Portable precision thickness gauges analogous and digital





## Fast-acting thickness gauges

# Sometimes, things have to be done quickly

Our fast-acting thickness gauges are compact, handy and sturdy. They are ideal if the thickness must be determined quickly during production. In unoperated position, the measuring callipers are opened by a spring and the tester can close them by pressing it with his finger. Stable measuring pins made of steel and measuring callipers fabricated in high-strength aluminium die casting ensure the required sturdiness of all fast-acting thickness gauges as well as their reliability even under rough environmental conditions during production.

The analogous fast-acting thickness gauges have a scaling of 0.1 mm. In contrast, our digital Rapidometers are scaled with 0.01 mm, have a change-over switch mm/in and if required, they can be equipped with an interface for the processing of the measurement values.

Our particularly small DM 2-B is delivered with gauging insert B only and it is the only fast-acting thickness gauge functioning without a locking screw. For all other devices, various gauging inserts can be selected (see back page). With the DMA 3, we also offer a fast-acting thickness gauge which is closed in unoperated position and which is equipped with a lifting device.

#### Digital fast-acting thickness gauges Rapidometer, scaling 0.01 mm

	Measuring range (in mm)	Measuring depth (in mm)	Item no.
RMP 30	0 – 30	40	530 20#
RMU 30	0 – 30	50	530 29 <b>#</b>
RMU 50	0 - 50	50	530 30#
RMU 75	0 – 75	50	530 31#

Please replace the hash # in the item number with the code letter of the required gauging insert in dependence on the material to be measured. You will find the standard gauging inserts on the back page.



RMP 30 with gauging insert E



RMU 30 with gauging insert B



RMU 50 with gauging insert B



RMU 75 with gauging insert C

### Analogous fast-acting thickness gauges, scaling 0.1 mm

	Gauging range (in mm)	Gauging depth (in mm)	Item no.
DM 2-B	0 – 10	15	510 102
DM 3	0 – 30	50	510 20 <b>#</b>
DMA 3	0 – 30	50	510 21 <b>#</b>
DM 50	0 – 50	50	510 30 <b>#</b>
DM 50/1	0 – 75	50	510 31 <b>#</b>
DM 50/2	50 – 100	50	510 32 <b>#</b>



DM 2-B



DM 3 with gauging insert M



DM 50 with gauging insert B



DMA 3 with gauging insert  $\mathsf{B}$ 



DM 50/2 with gauging insert B

## Thickness gauges

## Scaling 0.01 mm

#### The especially exact models

High-strength aluminium cast frames enable the manufacture of thickness gauges also with a scaling of 0.01 mm. In unoperated position, the measuring calliper is closed and can be opened by means of a lifting lever.

You have the choice: Series DMH with analogous dial gauge and tolerance marking or series DMD with digital seven-segment display and change-over switch mm/in. The models of the series DMD can optionally be delivered with an interface for the digital processing of the measuring values. You can also decide whether your thickness gauge shall have a foot or not. We recommend the option with foot in order to reduce measurement errors due to body warmth to a minimum.

#### Digital thickness gauges series DMD, scaling 0.01 mm

			Standard	l version	According to the test standard for		
	Measuring range in mm	Measuring depth in mm	Item no. with foot	Item no. without foot	Leather 50 kPa on 0.785 cm <sup>2</sup>	Fleece 0.5 kPa on 25 cm <sup>2</sup>	Textiles 1.0 kPa on 20 cm <sup>2</sup>
DMD 3	0 - 10	50	521 37#	520 37 <b>#</b>	521 37L	521 37 <mark>V</mark>	521 37 <b>T</b>
DMD 3/1	0 – 25	50	521 38 <b>#</b>	520 38 <b>#</b>	521 38L	521 38 <mark>V</mark>	521 38 <b>T</b>
DMD 820	0 - 10	200	521 39 <b>#</b>	520 39 <b>#</b>	521 39L	521 39 <mark>V</mark>	521 39 <b>T</b>
DMD 820/1	0 – 25	200	521 41#	520 41 <b>#</b>	521 41L	521 41 <mark>V</mark>	521 41 <mark>T</mark>
DMD 830	0 - 10	300	521 42 <b>#</b>	520 42 <mark>#</mark>	521 42L	521 42 <mark>V</mark>	521 42 <b>T</b>
DMD 830/1	0 – 25	300	521 43#	520 43 <b>#</b>	521 43L	521 43 <mark>V</mark>	521 43 <b>T</b>
DMD 850	0 - 10	500	521 44 <b>#</b>	_	521 44L	521 44 <mark>V</mark>	521 44 <b>T</b>
DMD 850/1	0 – 25	500	521 45 <b>#</b>	_	521 45 <mark>L</mark>	521 45 <mark>V</mark>	521 45 <b>T</b>





