



EDITION

2015/2016

Explanations

In our catalogue you will find several pictograms beside the text description. They should be helpful for a quick and easier explanation of the articles and their attributes.

Protection (IP-Code) acc. to DIN 40050 / IEC 60529 etc.

	Protected against solid particles $\varnothing > 1 \text{ mm}$
	Protected against solid particles $\varnothing > 1 \text{ mm}$ and drop water resistant
	Splash water resistant
	Drop water resistant
	Drop water resistant
	Dust and spray water resistant
	Dust and spray water resistant
	Dust and drop water proof
	Dust and spray water proof
	Dust and splash water proof
	Dust and jet water proof
	Water and oil tight (at times)
	Water and oil tight (permanent)
	Article is explosion proof
	Article with UL-certificate (american safety norm)

Manufacturing process

	Article with laser engraved scale / graduation
	Article with etched scale / graduation
	Article with printed scale / graduation (Pad print)
	Hardened
	Stainless steel

Icons for data process

	RS232 data output by data cable
	Opto RS232 data output
	Proximity data output, inductive, contactless
	Data output by USB and data cable
	Data output by USB and Mini USB (compatible with Mitutoyo Digimatic)
	wireless communication (WiFi) possible
	Software on CD-Rom

Several Icons

	Article-Number
	Reading / Resolution
	Weight in kg
	Cross section of the article
	Max. total accuracy(±)
	Repeatability (±)
	Individual measuring range
	Article dimension
	Measuring- and weighing-unit selectable or swichtable
	Corresponding battery included
	Corresponding battery included
	Corresponding cell battery included
	Corresponding cell battery included
	Corresponding lithium battery included
	Corresponding lithium battery included
	Accu
	Power supply
	Laser protection class
	Magnet power
	Induction
	Laser wavelength
	Shock proof
	Stand out
	Reading in mm and inch
	Reading in cm and inch
	Article with ABS/INC measuring system
	Article with ABSOLUTE measuring function

ATTENTION
We charge transport and packing costs for articles marked with *!














About the Certification:













We are also able to quote all DIN measuring tools with a certificate to VDI/VDE/DGQ 2618. Measuring tools manufactured at works standard will be certificated according to this norm. The calibrations will be done by an external calibration laboratory. The delivery time for external calibration will take approx one week. Calibration orders can't be cancelled and calibrated goods are excluded from sale of return. Whether you expect a calibration by laboratory of your choice, we are unable to guarantee for passing. Compensation of refund of costs are also impossible.

Norms, accuracy-classes, regulations	
EC I	Article fulfils the respective EC Class standard
EC II	Article fulfils the respective EC Class standard
E1	Article fulfils the respective verification standard
CC	Workshop calibration certificate, inclusive
TC	Article with test certificate, marked with Ident.-No.
CE	Article with CE classification
MID CODE	Directive of the European Parliament and of the council on measuring instruments
T2	Article with strengths tolerances acc. to DIN 2275
T3	Article with strengths tolerances acc. to DIN 2275
ASTM	Article fulfils the respective American standard
BS	Article fulfils the respective British standard
JIS K	Article fulfils the respective Japanese standard
DIN	Article fulfils the respective DIN standard
DIN EN	Article fulfils the respective DIN EN standard
ISO	Article fulfils the respective ISO standard
DIN ISO	Article fulfils the respective DIN ISO standard
NORM	Article manufactured acc. to tolerances of workshop standard
TÜV GS	Article with seal: "TÜV/Geprüfte Sicherheit (GS)"
vd TÜV	Article with seal: "TÜV"
IEC / EN	Article fulfils the respective norm standard

**Workshop or „DAkKS“-Calibration
(German Calibration Service)**
Calibrated instruments available for extra charge.
Please send us your specific inquiry.

Quality categories	
★★★★★	Product for highest demands
★★★★☆	Industry and craft
★★★☆☆	Craft
★★☆☆☆	DIY and training

Art of package for each article	
	Article will be packed in a carton box
	Article will be packed in a sturdy box (wood, plastic or aluminum)
	Article will be packed in a leatherette pouch
	Article will be packed in a PVC pouch
	Article will be packed in a sleeve
	Article will be sealed in a foil
	Article will be packed in a DIY plastic pouch with hanging card
	Article will be packed in a plastic film pouch with hanging card
	Article comes with wall hanging card
	Article will be packed in a blister packing
	Article will be packed a clear plastic box
	Carry bag, for outdoor use
	Article delivered on a pallet

Product specifications	
	Caliper jaw length
	Measuring internal dimension
	Caliper jaws (cross shape)
	Caliper jaws (knife shape)
	Depth Gauge
	Thumbroll
	Fine adjustment
	Thread pitch
	Measuring Inside
	Measuring outside
	Pointer rotation
	Setting gauge

