

Error Free Dial Gauges

with overtravel and limited measuring range

In order to avoid reading errors the measuring range of these Dial Gauges is limited to slightly less than one revolution of the pointer. Therefore a measurement can only be performed within the range of one revolution of the hand guaranteeing error free reading of the Dial Gauge.

The following quality features apply with exception of model SI-9/0.1 to our entire manufacturing programme of Error Free Dial Gauges:

- The large overtravel assists with the insertion of test pieces into the measuring device.
- The circular scale can only be rotated by 36° (Except model MU 52 ST-SI: bezel rotatable by 360°)
- Double safeguard for the limitation of the measuring range:
 - a) Stop in the movement
 - b) Stop on the facet ring (Except model MU 52 ST-SI)
- Effective impact protection

Error Free Dial Gauges designated with capital letter W in the order code are waterproof. A detailed description of the model series of Waterproof Dial Gauges can be found on pages 53 to 59 of the catalogue.

The Dial Gauge SI-90 X from our series X incorporates quality injection moulded components combined with conventional metal components. This design concept offers high precision model SI-90 X having very low weight.

Technical data for Metric Error Free Dial Gauges

Model	Reading	Range	Dial Reading	Overtravel	Bezel-Ø	Accuracy according to
SI-9/0.1	0.1 mm	8 mm	4 - 0 - 4	–	58 mm	Manufacturing standard 0.0100.9.0004
SI-45	0.01 mm	0.4 mm	20 - 0 - 20	4.5 mm	40 mm	DIN 878
SI-45/0.8	0.01 mm	0.8 mm	40 - 0 - 40	4 mm	40 mm	DIN 878
SI-50	0.01 mm	0.5 mm	25 - 0 - 25	4.5 mm	58 mm	DIN 878
SI-90	0.01 mm	0.8 mm	40 - 0 - 40	9 mm	58 mm	DIN 878
MU 52 ST-SI	0.01 mm	0.8 mm	40 - 0 - 40	7 mm	58 mm	DIN 878
M 2 TOP SI	0.01 mm	0.8 mm	40 - 0 - 40	7 mm	58 mm	DIN 878
SI-90 X	0.01 mm	0.8 mm	40 - 0 - 40	7 mm	58 mm	DIN 878
SI-100	0.01 mm	1.0 mm	50 - 0 - 50	9 mm	58 mm	DIN 878
SI-18	0.01 mm	1.6 mm	80 - 0 - 80	8 mm	58 mm	Manufacturing standard 0.4223.9.0008
M 3 a SI	0.005 mm	0.4 mm	20 - 0 - 20	4.5 mm	58 mm	DIN 878
KM 500 SI	0.002 mm	0.16 mm	80 - 0 - 80	4.5 mm	40 mm	Manufacturing standard 0.0500.9.0001
FM 500 SI	0.002 mm	0.16 mm	80 - 0 - 80	4.5 mm	58 mm	Manufacturing standard 0.0500.9.0001
Feinika SI-914	0.001 mm	0.08 mm	40 - 0 - 40	3 mm	40 mm	Manufacturing standard 0.0500.9.0010
Feinika SI-910	0.001 mm	0.1 mm	50 - 0 - 50	3 mm	40 mm	Manufacturing standard 0.0500.9.0010
Feinika SI-915	0.001 mm	0.08 mm	40 - 0 - 40	4.5 mm	58 mm	Manufacturing standard 0.0500.9.0010
Feinika SI-916	0.001 mm	0.1 mm	50 - 0 - 50	4.5 mm	58 mm	Manufacturing standard 0.0500.9.0010
SI-180	0.001 mm	0.16 mm	80 - 0 - 80	4.5 mm	58 mm	Manufacturing standard 0.0500.9.0001
Feinika SI-918	0.001 mm	0.16 mm	80 - 0 - 80	4.5 mm	58 mm	Manufacturing standard 0.0500.9.0010

Dimensions of all models according to DIN EN ISO 463.

Error Free Dial Gauge SI-45

shockproof, with overtravel

Error Free Dial Gauge SI-45/0.8

shockproof, with overtravel

Due to their high-class impact protection the Error Free Dial Gauges SI-45 and SI-45/0.8 offer an extremely 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. The Dial Gauges are robust in operation. Their precision is maintained with practically no limitations.

