

Thickness Dial Gauges



Your partner for highest precision.

Thickness Gauges



Technical Data for Metric Thickness Gauges

Page	Model	Reading mm	Range mm	Depth of jaw mm	Lifting device	Contact points standard	Contact points available on request
134	K 15	0.1	10	15	no	6.35 mm Ø flat	} 10 mm Ø flat, convex or spherical
134	K 15/2	0.1	20	15	no	6.35 mm Ø flat	
118	K 50	0.1	10	50	no	c	a, b, d or e
118	K 50 with lifting device	0.1	10	50	yes	c	a, b, d or e
119	K 50/2	0.1	20	50	no	c	a, b, d or e
119	K 50/3	0.1	30	50	no	c	a, b, d or e
121	K 50/5	0.1	50	50	no	c	a, b, d or e
120	K 100	0.1	30	100	no	c	a, b, d or e
122	K 200	0.1	30	200	yes	c	a, b, d or e
123	K 300	0.1	30	300	yes	c	a, b, d or e
123	K 400	0.1	30	400	yes	c	a, b, d or e
124	K 600/50	0.1	50	600	yes	c	a, b, d or e
135	J 12	0.01	8	12	yes	6.35 mm Ø flat	} 10 mm Ø flat, convex or spherical
135	J 15	0.01	10	18	yes	6.35 mm Ø flat	
-	J 45	0.01	10	45	yes	6.35 mm Ø flat	
125	J 50	0.01	10	50	no	c	a, b, d or e
126	J 50 with lifting device	0.01	10	50	yes	c	a, b, d or e
127	JD 50	0.01	12.5	50	yes	c	a, b, d or e
127	JD 50 TOP	0.01	12.5	50	yes	c	a, b, d or e
-	J 50 /30	0.01	30	50	no	c	a, b, d or e
-	J 50/30 with lifting device	0.01	30	50	yes	c	a, b, d or e
128	JD 50/25	0.01	25	50	yes	c	a, b, d or e
136	J 50 R	0.01	5	50	yes	rollers	
136	J 50 R without side discs	0.01	5	50	yes	rollers without side discs	
-	JD 50 R	0.01	12.5	50	yes	rollers	
-	JD 50 R without side discs	0.01	12.5	50	yes	rollers without side discs	
137	J 50 W	0.01	10	50	yes	pin with collar for pipe walls	
137	JD 50 W	0.01	12.5	50	yes	pin with collar for pipe walls	
142	J 50/3 WP	0.01	20	50	no	for corrugated boards	
129	J 100	0.01	10	100	yes	c	a, b, d or e
127	JD 100	0.01	12.5	100	yes	c	a, b, d or e
127	JD 100 TOP	0.01	12.5	100	yes	c	a, b, d or e
-	J 100/30	0.01	30	100	yes	c	a, b, d or e
128	JD 100/25	0.01	25	100	yes	c	a, b, d or e
129	J 200	0.01	10	200	yes	c	a, b, d or e
-	JD 200	0.01	12.5	200	yes	c	a, b, d or e
-	J 200/30	0.01	30	200	yes	c	a, b, d or e
-	JD 200/25	0.01	25	200	yes	c	a, b, d or e
141	9037-2	0.01	28	200	yes	flat to DIN EN ISO 9073/2	
-	J 300	0.01	10	300	yes	c	a, b, d or e
-	JD 300	0.01	12.5	300	yes	c	a, b, d or e
138	F 1000/30	0.001	1	30	yes	6.35 mm Ø flat	} convex R 15 or R 40, flat 10 mm Ø, spherical
139	F 1101/30	0.001	1	30	yes	6.35 mm Ø flat	
139	F 1101/30-0.1	0.001	0.1	30	yes	6.35 mm Ø flat	
140	FD 1000/30-3	0.001	3	30	yes	6.35 mm Ø flat	
130	F 50	0.001	5	50	yes	c	a, b, d or e
131	FD 50	0.001	12.5	50	yes	c	a, b, d or e
-	FD 50 TOP	0.001	12.5	50	yes	c	a, b, d or e
-	FD 50/25	0.001	25	50	yes	c	a, b, d or e
-	FD 100/25	0.001	25	100	yes	c	a, b, d or e
131	FD 200/25	0.001	25	200	yes	c	a, b, d or e

The contact points listed in the column 'standard' will be mounted unless the order calls for specials. Thickness Gauges can be supplied with contact points listed in the column 'available on request' without extra costs. Schematic diagrams of the contact points style a, b, c, d and e can be found on page 117. Thickness Gauges adding 'D' in the model designation possess a digital indicating instrument.

Technical merits

of our Dial Thickness Gauges with large frame depth

Bezel which can be turned for zeroing of the instrument

Precision movement

Serviceability: Worn parts (i.e. cover glass) are easily replaceable

Spare Dial Gauge available

Contact pressure can be individually set on models with lifting device

Exchangeable contact points

Flat contact points, adjustable for parallelism

Sturdy ergonomic handle

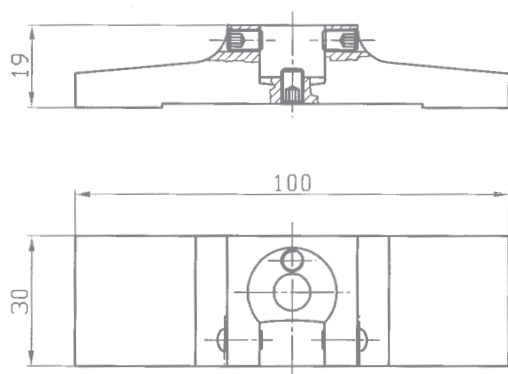
Robust construction for a long service life

Stand for many models available on request



Stand 2.1670

This Stand converts the Dial Thickness Gauges K 50, K 100, J 50, J 100 and F 1101/30 as well as the respective digital models, designed for hand-held use, to table models. Retrofitting this Stand to older models is possible.