DMD 3/1-V especially for fleece with a standardised gauging pressure of 0.5 kPa  $\,$ 



DMD 3 with gauging insert C

With regard to easily compressible materials such as leather, fleece and textiles, the test pressure is decisive for the comparability of the measurement values. According to the applicable regulations, these special models of the series DMD and DMH apply the prescribed test pressures to a specified circular calliper surface. In order to ensure the test pressure, these devices are offered only with foot.

#### Analogous thickness gauges series DMH, scaling 0.01 mm

				l version	According to the test standard for		
	Measuring range in mm	Measuring depth in mm	Item no. with foot	Item no. without foot	Leather 50 kPa on 0.785 cm <sup>2</sup>	Fleece 0.5 kPa on 25 cm <sup>2</sup>	Textiles 1.0 kPa on 20 cm <sup>2</sup>
DMH 3	0 - 10	50	521 31 <b>#</b>	520 31 <b>#</b>	521 31L	521 31 <mark>V</mark>	521 31 <b>T</b>
DMH 3/1	0 – 25	50	521 32 <b>#</b>	520 32 <b>#</b>	521 32L	521 32 <mark>V</mark>	521 32 <b>T</b>
DMH 820	0 - 10	200	521 33 <b>#</b>	520 33 <b>#</b>	521 33L	521 33 <mark>V</mark>	521 33 <b>T</b>
DMH 820/1	0 – 25	200	521 34 <b>#</b>	520 34 <b>#</b>	521 34L	521 34 <mark>V</mark>	521 34 <b>T</b>
DMH 830	0 - 10	300	521 35 <b>#</b>	520 35 <b>#</b>	521 35L	521 35 <mark>V</mark>	521 35 <b>T</b>
DMH 830/1	0 – 25	300	521 36 <b>#</b>	520 36 <b>#</b>	521 36L	521 36 <mark>V</mark>	521 36 <b>T</b>
DMH 850	0 - 10	500	521 50 <b>#</b>	_	521 50L	521 50 <mark>V</mark>	521 50 <b>T</b>
DMH 850/1	0 – 25	500	521 51 <b>#</b>	_	521 51 <b>L</b>	521 51 <mark>V</mark>	521 51 <b>T</b>

Please replace the hash # in the item number with the code letter of the required gauging insert in dependence on the material to be measured. You will find the standard gauging inserts on the back page.



DMH 3-L especially for leather with a standardised gauging pressure of 50 kPa  $\,$ 



# Scaling 0.1 mm

# For great measuring depths and measuring ranges

Our analogous thickness gauges with a scaling of 0.1 mm are in their element if tall and large materials have to be measured. The measuring calliper is closed in unoperated position and can be opened by means of a lifting lever. These thickness gauges are also available with and without stand.

#### Thickness gauges series DM, scaling 0.1 mm

	Measuring range in mm	Measuring depth in mm	Item no. with foot	Item no. without foot
DM 815	0 – 25	0 – 150	511 50 <b>#</b>	510 50 <b>#</b>
DM 815/1	0 - 50	0 – 150	511 51 <b>#</b>	510 51 <b>#</b>
DM 820	0 – 25	0 – 200	511 60 <b>#</b>	510 60 <b>#</b>
DM 820/1	0 - 50	0 – 200	511 61 <b>#</b>	510 61 <b>#</b>
DM 830	0 – 25	0 – 300	511 70 <b>#</b>	510 70 <b>#</b>
DM 830/1	0 - 50	0 - 300	511 71 <b>#</b>	510 71 <b>#</b>
DM 835	0 – 75	0 - 350	511 75 <b>#</b>	510 75 <b>#</b>
DM 840	0 – 100	0 - 400	511 76 <b>#</b>	510 76 <b>#</b>
DM 850	0 – 25	0 - 500	511 80 <b>#</b>	510 80 <b>#</b>
DM 850/1	0 - 50	0 - 500	511 81 <b>#</b>	510 81 <b>#</b>
DM 865	0 – 25	0 - 650	511 90 <b>#</b>	510 90 <b>#</b>
DM 865/1	0 - 50	0 - 650	511 91 <b>#</b>	510 91 <b>#</b>

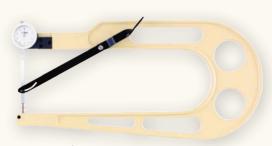
Please replace the hash # in the item number with the code letter of the required gauging insert in dependence on the material to be measured. You will find the standard gauging inserts on the back page.