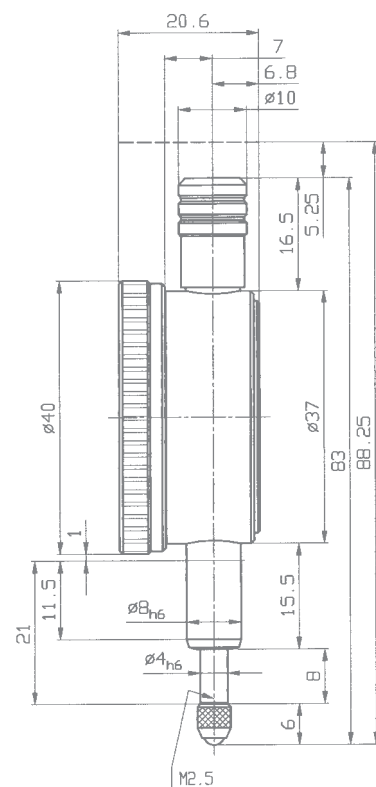
Spindle and stem are made of resistant stainless steel. The spindle is lapped.

Error Free Dial Gauge SI-45 shockproof, with overtravel	
Reading	0.01 mm
Range	0.4 mm
Overtravel	4.5 mm
Bezel-Ø	40 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to DIN EN ISO 463/DIN 878	
Initial measuring force	1 N
Dimensioned drawing	page 48

Error Free Dial Gauge SI-45/0.8 shockproof, with overtravel	
Reading	0.01 mm
Range	0.8 mm
Overtravel	4 mm
Bezel-Ø	40 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to DIN EN ISO 463/DIN 878	
Initial measuring force	0.8 N
Dimensioned drawing	page 48



Model shown: SI-45



On request the Safety Dial Gauges SI-45 and SI-45/0.8 can also be supplied as waterproof version. Their model designations are SI-45 W and SI-45/0.8 W. Please note that in this case the dimensions of the above drawing do not apply.

Error Free Dial Gauge SI-90

shockproof

Due to their effective shockproof system these Dial Gauges have an exceptionally long service life. A gear rack sleeve covering the length of the spindle is arranged and sprung in such a way that shocks against the measuring insert are not transferred to the movement. The Dial Gauges are robust in operation. Their precision is maintained with practically no limitations.

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

Error Free Dial Gauge SI-18

shockproof

Error Free Dial Gauge SI-90 shockproof, with overtravel	
Reading	0.01 mm
Range	0.8 mm
Overtravel	9 mm
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
Dimensioned drawing	page 50

Error Free Dial Gauge SI-18 shockproof, with overtravel	
Reading	0.01 mm
Range	1.6 mm
Overtravel	8 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to DIN EN ISO 463 / manufacturing standard 0.4233.9.0008	
Initial measuring force	0.8 N
Dimensioned drawing	page 50



Error Free Dial Gauge SI-100

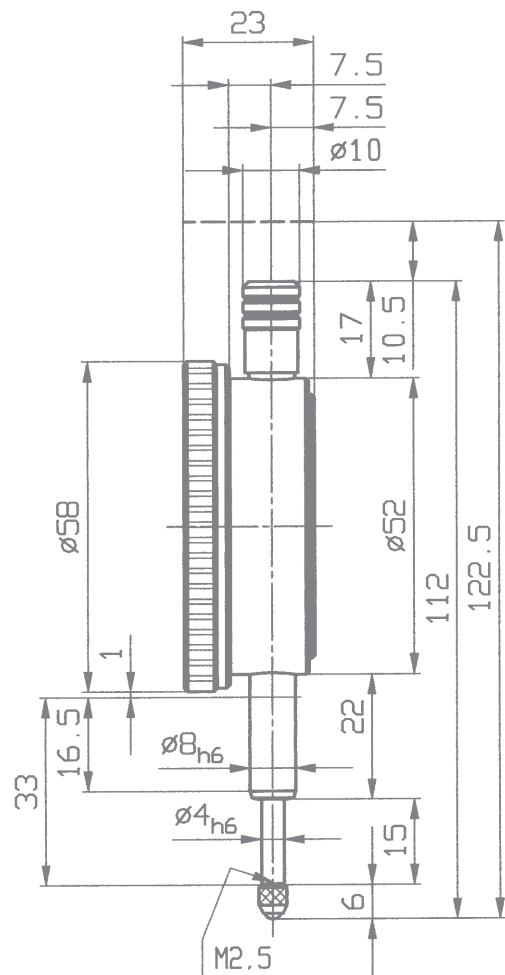
shockproof, with overtravel

Due to its high-class impact protection the Safety Dial Gauge SI-100 offers an extremely 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. The Dial Gauge is robust in operation. Its precision is maintained with practically no limitations.