Contact Points

for Dial Thickness Gauges with large frame depth

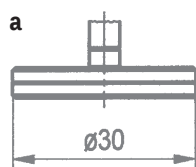
Dial Thickness Gauges are used for measuring the thickness of a very wide range of materials such as leather, paperboard, paper, felt, rubber, glass, sheet, metal, films, plywood and plastics. The shape of the contact points should be adapted to the material being measured.

We normally supply all our Dial Thickness Gauges with contact points to form c as standard, unless otherwise stated in this catalogue. Gauges can be supplied with other forms of contact points (a, b, d or e) at no extra cost. Should you require non standard

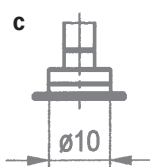
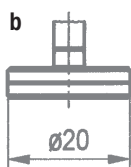
contact points, please state on your order the type of contact points we must supply (for example: Dial Thickness Gauge J 50 with contact points form a).

Special flat contact points up to diameter of 56 mm are available at additional cost. These include contact points with precise contact area, for example $\varnothing$ of 11.3 mm to give 1 cm² of contact area.

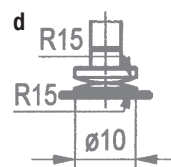
A new attachment, 3.2272, with a female thread M 2.5 is available for Dial Thickness Gauges models K and J 50 - 300. This attachment enables the use of profiled contact points shown on the catalogue pages 89 and 90.



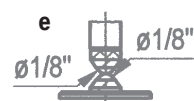
rubber,
felt,
soft materials



soft leather,
cardboard,
paper, foils



hard leather,
plywood,
fibrous
plates



sheets,
hard materials

Dial Thickness Gauge K 50

In standard version the Dial Thickness Gauge K 50 will be supplied with contact points form c.

When ordering, please state whether you require another form of contact points than form c. The forms of contact points a, b, d or e are available at the same price. Flat special contact points with special diameters of up to 56 mm Ø are available for a surcharge.

Dial Thickness Gauge K 50	
Reading	0.1 mm
Range	10 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for K 50

The Spare Dial Gauge for K 50 is supplied without the extension 3.2236. This extension with M 3 male thread is required for mounting the upper contact points form a and b. When fitting contact points form a or b then it is necessary to order this extension.

For a surcharge we will supply the Spare Dial Gauge for K 50 with the upper contact point form a, b, c, d or e.

Spare Dial Gauge for K 50	
Reading	0.1 mm
Range	10 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Model **K 50 with lifting device** has the same technical specification as model K 50 with pressure lever. At rest the contact points are closed. This style has the advantage that the contact pressure of 0.4 N $\pm$ 20% is applied independently of the user. The **Spare Dial Gauge for K 50 with lifting device** will be supplied without lifting device unless requested on the order.

Dial Thickness Gauge K 50/2

Dial Thickness Gauge K 50/3

The Dial Thickness Gauges K 50/2 and K 50/3 differ only in measuring range and the kind of revolution counter. On model K 50/3 the counter is designed as linear auxiliary scale while on model K 50/2 it is a revolution counter with a small hand.

Dial Thickness Gauge K 50/2	
Reading	0.1 mm
Range	20 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Dial Thickness Gauge K 50/3	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e



Model shown: K 50/3

On request the models K 50/2 and K 50/3 are also available with a lifting device.

On both of these models a spring produces the measuring force. Thus the contact pressure is independent of the user.

Please request our offers.

Spare Dial Gauge for K 50/2	
Reading	0.1 mm
Range	20 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e

Spare Dial Gauge for K 50/3	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e

Dial Thickness Gauge K 100

In standard version the Dial Thickness Gauge K 100 will be supplied with contact points form c.

Delivery with contact points form a, b, d or e only when stated in the order. Special contact points are available on request.

Dial Thickness Gauge K 100	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	100 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for K 100

The Spare Dial Gauges for model K 100 will be supplied just like all the other Spare Dial Gauges without the upper contact point.

For a surcharge we will supply the Spare Dial Gauge for K 100 with the upper contact point form a, b, c, d or e.

Spare Dial Gauge for K 100	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Dial Thickness Gauge K 50/5

In standard version the Dial Thickness Gauge K 50/5 will be supplied with contact points form c. Delivery with contact points form a, b, d or e only when stated in the order.

The Dial Thickness Gauge K 300/50 with 300 mm jaw depth and 50 mm measuring range can be delivered as special variant.

Please request our offers.

Dial Thickness Gauge K 50/5	
Reading	0.1 mm
Range	50 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for K 50/5

The Spare Dial Gauge for K 50/5 will be supplied without an upper contact point. For a surcharge we will supply the Spare Dial Gauge for K 50/5 with the upper contact point form a, b, c, d or e.

Delivery is without push rod, compression spring and push button. These spare parts are separately available.

Spare Dial Gauge for K 50/5	
Reading	0.1 mm
Range	50 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Dial Thickness Gauge K 200

The Dial Thickness Gauge K 200 possesses a lifting device and thus the contact force is independent of the user.

For the model K 200 in standard version the contact force is 1.5 N. Specials with increased or reduced contact force are available on request with values listed in the table below the illustration.