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4 b

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4 c

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4 d

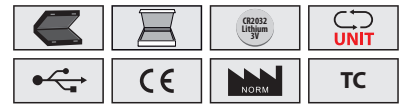
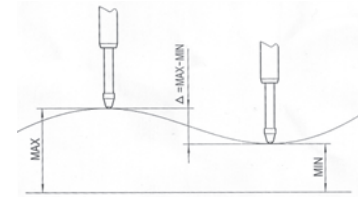
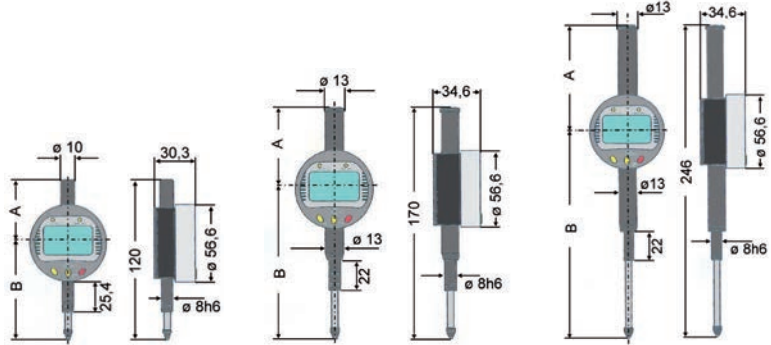
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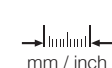





Precision Digital Dial Indicators

Electr. Digital Dial Indicator

- with USB data output
- aluminium housing with sturdy plastic cover
- large LCD display with clear reading, digit height 10 mm
- stem and spindle stainless, hardened and lapped
- exchangeable probe tips, M 2.5
- On/Off button, ABS and Preset function
- zero setting at any position, mm/inch switchable
- min./max., tol. and set function (selection and indication of tolerance limits)
- with a flat cover and cover with lug
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual

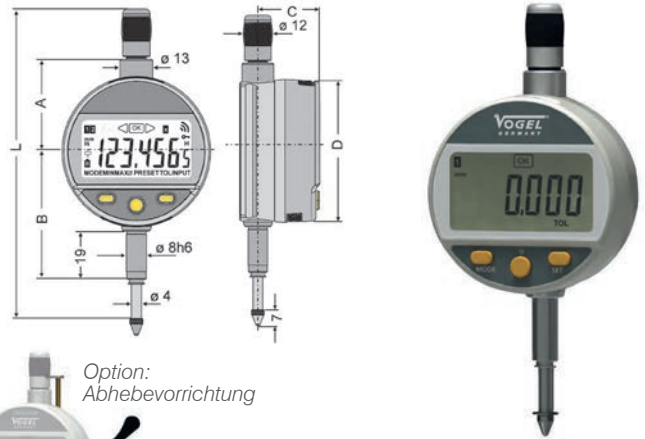


ART No	 mm / inch	 mm / inch	 mm	 max. 1) mm	measuring force N	min/ max tol/set	A mm	B mm	 KG	ART No CC
24 2060	0 - 12.7 / 0 - 0.5	0.01 / 0.0005	0.010	0.010 1)	< 1.50	✓	75	50	0.100	24 94200
24 2055	0 - 12.7 / 0 - 0.5	0.001 / 0.00005	0.003	0.05	< 1.50	✓	75	50	0.100	24 94200
24 2160	0 - 12.7 / 0 - 0.5	0.001 / 0.00005	0.003	0.05	< 1.50	✓	75	50	0.100	24 94200
24 2163	0 - 25.4 / 0 - 1.0	0.01 / 0.0005	0.010	0.015 1)	< 1.50	✓	120	60	0.100	24 94201
24 2056	0 - 25.4 / 0 - 1.0	0.001 / 0.00005	0.003	0.05	< 1.50	✓	110	60	0.115	24 94201
24 2161	0 - 25.4 / 0 - 1.0	0.001 / 0.00005	0.003	0.06	< 1.50	✓	110	60	0.100	24 94201
24 2057	0 - 50.8 / 0 - 2.0	0.001 / 0.00005	0.003	0.05	< 1.50	✓	160	90	0.125	24 94202
24 2164	0 - 50.8 / 0 - 2.0	0.01 / 0.0005	0.010	0.030 1)	< 1.50	✓	155	85	0.100	24 94202
24 2162	0 - 50.8 / 0 - 2.0	0.001 / 0.00005	0.03	0.08	< 1.50	✓	155	85	0.100	24 94202
24 2063	0 - 12.7 / 0 - 0.5	0.01 / 0.0005	0.010	0.020 1)	< 1.50	✗	75	45	0.115	24 94200
24 2061	0 - 25.4 / 0 - 1.0	0.01 / 0.0005	0.010	0.020 1)	< 1.50	✗	110	60	0.115	24 94201
24 2062	0 - 50.8 / 0 - 2.0	0.01 / 0.0005	0.010	0.020 1)	< 1.50	✗	160	90	0.125	24 94202

Data cable for digital measuring instruments see page 312

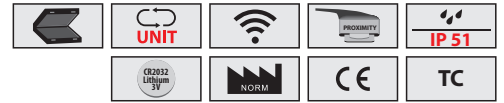
★★★★★ DIGI PLUS-LINE® Electr. Digital Indicator • IP51

