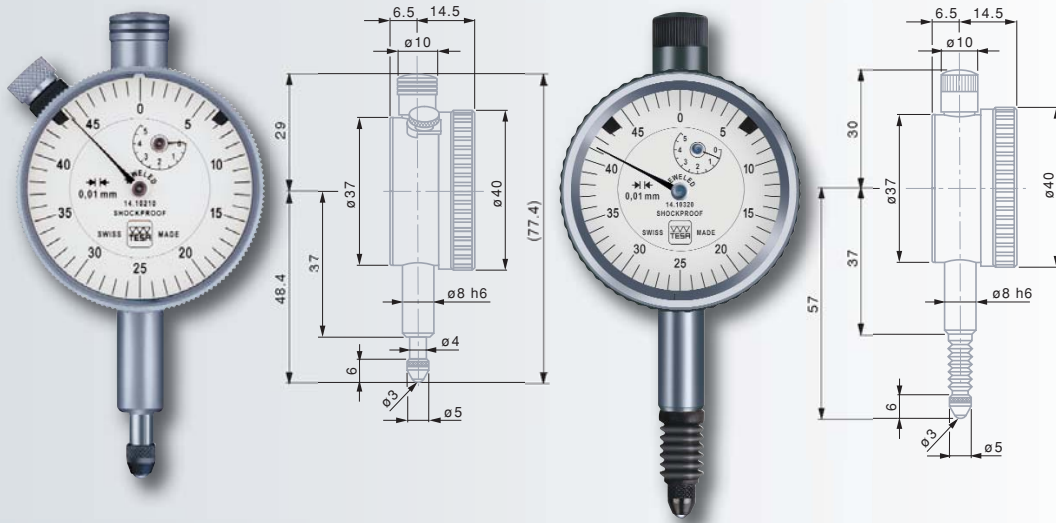
Inspection report
with a declaration
of conformity

TESA YR and MERCER Precision Dial Gauges – TOP Quality

These **TOP Quality** precision dial gauges combine excellent metrological properties with extra-long life.

- Smooth, full-jewelled movement with rubies.
- Full-metal bezel and case housing.
- Shock proof mechanism effective in the two directions towards the plunger moves.
- Non-dazzling dial.
- Swiss Made.

TESA YR – TOP Quality 40 mm dial diameter, 0,01 mm reading



TOP Quality line

01410210	0,01	5	5,4	●	0,5	0 ÷ 25 ÷ 50	●
01410211	0,01	5	5,4	●	0,5	0 ÷ 25 ÷ 0	●
01410212	0,01	5	5,4	●	0,5	0 ÷ 25 ÷ 50	–

TOP Quality line IP54 protected against the penetration of liquids

01410320	0,01	5	5,4	●	0,5	0 ÷ 25 ÷ 50	–
01410321	0,01	5	5,4	●	0,5	0 ÷ 25 ÷ 0	–

Permissible limits of a metrological characteristic (MPE/MPL)

		0,01 mm
	Deviation span	12 µm
	Deviation span within the local measuring span 0,10 mm	6 µm
	Total deviation span	14 µm
	Repeatability limit	3 µm
	Max. hysteresis	3 µm
	Measuring force	TOP Quality line
		TOP Quality line IP54
		≤ 1,4 N
		≤ 2 N

TESA YR and MERCER Dial Gauges – TOP Quality 40 mm dial diameter, 0,001 or 0,002 mm reading



- ✓
- EN ISO 463
Factory standard
- 0,001 mm
0,002 mm
- 1,1 mm
- Rotating dial.
Regular models with dial lock
- Full-metal case housing.
Fixing shank and plunger in hardened stainless steel
- High performance shock proof system in both directions
- Adjustable tolerance markers
Measuring insert with M2,5 thread.
- 3 mm dia. ball tip, already mounted.
- Cardboard box
- Identification number
- Inspection report with a declaration of conformity

		mm	mm	mm		mm	

TOP Quality line, with dial lock

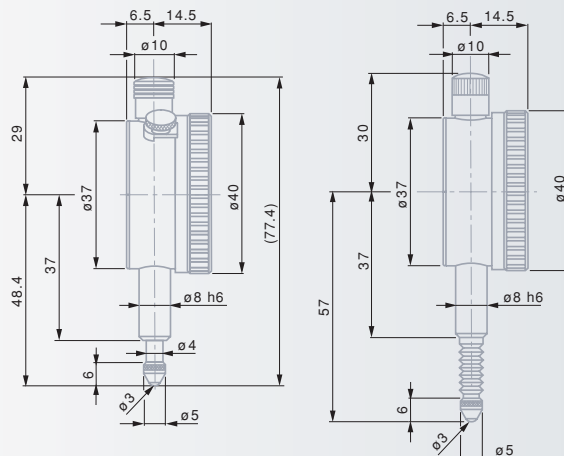
01410010		0,001	1	1,5	●	0,1	0 ÷ 50 ÷ 100
01410011		0,001	1	1,5	●	0,1	0 ÷ 50 ÷ 0
01416007	195-1TQ	0,002	3	3,3	●	0,2	0 ÷ 10 ÷ 0

TOP Quality line IP54 protected against the penetration of liquids, without dial lock

01410120		0,001	1	1,5	●	0,1	0 ÷ 50 ÷ 100
01410121		0,001	1	1,5	●	0,1	0 ÷ 50 ÷ 0

Permissible limits of a metrological characteristic (MPE/MPL)

		0,002 mm	0,001 mm
	Deviation span	10 µm	4 µm
	Deviation span within the local measuring span 0,10 mm	6 µm	4 µm
	Total deviation span	12 µm	5 µm
	Repeatability limit	1,5 µm	1 µm
	Max. hysteresis	2 µm	1 µm
	Measuring force	TOP Quality line ≤ 1,4 N	TOP Quality line IP54 ≤ 2 N



TESA YR and MERCER Dial Gauges – TOP Quality
57 or 58 mm dial diameter, 0,01 mm reading



EN ISO 463
Factory standard

0,01 mm

1,5 mm

Rotating dial.
Regular models with dial lock

Full-metal case housing.
Fixing shank and plunger in hardened stainless steel

High performance shock proof system in both directions

Adjustable tolerance markers
Measuring insert with a M2,5 thread.

3 mm dia. ball tip, already mounted

Cardboard box

Identification number

Inspection report with a declaration of conformity



TOP Quality line, with dial lock

01410610	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100
01410611	0,01	10	10,5	●	1	0 ÷ 50 ÷ 0
01410612	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100

TOP Quality line IP54 protected against the penetration of liquids, without dial lock

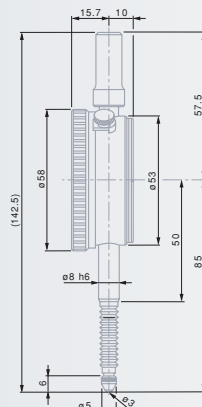
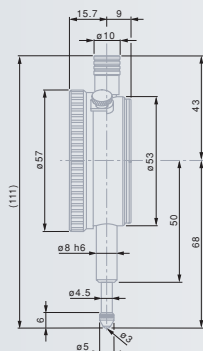
01410720	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100
01410721	0,01	10	10,5	●	1	0 ÷ 50 ÷ 0

TOP Quality line with restricted reading range

01416029	250SRc-1TQ	0,01	±0,5	4	●	1	50 ÷ 0 ÷ 50
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Permissible limits of a metrological characteristic (MPE/MPL)

		0,01 mm 1 mm	0,01 mm 10 mm
	Deviation span	7 µm	15 µm
	Deviation span within the local measuring span 0,10 mm	5 µm	8 µm
	Total deviation span	9 µm	17 µm
	Repeatability limit	3 µm	3 µm
	Max. hysteresis	3 µm	3 µm
	Measuring force	TOP Quality line TOP Quality line IP54	≤ 1,4 N ≤ 2,2 N



TESA YR and MERCER Dial Gauges – TOP Quality 57 or 58 mm dial diameter, 0,001 mm reading

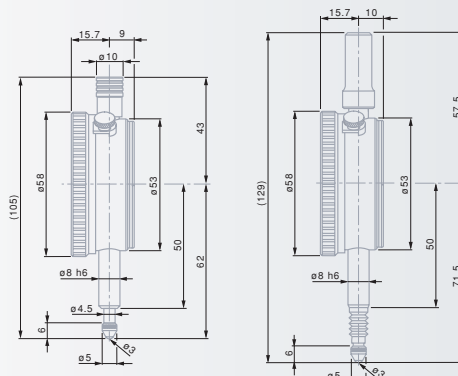


- ✓
- EN ISO 463
Factory standard
- 0,01 mm
0,001 mm
0.002 mm
- 1,5 mm
- Rotating dial.
Regular models with dial lock.
- Full-metal case housing.
Fixing shank and plunger in hardened stainless steel
- High performance shock proof system in both directions
- Adjustable tolerance markers
Measuring insert with M2,5 thread.
- 3 mm dia. ball tip, already mounted
- Cardboard box
- Identification number
- Inspection report with a declaration of conformity

		mm	mm	mm		mm	
<i>TOP Quality line, with dial lock</i>							
01410410		0,001	1	3,3	●	0,1	0 ÷ 50 ÷ 100
01410411		0,001	1	3,3	●	0,1	0 ÷ 50 ÷ 0
<i>TOP Quality line IP54 protected against the penetration of liquids, without dial lock</i>							
01410520		0,001	1	3,3	●	0,1	0 ÷ 50 ÷ 100
01410521		0,001	1	3,3	●	0,1	0 ÷ 50 ÷ 0
<i>TOP Quality line with restricted reading range</i>							
01416030	253SRc-1TQ	0,002	±0,08	3	●	0,16	8 ÷ 0 ÷ 8
01416028	SRc	0,001	±0,04	3	●	0,08	40 ÷ 0 ÷ 40

Permissible limits of a metrological characteristic (MPE/MPL)

	0,002 mm	0,001 mm 1 mm	0,001 mm 0,08 mm
Deviation span	2 µm	4 µm	1,5 µm
Deviation span within the local measuring span 0,10 mm	2 µm	4 µm	1,5 µm
Total deviation span	4 µm	5 µm	4 µm
Repeatability limit	1 µm	1 µm	1 µm
Max. hysteresis	1 µm	1 µm	1 µm
Measuring force	TOP Quality line TOP Quality line IP54	≤ 1,5 N ≤ 1,7 N	≤ 1,5 N ≤ 2 N



TESA YR and MERCER Dial Gauges – TOP Quality
82 mm dial diameter, 0,01 mm reading



EN ISO 463
Factory
standard

0,01 mm

2,3 mm

Rotating dial,
lockable.

Full-metal
case housing.
Fixing shank
and plunger in hardened
stainless steel

High performance
shock proof system
in both directions

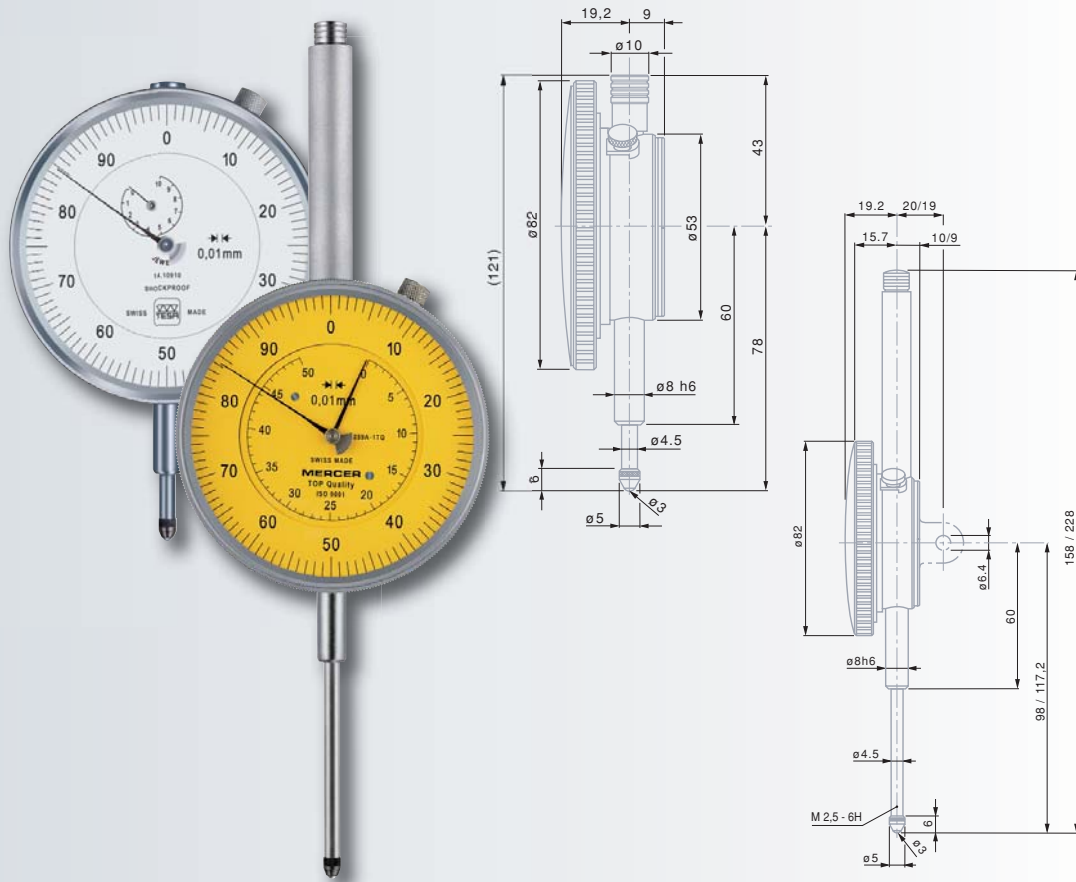
Adjustable
tolerance markers
Measuring insert
with M2,5 thread.