Dial Thickness Gauge K 200	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	200 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for K 200 – K 400

The Spare Dial Gauges for models K 200, K 300 and K 400 are of the same design. They will be supplied just like all the other Spare Dial Gauges without contact point.

For a surcharge we will supply the Spare Dial Gauge for K 200 - K 400 with the upper contact point form a, b, c, d or e.

Spare Dial Gauge for K 200 – K 400	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Table of Contact Force

Model	Standard Force	Reduced Force	Increased Force
K 50 with lifting device	0.4 N	—	1.2 N
K 200	1.5 N	0.9 N	2.5 N
K 300	1.5 N	0.9 N	2.5 N
K 400	1.5 N	0.9 N	2.5 N

Variants with push-on rod and additional weights on request.

Dial Thickness Gauges K 300 and K 400

The Dial Thickness Gauges K 200, K 300 and K 400 have the same form of jaw. Only the depth of jaw is different.

The use of aluminium for the body of the instruments makes them light and easy to handle. A mounting device makes it possible to use them as a table unit.

Dial Thickness Gauge K 300	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	300 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Additional weights for K 200 – K 400

Additional weights are available to increase the contact pressure on Dial Thickness Gauges K 200 to K 400.

These weights can be attached to the shaft at the top of the Dial Gauge.

Please contact us for further details.

Dial Thickness Gauge K 400	
Reading	0.1 mm
Range	30 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	400 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e



Model shown: K 300 special version with additional weights and special contact points Ø 50 mm

We also offer a Dial Thickness Gauge with enlarged frame with jaw depth of 300 mm and extended measuring range of 50 mm or 80 mm. This instrument can be delivered with readings of 0.1 mm resp. 0.01 mm. All variations are furnished with push button and stand. Please request our offers.

Dial Thickness Gauge K 600/50

The Dial Thickness Gauge K 600/50 possesses a lifting device and thus the contact force is independent of the user.

For the model K 600/50 in standard version the contact force is $1.1 \text{ N} \pm 20\%$. Specials with increased or reduced contact force are available on request with values of 0.7 resp. $2.0 \text{ N} \pm 20\%$.

Dial Thickness Gauge K 600/50	
Reading	0.1 mm
Range	50 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Depth of jaw	600 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for K 600/50

The Spare Dial Gauge for model K 600/50 will be supplied just like all the other Spare Dial Gauges without contact point.

For a surcharge we will supply the Spare Dial Gauge for K 600/50 with the upper contact point form a, b, c, d or e.

Spare Dial Gauge for K 600/50	
Reading	0.1 mm
Range	50 mm
Range per revolution	10 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Dial Thickness Gauge J 50

In standard version the Dial Thickness Gauge J 50 will be supplied with contact points form c.

When ordering, please state whether you require another form of contact points than form c. The forms of contact points a, b, d or e are available at the same price. Flat special contact points with special diameters of up to 56 mm Ø are available for a surcharge.

Dial Thickness Gauge J 50	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	DIN 878
	hysteresis fu however not checked
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for J 50

The Spare Dial Gauge for J 50 will be supplied without contact point.

For a surcharge we will supply the Spare Dial Gauge for J 50 with the upper contact point form a, b, c, d or e.

Spare Dial Gauge for J 50	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	DIN 878
	hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Another Dial Thickness Gauge of the same family is J 50/30 (depth of jaw 50 mm, range 30 mm).

Dial Thickness Gauge J 50

with lifting device

The Dial Thickness Gauge J 50 possesses a lifting device and thus the contact force is independent of the user.

For the model J 50 in standard version the contact force is 1.2 N. Specials with increased or reduced contact force are available on request with values listed in the table below the illustration.

Dial Thickness Gauge J 50 with lifting device	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	DIN 878
hysteresis fu however not checked	
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for J 50

with lifting device

The Spare Dial Gauge for model J 50 with lifting device will be delivered like all other Spare Dial Gauges without lifting device and contact point.

For a surcharge we will supply the Spare Dial Gauge for J 50 with the upper contact point form a, b, c, d or e.

Spare Dial Gauge for J 50 with lifting device	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	DIN 878
hysteresis fu however not checked	
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Table of Contact Force

Model	Standard Force	Reduced Force	Increased Force
J 50 with lifting device	1.2 N	0.6 N	2.0 N
J 50/30 with lifting device	1.0 N	1.2 N	3.0 N
J 100	1.2 N	0.6 N	2.0 N
J 200	2.0 N	1.2 N	3.0 N
J 200/30	2.0 N	1.2 N	3.0 N

Variants with push-on rod and additional weights on request.

Digital Thickness Gauge JD 50 with lifting device

The large digital display has a good visual perception for easy reading of the measuring result.
The use of aluminium for the body of the instruments makes them light and easy to handle.

Digital Thickness Gauge JD 50 with lifting device	
Resolution	0.01 mm / .0005"
Range	12.5 mm / .500"
Depth of jaw	50 mm
Power supply	on Lithium battery 3 V
Battery life	8000 h
Output	RS 232 or USB
Working temperature	+5 °C – +40 °C
Maximum error	20 µm, hysteresis fu not checked
Contact force	0.7 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e



Digital Thickness Gauge JD 50 TOP with lifting device

Digital Thickness Gauge JD 50 TOP with lifting device	
Resolution	0.01 mm / .0005"
Range	12.5 mm / .500"
Depth of jaw	50 mm
Power supply	on Lithium battery 3 V
Battery life	3 years
Output	Opto RS 232, USB or Digimatic
Working temperature	+10 °C – +40 °C
Maximum error	20 µm, hysteresis fu not checked
Contact force	0.6 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e



Our models JD 100 and JD 100 TOP have exactly the same technical data, but a jaw depth of 100 mm.

