

Inch Reading Precision Dial Gauges

Technical data for Inch Reading Precision Dial Gauges with metric stem-Ø and thread size

Page	Model	Reading	Range per revolution	Dial Reading	Range	Bezel-Ø	Stem-Ø	Special Feature
63	MU 28 ZO	.0005"	.020"	0–20	.140"	28 mm	8 mm h 6	
63	KZO 6 T	.0005"	.020"	0–20	.120"	32 mm	8 mm h 6	
–	KZO 4 T	.001"	.020"	0–20	.120"	40 mm	8 mm h 6	
–	KZO 4 R	.001"	.020"	0–20	.120"	40 mm	8 mm h 6	Back Plunger
–	KZO 4/5 SW	.001"	.100"	0–100	.200"	44.5 mm	8 mm h 6	Waterproof
–	ZO 2 T	.001"	.100"	0–100	.500"	58 mm	8 mm h 6	
–	ZO 2 S	.001"	.100"	0–100	.400"	58 mm	8 mm h 6	Shockproof
–	SI-90 Z	.001"	–	40–0–40	.080"	58 mm	8 mm h 6	Error Free
–	ZO 2/30 T	.001"	.100"	0–100	1.000"	58 mm	8 mm h 6	
–	ZO 2/50 T	.001"	.100"	0–100	2.000"	58 mm	8 mm h 6	
62	ZO 3 T	.0005"	.050"	0–50	.500"	58 mm	8 mm h 6	
62	ZO 3 S	.0005"	.050"	0–50	.400"	58 mm	8 mm h 6	Shockproof
–	ZO 3/30 T	.0005"	.050"	0–50	1.000"	58 mm	8 mm h 6	
–	ZO 3/50 T	.0005"	.050"	0–50	2.000"	58 mm	8 mm h 6	
–	ZO 3 R	.0005"	.050"	0–50	.120"	58 mm	8 mm h 6	Back Plunger
–	ZO 3/5 R	.0005"	.050"	0–50	.200"	58 mm	8 mm h 6	Back Plunger
–	ZO 3 SNW	.0005"	.050"	0–50	.400"	61.5 mm	8 mm h 6	Waterproof
–	GZ 80 T	.0005"	.050"	0–50	.500"	80 mm	8 mm h 6	
–	GZ 100 T	.0005"	.050"	0–50	.500"	100 mm	8 mm h 6	
–	KFZO T	.0001"	.010"	0–10	.040"	40 mm	8 mm h 6	
–	KFZO S	.0001"	.010"	0–10	.040"	40 mm	8 mm h 6	Shockproof
–	KFZO 1101	.00005"	.005"	0–50	.040"	40 mm	8 mm h 6	Shockproof, extra accurate movement
–	SI-914 ZO	.00005"	–	20–0–20	.004"	40 mm	8 mm h 6	Error Free, extra accurate movement
64	FZO T	.0001"	.010"	0–10	.040"	58 mm	8 mm h 6	
64	FZO 5 T	.0001"	.010"	0–10	.200"	58 mm	8 mm h 6	
–	FZO 1101	.00005"	.005"	0–50	.040"	58 mm	8 mm h 6	Shockproof, extra accurate movement
–	SI-915 ZO	.00005"	–	20–0–20	.004"	58 mm	8 mm h 6	Error Free, extra accurate movement
–	FZ 80 T	.0001"	.010"	0–10	.040"	80 mm	8 mm h 6	
–	FZ 80/5 T	.0001"	.010"	0–10	.200"	80 mm	8 mm h 6	

All models of the above table have a stem-diameter of 8 mm h 6 and a thread M 2.5. The Dial Gauges will be supplied with flat backs. A mounting lug is available at extra charge.

Inch Reading Dial Gauges are also available with measurements equivalent to the American Standard ANSI B89.1.10M-2001. These instruments have a stem-Ø of $\frac{3}{8}$ ", the thread for the contact point is 4/48 UNF. For details concerning this Dial Gauge series please see the table on pages 65 and 66.



Inch Dial Gauge Z0 3 T

Inch Dial Gauge Z0 3 S

shockproof

The Dial Gauges Z0 3 T and Z0 3 S will be supplied with continuous dial reading and flat backs. On request balanced dials and lug backs are available at extra charge.

Due to its effective shockproof system the Dial Gauge Z0 3 S has an exceptionally long service life. A gear rack sleeve covering the length of the spindle is arranged and sprung in such a way that the shocks against the measuring insert are not transferred to the measuring gear. An additional feature of this Dial Gauge is the incorporated fine adjustment of the pointer. By turning the knurled screw at the top, the large hand can be easily set to 0 without turning the bezel and the outer dial.

DIN-standard 878 applies to all permissible deviation spans analogous.