3 mm dia.
ball tip, already
mounted

Cardboard box

Identification
number

Inspection report
with a declaration
of conformity



TOP Quality line, with dial lock

01410910		0,01	10	10,5	●	0,1	0 ÷ 50 ÷ 100
01410911		0,01	10	10,5	●	0,1	0 ÷ 50 ÷ 0

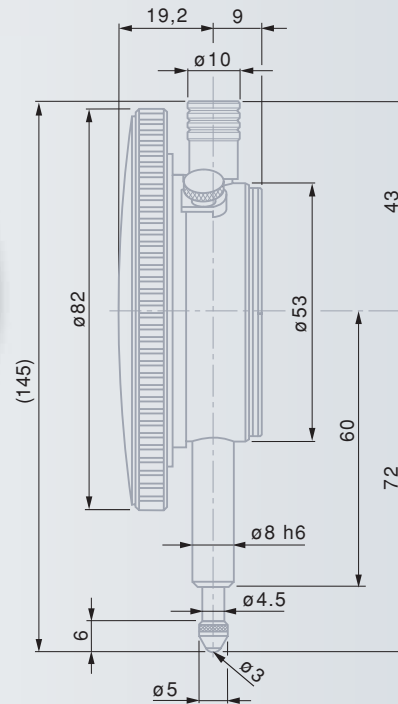
TOP Quality line with long range and dial lock

01416040	259-1TQ	0,01	30	30,5	●	0,1	0 ÷ 50 ÷ 100
01416041	259A-1TQ	0,01	50	50,5	●	0,1	0 ÷ 50 ÷ 100

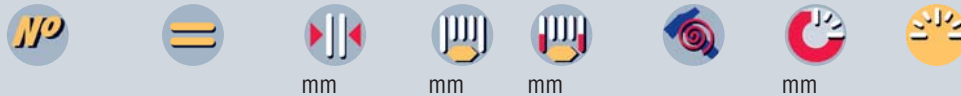
Permissible limits of a metrological characteristic (MPE/MPL)

	10 mm	30 mm	50 mm
Deviation span	15 µm	20 µm	25 µm
Deviation span within the local measuring span 0,10 mm	8 µm	20 µm	25 µm
Total deviation span	17 µm	25 µm	30 µm
Repeatability limit	3 µm	3 µm	3 µm
Max. hysteresis	3 µm	5 µm	5 µm
Measuring force	≤ 1,4 N	≤ 2,2 N	≤ 2,5 N

TESA YR Dial Gauges – TOP Quality
82 mm dial diameter, 0,001 mm reading



- ✓
- EN ISO 463 Factory standard
- 0,001 mm
- 2,3 mm
- Rotating dial, lockable.
- Full-metal case housing. Fixing shank and plunger in hardened stainless steel
- High performance shock proof system in both directions
- Adjustable tolerance markers. Measuring insert with a M2,5 thread.
- 3 mm dia. ball tip, already mounted
- Cardboard box
- Identification number
- Inspection report with a declaration of conformity



TOP Quality line, with dial lock

01410810	0,001	1	3,3	●	0,1	0 ÷ 50 ÷ 100
01410811	0,001	1	3,3	●	0,1	0 ÷ 50 ÷ 0

Permissible limits of a metrological characteristic (MPE/MPL)

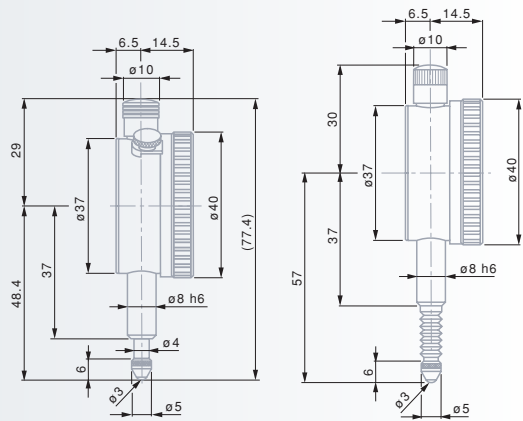
		0,001 mm
	Deviation span	4 µm
	Deviation span within the local measuring span 0,10 mm	4 µm
	Total deviation span	5 µm
	Repeatability limit	1 µm
	Max. hysteresis	1 µm
	Measuring force	≤ 1,7 N

TESA YE, MERCER and COMPAC Precision Dial Gauges – Standard

40 mm dial diameter, 0,001 mm reading

Remarkably robust, these precision dial gauges are essential for the workshop.

- Smooth, jewelled movement with rubies.
- Full-metal case housing.
- Optimum protection against shocks.
- Swiss Made.



EN ISO 463
Factory
standard



0,01 mm



2,2 mm



Rotating dial



Full-metal
case housing.
Fixing shank
and plunger in hardened
stainless steel



Adjustable
tolerance markers
Measuring insert
with a M2,5 thread.



3 mm dia.
ball tip, already
mounted



Cardboard box



Identification
number



Inspection report
with a declaration
of conformity



mm



mm



mm



mm



Standard line

01412010		0,01	5	5,4	–	–	0,5	0 ÷ 25 ÷ 50
01416013	x185-1	0,01	5	5,4	–	●	0,5	0 ÷ 25 ÷ 0
01416014	186-1	0,01	5	5,4	–	●	0,5	0 ÷ 25 ÷ 50
353		0,01	5	5,4	●	–	0,5	0 ÷ 25 ÷ 50

Standard line IP54 protected against the penetration of liquids

01412410		0,01	5	5,4	–	–	0,5	0 ÷ 25 ÷ 50
353E		0,01	5	5,4	●	–	0,5	0 ÷ 25 ÷ 50

Standard line with restricted reading range

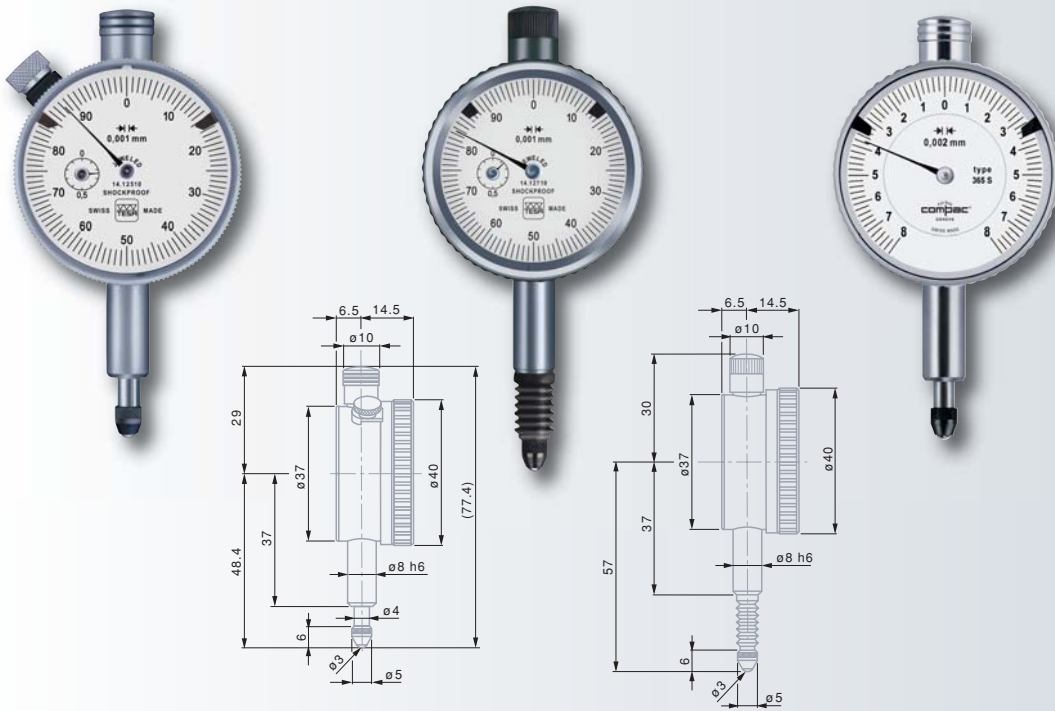
01412210		0,01	±0,2	3,3	●	–	0,5	20 ÷ 0 ÷ 20
01416031	SRc	0,01	±0,2	3,3	●	●	0,5	20 ÷ 0 ÷ 20
353S		0,01	±0,2	3,3	●	–	0,5	20 ÷ 0 ÷ 20

Permissible limits of a metrological characteristic (MPE/MPL)

	5 mm	±0,2 mm
Deviation span	12 μ m	7 μ m
Deviation span within the local measuring span 0,10 mm	6 μ m	5 μ m
Total deviation span	14 μ m	9 μ m
Repeatability limit	3 μ m	3 μ m
Max. hysteresis	3 μ m	3 μ m
Measuring force	Standard line ≤ 1,4 N	Standard line IP54 ≤ 2 N

TESA YE, MERCER and COMPAC Dial Gauges – Standard

40 mm dial diameter, 0,001 or 0,002 mm reading



- EN ISO 463 Factory standard
- 0,001 mm, 0,002 mm
- 1,1 mm
- Rotating dial
- Full-metal case housing. Fixing shank and plunger in hardened stainless steel.
- Adjustable tolerance markers. Measuring insert with a M2,5 thread.
- 3 mm dia. ball tip, already mounted
- Cardboard box
- Identification number
- Inspection report with a declaration of conformity

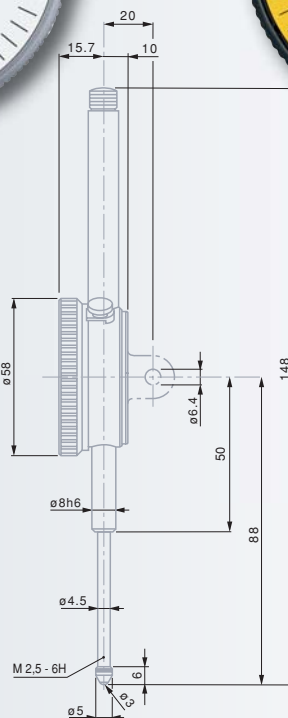
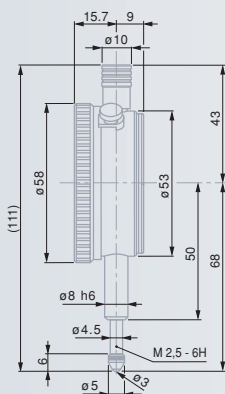
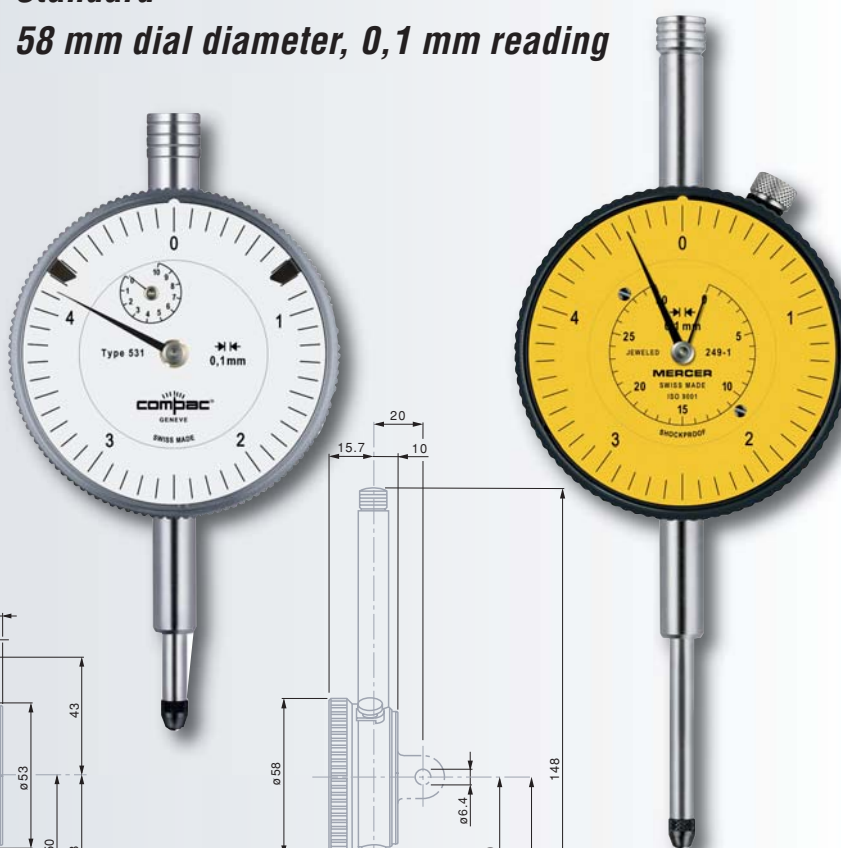
No	mm	mm	mm	mm	mm	mm	mm	
<i>Standard line</i>								
355	0,002	3	3,3	●	–	0,2	0 ÷ 10 ÷ 20	
01412510	0,001	1	1,5	●	●	0,1	0 ÷ 50 ÷ 100	
367	0,001	1	1,5	●	–	0,1	0 ÷ 5 ÷ 10	
<i>Standard line IP54 protected against the penetration of liquids</i>								
355E	0,002	3	3,3	●	–	0,2	0 ÷ 10 ÷ 20	
01412710	0,001	1	1,5	●	–	0,1	0 ÷ 50 ÷ 100	
367E	0,001	1	1,5	●	–	0,1	0 ÷ 5 ÷ 10	
<i>Standard line with restricted reading range</i>								
365S	0,002	±0,08	1,5	●	–	0,2	8 ÷ 0 ÷ 8	
367S	0,001	±0,04	1,5	●	–	0,1	4 ÷ 0 ÷ 4	

Permissible limits of a metrological characteristic (MPE/MPL)

	3 mm	1 mm	±0,08/±0,04 mm
Deviation span	10 µm	4 µm	2 µm
Deviation span within the local measuring span 0,10 mm	6 µm	4 µm	2 µm
Total deviation span	12 µm	5 µm	4 µm
Repeatability limit	1,5 µm	1 µm	1 µm
Max. hysteresis	2 µm	1 µm	1 µm
Measuring force	Standard line	≤ 1,4 N	≤ 1,4 N
	Standard line IP54	≤ 1,7 N	≤ 1,7 N

TESA YE, MERCER and COMPAC Dial Gauges – Standard

58 mm dial diameter, 0,1 mm reading



EN ISO 463
Factory
standard



Full-metal
case housing.
Fixing shank
and plunger in hardened
stainless steel.