Digital Thickness Gauge JD 50/25

with lifting device

The use of a frame with large frame height together with a Digital Dial Indicator with 25 mm measuring range and a lifting device results in a Thickness Gauge which combines the advantages of easy handling and large measuring range suitable for various applications. Together with the Stand 2.1670 this converts a portable instrument quickly without complications to a table instrument.

The following functions can be used for all Digital Dial Gauges in connection with our Thickness Gauges:

- Zero setting
- Data transmission
- Selection of measuring direction
- mm/inch selection
- Memory set Hold
- Preset value recall
- Personalising the functions

Digital Thickness Gauge JD 50/25 with lifting device

Resolution	0.01 mm / .0005"
Range	25 mm / 1"
Depth of jaw	50 mm
Power supply	on Lithium battery 3 V
Battery life	8000 h
Output	RS 232 or USB
Working temperature	+5 °C – +40 °C
Maximum error	20 µm, hysteresis fu not checked
Contact force	0.8 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e

Digital Thickness Gauge JD 100/25

with lifting device

Digital Thickness Gauge JD 100/25 with lifting device

Resolution	0.01 mm / .0005"
Range	25 mm / 1"
Depth of jaw	100 mm
Power supply	on Lithium battery 3 V
Battery life	8000 h
Output	RS 232 or USB
Working temperature	+5 °C – +40 °C
Maximum error	20 µm, hysteresis fu not checked
Contact force	0.8 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e



Model shown: JD 50/25

Other models of Digital Thickness Gauges of the same family:

■ Digital Thickness Gauge FD 50/25

resolution 0.001 mm / .00005"
range 25 mm / 1"
depth of jaw 50 mm

■ Digital Thickness Gauge FD 100/25

resolution 0.001 mm / .00005"
range 25 mm / 1"
depth of jaw 100 mm

Dial Thickness Gauge J 100

Dial Thickness Gauge J 200

Dial Thickness Gauges J 100 and J 200 differ only by their jaw depth and by the kind of lifting device. On model J 100 the latter is positioned on top of the Dial Gauge. On the Dial Thickness Gauge J 200 the lifting lever is attached to a pin through the measuring spindle.

Dial Thickness Gauge J 100	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	100 mm
Accuracy according to	DIN 878
	hysteresis fu however not checked
Contact force	1.2 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e

Dial Thickness Gauge J 200	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	200 mm
Accuracy according to	DIN 878
	hysteresis fu however not checked
Contact force	2.0 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e



The **Dial Thickness Gauge J 200/30** is supplied with the same jaw as model J 200. The Dial Gauge has however a measuring range of 30 mm and a second concentric hand. This concentric hand allows easy and safe reading of the Dial Gauge.

Spare Dial Gauge for J 100	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	DIN 878
	hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e

Spare Dial Gauge for J 200	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	DIN 878
	hysteresis fu however not checked
Standard contact point	without
Optional contact points	forms a, b, c, d or e

Dial Thickness Gauge F 50

with lifting device

High resolution while offering a relative large measuring range distinguishes this Dial Thickness Gauge.

In standard version the Dial Thickness Gauge F 50 will be supplied with contact points form c. When ordering, please state whether you require another form of contact points than form c. The forms of contact points a, b, d or e are available at the same price.

Dial Thickness Gauge F 50 with lifting device	
Reading	0.001 mm
Range	5 mm
Range per revolution	0.2 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Accuracy according to	manufacturing standard 0.0500.9.0001, hysteresis fu however not checked
Contact force	1.7 N $\pm$ 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e

Spare Dial Gauge for F 50

with lifting device

Spare Dial Gauges for the model F 50 with lifting device will be supplied like all the other Spare Dial Gauges without lifting device and without contact point.

Delivery of a Spare Dial Gauge for F 50 with the upper contact point form a, b, c, d or e at a surcharge.

Spare Dial Gauge for F 50 with lifting device	
Reading	0.001 mm
Range	5 mm
Range per revolution	0.2 mm
Bezel-Ø	58 mm
Stem-Ø	8 h 6
Accuracy according to	manufacturing standard 0.0500.9.0001, hysteresis fu however not checked
Contact force	1.7 N $\pm$ 20%
Standard contact point	without
Optional contact points	forms a, b, c, d or e



Digital Thickness Gauge FD 50

with lifting device

Digital Thickness Gauge FD 200/25

with lifting device

The large digital display has a good visual perception for easy reading of the measuring result. While the model FD 50 together with stand 2.1670 can be used as table model, the model FD 200/25 with reinforced frame is supplied with support for use as table model.

The use of aluminium for the robust body of the instruments makes them light and easy to handle.

Digital Thickness Gauge FD 50 with lifting device	
Resolution	0.001 mm / .00005"
Range	12.5 mm / .500"
Depth of jaw	50 mm
Power supply	on Lithium battery 3 V
Battery life	8000 h
Output	RS 232 or USB
Working temperature	+5 °C – +40 °C
Maximum error	5 µm, hysteresis fu not checked
Contact force	0.7 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e

Digital Thickness Gauge FD 200/25 with lifting device	
Resolution	0.001 mm / .00005"
Range	25 mm / 1"
Depth of jaw	200 mm
Power supply	on Lithium battery 3 V
Battery life	8000 h
Output	RS 232 or USB
Working temperature	+5 °C – +40 °C
Maximum error	5 µm, hysteresis fu not checked
Contact force	1.8 N ± 20%
Standard contact point	form c
Optional contact points	forms a, b, d or e



Spare Dial Gauges are available for all Digital Thickness Gauges. They will be delivered without contact point and without lifting device. Contact points forms a, b, c, d and e are available on request.