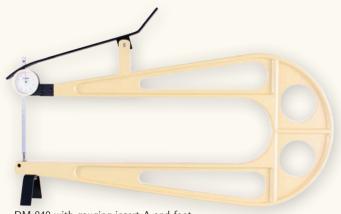
DM 815 with gauging insert A



DM 830/1 with gauging insert C and foot



DM 835 with gauging insert  $\ensuremath{\mathsf{B}}$ 



DM 840 with gauging insert A and foot

#### Big and exact

# Scaling 0.01 mm

In case our thickness gauges of the series DMD/DMH are not big enough and if the scaling of the series DM is not sufficient, our Modul thickness gauges show their advantage because they combine considerable gauging heights and depths with a scaling of 0.01 mm.

Like our other digital thickness gauges, these devices can also be equipped with an interface for the digital processing of the measurement values on customer request. For further information about our statistics software, please see page 11.

#### Thickness gauges series MDM, scaling 0.01 mm

	Measuring range in mm	Measuring depth in mm	Item no. with foot	Item no. without foot
MDM 815/1	0 - 50	0 – 150	231 51 <mark>#</mark>	230 51#
MDM 820/1	0 - 50	0 – 200	231 61 <mark>#</mark>	230 61#
MDM 830/1	0 - 50	0 – 300	231 71 <mark>#</mark>	230 71#
MDM 835	0 – 75	0 - 350	231 75 <mark>#</mark>	230 75 <b>#</b>
MDM 840	0 - 100	0 - 400	231 76 <b>#</b>	230 76#



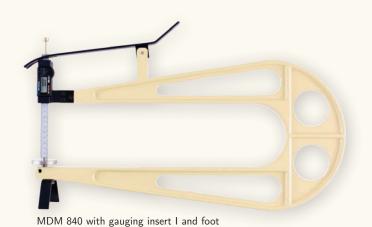
MDM 830/1 with gauging insert C



MDM 820/1 with gauging insert I and foot



MDM 815/1 with gauging insert B and foot



7

#### For special tasks

#### Depth gauge type TM 6

Our TM 6 enables you to measure the component depth quickly. In unoperated position, the measuring calliper is opened via a spring and the tester can close it by pressing it down. A locking screw exists.



Depth gauge type TM 6

- Scaling 0.1 mmMeasuring range 0 25 mm
- Measuring bridge (area)
   60 x 25 mm (optionally larger dimensions)
- Calliper diameter 3 mm

Item no. 510 901

#### Saw setting dial gauge type SM 5

With this dial gauge, the wrenching of saw blades in alternate directions can be checked. Via a bilateral display, the dial gauge can comfortably be read in each position.



Saw setting dial gauge type SM 5

- Scaling 0.1 mm
- Gauging range 0 − 6 mm

Item no. 510 900

### Tube wall thickness gauges DMR 30 and DMRD 30

With the DMR 30 (analogous) and DMRD 30 (digital), you can check the tube wall thickness. The analogous version has tolerance markings, the digital version can be equipped with an interface for the processing of the measurement values on request.



Tube wall thickness gauge type DMR 30

- Scaling 0.01 mmMeasuring range 0 10 mm
- Measuring depth 30 mm
- Minimum inner diameter 8 mm

Item no. 520 210 (DMR 30) 520 211 (DMRD 30)

# **Special requests**

# Sometimes, it has to be something special

Due to our wide product range, we have extensive know how in the field of machine equipment and hence, we are able to react flexibly to special requests. Furthermore, we have been working with a network of reliable partners for decades in order to be able to offer a solution for even the most unusual requests.

Besides trader-specific adaptations of our standard program (like colour and logo), we can also act as Original Design Manufacturer (ODM) and exclusively mass-produce measuring devices according to your drawings.

Ask us - we will make it possible!



DMD with measuring frame cut via water jet for a gauging depth of 100 mm



DM 50 in a special colour



Key indentation depth tester on the basis of DM 2





The gauging insert can be changed by the user in order to check various materials with only one measuring device. The lower seal is designed in such a way that it adjusts itself parallel to the plane. Hence, it will not be necessary to readjust the gauging insert in a time-consuming manner after changing it.