Adjustable
tolerance markers
Measuring insert
with a M2,5 thread.

3 mm dia.
ball tip, already
mounted.

Cardboard box

Identification
number

Inspection report
with a declaration
of conformity



mm



mm



mm



mm



Standard line

531		0,1	10	10,5	●	–	5	0 ÷ 2,5 ÷ 5
531B		0,1	10	10,5	●	–	5	0 ÷ 2,5 ÷ 5
01416038	249-1	0,1	30	30,5	●	●	5	0 ÷ 5

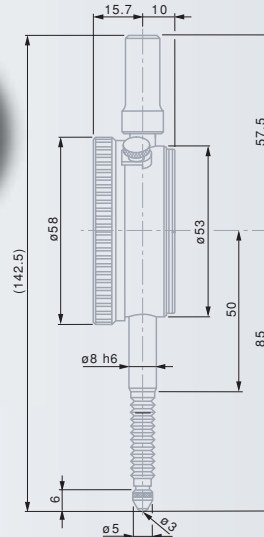
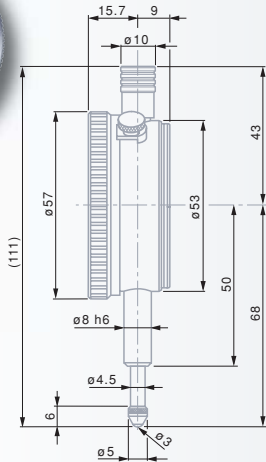
Permissible limits of a metrological characteristic (MPE/MPL)

	10 mm	30 mm
Deviation span	30 µm	30 µm
Total deviation span	35 µm	40 µm
Repeatability limit	5 µm	10 µm
Max. hysteresis	10 µm	10 µm
Measuring force	≤ 1,5 N	≤ 2,2 N



TESA YE, MERCER and COMPAC Dial Gauges – Standard

58 mm dial diameter, 0,01 mm reading



EN ISO 463
Factory standard



0,01 mm



1,5 mm



Rotating dial



Full-metal case housing. Fixing shank and plunger in hardened stainless steel



Adjustable tolerance markers. Measuring insert with a M2,5 thread.



3 mm dia. ball tip, already mounted.



Cardboard box



Identification number



Inspection report with a declaration of conformity

		mm	mm	mm		mm	

Standard line

01412011		0,01	10	10,5	●	–	1	0 ÷ 50 ÷ 100
01412310		0,01	10	10,5	–	–	1	0 ÷ 50 ÷ 100
01416020	250-1	0,01	10	10,5	–	●	1	0 ÷ 50 ÷ 0
01416021	251-1	0,01	10	10,5	–	●	1	0 ÷ 50 ÷ 100
512K	JET	0,01	10	10,5	–	–	1	0 ÷ 50 ÷ 100
532		0,01	10	10,5	●	–	1	0 ÷ 50 ÷ 100

Standard line IP54 protected against the penetration of liquids

01412411		0,01	10	10,5	–	–	1	0 ÷ 50 ÷ 100
532E		0,01	10	10,5	●	–	1	0 ÷ 50 ÷ 100

Standard line with restricted reading range

01412211		0,01	±0,4	4	●	–	1,27	40 ÷ 0 ÷ 40
01416032		0,01	±0,4	4	●	–	1,27	40 ÷ 0 ÷ 40
532S		0,01	±0,4	4	●	●	1,27	40 ÷ 0 ÷ 40
533S		0,01	±0,5	4	●	–	1,27	50 ÷ 0 ÷ 50

Permissible limits of a metrological characteristic (MPE/MPL)

	10 mm	±0,4/±0,5 mm
	15 µm	7 µm
	8 µm	5 µm
	17 µm	9 µm
	3 µm	3 µm
	3 µm	3 µm
	Standard line	≤ 1,5 N
	Standard line IP54	≤ 2,2 N

TESA YE, MERCER and COMPAC Dial Gauges – Standard
58 mm dial diameter, 0,002 mm reading



EN ISO 463
Factory standard

0,002 mm

1,5 mm

Rotating dial

Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.

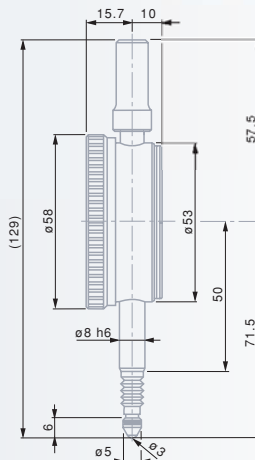
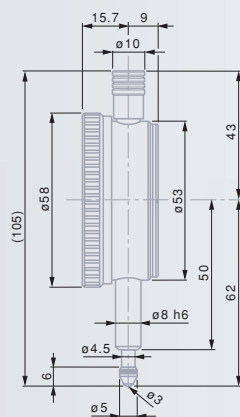
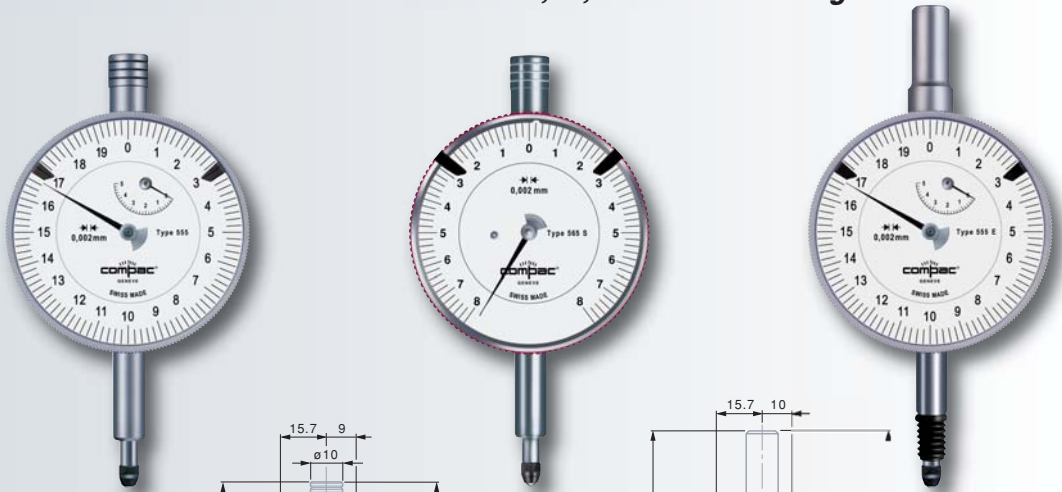
Adjustable tolerance markers
Measuring insert with M2,5 thread.

3 mm dia. ball tip, already mounted.

Cardboard box

Identification number

Inspection report with a declaration of conformity



Standard line

01416034	253-1	0,002	5	5,3	–	●	0,2	0 ÷ 10 ÷ 0
01416035	254-1	0,002	5	5,3	–	●	0,2	0 ÷ 10 ÷ 20
555		0,002	5	5,3	●	–	0,2	0 ÷ 10 ÷ 20

Standard line IP54 protected against the penetration of liquids

555E		0,002	5	5,3	●	–	0,2	0 ÷ 10 ÷ 20
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Standard line with restricted reading range

565S		0,002	±0.08	3,3	●	–	0,2	8 ÷ 0 ÷ 8
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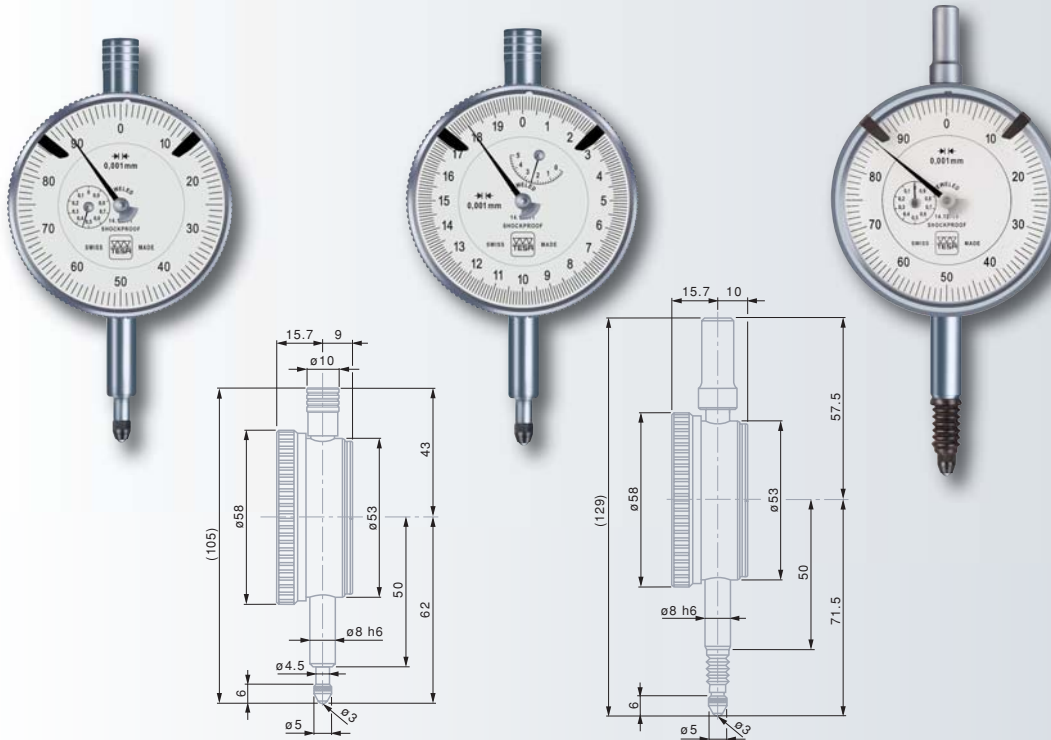
Permissible limits of a metrological characteristic (MPE/MPL)

	5 mm	±0,4 / ±0,5 mm
Deviation span	12 µm	4 µm
Total deviation span	14 µm	4 µm
Repeatability limit	2 µm	1 µm
Max. hysteresis	2 µm	1 µm
Measuring force	Standard line	≤ 1,5 N
	Standard line IP54	≤ 1,7 N

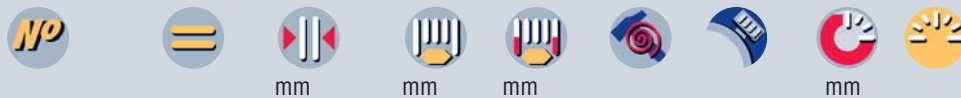


TESA YE, MERCER and COMPAC Dial Gauges – Standard

58 mm dial diameter, 0,001 mm reading



- ✓
- EN ISO 463
Factory standard
- 0,002 mm
- 1,5 mm
- Rotating dial
- Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.
- Adjustable tolerance markers
Measuring insert with M2,5 thread.
- 3 mm dia. ball tip, already mounted.
- Cardboard box
- Identification number
- Inspection report with a declaration of conformity



Standard line

01412611	0,001	5	5,3	●	–	0,2	0 ÷ 100 ÷ 200
556	0,001	5	5,3	●	–	0,2	0 ÷ 10 ÷ 20
01412511	0,001	1	1,5	●	–	0,1	0 ÷ 50 ÷ 100
567	0,001	1	3,3	●	–	0,1	0 ÷ 5 ÷ 10

Standard line IP54 protected against the penetration of liquids

556E	0,001	5	5,3	●	–	0,2	0 ÷ 10 ÷ 20
01412711	0,001	1	1,5	●	–	0,1	0 ÷ 50 ÷ 100
567E	0,001	1	3,3	●	–	0,1	0 ÷ 5 ÷ 10

Standard line with restricted reading range

567S	0,001	±0,04	3,3	●	–	0,1	4 ÷ 0 ÷ 4
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Permissible limits of a metrological characteristic (MPE/MPL)

	Deviation span	12 µm	4 µm	4 µm
	Total deviation span	14 µm	5 µm	4 µm
	Repeatability limit	2 µm	1 µm	1 µm
	Max. hysteresis	2 µm	1 µm	1 µm
	Measuring force	Standard line	Standard line	Standard line
		≤ 1,5 N	≤ 1,5 N	≤ 1,5 N
	Standard line IP54	≤ 1,7 N	≤ 1,7 N	



EN ISO 463
Factory
standard

0,01 mm

1,5 mm

Rotating dial

Full-metal
case housing.
Fixing shank
and plunger in hardened
stainless steel.