For all Digital Thickness Gauges except for models JD 50 TOP, FD 50 TOP and JD 100 TOP the data connection cable DCPRMD 232, illustrated on page 132, can be used as suitable accessory.

SPARE DIAL GAUGES FOR DIGITAL THICKNESS GAUGES

Spare Dial Gauges are available for all Digital Thickness Gauges. They will be supplied without contact point and without lifting device.

For Digital Thickness Gauges the data cables illustrated below are available at an extra charge.

Spare Gauges for Digital Thickness Gauges				
Spare Dial Gauge for	Resolution	Range	extension for contact points form a and b (not included in the scope of delivery)	Data cable
JD 50	0.01 mm	12.5 mm	3.2236-0	DCPRMD 232 / DCPRMD USB
JD 50 TOP	0.01 mm	12.5 mm	3.2236-0	{ DCMV 232, DCMV USB or DCMV DIGIMATIC
JD 100 TOP	0.01 mm	12.5 mm	3.2236-0	
JD 100	0.01 mm	12.5 mm	3.2236-0	DCPRMD 232 / DCPRMD USB
JD 50/25	0.01 mm	25 mm	3.2236-1	DCPRMD 232 / DCPRMD USB
JD 100/25	0.01 mm	25 mm	3.2236-1	DCPRMD 232 / DCPRMD USB
JD 200	0.01 mm	12.5 mm	3.2236	DCPRMD 232 / DCPRMD USB
JD 300	0.01 mm	12.5 mm	3.2236	DCPRMD 232 / DCPRMD USB
JD 200/25	0.01 mm	25 mm	3.2236	DCPRMD 232 / DCPRMD USB
JD 50 W	0.01 mm	12.5 mm	—	DCPRMD 232 / DCPRMD USB
FD 50	0.001 mm	12.5 mm	3.2236-0	DCPRMD 232 / DCPRMD USB
FD 50 TOP	0.001 mm	12.5 mm	3.2236-0	DCMV 232, DCMV USB or DCMV DIGIMATIC
FD 50/25	0.001 mm	25 mm	3.2236-1	DCPRMD 232 / DCPRMD USB
FD 100/25	0.001 mm	25 mm	3.2236-1	DCPRMD 232 / DCPRMD USB
FD 200/25	0.001 mm	25 mm	3.2236	DCPRMD 232 / DCPRMD USB

Data cable DCPRMD 232

In standard version 3 m long, maximum length 15 m.
SUB-D jack 9 – pin / F.



Data cable DCMV 232

In standard version 2 m long.
SUB-D jack 9 – pin.



Contact points

for Pocket Dial Thickness Gauges

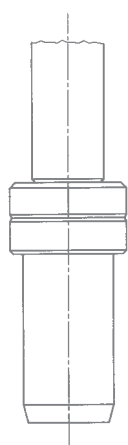
Pocket Dial Thickness Gauges are used for measuring the thickness of a very wide range of materials such as leather, paperboard, paper, felt, rubber, glass, sheet, metal, films, plywood and plastics. The shape of the contact points should be adapted to the material being measured. If other contact points than the standard contact points are required then this is to be stated in the order. (Example: J 45 with spherical contact points).

Standard contact points 6.35 mm Ø flat will be supplied unless otherwise stated on the order. The other three anvils shown below are available on request. The type of contact point does not affect the price of the Dial Thickness Gauge. Please note that the contact points are not interchangeable.

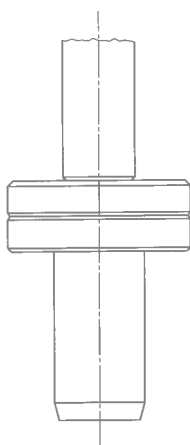
The Thickness Gauges K 15, K 15/2, J 15 and J 45 with contact points 10 mm Ø, ground down at the rear, are available at a surcharge. In this case the instrument is placed flat down on the table and is thus best suited for batch measurements of small components.



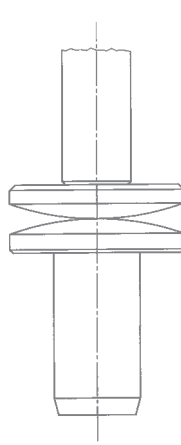
Contact Points ►



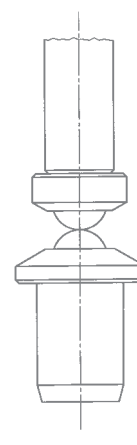
Standard contact point
6.35 mm Ø flat



Optional contact point
10 mm Ø flat



Optional contact point
convex



Optional contact point
spherical

Pocket Dial Thickness Gauge K 15

Pocket Dial Thickness Gauge K 15/2

The Pocket Dial Thickness Gauges K 15 and K 15/2 are supplied with flat contact points 6.35 mm Ø if no other form of contact points is ordered. When ordering, please state whether you require another form of contact points than 6.35 mm Ø flat. The optional contact points 10 mm Ø flat, convex or spherical are supplied at the same price. As the contact points are pressed in into the frame they are not individually exchangeable.

On request the Pocket Dial Thickness Gauges K 15 and K 15/2 can be supplied with a spindle blocking screw. The instruments can easily be set to zero by turning the knurled bezel.

