

Measuring Solutions

EDITION 75

Miscellaneous





Miscellaneous

Magnifiers, Lamps and Inspection Tools	262 – 267
Magnifiers and Lamps	262 – 263
Magnifiers and Lenses	264 – 265
Inspection Tools	266 – 267
Liquid Measuring	268
Liquids	268
Refractometers	268
Stopwatches and Counters	269 – 271
Stopwatches	269
Stroke Counters	270
Handpiece Counter and Length Counter	271
Data Processing and Digital Equipment	272

Image Directory • Miscellaneous

				
Page 262	Page 262	Page 262	Page 262	Page 263
				
Page 263	Page 263	Page 263	Page 264	Page 264
				
Page 264	Page 264	Page 266	Page 265	Page 265
				
Page 265	Page 266	Page 266	Page 266	Page 267
				
Page 267	Page 267	Page 267	Page 267	Page 267
				
Page 267	Page 267	Page 268	Page 268	Page 268
				
Page 268	Page 269	Page 269	Page 269	Page 270

				
Page 270	Page 270	Page 270	Page 271	Page 271
				
Page 271	Page 271	Page 271	Page 272	Page 272
				
Page 272	Page 272	Page 272	Page 272	Page 272
				
Page 272	Page 272	Page 272	Page 272	Page 272
				
Page 272	Page 272	Page 272	Page 272	Page 272

Magnifiers and Lamps

LED Handheld Magnifier

- with 3 powerful bright LED lights
- high tech optic, hardened lens surface
- frame and handle made of rugged ABS plastic
- incl. 3x 1.5 V battery (type AAA, art. no. 90002), with operation manual



ART N°	size of lense ø mm	magnification	quantity LEDs	LED light colour	→ mm ←
600145	75	3.00 x	3	white	195 x 85 x 30
600148	90	2.50 x	3	white	210 x 105 x 30

LED Handheld Magnifier

- very popular model
- allicate glass optic, scratch-resistant and solvent-resistant
- with high power LED, rugged ABS-plastic housing
- with aplanatic lens
- incl. 3x battery 1.5 V (type AAA, art.-no.: 90002)



ART N°	size of lense ø mm	magnification	→ mm ←
600166	30	10x	38 x 105 x 25
600167	21	15x	38 x 105 x 25

Magnifier with LED Lamp

- in pocket size
- with 3 magnifying lenses
- 3x, 5x and 7x magnification
- with one extra bright LED lamp
- in a rugged ABS-plastic housing
- incl. 2x 3 V battery (type CR2032, art. no.: 90112)



ART N°	magnification	field of view mm	→ mm ←
601230	3x / 5x / 7x	50 x 50 / 25 x 20 / 25 x 20	117 x 61 x 9

Head-Wearing Magnifier

- with swiveling LED-Lamp, detachable
- total new model with 2 powerful LED lights
- ideal for technicians, watchmakers, electronics techn. , dentists, etc.

- frame is made of high-quality plastic
- forehead and headband with adjusting screws for perfect fit
- with 5 different lenses of high-quality, with special surface treatment
- 11 magnification possibilities with 2 attachable lenses, up to 6x magnification
- incl. 3x 1.5 V batteries (type AAA, art. no.: 90002), with operation manual



swiveling lens



5 different lenses



removable LED



ART N°	magnification possibility	quantity lenses	field of view mm	quantity LEDs	LED light colour	working distance mm
600230	1.00 - x / 1.50 - x / 2.00 - x / 2.50 - x / 3.00 - x / 3.50 - x / 4.00 - x / 4.50 - x / 5.00 - x / 5.50 - x / 6.00 - x	5	110 x 40	2	white	60 - 350

Professional LED Illuminated Magnifier

- with articulated arm
- adjustable at any position, with 360° rotation

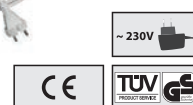
- metal body, powder coated, insulation lamp housing made of rugged plastic
- with extra large and precision glass lens, 3 dpt.
- with table clamp, cable inside of the arm, overload category CAT I
- with extra bright LED's, mounted around the lens



ART N° 600354



ART N° 600350



ART N°	voltage	magnification	field of view mm	total throat mm
600350	230	1.75 x	ø 127	900
600354	230	1.75 x	190 x 160	900