Adjustable
tolerance markers
Measuring insert
with M2,5 thread.

3 mm dia.
ball tip, already
mounted.

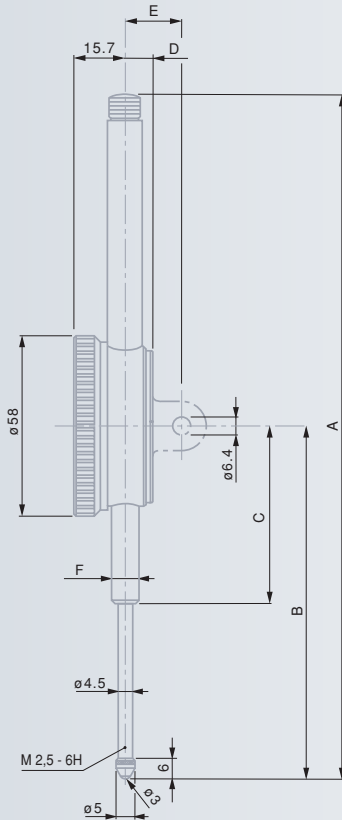
Cardboard box

Identification
number

Inspection report
with a declaration
of conformity

**TESA YE, MERCER and COMPAC
Dial Gauges – Standard**

**58 mm dial diameter, 0,01 mm reading,
long range**



mm	30 mm	50 mm	100 mm
A	148	228	390
B	88	117,2	211,6
C	50	60	103,6
D	10	9	9
E	20	19	19
F	Ø 8h6	Ø 8h6	Ø 8h6

Model	Resolution (mm)	Range (mm)	Scale	Material	Case	Box	Report
01412012	0,01	30	30,5	●	–	1	0 ÷ 50 ÷ 100
01416039	0,01	30	30,5	●	●	1	0 ÷ 50 ÷ 100
712	0,01	30	30,5	●	–	1	0 ÷ 50 ÷ 100
01412013	0,01	50	50,5	●	–	1	0 ÷ 50 ÷ 100
722	0,01	50	50,5	●	–	1	0 ÷ 50 ÷ 100
732	0,01	100	100,5	●	–	1	0 ÷ 50 ÷ 100

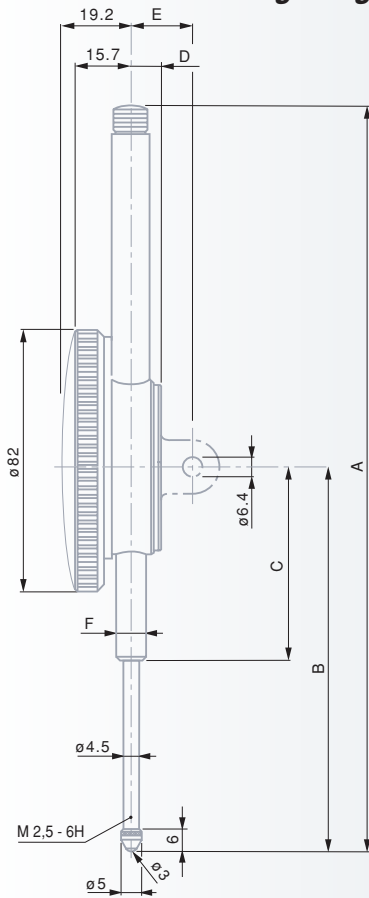
Permissible limits of a metrological characteristic (MPE/MPL)

	30 mm	50 mm	100 mm
Deviation span	20 µm	25 µm	30 µm
Total deviation span	25 µm	30 µm	35 µm
Repeatability limit	3 µm	3 µm	3 µm
Max. hysteresis	5 µm	5 µm	8 µm
Measuring force	≤ 2,2 N	≤ 2,5 N	≤ 3,2 N



TESA YE, MERCER and COMPAC Dial Gauges – Standard

82 mm dial diameter, 0,01 mm reading, long range



mm	10 mm	30 mm	50 mm	100 mm	200 mm
A	121	158	228	390	752
B	78	98	117,2	211,6	437
C	60	60	60	103,6	150
D	9	10	9	9	10,4
E	19	20	19	19	20,2
F	Ø 8h6	Ø 8h6	Ø 8h6	Ø 8h6	Ø 12



EN ISO 463
Factory standard



0,01 mm



2,3 mm



Rotating dial



Full-metal case housing. Fixing shank and plunger in hardened stainless steel



Measuring insert with a M2,5 thread



3 mm dia. ball tip, already mounted.



Cardboard box



Identification number



Inspection report with a declaration of conformity



mm



mm



mm



mm



Standard line with long range

01412311	0,01	10	10,5	–	–	1	0 ÷ 50 ÷ 100
712G	0,01	30	30,5	●	–	1	0 ÷ 50 ÷ 100
722G	0,01	50	50,5	●	–	1	0 ÷ 50 ÷ 100
01412014	0,01	100	100,5	●	–	1	0 ÷ 50 ÷ 100
732G	0,01	100	100,5	●	–	1	0 ÷ 50 ÷ 100
732GB	0,01	100	100,5	●	●	1	0 ÷ 50 ÷ 100
752G	0,01	200	200,5	●	–	1	0 ÷ 50 ÷ 100

Permissible limits of a metrological characteristic (MPE/MPL)

	10 mm	30 mm	50 mm	100 mm	200 mm
Deviation span	15 µm	20 µm	25 µm	30 µm	45 µm
Total deviation span	17 µm	25 µm	30 µm	35 µm	50 µm
Repeatability limit	3 µm	3 µm	3 µm	3 µm	3 µm
Max. hysteresis	3 µm	5 µm	5 µm	8 µm	10 µm
Measuring force	≤ 1,4 N	≤ 2,2 N	≤ 2,5 N	≤ 3,2 N	≤ 4 N

TESA YE, MERCER and COMPAC Dial Gauges – Standard
82 mm dial diameter, 0,001 mm reading



EN ISO 463
Factory standard

0,001 mm

2,2 mm

Rotating dial

Full-metal case housing.
Fixing shank and plunger in hardened stainless steel

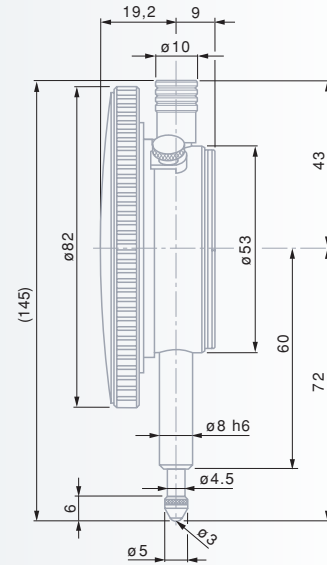
Measuring insert with a M2,5 thread

3 mm dia. ball tip, already mounted.

Cardboard box

Identification number

Inspection report with a declaration of conformity



mm



mm



mm



mm



Standard line

556G

0.001

5

5,3

●

–

0,2

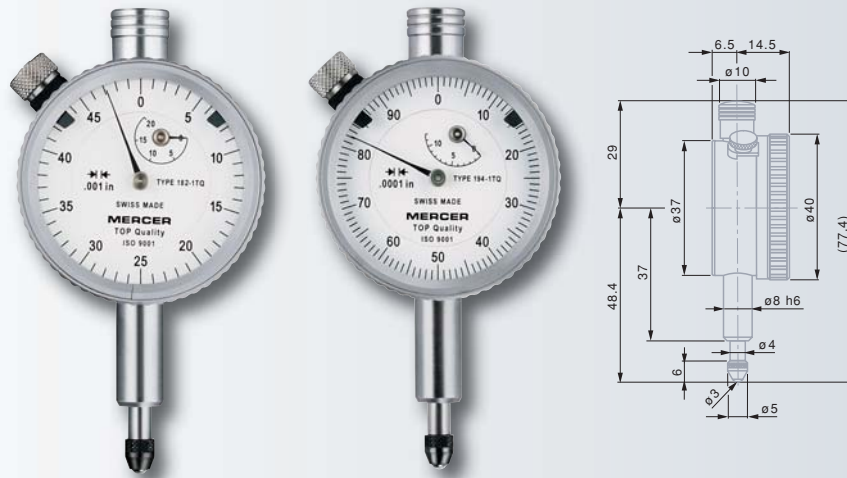
0 ÷ 10 ÷ 20

Permissible limits of a metrological characteristic (MPE/MPL)

			5 mm
	Deviation span		12 µm
	Total deviation span		14 µm
	Repeatability limit		2 µm
	Max. hysteresis		2 µm
	Measuring force		≤ 1,5 N

MERCER Precision Dial Gauges – TOP Quality

Series 180, 40 mm dial diameter, inch reading



Factory standard

0.001 in
0.0005 in
0.0001 in

0.001 in: 2.2 mm
0.0005 in: 3,1 mm
0.0001 in: 1,1 mm

Rotating dial.
Can be locked.

Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.

High performance shock proof system in both directions

Adjustable tolerance markers.
Measuring insert with a M2.5 thread.

Mounted insert with a 3 mm dia. steel ball tip

Cardboard box

Identification number

Declaration of conformity

Models to 0.001, 0.0005 and 0.0001 in

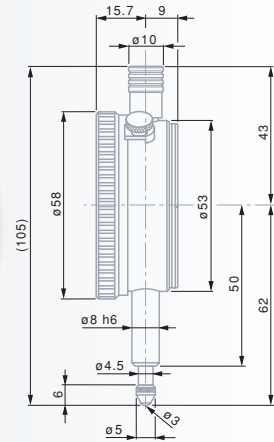
TOP Quality line, with dial lock							
01426001	181-1TQ	0.001	0.200	0.212	●	0.05	0 ÷ 25 ÷ 0
01426002	182-1TQ	0.001	0.200	0.212	●	0.05	0 ÷ 25 ÷ 50
01426003	183-1TQ	0.0005	0.200	0.212	●	0.02	0 ÷ 10 ÷ 0
01426004	184-1TQ	0.0005	0.200	0.212	●	0.02	0 ÷ 10 ÷ 20
01426005	193-1TQ	0.0001	0.120	0.130	●	0.01	0 ÷ 50 ÷ 0
01426006	194-1TQ	0.0001	0.120	0.130	●	0.01	0 ÷ 50 ÷ 100

Permissible limits of a metrological characteristic (MPE/MPL)

Deviation span	0.001 in	0.0005 in	0.0001 in
Total deviation span	0.0005 in	0.0005 in	0.0004 in
Repeatability limit	0.00015 in	0.00015 in	0.00006 in
Max. hysteresis	0.00015 in	0.00015 in	0.00008 in
Measuring force	≤ 1.4 N	≤ 1.4 N	≤ 1.7 N

MERCER Dial Gauges – TOP Quality

S series , 58 mm dial diameter, inch reading



Factory standard

0.0005 in
0.0001 in

1,5 mm

Rotating dial.
Can be locked.

Full-metal case housing.
Fixing shank and stainless steel plunger, hardened.

High performance shock proof system in both directions

Adjustable tolerance markers.
Measuring insert with a M2.5 thread.

Mounted insert with a 3 mm dia. steel ball tip

Cardboard box

Identification number

Declaration of conformity

Models to 0.0005 and 0.0001 in

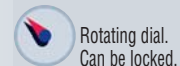
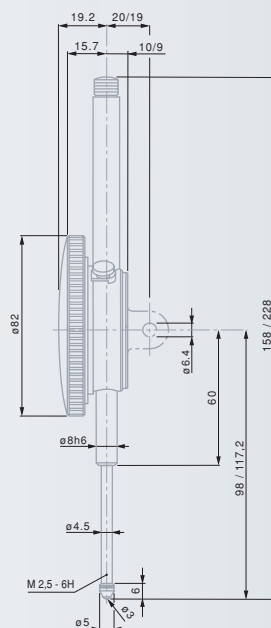
<i>TOP Quality line, with dial lock</i>								
01426024	212HD-1TQ	0.0005	0.400	0.42	●	0.05	0 ÷ 25 ÷ 0	
01426022	240-1TQ	0.0001	0.200	0.21	●	0.01	0 ÷ 50 ÷ 0	
01426023	241-1TQ	0.0001	0.200	0.21	●	0.01	0 ÷ 50 ÷ 100	
<i>TOP Quality line with restricted reading range</i>								
01426025	212SRc-1TQ	0.0005	±0.020	0.150	●	0.2	20 ÷ 0 ÷ 20	

Permissible limits of a metrological characteristic (MPE/MPL)

	0.005 in	0.001 in 0.200 in	0.001 in ± 0.020 in
	0.0006 in	0.0005 in	0.0003 in
	0.0007 in	0.0006 in	0.0004 in
	0.00015 in	0.00006 in	0.00012 in
	0.00015 in	0.00008 in	0.00012 in
	≤ 1.5 N	≤ 1.5 N	≤ 1.5 N