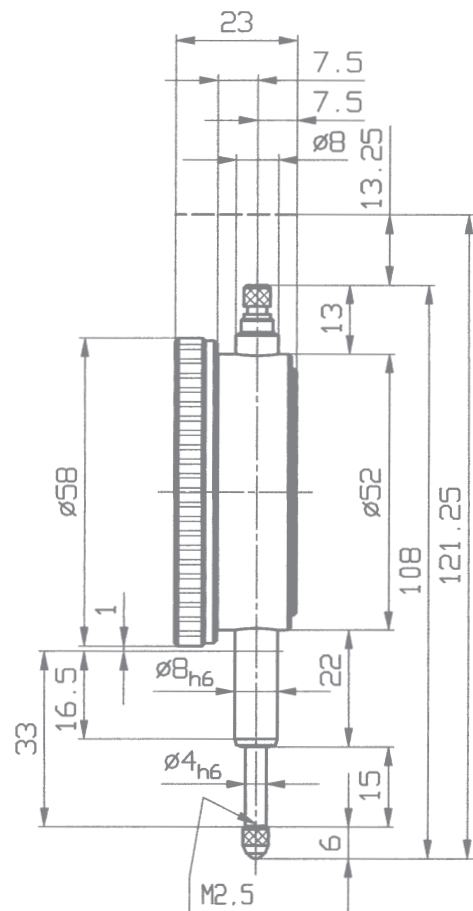
Spindle and stem are made of resistant stainless steel. The spindle is lapped.

Inch Dial Gauge Z0 3 T	
Reading	.0005"
Range	.500"
Range per revolution	.050"
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to DIN EN ISO 463/DIN 878	
Initial measuring force	0.8 N ± 20%
Dimensioned drawing	page 62

Inch Dial Gauge Z0 3 S shockproof	
Reading	.0005"
Range	.400"
Range per revolution	.050"
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to DIN EN ISO 463/DIN 878	
Initial measuring force	0.9 N ± 20%
Dimensioned drawing	same as M 2 S on page 14



Model shown: Z0 3 T

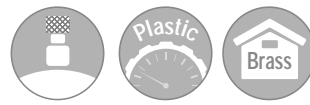


Special fittings:

62



Only for Z0 3 T



Small Inch Dial Gauge MU 28 ZO

The Dial Gauge MU 28 ZO is the smallest model of our broad manufacturing programme. Its extremely small overall dimensions require a special adjustment procedure according to a manufacturing standard.

Spindles and stems of the Small Dial Gauges MU 28 ZO and KZO 6 T are made of resistant stainless steel. The spindles are lapped.

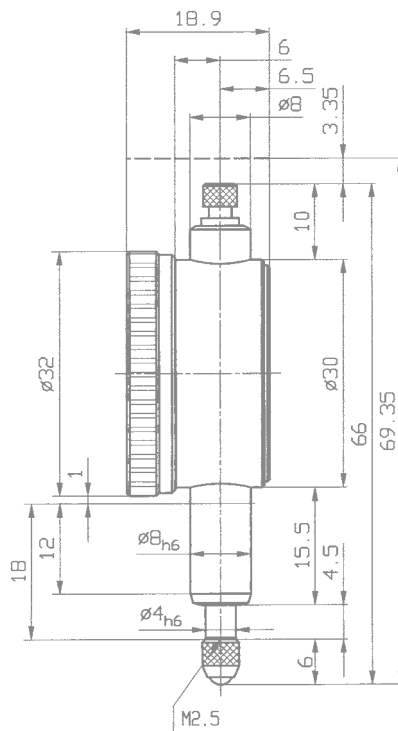
Small Inch Dial Gauge MU 28 ZO	
Reading	.0005"
Range	.140"
Range per revolution	.020"
Bezel-Ø	28 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to	DIN EN ISO 463 / manufacturing standard 4.0000.9.0012
Initial measuring force	0.8 N ± 20%
Dimensioned drawing	same as model MU 28 page 24

Small Inch Dial Gauge KZO 6 T

On request the Small Dial Gauge KZO 6 T is also available with special fittings:

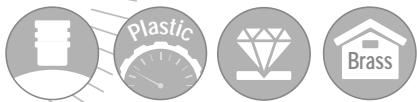
- KZO 6 T with lifting device
- KZO 6 T with lug back
- KZO 6 T with customized dial

Small Inch Dial Gauge KZO 6 T	
Reading	.0005"
Range	.120"
Range per revolution	.020"
Bezel-Ø	32 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to	DIN EN ISO 463/DIN 878
Initial measuring force	0.7 N ± 20%
Dimensioned drawing	page 63



Special fittings for KZO 6 T:





Inch Dial Gauge FZO T

The carefully thought-out design, the use of selected components and materials as well as the movement perfected by precision engineering guarantee reliable measuring results and a long service life of our Precision Dial Gauges.