LED Work Lamp

- modern work lamp
- designed for universal working places

- sturdy housing
- with rubber covered handle
- with hand strap, ON/OFF pressure switch
- 52 bright white LED's at the side and one LED at the top
- incl. 3x 1.5 V battery (type AA, art. no.: 90003)



magnetic bottom



ART N°	quantity of LED's	LED light colour	mm
600025	52 + 1	white	280 x 42 x 42

Magnifiers and Lenses

Precision Technical Magnifier

• with LED-Light and exchangeable scales

- tempered glass-lenses, housing made of aluminium / ABS / PE
- delivery with crosshair at:
art. no. 601126 = 10 – 0 – 10 mm scale, graduation 0.10 mm, scale-ø 26 mm
art. no. 601135 = 12 – 0 – 12 mm scale, graduation 0.10 mm, scale-ø 35 mm
- adjusting by focus-ring, exchangeable measuring scales
- attachable LED unit, bright, white LED light
- incl. 3x 1.5 V battery (type LR41, art. no.: 90203)

ART N° 601126

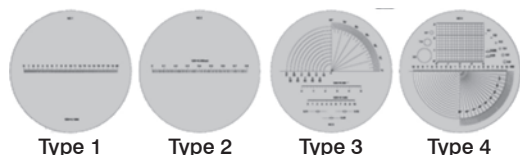


ART N° 601135



Exchangeable Scales

- tempered glass lenses, please mention type code and outside diameter!



Type 1

Type 2

Type 3

Type 4

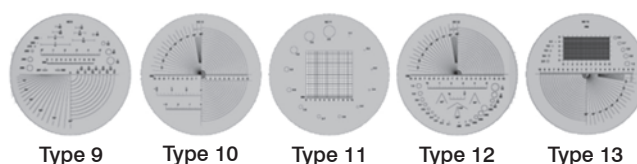


Type 5

Type 6

Type 7

Type 8



Type 9

Type 10

Type 11

Type 12

Type 13



ART N°	size of lens ø mm	magnification	→ mm ←
601126	18.50	10 x	95 x 70 x 65
601135	21.00	10 x	95 x 70 x 65

Watchmaker Magnifiers and Stone Magnifiers

• suitable for craftsmen and industry

- biconvex silicate lens
- flame resistant plastic housing, with air hole to cope up with steaming

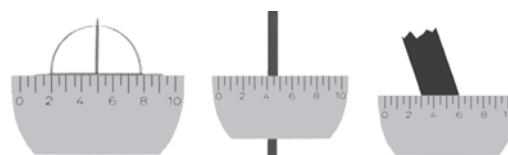


ART N°	size of lense ø mm	magnification
600194	25	7 x
600195	25	10 x

Technical Stand Magnifiers

- with measuring scale
- for precise measurements between scale lines, spaces, etc.

- adjustable aplanatic lens
- black chromed metal housing
- stainless steel scale, with clear graduation



More scales as spare part
are available on request!



ART N°	size of lense ø mm	magnification	length of scale mm	mm	possibility of reading mm	CC
600178	20	10 x	10	0.10	0.025	on request
600180	20	8 x	10	0.10	0.025	on request
600179	20	6 x	20	0.10	0.025	on request

Linen Testers

- product for highest demands
- biconvex lens, optically ground silicate glass
- precision brass body, satin chromed



ART N°	size of lense ø mm	magnification	height mm	cut-out mm
600200	12.50	12x	23	10 x 10
600201	14.50	10x	27	15 x 15
600202	17.50	8x	33	20 x 20
600204	31.50	5x	53	30 x 30

Precision Folding Magnifier

- popular technical folding magnifier
- compound triple lens, aplanatic lens precision glass optic
- polished chrome plated metal housing, with loop
- metal lens frame, wrapped with black rubber



ART N°	size of lense ø mm	magnification	→ mm ←
600150	18	10x	35 x 23 x 18

Precision Folding Magnifier

- proven technical folding magnifier
- precision glass optics
- satin chrome plated brass housing, with loop
- black lacquered metal lens frame

ART N° 600153



ART N° 600159



ART N°	size of lense ø mm	magnification	type of lense		→ mm ←
			aplanatic	biconvex	
600153	20.30	10x	✓	—	39 x 39 x 34
600159	30.00	4x + 6x = 10x	—	✓	42 x 27 x 56