MERCER Dial Gauges – TOP Quality

L series, 80 mm dial diameter, inch reading



Models to 0.0005 in

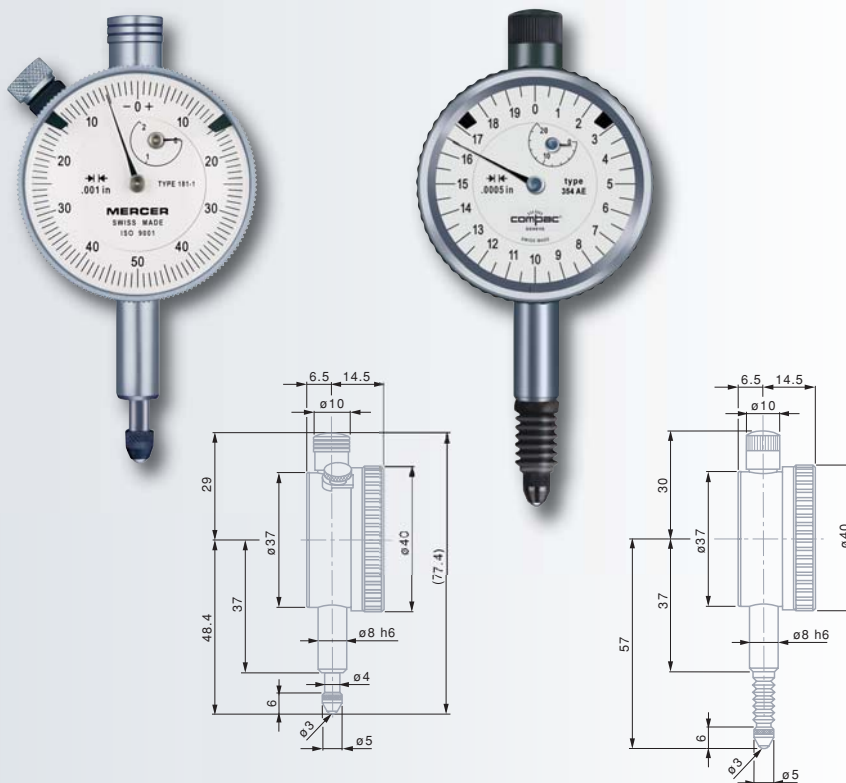
NP	=	in	in	in		in	
TOP Quality line, with dial lock							
01426040	222-1TQ	0.0005	1	1.02	●	0.05	0 ÷ 25 ÷ 50
01426041	222A-1TQ	0.0005	2	2.02	●	0.05	0 ÷ 25 ÷ 50

Permissible limits of a metrological characteristic (MPE/MPL)

	1 in	2 in
Deviation span	0.0008 in	0.001 in
Total deviation span	0.001 in	0.0012 in
Repeatability limit	0.00015 in	0.00015 in
Max. hysteresis	0.0002 in	0.0002 in
Measuring force	≤ 2.2 N	≤ 2.5 N

TESA YE, MERCER and COMPAC Precision Dial Gauges – Standard

40 mm dial diameter, inch reading



Factory standard

0.001 in
0.0005 in
0.0001 in

0.001 in : 2,2 mm
0.0005 in : 3,1 mm
0.0001 in : 1,1 mm

Rotating dial.

Full-metal case housing. Fixing shank and plunger in hardened stainless steel.

Adjustable tolerance markers. Measuring insert with a M2.5 thread.

Mounted insert with a 3 mm dia. steel ball tip

Cardboard box

Identification number

Declaration of conformity

Models to 0.001, 0.0005 and 0.0001 in

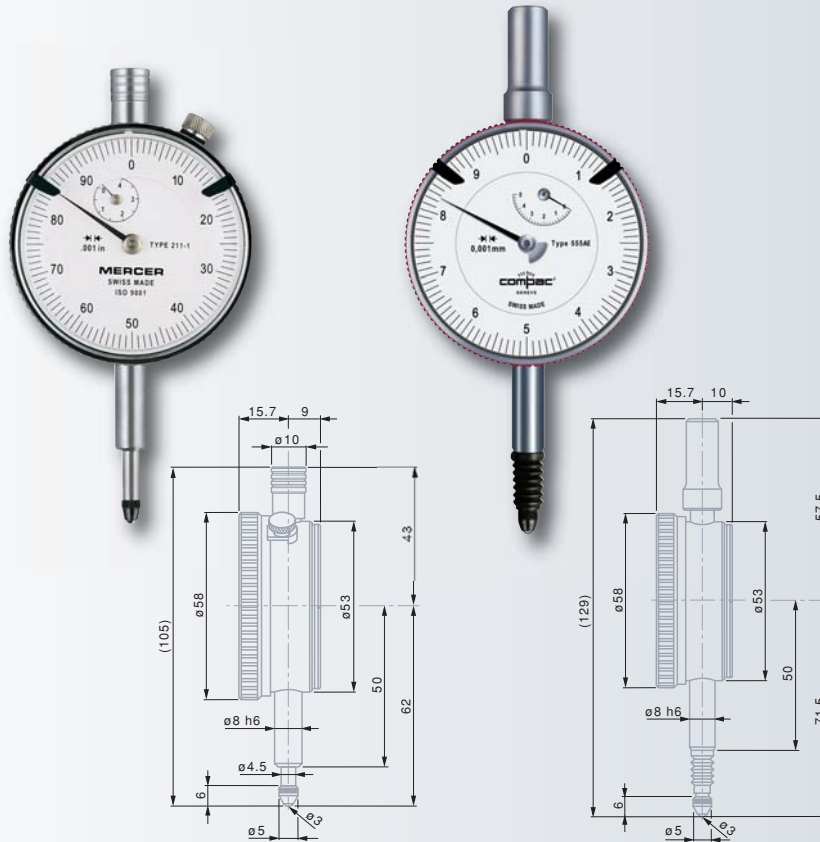
No	=	in	in	in	in	in	in	in
01426010	181-1	0.001	0.200	0.212	–	●	0.1	0 ÷ 50 ÷ 0
01426011	182-1	0.001	0.200	0.212	–	●	0.1	0 ÷ 50 ÷ 100
01426012	183-1	0.0005	0.200	0.212	●	●	0.05	0 ÷ 25 ÷ 0
01426013	184-1	0.0005	0.200	0.212	●	●	0.05	0 ÷ 25 ÷ 50
354A		0.0005	0.200	0.212	●	–	0.02	0 ÷ 10 ÷ 20
Standard line IP54 protected against the penetration of liquids								
354AE		0.0005	0.200	0.212	●	–	0.02	0 ÷ 10 ÷ 20
355AE		0.0001	0.120	0.130	●	–	0.01	0 ÷ 5 ÷ 10

Permissible limits of a metrological characteristic (MPE/MPL)

		0.001 in	0.0005 in	0.0001 in
Deviation span		0.0005 in	0.0005 in	0.0004 in
	Total deviation span	0.0006 in	0.0006 in	0.0005 in
Repeatability limit		0.00015 in	0.00015 in	0.00006 in
Max. hysteresis		0.00015 in	0.00015 in	0.00008 in
Measuring force	Standard line	≤ 1.4 N	≤ 1.4 N	≤ 1.7 N
	Standard line IP54		≤ 1.7 N	≤ 2 N

TESA YE, MERCER and COMPAC Dial Gauges – Standard

58 mm dial diameter, inch reading



- ✓
- Factory standard
- 0.001 in
0.0005 in
0.0001 in
- 0.001 in : 2.2 mm
0.0005 in : 3,1 mm
0.0001 in : 1,1 mm
- Rotating dial.
- Full-metal case housing. Fixing shank and plunger in hardened stainless steel.
- Adjustable tolerance markers. Measuring insert with a M2.5 thread.
- Mounted insert with a 3 mm dia. steel ball tip
- Cardboard box
- Identification number
- Declaration of conformity

Models to 0.001, 0.0005 and 0.0001 in

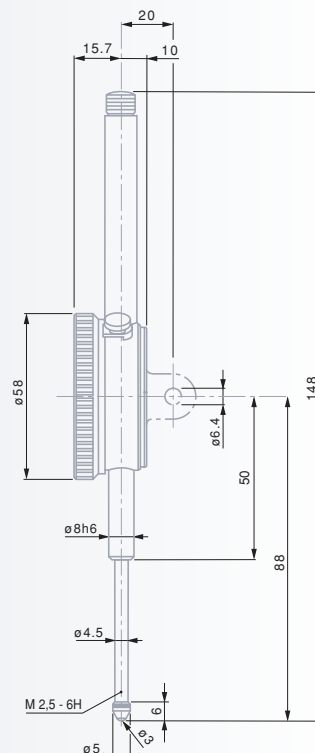
No	Resolution	Scale	Range	Accuracy	Resolution	Resolution	Resolution
<i>Standard line</i>							
01426026	210-1	0.001	0.400	0.420	–	●	0.1 0 ÷ 50 ÷ 0
01426027	211-1	0.001	0.400	0.420	–	●	0.1 0 ÷ 50 ÷ 100
01426020	212-1	0.0005	0.400	0.420	–	●	0.05 0 ÷ 25 ÷ 0
01426021	213-1	0.0005	0.400	0.420	–	●	0.05 0 ÷ 25 ÷ 50
01426028	240-1	0.0001	0.200	0.210	–	●	0.01 0 ÷ 50 ÷ 0
01426029	241-1	0.0001	0.200	0.210	–	●	0.01 0 ÷ 50 ÷ 100
<i>Standard line IP54 protected against the penetration of liquids</i>							
555AE		0.0001	0.200	0.210	●	–	0.01 0 ÷ 5 ÷ 10

Permissible limits of a metrological characteristic (MPE/MPL)

	Resolution	Resolution	Resolution
	0.001 in	0.0005 in	0.0001 in
Deviation span	0.0006 in	0.0006 in	0.0005 in
Total deviation span	0.0007 in	0.0007 in	0.00055 in
Repeatability limit	0.0002 in	0.0002 in	0.00006 in
Max. hysteresis	0.0002 in	0.0002 in	0.00008 in
Measuring force	Standard line Standard line IP54	≤ 1.4 N ≤ 1.4 N	≤ 1.7 N ≤ 2 N

TESA YE, MERCER and COMPAC Dial Gauges – Standard

58 mm dial diameter, inch reading, long range



Factory standard

0.001 in
0.0005 in

1,5 mm

Rotating dial.

Full-metal case housing. Fixing shank and plunger in hardened stainless steel.

Adjustable tolerance markers. Measuring insert with a M2.5 thread.

Mounted insert with a 3 mm dia. steel ball tip

Cardboard box

Identification number

Declaration of conformity

Models to 0.001 in and 0.0005 in



Standard line

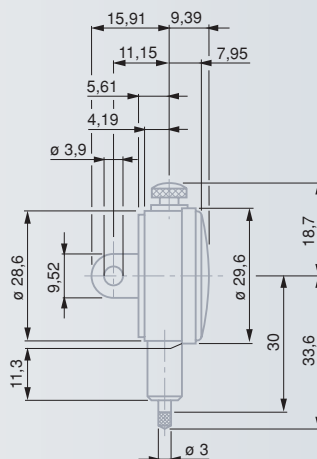
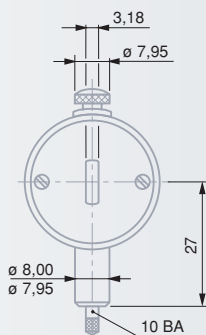
01426031	216-1	0.001	1	1.2	●	●	0.1	0 ÷ 50 ÷ 100
01426032	217-1	0.0005	1	1.2	●	●	0.05	0 ÷ 25 ÷ 50

Maximum permissible errors for a metrological characteristic (MPE)

Deviation span	0.0008 in	0.0008 in
Total deviation span	0.001 in	0.001 in
Repeatability limit	0.00015 in	0.00015 in
Max. hysteresis	0.0002 in	0.0002 in
Measuring force	≤ 2.2 N	≤ 2.2 N



MERCER Precision Dial Gauges – Standard Series 70, dial diameter to 1 1/8 in or 29 mm



Models to 0.001 or 0.0001 in

No	Scale	Resolution	Resolution	Resolution	Resolution	Resolution	Resolution	Resolution
Standard line		in	in	in		in		N
01426050	71	0.001	0.04	0.05	–	0.04	0 ÷ 20 ÷ 0	≤ 1,5
01426051	73	0.0001	0.01	0.05	–	0.01	0 ÷ 5 ÷ 0	≤ 1,5

Models to 0,01 or 0,002 mm

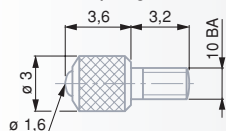
No	Scale	Resolution	Resolution	Resolution	Resolution	Resolution	Resolution	Resolution
Standard line		mm	mm	mm		mm		N
01416050	72	0,01	1	1,2	–	1	0 ÷ 50 ÷ 0	≤ 1,5
01416051	74	0,002	0,2	1,2	–	0,2	0 ÷ 10 ÷ 0	≤ 1,5

Permissible limits of a metrological characteristic (MPE/MPL)

	0.001 in	0.0001 in	0,01 mm	0,002 mm
Deviation span	0.0005 in	0.0005 in	10 µm	6 µm
Total deviation span	0.0008 in	0.0007 in	13 µm	9 µm
Repeatability limit	0.0003 in	0.0002 in	3 µm	2 µm
Max. hysteresis	0.0003 in	0.0002 in	3 µm	3 µm

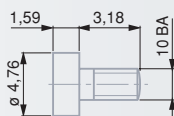
Accessories for MERCER dial gauges, series 70

10BA coupling thread



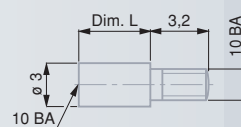
Standard insert with spherical measuring faces.

No	Material	Length (mm)
03560072	Steel	1,6
03560073	Carbide	1,6



Measuring insert with a flat measuring face.

No	Material	Length (mm)
03560074	Steel	4,76



Extensions for measuring inserts.

No	Length (mm)
03560075	12,7
03560076	19,05
03560077	25,4



Factory standard or EN ISO 463 for metric models



See table opposite



2,25 mm or 0,9 mm



Rotating dial



Full-metal case housing. Fixing shank and plunger in hardened stainless steel



Without shock proof mechanism



Back with central lug. Measuring insert with a 10BA thread.