Pocket Dial Thickness Gauge K 15	
Reading	0.1 mm
Range	10 mm
Range per revolution	10 mm
Depth of jaw	15 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, convex or spherical

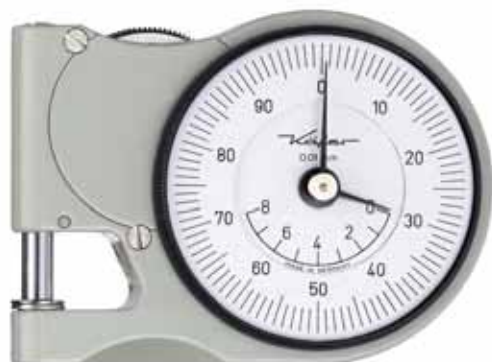
Pocket Dial Thickness Gauge K 15/2	
Reading	0.1 mm
Range	20 mm
Range per revolution	10 mm
Depth of jaw	15 mm
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, convex or spherical



Pocket Dial Thickness Gauge J 12

The Pocket Dial Thickness Gauge J 12 is light and handy. Solidly made, it has a wide application for measuring accurately within its measuring range of 8 mm.

Pocket Dial Thickness Gauge J 12	
Reading	0.01 mm
Range	8 mm
Range per revolution	1 mm
Depth of jaw	12 mm
Accuracy according to	DIN 878
	hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact point	spherical



Pocket Dial Thickness Gauge J 15

The Pocket Dial Thickness Gauge J 15 distinguishes itself distinctly by its up to date and ergonomical design.

The Pocket Dial Thickness Gauge J 15 is equipped with plastic insulating plates. It is supplied in a convenient box with transparent lid.

The Pocket Dial Thickness Gauge J 45 is of similar design except for the jaw depth of 45 mm.

Pocket Dial Thickness Gauge J 15	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Depth of jaw	18 mm
Accuracy according to	DIN 878
	hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, convex or spherical



The contact points are in contact when the Pocket Dial Thickness Gauges J 12 and J 15 are not in use. The serrated lifting wheel opens them for the insertion of the component. The size can be easily read off the scale. The instruments can be zeroed by using the knurled adjusting bezel.

Standard contact points 6.35 mm Ø will be supplied unless otherwise stated on the order. The optional contact points are available on request. The type of the contact point does not affect the price of the Pocket Dial Thickness Gauges. Please note that the contact points are not interchangeable.

A special version of the model J 15 for checking of drill core diameters up to max. 4 mm is equipped with contact points made of tungsten carbide according to drawing 791030/3. Please request our offers.

Dial Thickness Gauge J 50 R

This model has side discs at the lower roller for guiding the thread. It is therefore suited for measuring the thickness of wires and threads especially in continuous motion.

Dial Thickness Gauge J 50 R with side discs	
Reading	0.01 mm
Range	5 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Standard contact point	rollers with side discs
Width of the rollers	8.7 mm
Ø of the rollers	8.4 mm



Model shown: J 50 R without side discs

Dial Thickness Gauge J 50 R

without side discs

This model has no side discs at the lower roller. It is therefore suited for the measurement of paper, foil, metal and sheet.

Dial Thickness Gauge J 50 R without side discs	
Reading	0.01 mm
Range	5 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	50 mm
Standard contact point	rollers without side discs
Width of the rollers	8.7 mm
Ø of the rollers	8.4 mm

Thickness Gauges with roller contact points are available in many variants:

- **Dial Thickness Gauge K 50 R**
reading 0.1 mm, range 10 mm
- **Dial Thickness Gauge J 50/3 R**
reading 0.01 mm, range 20 mm
- **Dial Thickness Gauge K 100 R**
reading 0.1 mm, range 10 mm
depth of jaw 100 mm
- **Dial Thickness Gauge K 200 R**
reading 0.1 mm, range 10 mm
depth of jaw 200 mm
- **Dial Thickness Gauge J 200 R**
reading 0.01 mm, range 10 mm
depth of jaw 200 mm
- **Dial Thickness Gauge F 50 R**
reading 0.001 mm, range 5 mm
depth of jaw 50 mm
- **Digital Thickness Gauge JD 50 R**
resolution 0.01 mm / .0005"
range 12.5 mm / .500"
depth of jaw 50 mm
- **Digital Thickness Gauge JD 100 R**
resolution 0.01 mm / .0005"
range 12.5 mm / .500"
depth of jaw 100 mm
- **Digital Thickness Gauge FD 50 R**
resolution 0.001 mm / .00005"
range 12.5 mm / .500"
depth of jaw 50 mm

Please request our offers.

Wall Thickness Gauge JD 50 W

with digital reading

Wall Thickness Gauge J 50 W

with analogue reading

These Thickness Gauges allow accurate and fast measurement of the thickness of tube walls. They are equipped with contact points 6 mm Ø which have at their end a collar with a radius of 1 mm. This enables it to check tubes which still have a burr from parting.

A ground contact point pin of 6 mm Ø is included.

Wall Thickness Gauge JD 50 W with digital reading	
Resolution	0.01 mm / .0005"
Range	12.5 mm / .500"
Depth of jaw	50 mm
Power supply	on Lithium battery 3 V
Battery life	8000 h
Output	RS 232 or USB
Working temperature	+5 °C – +40 °C
Maximum error	20 µm

Wall Thickness Gauge J 50 W with analogue reading	
Reading	0.01 mm
Range	10 mm
Range per revolution	1 mm
Depth of jaw	50 mm
Bezel-Ø	58 mm
Accuracy according to	DIN 878
hysteresis fu however not checked	



Model shown: J 50 W

Foil Dial Thickness Gauge F 1000/30

1 pointer revolution = 0.2 mm

Foil Thickness Gauge F 1000/30 is mainly used to measure the thickness of thick foils. It has a higher permissible deviation span than the models shown on page 139.