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

Error Free Dial Gauge SI-100 shockproof, with overtravel

Reading	0.01 mm
Range	1.0 mm
Overtravel	9 mm
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
Dimensioned drawing	page 50



Error Free Dial Gauge MU 52 ST – SI

shockproof, with overtravel

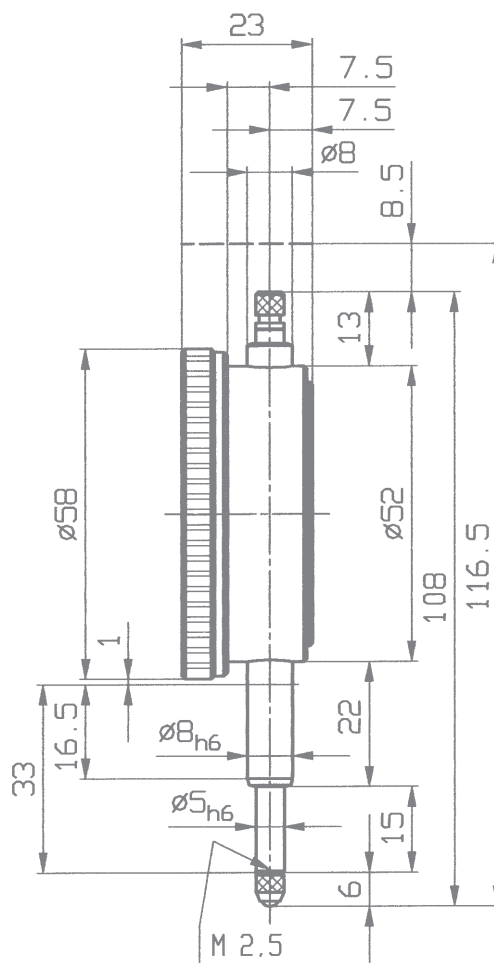
Except for the limited measuring range all technical features of model MU 52 ST – SI are the same as for model MU 52 ST shown on catalogue page 13.

The bezel of model MU 52 ST – SI can be rotated through 360°.

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



Error Free Dial Gauge MU 52 ST - SI	
shockproof, with over travel	
Reading	0.01 mm
Range	0.8 mm
Overtravel	7 mm
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
Dimensioned drawing	page 51



Error Free Dial Gauge Feinika SI-914

shockproof, with overtravel

Error Free Dial Gauge Feinika SI-915

shockproof, with overtravel

Dial Gauges Feinika possess a movement similar to that of Comparator Gauges. The combined gear and lever transmission guarantees high accuracy and low hysteresis. Dial Gauges Feinika are therefore best suited as error free 0.001 mm-reading Dial Gauges.

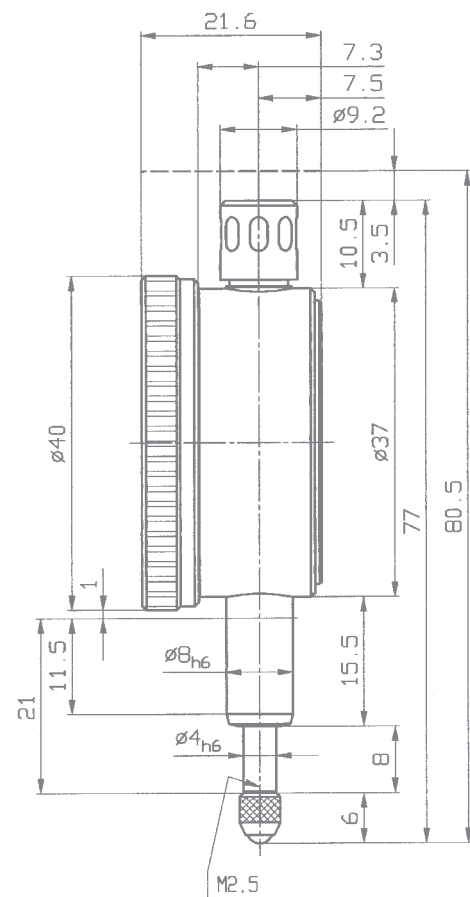
Dial Gauges Feinika are supplied as standard version with lifting bush and metal bezel. The spindle is lapped.

Error Free Dial Gauge SI-914 shockproof, with overtravel	
Reading	0.001 mm
Range	0.08 mm
Overtravel	3.5 mm
Bezel-Ø	40 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to	DIN EN ISO 463 / manufacturing standard 0.0500.9.0010
Initial measuring force	0.7 N
Dimensioned drawing	page 52

Error Free Dial Gauge SI-915 shockproof, with overtravel	
Reading	0.001 mm
Range	0.08 mm
Overtravel	4.5 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Dimensions and accuracy according to	DIN EN ISO 463 / manufacturing standard 0.0500.9.0010
Initial measuring force	1.2 N
Dimensioned drawing	on request



Model shown: SI 914



On request the Error Free Dial Gauges SI-914 and SI-915 can also be supplied as waterproof version. Their model designations are SI-914 W and SI-915 W. Please note that in this case the dimensions of the above drawing do not apply.