See in the table opposite



Mounted insert with a 3 mm dia. steel ball tip



Cardboard box



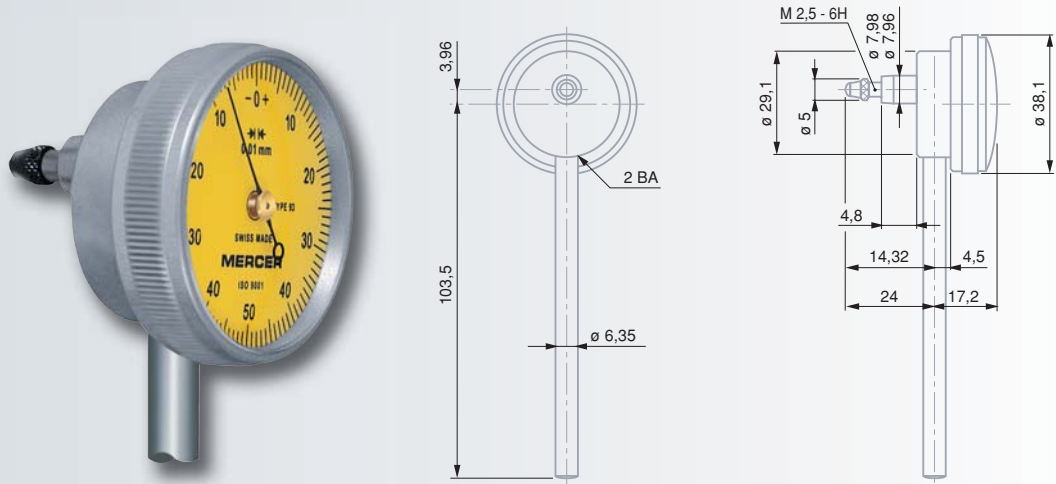
Identification number



Declaration of conformity

MERCER Precision Dial Gauges – Standard

Series 90, dial diameter to 1½ in or 38 mm, back mounted plunger



Factory standard or EN ISO 463 for metric models

0,001 in and 0,01 mm

2,4 mm or 1,2 mm

Rotating dial

Full-metal case housing. Fixing shank and plunger in hardened stainless steel.

Without shock proof mechanism

Measuring insert with a M2,5 thread. Also with a 6,35 mm dia. holding rod that can be unscrewed.

See table opposite

Mounted insert with a 3 mm dia. steel ball tip

Cardboard box

Identification number

Declaration of conformity

Models to 0.001 in

NO	=	in	in	in	in	in	N
<i>Standard line</i>							
01426060	91	0.001	0.05	0.14	–	0.05	0 ÷ 25 ÷ 0 ≤1,5
01426061	92	0.001	0.05	0.14	–	0.05	0 ÷ 25 ÷ 50 ≤1,5

Models to 0,01 mm

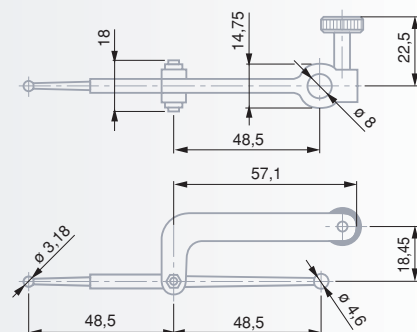
NO	=	mm	mm	mm	mm	mm	N
<i>Standard line</i>							
01416060	93	0,01	1	3,5	–	1	0 ÷ 50 ÷ 0 ≤1,5
01416061	94	0,01	1	3,5	–	1	0 ÷ 50 ÷ 100 ≤1,5

Maximum permissible errors for a metrological characteristic (MPE)

	0.001 in	0,01 mm
	0.0010 in	25 µm
	0.0015 in	40 µm
	0.0005 in	12 µm
	0.0005 in	12 µm

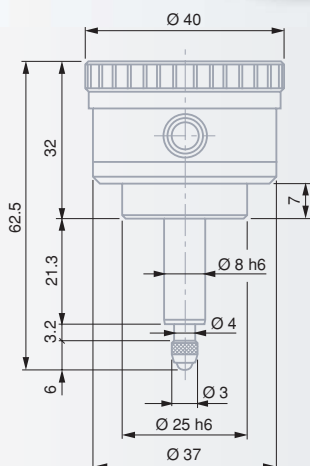
Accessories for MERCER dial gauges, series 90

<i>Swivelling arm</i>	
NO	
03560078	Amplification 1 : 1



COMPAC Dial Gauges

40 mm dial diameter, back mounted plunger



✓



EN ISO 463
Factory
standard



Rotating dial



Full-metal
case housing.
Fixing shank and
plunger in hardened stainless
steel.



Shock proof
system to protect
the movement



Adjustable
tolerance
markers.

Measuring insert with a
M2,5 coupling thread.
Fastening sleeve with a
8h6 or 25h6 stem diameter.



Mounted insert
with a 3 mm
ball tip dia.



Cardboard box



Serial number



Inspection report
with a declaration
of conformity



	mm	mm	mm	mm		µm	µm	µm	N
CP 352	0,01	3	3,2	1	0÷50÷100	14	3	3	0,9
CP 352S	0,01	± 0,4	3,2	(1)	40÷0÷40	9	3	3	0,9
CP 353	0,01	3	3,2	0,5	0÷25÷50	14	3	3	0,9
CP 355	0,002	3	3,2	0,2	0÷10÷20	14	2	2,5	0,9
CP 355S	0,002	± 0,08	3,2	(0,2)	8÷0÷8	9	2	2,5	0,9

S: Models with a reduced range of indication.

Since the pointer travels less than one revolution, all reading errors due to the revolution counter are eliminated.

COMPAC Dial Gauges with electrical contacts, type CL

Type CL2

Mechanical dial gauge fitted with 2 electrical contacts. Can be used in conjunction with the COMPAC amplifying unit R43 (No. 044285).



Factory standard

Rotating dial

Full-metal housing. Plunger and 8h6 dia. stem in stainless steel, hardened and ground.

Shock proof system to protect the movement

Adjustable tolerance markers on models with a 58 mm dial diameter.

Measuring insert with a M2,5 coupling thread. Also with revolution counter.

Mounted insert with a 3 mm dia. steel ball tip.

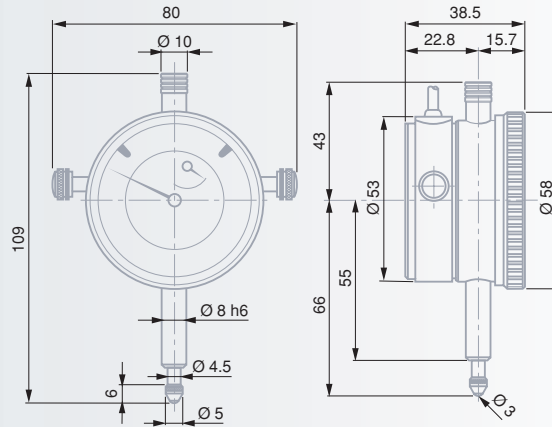
Electrical contacts accurate to 0,001 mm.

Power supply: 10 μ A, 12 V.
Response time: 0,1 s.

Cardboard box

Serial number

Declaration of conformity



Metric models

No	mm	mm	mm	mm*	μ m	μ m	μ m	N	
CL2532	0,01	58	3	0,5 ÷ 1,5	0 ÷ 50 ÷ 100	17	3	3	$\leq 1,5$
CL2532G	0,01	82	3	0,5 ÷ 1,5	0 ÷ 50 ÷ 100	17	3	3	$\leq 1,5$
CL2555	0,002	58	3	0,5 ÷ 1,5	0 ÷ 10 ÷ 20	14	1,5	2	$\leq 1,5$
CL2556	0,001	58	3	0,5 ÷ 1,5	0 ÷ 10 ÷ 20	14	1,5	2	$\leq 1,5$

Inch models

No	in	mm	in	in*	μ m	in	in	in	N
CL2533A	0.0005	58	0.120	0.020 ÷ .060	0 ÷ 25 ÷ 50	0.0007	0.00015	0.00015	$\leq 1,5$
CL2555A	0.0001	58	0.120	0.020 ÷ .060	0 ÷ 5 ÷ 10	0.00055	0.00006	0.00008	$\leq 1,5$

* Setting limit values

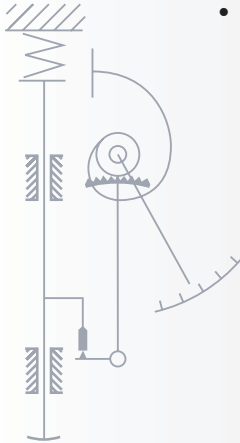


TESA CARY Microcomparators MCA-8

The absolute precision

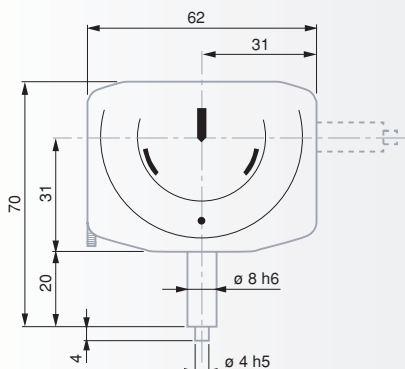
Specially designed for high precision measurement by comparison (from $\pm 0,8 \mu\text{m}$) – Ideal for checking axial and radial runouts with a very low hysteresis (from $0,3 \mu\text{m}$).

- TESA CARY precision mechanism mounted parallel to the measuring axis in compliance with the Abbe principle.
- Streamlined steel case with high rigidity.
- High precision throughout the measuring travel (from $0,8 \mu\text{m}$).
- Very low measuring force (from 150 mN).
- Non-rotating dial. Quickly set to zero by moving the pointer with just a thumb grip.
- Low sensitivity to temperature variations.



- ✓
- DIN 879
- Non-rotating dial
- Fine setting by moving the pointer
- Metal housing. Stainless steel plunger, hardened.
- Adjustable tolerance markers
- Measuring insert with a M2,5 thread
- Mounted insert with a 3 mm dia. steel ball tip
- 110 g
- Plastic case
- Identification number
- Inspection report with a declaration of conformity

			mm	mm	mm	mN		Range for zero setting mm
01410420	MCA8-1-500	0,0005	0,05	3	500	25 ÷ 0 ÷ 25	± 0,003	
01410421	MCA8-1-150	0,0005	0,05	3	150	25 ÷ 0 ÷ 25	± 0,003	
01410422	MCA8-1-300	0,0005	0,05	3	300	25 ÷ 0 ÷ 25	± 0,003	
01410423	MCA8-2-500	0,001	0,1	3	500	50 ÷ 0 ÷ 50	± 0,006	
01410425	MCA8-2-150	0,001	0,1	3	150	50 ÷ 0 ÷ 50	± 0,006	
01410426	MCA8-2-300	0,001	0,1	3	300	50 ÷ 0 ÷ 50	± 0,006	
01410427	MCA8-3-500	0,002	0,2	3	500	100 ÷ 0 ÷ 100	± 0,012	
01410428	MCA8-3-150	0,002	0,2	3	150	100 ÷ 0 ÷ 100	± 0,012	
01410429	MCA8-3-300	0,002	0,2	3	300	100 ÷ 0 ÷ 100	± 0,012	
<i>Lateral model</i>								
01410424	MCA8-2-L	0,001	0,1	3	500	50 ÷ 0 ÷ 50	± 0,006	
<i>Accessory</i>								
On request	Sealing bellow (to be specified when ordering)							



Maximum permissible errors

	0,0005 mm	0,001 mm	0,002 mm
	0,8 μm	0,8 μm	1,0 μm
	0,4 μm	0,3 μm	0,3 μm
	0,3 μm	0,3 μm	0,3 μm



DIN 879-1.
All sizes as per
EN ISO 463

Ball-bearing
plunger,
except for the
metric model to 0,01 mm
mounted on a plain
bearing

Metal
case
housing.
Plunger made from hardened
stainless steel

Adjustable
tolerance
markers.
Coupling thread for the
lifting cable.
M2,5 thread for the
measuring insert.

≈ 1 N

1 mounted
insert with
a 3,175 mm
diameter steel ball tip along
with 1 lifting cable

Suited
plastic case

Declaration
of conformity

ETALON Basic and ROCH Precision Indicators

0,01 mm or 0,001 mm reading

Remarkably reliable, even when constantly used for series inspection – Specially made for comparative measurements demanding a very low measurement uncertainty – Measure axial and radial runouts with the lowest hysteresis.

- Shock proof movement with gear-lever transmission and long dead travel.
- Large, non-dazzling dial for easy readout.
- No coarse reading errors as the measuring travel is limited to less than one revolution.
- Fine adjustment and protective knob to prevent unintentional pointer displacement.