# Other elements in our range of goods

#### Thickness gauges series DM 2000

If our thickness gauges presented in this brochure reach their limits, the devices of the model series 2000 start spilling the beans: They have a stable and rigid base frame with a separate encapsulated measuring block and thus, they allow high-precision thickness measurements (up to 0.001 mm).

Easy operation and objective, reproducible measurement results can be taken for granted when using these devices. Most of the versions have a motor-driven calliper movement. According to the respective equipment version, even an integrated material infeed is available for completely automatised measuring.

All devices are equipped with a digital interface and thus, they allow the processing of the measurement values with the help of our statistics software P-DMG or the data output to a printer. Besides the current measurement value, our models with touch-screen also display the measurement cycle, the average value and the standard deviation of the current measurement series.

Of course, these thickness gauges will also be adapted to the materials to be measured according to your requirements. Thus, the calliper surfaces, the calliper materials and the gauging pressures fit in exactly with the guidelines of ISO, EN, DIN or also with your own test regulations. It does not matter whether you need to measure paper, leather, plastic films, geotextiles or floor coverings – our measuring devices of the series 2000 are suitable for all fabrics.



DM 2020

For further information on the devices listed on this double page, ask for our brochure for stationary measuring devices or visit **wolf-messtechnik.com** 



#### Strain measurement

Our universal strain measurement device UDG was developed in cooperation with leading German automotive manufacturers and the Saxon Textile Research Institute (STFI e. V. Chemnitz, Germany). The static strain as well as the constant strain of non-metallic fabrics are determined. For this purpose, there are several test stations for the measurement which can be used completely independently from each other. Our UDG are the reference testing devices according to the VW central standard PV 3909!

### Rigidity

Besides the strain, the softness is also an essential quality feature of textiles, leather, fleece and other limp materials. Here, the measurement parameter is called rigidity. Our Softometers KWS enable you to compare the rigidity of various materials without specifying device parameters.



Softometer KWS in unoperated position

Am St. N	iclas Schacht	13					<u> </u>	
Measure Nbr.	Charge/Par	number	Actual value	Aver valu		Standard deviation	Maximum	n Minimum
010	1-234		3,68		3,633	0,217	3,9	3,24
Data sets								
1-234 10 1-234 10 1-234 10 1-234 10 1-234 10 1-234 10 1-234 10 1-234 10 1-234 10	0:57:33 001 0:57:39 002 0:57:46 003 0:57:52 004 0:58:01 005 0:58:01 006 0:58:15 007 0:58:15 007 0:58:25 009 0:58:25 009 0:58:35 010 0f Measure	3,75 3,46 3,24 3,73 3,71 3,35 3,72 3,97 3,73 3,68	3,483 3,544 3,578 3,54 3,565 3,616 3,628	0,0 0,205 0,255 0,242 0,222 0,219 0,211 0,242 0,23 0,217	3,75 3,75 3,75 3,75 3,75 3,75 3,75 3,97 3,97 3,97	3,75 3,46 3,24 3,24 3,24 3,24 3,24 3,24 3,24 3,24		
ln	it measurement			G	et value		St	op measurement
DMG-Mo	de Sylvac s	implex						Configuration
Data file	none						<u> </u>	oomiga.con
COM por	t Com3							

### Item no. 540 403

### **Software**

Our statistics software P-DMG for Microsoft Windows enables you to record the measurement values of our measuring devices with digital interface on a PC. Besides the indication of the upper and lower limit, the average value and the standard deviation, it is possible to save the measurement values in an Excel table or as a CSV file – naturally, stating the date, the time and a freely assignable batch number.

## Standard gauging inserts

# code letter for item no.	A	В	С	D	E
form	r = 6 mm	ø 10 mm	ø 25 mm	ø 5 mm	ø 16 mm
recommended for	rigid leather, glass, sheet metal	wood, rubber, soft leather, foil	soft rubber, felt, fleece	rubber rings, round material	paper, cardboard, chipboard and fibreboard, plywood

# code letter for item no.	F	G	Н	I	М
form	ø 3,5 mm	r = 1,5 mm	ø 30 mm	ø 50 mm	ø 20 mm
recommended for	sheet metal, glass, round material	very rigid material	foams and insulating materials	very soft foams and insulating materials	rubber sheets, felt, soft materials