Its pointer revolution of 0.2 mm instead of 0.1 mm minimizes the impact of differences in temperature or other environmental influences. Therefore there is less need to set the hand to 0 by turning the plexi glass cover compared to the more accurate and more sensitive models F 1101/30 and F 1101/30-0.1.

The contact force is approximately 2.2 N. On request this instrument can be supplied at an extra charge with a lower contact force of 0.7 N or with a higher contact force of 3 N.

Foil Dial Thickness Gauge F 1000/30

Reading	0.001 mm
Range	1 mm
Depth of jaw	30 mm
Range per revolution	0.2 mm
Dial reading	0-100 / 0-100
Plexi glass	glare free
Bezel-Ø	58 mm
Accuracy according to	manufacturing standard 0.0500.9.0001, hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, upper contact point convex r 15 or r 40, lower contact point 6.35 mm Ø flat lower contact point convex r 15 spherical



The frame has the required rigidity, the insulation of the handle prevents transfer of heat from the hand of the user to the sensitive mechanical parts of the Dial Gauge.

Foil Dial Thickness Gauges F 1101/30 and F 1101/30-0.1

with extra accurate movement

Foil Dial Thickness Gauge F 1101/30	
Reading	0.001 mm
Range	1 mm
Range per revolution	0.1 mm
Dial reading	0-100
Plexi glass	glare free
Bezel-Ø	58 mm
Accuracy according to	manufacturing standard 0.0500.9.0010, hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, upper contact point convex r 15 or r 40, lower contact point 6.35 mm Ø flat lower contact point convex r 15 spherical

Foil Dial Thickness Gauge F 1101/30-0.1	
Reading	0.001 mm
Range	0.1 mm
Range per revolution	0.1 mm
Dial reading	0-100
Plexi glass	glare free
Bezel-Ø	58 mm
Maximum error	1.5 µm
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, upper contact point convex r 15 or r 40, lower contact point 6.35 mm Ø flat lower contact point convex r 15 spherical



Model shown: F 1101/30

These handy instruments are used exclusively to measure the thickness of thin foils. The frame has the required rigidity, the insulation of the handle prevents transfer of heat from the hand of the user to the sensitive mechanical parts of the Dial Gauge.

Model F 1101/30-0.1 is the most accurate Foil Thickness Gauge in our range. Its range is limited to one revolution or 0.1 mm.

The contact force is approximately 1.5 N. On request these instruments can be supplied at an extra charge with a lower contact force of 0.7 N.

Digital Foil Thickness Gauges FD 1000/30-3

Digital Foil Thickness Gauge FD 1000/30-3 is mainly used to measure the thickness of foils.

The frame has the required rigidity, the insulation of the handle prevents transfer of heat from the hand of the user to the sensitive mechanical parts of this Digital Foil Thickness Gauge.

The digital readout makes the reading of the measurement very easy. The measured value is clearly indicated on the display of the Thickness Gauge.

The contact force is 2 N. On request the instrument can be supplied with a lower contact force of 0.7 N.

Digital Foil Thickness Gauge FD 1000/30-3

Resolution	0.001 mm / .00005"
Range	3 mm / .120"
Depth of jaw	30 mm
Digital display LCD, height of digits	11 mm
Battery life	8000 h
Output	RS 232 or USB
Maximum error	3 μ m
Standard contact point	6.35 mm $\varnothing$ flat
Optional contact points	10 mm $\varnothing$ flat, upper contact point convex r 15 or r 40, lower contact point 6.35 mm $\varnothing$ flat lower contact point convex r 15 spherical



Fleece Dial Thickness Gauge 9073-2

to DIN EN ISO 9073/2 – edition 1997-2

This Dial Thickness Gauge is used exclusively to measure the thickness of normal fleece to DIN EN ISO 9073/2 (part 5.1). It is equipped with special contact points and has a special contact force to meet DIN EN ISO 9073/2 requirements.

The concentric millimetre pointer allows easy and safe reading of the Dial Thickness Gauge.

Fleece Dial Thickness Gauge 9073-2	
Reading	0.01 mm
Range	28 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Depth of jaw	200 mm
Accuracy according to	manufacturing standard 1.0200.9.0014 hysteresis fu however not checked
Lower contact point	108 mm dia. flat
Upper contact point	56.5 mm dia. flat



In addition Fleece Dial Thickness Gauge to DIN EN ISO 5084 – edition 1996 can also be supplied. The technical data is the same as above, but it has an upper contact point diameter of 50 mm and a lower contact point diameter of 108 mm. This Thickness Gauge is supplied with an additional weight of 185 gram, which has to be mounted at its top in order to achieve the stipulated measuring pressure. Please request a quotation.

Corrugation Dial Thickness Gauge J 50/3 WP to EN 494

This handy Dial Thickness Gauge is used exclusively to measure the thickness of fibre - cement profiled sheet and other corrugated plates or irons. It is equipped with special contact points which have a camber of 2 mm and a width of 10 mm.

The concentric millimetre pointer allows easy and safe reading of the Dial Thickness Gauge.

Corrugation Dial Thickness Gauge J 50/3 WP to EN 494

Reading	0.01 mm
Range	20 mm
Range per revolution	1 mm
Bezel-Ø	58 mm
Accuracy according to	manufacturing standard 1.0200.9.0014, hysteresis fu however not checked
Standard contact point	radius 2 mm



In addition other purpose made Dial Thickness Gauges i.e. for leather or Pocket Dial Thickness Gauges for gauging precious stones are available on request.