Regular models

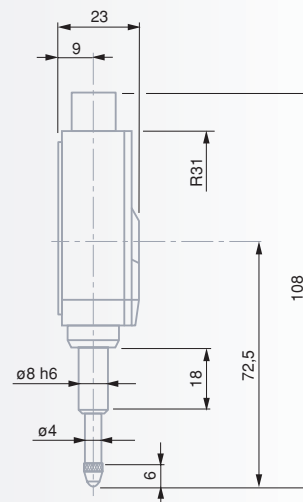
	0141761371	0,01	0,5	2,5	62	●	25 ÷ 0 ÷ 25
01419051	0141761373	0,001	0,1	3,0	62	●	50 ÷ 0 ÷ 50

Model IP54 protected against the penetration of liquids

01419052		0,001	0,1	3,0	62	●	50 ÷ 0 ÷ 50
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Maximum permissible errors

		0,01 mm	0,001 mm
	Max. perm. errors in one direction throughout the measuring range, G_e	10 µm	1 µm
	over any local measuring range including 10 scale divisions, G_l	7 µm	0,7 µm
	in both measuring directions throughout the measuring range, G_{ges}	12 µm	1,2 µm
	Repeatability limit, r_w	5 µm	0,5 µm
	Max. hysteresis, f_h	5 µm	0,5 µm



ETALON Basic Dial Gauges

0,01 mm reading

Regular and long range models



EN ISO 463
Factory standard



0,01 mm



Dial diameter 40 or 58 mm: 2,2 or 1,5 mm, resp.



Rotating dial



Full-metal case housing. Fixing shank and plunger in hardened stainless steel.



With or without shock proof mechanism



Adjustable tolerance markers. Measuring insert with a M2.5 thread.



See table opposite



Mounted insert with a 3,175 mm dia. steel ball tip



Plastic case or cardboard box



Identification number



Declaration of conformity



	mm	mm	mm		mm		N
01419047	0,01	5	40	●	0,5	0 ÷ 25 ÷ 50	≈1
01419048	0,01	10	58	—	1	0 ÷ 50 ÷ 100	≈1
01419049	0,01	30	58	●	1	0 ÷ 50 ÷ 100	1,5 ÷ 2
01419050	0,01	50	58	●	1	0 ÷ 50 ÷ 100	1,5 ÷ 2

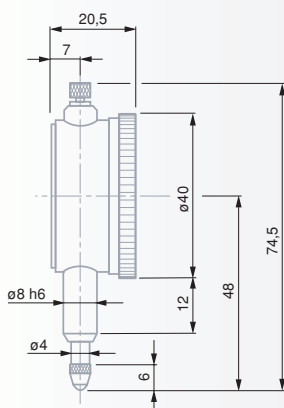
Plunger retraction device

01462003 Lift lever

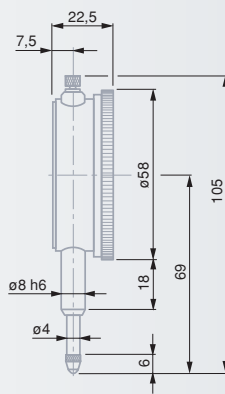
Backs with permanent magnet or central lug, see page E-47.

Maximum permissible errors for a metrological characteristic (MPE)

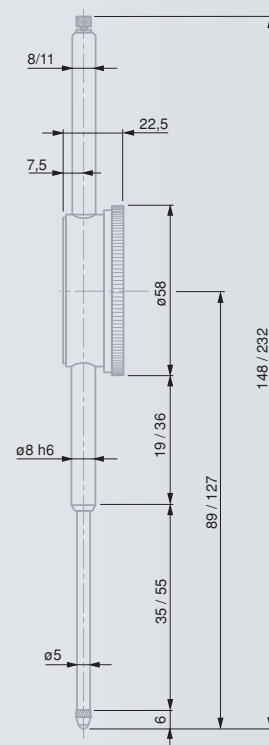
	mm	5	10	30	50
Deviation span	µm	12	15	20	25
Deviation span within the local measuring span of 0,1 mm	µm	6	8	9	12
Repeatability limit	µm	3	3	3	3



01419047



01419048



01419049 - 01419050

ROCH Precision Dial Gauges

0,01 mm reading

Models C 40

The dial gauge N° 0141760560 is the perfect low-cost model.



EN ISO 463
Factory
standard

0,01 mm

2,2 mm

Rotating dial

Full-metal
case housing.
Fixing shank and
plunger in hardened stainless
steel.

With or without
shock proof
mechanism

Adjustable
tolerance
markers.

Measuring insert with
a M2.5 thread.

See table
opposite

Mounted insert
with a 3,175 mm
dia. steel ball tip

Plastic case or
cardboard box

Identification
number

Declaration
of conformity



Regular models

0141760560	0,01	3	3,4	—	0,5	0 ÷ 25 ÷ 50*	≤1,4
0141760561	0,01	3	3,4	—	0,5	0 ÷ 25 ÷ 50*	≤1,4
0141760582	0,01	5	5,4	●	0,5	0 ÷ 25 ÷ 50*	≤1,4

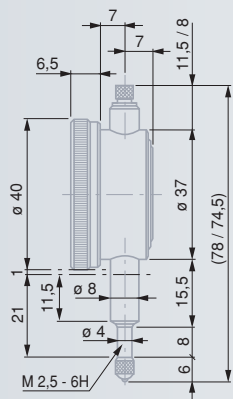
Model with restricted reading range

0141760551	0,01	0,4	4,5	●		20 ÷ 0 ÷ 20	≤1,4
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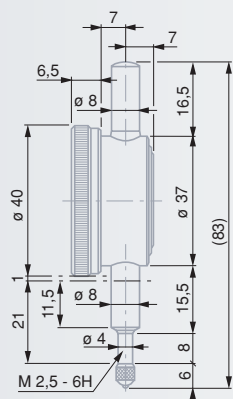
Model IP54 protected against the penetration of liquids

0141760570	0,01	3	3,4	●	0,5	0 ÷ 25 ÷ 50*	≤2
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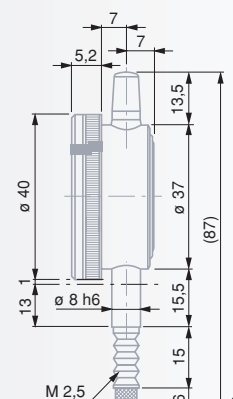
* With extra red tinted reverse numbering.



0141760560
0141760561



0141760551
0141760582



0141760570

Maximum permissible errors for a metrological characteristic (MPE)

	0,01 mm		≤0,8 mm	3 mm	5 mm	10 mm
	Deviation span		7 μm	10 μm	12 μm	15 μm
	Deviation span within the local measuring span of 0,1 mm		5 μm	5 μm	5 μm	5 μm
	Total deviation span		9 μm	12 μm	14 μm	17 μm
	Repeatability limit		3 μm	3 μm	3 μm	3 μm
	Max. hysteresis		3 μm	3 μm	3 μm	3 μm



ROCH Precision Dial Gauges 0,01 mm reading

Models C 58 and C 60

Both models No. 0141760635 and 0141760636 are particularly profitable.



EN ISO 463
Factory standard



0,01 mm



1,5 mm



Rotating dial



Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.



With or without shock proof mechanism



Adjustable tolerance markers.

Model No. 0141760640 with fine adjust mounted under the protective cap for dial reading.
Measuring insert with a M2.5 thread.



For accuracy, see table on page E-43



See table opposite



Mounted insert with a 3,175 mm dia. steel ball tip.

Exceptions:
Models No. 0141760631, 0141761210, 0141761211 have a ruby ball tip.



Plastic case or cardboard box



Identification number



Declaration of conformity

No



mm



mm



mm



mm



mm



mm



mm



N

Regular models

0141760631	58	0,01	10	10,5	—	1	0 ÷ 50 ÷ 100*	≤ 1,4
0141760632	58	0,01	10	10,5	—	1	0 ÷ 50 ÷ 100*	≤ 1,4
0141760635	58	0,01	10	10,5	—	1	0 ÷ 50 ÷ 100*	≤ 1,4
0141760636**	58	0,01	10	10,5	—	1	0 ÷ 50 ÷ 100*	≤ 1,4
0141760640	58	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100*	≤ 1,4
0141761210	60,4	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100*	≤ 1,4
0141761211**	60,4	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100*	≤ 1,4

Model with restricted reading range

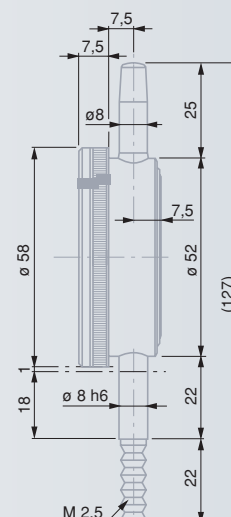
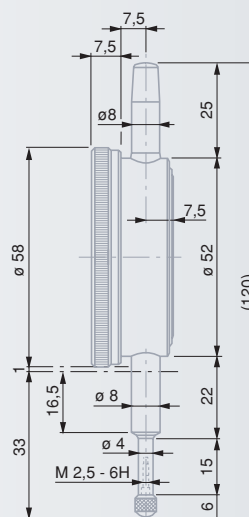
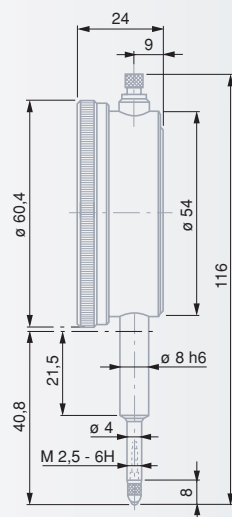
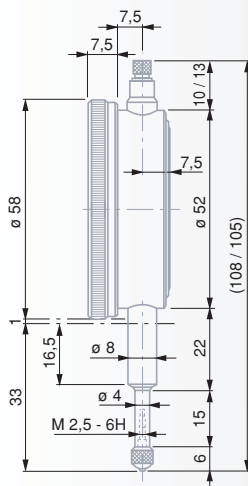
0141760601	58	0,01	±0,4	9,0	●		40 ÷ 0 ÷ 40	≤ 1,4
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Model IP54 protected against the penetration of liquids

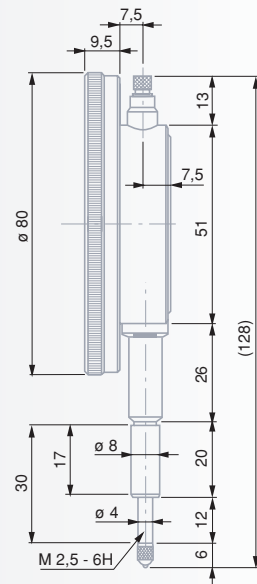
0141760624	58	0,01	10	10,5	●	1	0 ÷ 50 ÷ 100*	≤ 2
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* With extra red tinted reverse numbering.

** With mounted central lug back No. 0351669012 (also refer to page E-47).



ROCH Precision Dial Gauges
0,01 mm reading
Model C 80



EN ISO 463
Factory
standard



Full-metal
case
housing.
Fixing shank and plunger in
hardened stainless steel



Measuring insert with
a M2.5 thread.



Deviation span:
15 µm.
Deviation span within the
local measuring span of
0,1 mm: 5 µm.
Total deviation span:
19 µm



Mounted insert
with a 3,175 mm
dia. steel ball tip



Regular model

0141761221	0,01	10	10,4	-	1	0 ÷ 50 ÷ 100*	≤1,4
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* With extra red tinted reverse numbering.

ROCH Precision Dial Gauges with a Long Range,
0,01 mm reading
Models C 58, C 60 and C 80



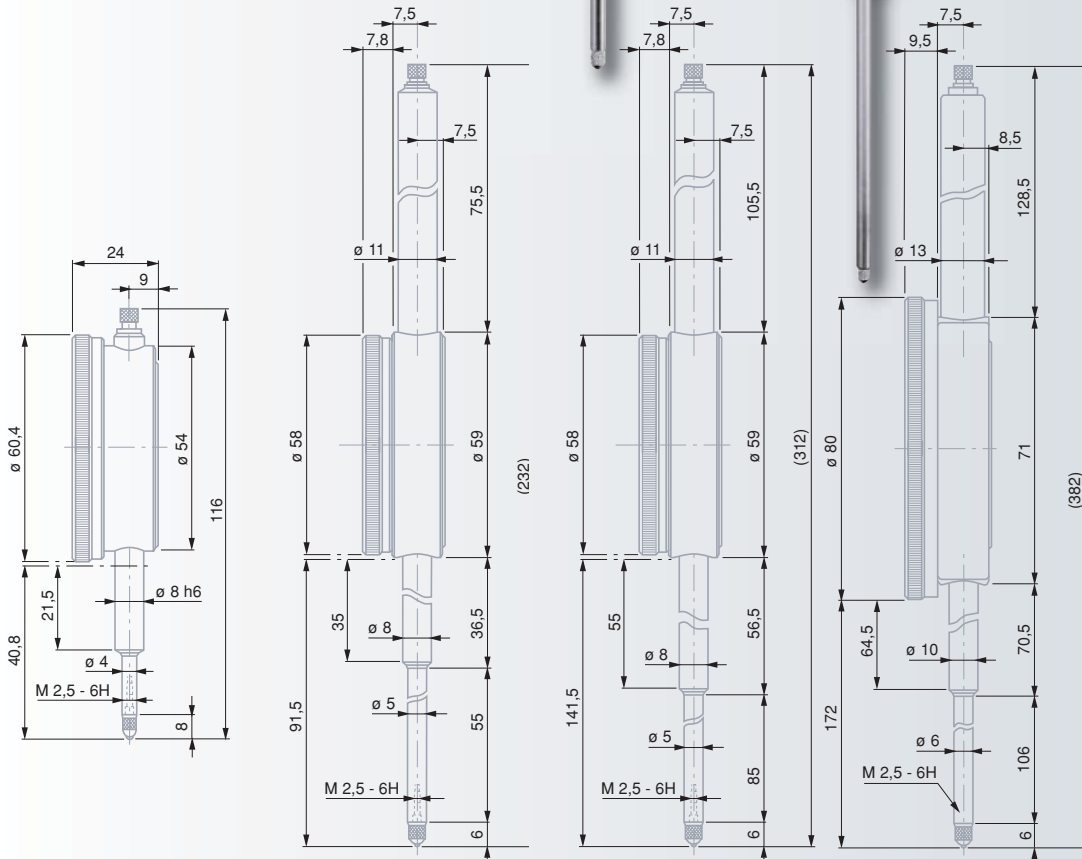
Regular models

0141761213	60,4	0,01	15	15,5	●	1	0 ÷ 50 ÷ 100*	≤1,6
0141761214**	60,4	0,01	15	15,5	●	1	0 ÷ 50 ÷ 100*	≤1,6
0141760651	58	0,01	30	30,5	-	1	0 ÷ 50 ÷ 100	≤1,6
0141760652***	58	0,01	30	30,5	-	1	0 ÷ 50 ÷ 100	≤1,6
0141760653	58	0,01	30	30,5	●	1	0 ÷ 50 ÷ 100	≤1,6
0141760661	58	0,01	50	51	-	1	0 ÷ 50 ÷ 100	≤2,2
0141760662***	58	0,01	50	51	-	1	0 ÷ 50 ÷ 100	≤2,2
0141760663	58	0,01	50	51	●	1	0 ÷ 50 ÷ 100	≤2,2
0141760671	58	0,01	80	81	-	1	0 ÷ 50 ÷ 100	≤3,0
0141761224	80	0,01	100	100,5	-	1	0 ÷ 50 ÷ 100	≤3,5

* With extra red tinted reverse numbering.