Spindle and stem are made of resistant stainless steel. The spindle is lapped.

Inch Dial Gauge FZO T	
Reading	.0001"
Range	.040"
Range per revolution	.010"
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to	DIN EN ISO 463 / manufacturing standard 0.0800.9.0005
Initial measuring force	1.3 N ± 20%
Dimensioned drawing	page 64



Inch Dial Gauge FZO 5 T

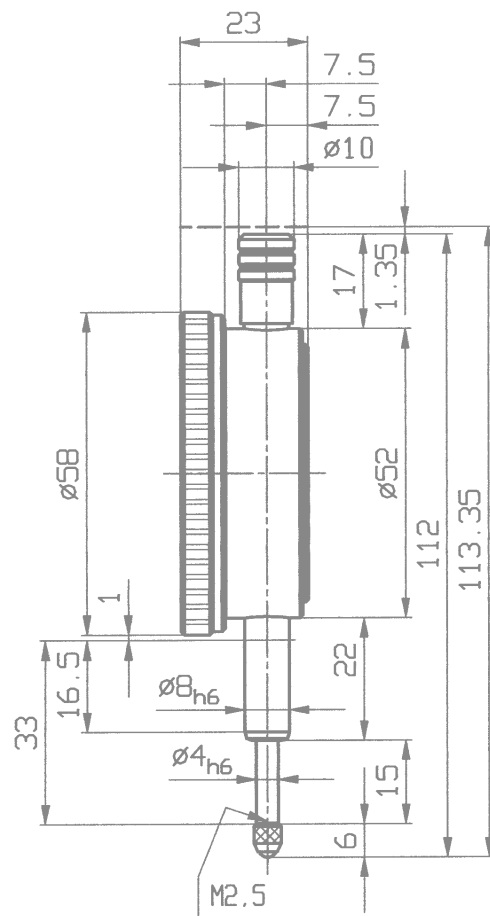
The carefully thought-out design, the use of selected components and materials as well as the movement perfected by precision engineering guarantee reliable measuring results and a long service life of our Precision Dial Gauges.

Spindle and stem are made of resistant stainless steel. The spindle is lapped.

Inch Dial Gauge FZO 5 T	
Reading	.0001"
Range	.200"
Range per revolution	.010"
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to	DIN EN ISO 463 / manufacturing standard 0.0800.9.0005
Initial measuring force	1.4 N ± 20%
Dimensioned drawing	on request



Model shown: FZO T



Special fittings:



Additional Equipment for Mechanical Dial Gauges

Locking screw

The knurled bezel on Dial Gauges can be turned with the outer dials. This allows zero point adjustment.

In order to avoid unintentional adjustment, Dial Gauges can be supplied with locking plate and knurled screw at extra charge for the purpose of locking the bezel.

Following Dial Gauges are available with the locking screw:

- range not greater than 80 mm
- no model of the X series
- bezel-Ø 40 or 58 mm

Retrofitting of this device to existing Dial Gauges is not possible.

Slave Pointer

On Dial Gauges with slave pointer facility, the displayed measured value remains visible after the dial gauge pointer returns to its original setting, because the additional pointer dragged along with it stays at the position from where the main pointer returns.

It must be noted that the slave pointer facility is only effective within one pointer revolution.

Following Dial Gauges without concentric small hands are available with a slave pointer device:

- reading 0.1 or 0.01 mm
- not shockproof
- bezel Ø 40 or 58 mm

Retrofitting of this device to existing Dial Gauges is possible.

Lifting Device

The lifting lever permits quick lifting of the spindle. The lever itself can be swivelled and permits its use in the most comfortable position.

Lifting devices are available in 2 sizes for Dial Gauges with ranges up to 10 mm and for Dial Gauge models with range of 30 mm.

Following Dial Gauges are available with lifting device:

- range up to 10 mm
- bezel Ø 40 or 58 mm
- range up to 30 mm
- bezel Ø 58 mm

Retrofitting of this device is possible on condition that the Dial Gauge is not fitted with a protection sleeve and that it is not a model of the X-series.



Additional Equipment for Mechanical Dial Gauges



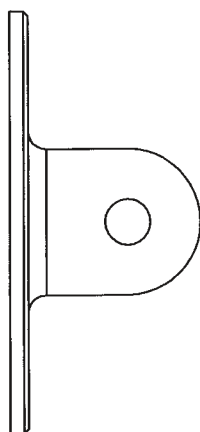
Magnetic Back

Magnetic backs allow Dial Gauges to be used without a holder and without a stand. The magnet, made of sinter metal does in no way affect the mechanism of the Dial Gauge.