Inch Reading Thickness Gauges

Considering frame execution and contact points, Inch Reading Dial Thickness Gauges conform to the metric models. This also applies to the M 3 thread of the Dial Gauges which is the same as in the metric models of Thickness Gauges. The contact points are interchangeable between metric and inch models.

Inch Reading Dial Thickness Gauges differ from the models illustrated in the catalogue for metric reading

only by the scale division in inch and the scale marking.

Thickness Gauges bearing the additional ,D' in their designation possess a digital indicating instrument.

The display can be selected to be either metric or inch and therefore these instruments are listed in the table of metric models, too.

Technical data for Inch Reading Thickness Gauges

Model	Reading inch	Range inch	Depth of jaw inch	Lifting device	Contact points standard	Contact points available on request
KZ 15	.005	.400	.600	no	6.35 mm Ø flat	} 10 mm Ø flat, convex or spherical
KZ 15/2	.005	.800	.600	no	6.35 mm Ø flat	
JZ 12	.001	.300	.500	yes	6.35 mm Ø flat	spherical
JZ 15	.001	.400	.700	yes	6.35 mm Ø flat	} 10 mm Ø flat, convex or spherical
JZ 45	.001	.400	1.800	yes	6.35 mm Ø flat	
JZ 50	.001	.400	2.000	no	c	a, b, d or e
JZ 50 with lifting device	.001	.400	2.000	yes	c	a, b, d or e
JD 50 with lifting device	.0005	.500	2.000	yes	c	a, b, d or e
JZ 50 R	.001	.200	2.000	yes	rollers	
JZ 50 R without side discs	.001	.200	2.000	yes	rollers without side discs	
JD 50 W	.0005	.500	2.000	yes	pin with collar for pipe walls	
JZ 100	.001	.400	4.000	yes	c	a, b, d or e
JD 100	.0005	.500	4.000	yes	c	a, b, d or e
JZ 200	.001	.400	8.000	yes	c	a, b, d or e
JD 200	.0005	.500	8.000	yes	c	a, b, d or e
JD 200/25	.0005	1.000	8.000	yes	c	a, b, d or e
FZ 1101/30	.00005	.040	1.200	yes	6.35 mm Ø flat	convex R 15 or R 40, flat 10 mm Ø, spherical
FD 50 with lifting device	.00005	.500	2.000	yes	c	a, b, d or e
FD 50/25	.00005	1.000	2.000	yes	c	a, b, d or e
FD 100/25	.00005	1.000	4.000	yes	c	a, b, d or e
FD 200/25	.00005	1.000	8.000	yes	c	a, b, d or e

The contact points listed in the column ,standard' will be mounted unless the order calls for specials. Dial Thickness Gauges can be supplied with contact points listed in the column ,available on request' without extra costs. Schematic diagrams of the contact points style a, b, c, d and e can be found on page 117.

Pocket Dial Thickness Gauge KZ 15

The Pocket Dial Thickness Gauge KZ 15 is supplied with flat contact points 6.35 mm Ø if no other form of contact points is ordered. When ordering, please state whether you require another form of contact points than 6.35 mm Ø flat.

The model KZ 15/2 differs from the model KZ 15 only by the to .800" extended measuring range.

Pocket Dial Thickness Gauge KZ 15	
Reading	.005"
Range	.400"
Range per revolution	.400"
Depth of jaw	.600"
Accuracy according to	manufacturing standard 0.0500.9.0004, hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, convex or spherical



Pocket Dial Thickness Gauge JZ 15

The Pocket Dial Thickness Gauge JZ 15 distinguishes itself distinctly by its up to date and ergonomic design.

The Pocket Dial Thickness Gauge JZ 15 is equipped with plastic insulating plates. It is supplied in a convenient box with transparent lid.

The Pocket Dial Thickness Gauge JZ 45 is of similar design except for the jaw depth of 45 mm.

Pocket Dial Thickness Gauge JZ 15	
Reading	.001"
Range	.400"
Range per revolution	.100"
Depth of jaw	.700"
Accuracy according to	DIN 878 hysteresis fu however not checked
Standard contact point	6.35 mm Ø flat
Optional contact points	10 mm Ø flat, convex or spherical



At rest the contact points on models KZ 15 and KZ 15/2 are open. Pushing the button on top of the instrument brings them together.

The contact points are in contact when the Pocket Dial Thickness Gauges JZ 15 and JZ 45 are not in use. The serrated lifting wheel opens them for the insertion of the component. The size can be easily read off the scale. The instruments can be zeroed by using the knurled adjusting bezel.

Standard contact points 6.35 mm Ø will be supplied unless otherwise stated on the order. Optional contact points are available on request. The type of the contact point does not affect the price of the Pocket Dial Thickness Gauges. Please note that the contact points are not interchangeable.

Description of icon specifications

Standard fittings

	Knurled top screw
	Lifting cap
	Safety cap
	Metal bezel
	Plastic bezel
	Jewelled
	Shockproof
	End stop damped
	Casing from aluminium
	Casing from brass
	Casing from plastic
	Casing from zinc

Special fittings

	Plexi glass disc
	Mineral glass disc
	Anti-clockwise dials
	Balanced outer dials
	Metal bezel
	Plastic bezel
	Metal back
	Fixing screw for the bezel
	High measuring force
	Low measuring force
	Reverse spring traction
	Extended stem

Precision Dial Gauges



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