** With mounted central lug back No. 0351669012 (also report to page E-47).

*** Counterclockwise numbering.



0141761213
0141761214

0141760651 – 0141760652
0141760653

0141760661 – 0141760663
0141760662 – 0141760671

0141761224



EN ISO 463
Factory standard



0,01 mm



1,5 mm
(C 58 or C 60)
2,2 mm
(C 80)



Rotating dial



Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.



With or without shock proof system



Adjustable tolerance markers.
Measuring insert with a M2.5 thread.



In order to eliminate any hysteresis when measuring with the plunger moving downward, this feature has to be coupled on the measuring points, directly.



See table on the previous page E-45



Mounted insert with a 3,175 mm dia. steel ball tip.

Exceptions:
Models No. 0141761213 and 0141761214 fitted with a ruby ball tip



Cardboard box



Identification number



Declaration of conformity

Maximum permissible errors for a metrological characteristic (MPE)

			≤ 30 mm	50 mm	80 mm	100 mm
Deviation span	0,01 mm		20 μ m	25 μ m	30 μ m	35 μ m
Deviation span within the local measuring span of 0,1 mm			5 μ m	5 μ m	5 μ m	8 μ m
Repeatability limit			3 μ m	3 μ m	3 μ m	8 μ m



EN ISO 463
Factory
standard

0,001 mm

1,1 mm
(0141761261)
2,2 mm
(0141761262)

Rotating dial

Full-metal
case housing.
Fixing shank and
plunger in hardened stainless
steel.

With shock proof
mechanism

Adjustable
tolerance
markers.
Measuring insert with
a M2.5 thread.

See table
opposite

Mounted insert
with a 3,175 mm
dia. steel ball tip

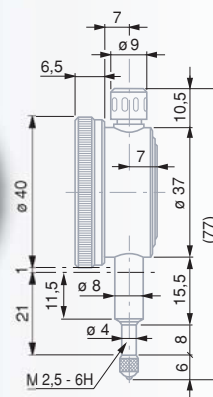
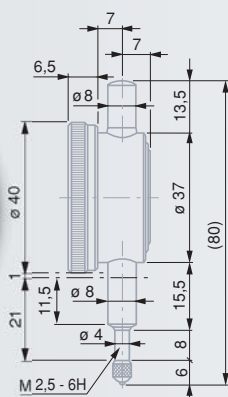
Suited
plastic case

Identification
number

Declaration
of conformity

ROCH Precision Dial Gauges 0,001 mm reading

Models C 40



Regular models

0141761261	0,001	1	1,1	●	0,2	0 ÷ 100/0 ÷ 100*	≤ 1,5
0141761262	0,001	1	1,1	●	0,1	0 ÷ 50 ÷ 100*	≤ 1,2

* With extra red tinted reverse numbering.

Maximum permissible errors for a metrological characteristic (MPE)



0,001 mm



1 mm



Deviation span

5 μm



Deviation span within the local
measuring span of 0,01 mm

3 μm



Total deviation span

7 μm



Repeatability limit

3 μm



Max. hysteresis max.

3 μm

Backs for ROCH or ETALON Basic Precision Dial Gauges



Bezel
diameter



Back
diameter

Magnetic
face



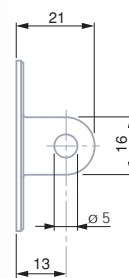
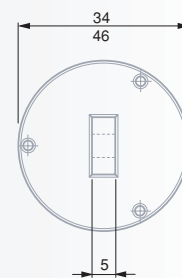
L mm

Central lug backs

01462004	40 mm	34 mm
01462005	58, 60, 80 mm	46 mm

Magnetic backs with permanent magnets

01462000	40 mm	34 mm	34 mm	14,5 mm
01462001	58, 60, 80 mm	46 mm	46 mm	17 mm



ROCH Precision Dial Gauges 0,001 mm reading Models C 58 and C 80



EN ISO 463
Factory standard



0,001 mm



0,8 mm
(No. 0141761281,
0141761282
and 0141761283)
1,5 mm (No 0141761284
and 0141761291)



Rotating dial



Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.



With or without shock proof system



Adjustable tolerance markers.
Measuring insert with a M2.5 thread.

Measuring insert with a M2.5 thread.



For accuracy, see table on previous page E-47



See table opposite



Mounted insert with a 3,175 mm dia. steel ball tip



Suited plastic case



Identification number



Declaration of conformity



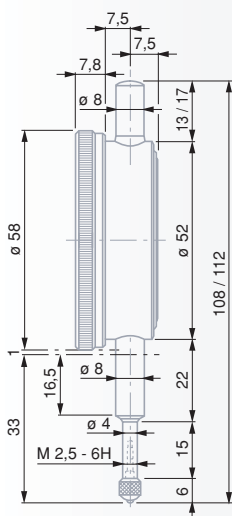
Regular models

No	mm	mm	mm	mm	mm	mm	mm	N
0141761282	58	0,001	1	1,1	—	0,2	0 ÷ 100/0 ÷ 100*	≤ 1,5
0141761283	58	0,001	1	1,1	●	0,2	0 ÷ 100/0 ÷ 100*	≤ 1,5
0141761284	58	0,001	1	1,1	●	0,1	0 ÷ 50 ÷ 100*	≤ 1,5
0141761291	80	0,001	1	1,1	—	0,2	0 ÷ 100/0 ÷ 100*	≤ 2,5

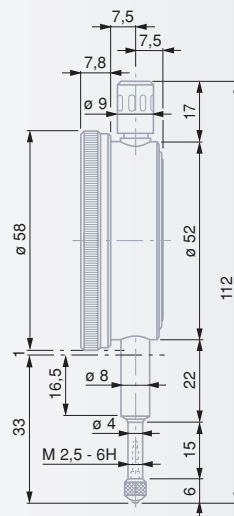
Models IP54 protected against the penetration of liquids

0141761281	58	0,001	1	1,1	●	0,2	0 ÷ 100/0 ÷ 100*	≤ 2,0
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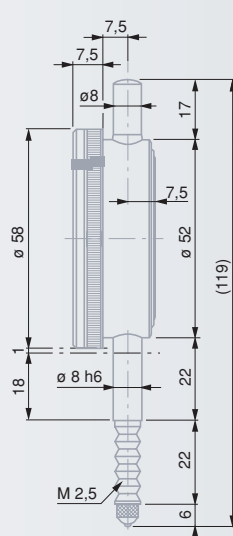
* With extra red tinted reverse numbering.



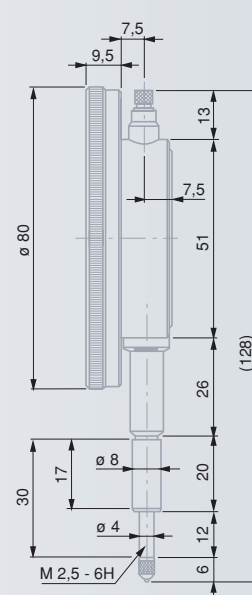
0141761282
0141761283



0141761284



0141761281



0141761291

ROCH Precision Dial Gauges 0,01 mm reading

Models C 40, C 58 and C 80



EN ISO 463
Factory standard

0,1 mm

1,1 mm (C 40)
1,5 mm (C 58)
2,2 mm (C 80)

Rotating dial

Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.

Without shock proof mechanism

Measuring insert with a M2,5 thread

See table opposite

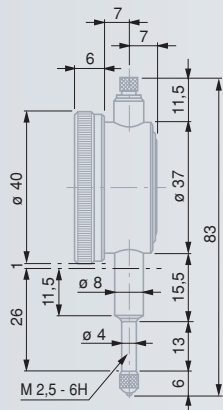
Mounted insert with a 3,175 mm dia. steel ball tip

Suited plastic case

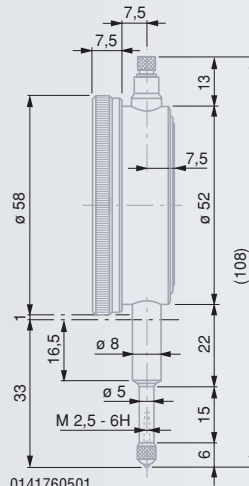
Identification number

Declaration of conformity

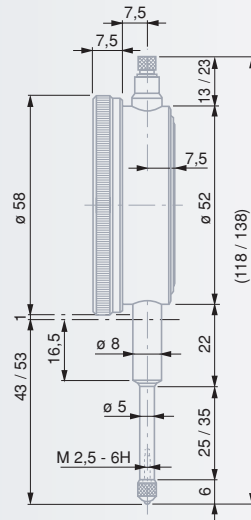
	mm	mm	mm	mm	mm	mm	N
Regular models							
0141760500	40	0,1	10	10,5	–	10	0 ÷ 5 ÷ 10 ≤ 1,0
0141760501	58	0,1	10	10,5	–	10	0 ÷ 5 ÷ 10 ≤ 1,0
0141760502	58	0,1	20	20,5	–	10	0 ÷ 5 ÷ 10 ≤ 1,0
0141760503	58	0,1	30	30,5	–	10	0 ÷ 5 ÷ 10 ≤ 1,5
0141760513	80	0,1	30	30,5	–	10	0 ÷ 5 ÷ 10 ≤ 2,0



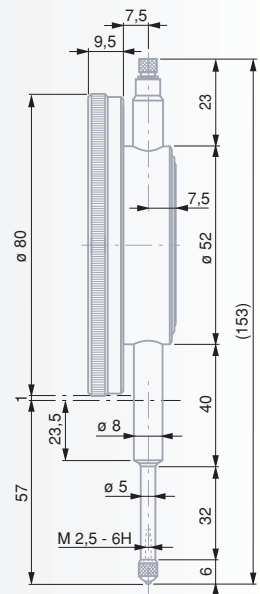
0141760500



0141760501



0141760503
Same as model:
0141760502



0141760513

Maximum permissible errors for a metrological characteristic (MPE)

	0,1 mm		10 mm
	Deviation span		40 µm
	Deviation span within the local measuring span of 1 mm		25 µm
	Total deviation span		55 µm
	Repeatability limit		15 µm
	Max. hysteresis		15 µm



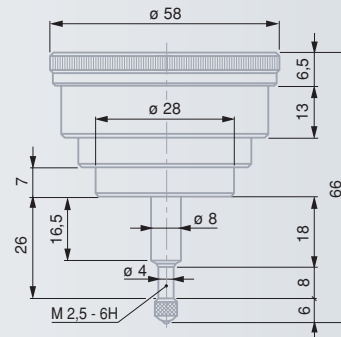
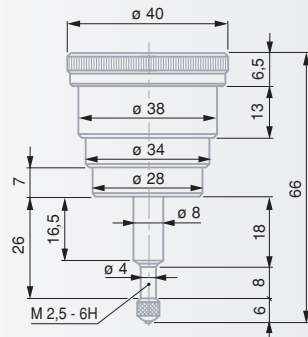
ROCH Precision Dial Gauges 0,01 mm reading

Models C 40 and C 58 with back mounted plunger



No	mm	mm	mm	mm	mm	mm	mm	N
<i>Regular models</i>								
0141760566	40	0,01	3	3,5	–	0,5	0 ÷ 25 ÷ 50*	≤1,2
0141760611	58	0,01	5	5,5	–	1	0 ÷ 50 ÷ 100*	≤1,5

* With extra red tinted reverse numbering.



Maximum permissible errors for a metrological characteristic (MPE)

	0,01 mm		3 mm	5 mm
	Deviation span		12 µm	17 µm
	Deviation span with the local measuring span of 0,1 mm		5 µm	5 µm
	Total deviation span		15 µm	20 µm
	Repeatability limit		5 µm	5 µm
	Max. hysteresis		15 µm	15 µm



EN ISO 463
Factory standard



0,01 mm



2,2 mm (C 40)
1,5 mm (C 58)



Rotating dial



Full-metal case housing.
Fixing shank and plunger in hardened stainless steel.



Without shock proof system



Adjustable tolerance markers.
Measuring insert with a M2,5 thread.



See table opposite



Mounted insert with a 3,175 mm dia. steel ball tip



Cardboard box



Identification number



Declaration of conformity