Inspection Tool Kit

- multipart set, especially for garages, mechanics, plumbers, etc.
- well assembled kit for professional users

5-piece set, contents:

- stainless steel telescope bar with quick release, non-slip grip, 530 mm working length
- socket with ultra bright NICHIA LED-Licht, incl. 3x 1.5 V battery (type LR44, art. no.: 90213)
- socket with powerful magnet, 8lb, for to pick up and hold metal objects in hard to reach places
- inspection mirrors, with perfect reflection, no deterioration in the mirror mounted in a stainless steel frame, 360° rotatable, one mirror in ø 50 mm and one mirror rectangular 60 x 40 mm

7-piece set, contents:

- quality claw pick-up device, semi-rigid hose, 400 mm length
- stainless steel telescope bar with quick release, non-slip grip, 530 mm working length
- socket with ultra bright NICHIA LED light, incl. 3x 1.5 V battery (type LR44, art. no.: 90213)
- socket with powerful magnet, 8lb, for to pick up and hold metal objects in hard to reach places
- inspection mirrors, with perfect reflection, no deterioration in the mirror mounted in a stainless steel frame, 360° rotatable, one mirror in ø 50 mm and one mirror rectangular 60 x 40 mm
- stainless steel tray, ø 110 mm, with powerful permanent magnetic bottom for small parts



Price / Performance:
good - excellent

ART N° 474470



ART N° 474471



ART N°	set	telescope bar	LED	mirror ø 50 mm	mirror 60 x 40 mm	magnet	claw pick-up	magnetic tray
474470	5-pcs.	✓	✓	✓	✓	✓	✗	✗
474471	7-pcs.	✓	✓	✓	✓	✓	✓	✓

Magnetic Tray

- stainless steel, polished
- with powerful permanent magnet bottom



ART N°	Gauss	mm
474475	1000 – 1200	ø 150

Magnet Lifter

- professional model for the technician
- with quick release and telescope bar

- socket with magnet
- telescope bar, stainless steel
- 360° rotatable and swivel joint
- insulated handle, with clip



INOX



kg

8

ART No

474441



mm

~ 650

Magnet Lifter

- with telescope bar

- telescope bar, stainless steel, with clip
- art.-no. 334614 additionally with scribe



INOX



kg

3.5

ART No

474442

334614



mm

~ 530

~ 650

Professional Inspection Mirror

- with telescope bar

- stainless steel telescope bar
- 360° rotatable and swivel joint
- insulated handle



INOX

ART No

474452

474453

474454



mm

~ 610

~ 620

~ 620



mm

ø 40

ø 50

43 x 65

Professional Inspection Mirror

- with telescope arm and LED light

- stainless steel telescope bar
- 360° rotatable and swivel joint
- detachable LED light (switchable) and with clip
- incl. 3x 1.5 V battery (type LR41, art.-no.: 90203)



bright LED light, detachable

LR41 1.5V

ART No

474465



mm

~ 610



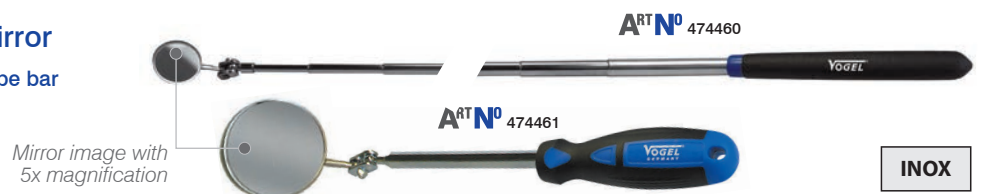
mm

ø 26

Professional Inspection Mirror

- with 5x magnification and telescope bar

- stainless steel telescope bar
- 360° rotatable and swivel joint
- insulated handle



Mirror image with 5x magnification

INOX

ART No

474460

474461



mm

~ 610

~ 510



mm

ø 24

ø 55

Liquid Measuring

EMIL OTTO • Dressing Paste

- the test pieces are covered with the dressing paste, then moved one after the other or on a dressing plate: by this the paste forms a colour coat, showing the evenness
- easy to remove
- 2 different colours available
- delivery in a tube or in a plastic box



ART N°	colour	contents ml	tube	box
262631	blue	80	✓	—
262632	blue	250	—	✓
262641	red	80	✓	—
262642	red	250	—	✓