Magnetic backs are available in 2 sizes for the following Dial Gauges:

- Dial Gauges with 40 mm (1 9/16") Ø
- Dial Gauges with 58 mm (2 1/4") Ø or larger

Retrofitting of magnetic backs is possible.



Lug Back

Lug backs are available in 3 sizes for:

- Dial Gauges with 32 mm (1 13/50") Ø
- Dial Gauges with 40 mm (1 9/16") Ø
- Dial Gauges with 58 mm (2 1/4") Ø or larger.

The standard bore diameter in the fixing lug is 5 mm. Delivery of Dial Gauges conforming to American standards with 1/4" bore diameter. On request a bore diameter of 6 mm is also possible.

Retrofitting of lug backs is possible.

Offset lug backs are available on request.

Special Backs

All standard model Dial Gauges will be delivered with flat backs. Delivery of special back versions on request. Retrofitting is possible.

Post type backs with post Ø 12.7 mm (.500")

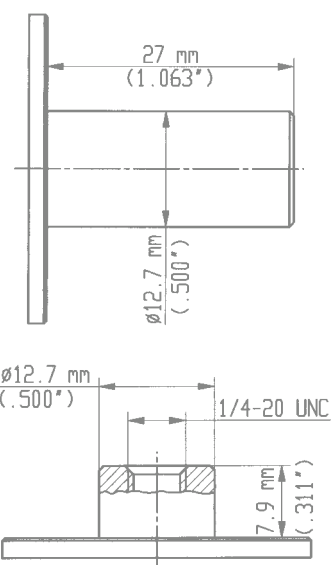
- Back with drawing number 020603/2 is for models AGD1 (40 mm Ø)
- Back with drawing number 020603/1 is for models AGD 2 (58 mm Ø)

Screw type backs with female thread 1/4-20UNC

- Back with drawing number 020603/4 is for models AGD1 (40 mm Ø)
- Back with drawing number 020603/3 is for models AGD 2 (58 mm Ø)

Back with adjustable bracket

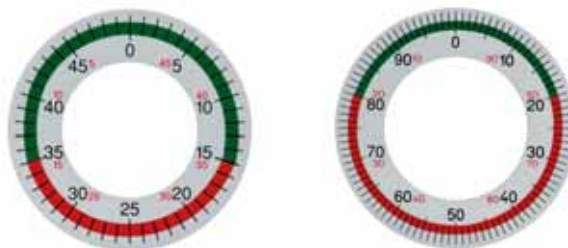
- Back with drawing number 020308/3 is for models AGD 2 (58 mm Ø)



Special Dials for mechanical Dial Gauges

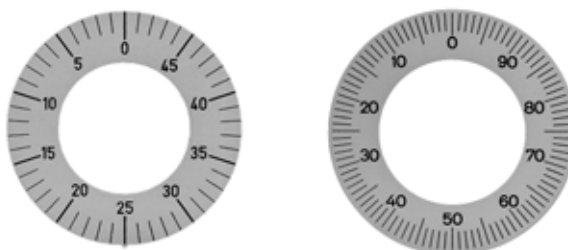
Dials with coloured tolerance segments

The colours red, green and yellow are available. Please indicate in your order text what segments of the dial should be marked red, green or yellow.



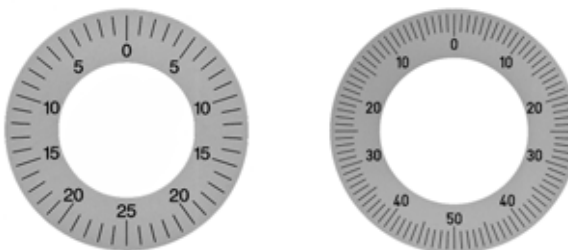
Dials for anti-clockwise reading

Unless otherwise stated on the order both the inner and outer dials are supplied for anti-clockwise reading.



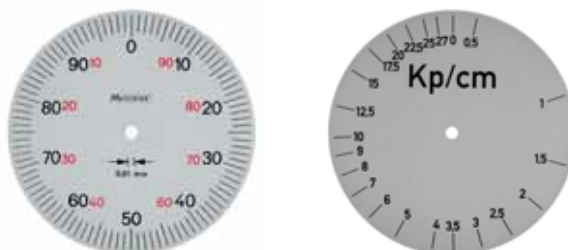
Balanced Dials

Unless otherwise stated on the order only the outer dial is supplied with balanced numbers. The inner dial is supplied with numbers for clockwise reading.



Custom-made Dials

We can supply custom-made dials with special logos, with special numbers, with special imprints and in special colours. Both the inner and outer dials can be supplied in custom-made versions.



Special dials are available for many models but not for all Dial Gauges. Please request our offers.