EMIL OTTO • Special Cleaner

- this cleaner dissolves dressing paste, marking ink etc.
- skin friendly (art. no.: 262645)
- delivery in a spray can or canister

ART N° 262645



ART N° 262644



ART N°	contents ml	spray can	canister
262644	1000	—	✓
262645	500	✓	—

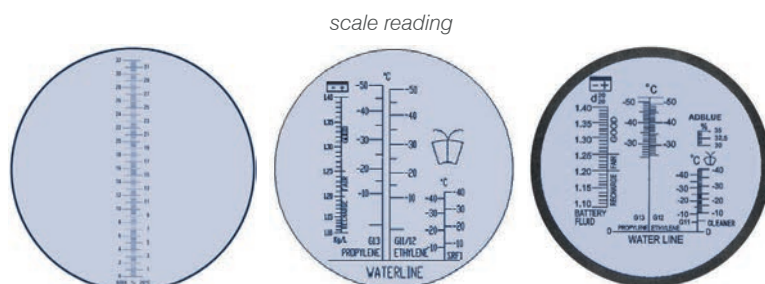
Hand-Held Refractometer

- refractometers are optical precision instruments for measuring the optimal concentration of liquids
- rugged stainless steel housing with rubber handle
- with adjusting screw, folding cover, okular with rubber eye cup, quality optic
- incl. operation manual

ART N° 653200



Further instruments available on request



ART N° 653200

ART N° 653210

ART N° 653211



ART N°	application range			
653200	lubricants, coolant liquids, fruit, juices, wines, etc.	0 – 32 % Brix	±0.20 %	170 x ø-29
653210	automotive industry (standrad)	E: -40 °C – 0 °C P: -50 °C – 0 °C B: 1.10 – 1.40 SG	±5 °C ±5 °C ±0.01 SG	153 x ø-29
653211	automotive industry (universal with Adblue) Adblue concentration, coolant liquids, antifreeze, detergents and battery acidity	Adblue: 30 – 35 % E: -40 °C – 0 °C P: -50 °C – 0 °C B: 1.10 – 1.40 SG	5 °C 5 °C 0.01 SG	170 x ø 29



Electr. Digital Stopwatch

- for standard requirements
- with 2-button-operation
- sturdy ABS-plastic housing
- LCD display with clear reading
- start / stop / reset-addition / split / dual measuring
- incl. 1x 1.5 V battery (type SR54, art.-no.: 90310), with lanyard and operation manual



ART N°	 sec.	indicating range hrs. / min. / sec.	LCD digits	digit height mm	 mm
580210	1/100	9 / 59 / 59.99	7	6.5	66 x 70 x 21

Electr. Digital Stopwatch • IP54

- for standard requirements
- with 3-button-operation
- sturdy ABS-plastic housing
- splash water proof acc. to DIN 40050 / IEC 60529
- LCD display with clear reading
- start / stop / reset-lap / split / daytime / date / alarm with snooze
- art.-no. 580505 with 1.5 V battery (type LR44, art.-no.: 90213), art.-no. 580506 with 3 V battery (type CR2032, art.-no.: 90112)
- with lanyard, protection pouch and operation manual

additional functions for art.-no. 580506



- memory for 10 laps
- recall of lap and split times

ART N° 580505



ART N° 580506



ART N°	 sec.	indicating range hrs. / min. / sec.	LCD digits	digit height mm	 mm
580505	1/100	9.00 / 59.00 / 59.00	6	11	85.50 x 64.00 x 22.00
580506	1/100	9.00 / 59.00 / 59.99	7	5 / 4	85.50 x 64.00 x 22.00



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Stroke Counters

Stroke Counters

- zero reset by means of turning knob
- adding in one stroke direction
- the lever can be relocated at any position of the driving shaft and returns automatically to the basic position

- movement of stroke min. 38°, max. 60°
- driving shaft righthand side or lefthand side available

ART N° 477001



ART N° 477003



driving shaft at right side



ART N°

ART N°

revolution
max. 1/min.

quantity of
digits

digit height
mm

driving shaft-ø
mm

base plate
mm

height
mm

477001

477002

500

5

4.5

4.0

40 x 46

27.5

477003

477004

500

5

4.5

4.0

60 x 29

27.5

driving shaft at left side



ART N°

ART N°

revolution
max. 1/min.

quantity of
digits

digit height
mm

driving shaft-ø
mm

base plate
mm

height
mm

477005

477006

500

5

4.5

4.0

40 x 46

27.5

477007

477008

500

5

4.5

4.0

60 x 29

27.5

Stroke Counters

- zero reset by means of detachable key
- adding in one stroke direction
- the lever can be relocated at any position of the driving shaft and returns automatically to the basic position

- movement of stroke min. 38°, max. 60°
- driving shaft righthand side and lefthand side

ART N° 477010



ART N° 477012



driving shaft at right and left side



ART N°

ART N°

revolution
max. 1/min.

quantity of
digits

digit height
mm

driving shaft-ø
mm

base plate
mm

height
mm

477010

477011

500

6

4.5

4.0

60 x 70

28.0

477012

477013

500

7

7.0

7.0

120 x 64

45.0

Piece/Length Counters and Measuring Wheels

Mechanical Manual Piece Counters

- for counting the number of people in cinemas, at sporting events, at ski lifts, etc.
- also for counting piece parts when taking inventory, during production or when counting traffic
- sturdy metal housing
- available with retaining ring, table mounting or wall mounting

ART N° 477103



ART N° 477101



ART N° 477102

ART N° with retaining ring	ART N° with table mounting	ART N° with wall mounting	quantity of digits	digit height mm	housing-ø mm	base plate-ø mm
477101	477102	477103	4	4.50	47	65

Length Counter (Meter Counter)

- zero reset by means of detachable key
- adding in one turning direction and in backwards turning minus
- standard: 5 rev. = 10 figures = 1.0 m by 20 cm measuring wheel circumference
- measuring range: 99.999,9 m (red decimal display)
- revolution max. 100 m/min. with measuring wheel
- revolution max. 300 m/min. without measuring wheel
- driving shaft righthand side and lefthand side



driving shaft at right and left side



ART N°	revolution max. 1/min.	quantity of digits	digit height mm	driving shaft-ø mm	base plate mm	height mm
477130	100 / 300	6	4.50	4	60 x 70	28

Measuring Wheels





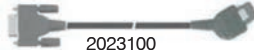
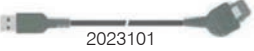










- made from various material and with several surfaces

Other bore hole- and wheel-diameters on request!



ART N°	measuring wheel-circumference cm	bore hole-ø mm	plastic / hytel ribbed	aluminium / rubber nap version	aluminium / knurled
477140	20	4	✓	—	—
477141	20	4	—	✓	—
477142	20	4	—	—	✓

Data Processing

	ART N°	article description
 compatible with 	2040101	WiFi
 compatible with 	2040102	WiFi Mini-USB
 2023100  2023101 Software 	2023100	PROXIMITY - RS232 Software
 Software 	2023101	PROXIMITY - USB Software
 Software 	2424101	POWER - USB, external power Software
 2020188	2020188	USB - RS232, adapter (optional suitable for 2323100)
 compatible with 	2420192	USB - Mini-USB (with data key) optional, additional available: foot switch (art. no. 209011)
 compatible with 	2420194	USB-PC - Duo-Data output interface box with data key and with foot switch port (connectivity also for Mitutoyo Digimatic measuring devices) optional, additional available: foot switch (art.-no.: 209011)

	ART N°	article description
 compatible with 	3420195	USB - Mini-USB interface box with data key and with foot switch port optional, additional available: foot switch (art.-no.: 209011)
 compatible with 	230139	USB - Mini-USB interface box with data key and with foot switch port optional, additional available: foot switch (art.-no.: 209011)
 compatible with 	209001	Interface USB - Mini-USB, 0.01 mm / 0.001 mm, with data key
	209010	foot switch made of metal, with cinch plug 2.5 mm
	209011	foot switch made of metal, with cinch plug 3.5 mm
	2023105	wireless data transfer transmitter module for measuring devices with proximity interface
	2023104	wireless data transfer USB receiver (up to 15 m distance)
	2023106	wireless data transfer USB receiver Bluetooth®
	2023106S	wireless data transfer USB receiver Bluetooth®
	209000	Bluetooth® transmitter
	209009	Bluetooth® transmitter Mini-USB



If precision

is most important

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