- the measurement will not be influenced by the liquids on the scale or on measuring sensor
- with Sylvac electronic
- with proximity data output
- connection proximity & power USB / RS232 / wireless (optional choice)
- external power supply combined with data output „Power“
- mechanic in stainless steel, hardened
- housing made of aluminium, front plate made of plastic, 270° swiveling
- LCD display with clear reading, integrated tolerance illuminating diode
- Smart Inductive Sensor (S.I.S.):
 - autom. On/Off, autom. sleep mode
 - storage of the original value, ABSOLUT system
- zero setting at any position, SET button, MODE button
- customizable button for a wide selection of function (min/max, DELTA, TOL, conversion factor), ± pre-select value, PRESET, automatic power off
- mm/inch switchable
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual



Option

- integrated extraction device for 12.5 mm, (art.-no.: 24 09205)
- integrated extraction device for 25.0 mm, (art.-no.: 24 09206)



ART NO	mm / inch	mm / inch	mm	mm ¹⁾ 1 Digit	A mm	B mm	C mm	D mm	L mm	KG	ART NO CC
24 0215	12.5 / 0.5	0.01 / 0.0005	0.002	¹⁾ 0.010	36.6	50.5	25.4	59.5	122.7	0.117	24 94200
24 0205	12.5 / 0.5	0.001 / 0.00005	0.002	0.003	36.6	50.5	25.4	59.5	122.7	0.117	24 94200
24 0216	25.0 / 1.0	0.01 / 0.0005	0.002	¹⁾ 0.010	49.4	50.5	25.4	59.5	148.3	0.120	24 94201
24 0206	25.0 / 1.0	0.001 / 0.00005	0.002	0.004	49.4	50.5	25.4	59.5	148.3	0.120	24 94201
24 0217	50.0 / 2.0	0.01 / 0.0005	0.002	¹⁾ 0.020	102.0	88.0	25.4	59.5	263.0	0.161	24 94202
24 0207	50.0 / 2.0	0.001 / 0.00005	0.002	0.005	102.0	88.0	25.4	59.5	263.0	0.161	24 94202
24 0218	100.0 / 4.0	0.01 / 0.0005	0.002	¹⁾ 0.020	153.0	139	25.4	59.5	416.0	0.208	24 94203
24 0208	100.0 / 4.0	0.001 / 0.00005	0.002	0.006	153.0	139	25.4	59.5	416.0	0.208	24 94203
24 0219	150.0 / 6.0	0.01 / 0.0005	0.002	¹⁾ 0.020	205.0	193	25.4	59.5	573.0	0.265	24 94204
24 0209	150.0 / 6.0	0.001 / 0.00005	0.002	0.010	205.0	193	25.4	59.5	573.0	0.265	24 94204

★★★★★ DIGI PLUS-LINE® Electr. Digital Indicator • IP51 NEW

- the measurement is not affected by liquids on the scale or on the probe
- with Sylvac electronic
- with proximity data output
- with analog display (up to 0.2 μm) and configuration of the tolerance limits

- connection proximity & power USB / RS232 / wireless (optional choice)
- external power supply combined with data output „Power“
- mechanic in stainless steel, hardened
- housing made of aluminium, front plate made of plastic, 270° swiveling
- LCD display with clear reading, integrated tolerance illuminating diode
- Smart Inductive Sensor (S.I.S.):
 - autom. On/Off, autom. sleep mode
 - storage of the original value, ABSOLUT system
- zero setting at any position, SET button, MODE button
- customizable button for a wide selection of function (min/max, DELTA, TOL, conversion factor), ± pre-select value, PRESET, automatic power off
- mm/inch switchable
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual



Option

- integrated extraction device for 12.5 mm, (art.-no.: 24 09205)
- integrated extraction device for 25.0 mm, (art.-no.: 24 09206)



ART NO	mm / inch	mm / inch	mm	mm ¹⁾ ± 1 Digit	L mm	A mm	B mm	C mm	D mm	KG	ART NO CC
24 0260	12.5 / 0.5	0.001 / 0.00005	0.002	0.003	122.7	36.6	50.5	25.4	59.5	0.117	24 94200
24 0261	25.0 / 1.0	0.001 / 0.00005	0.002	0.004	148.3	49.4	50.5	25.4	59.5	0.120	24 94200

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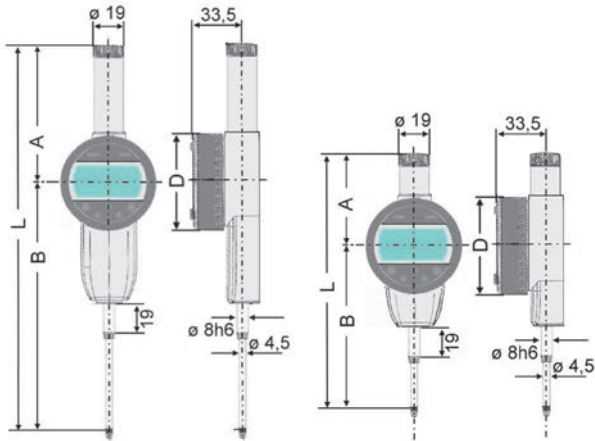
Precision Digital Indicators and Data Transmission with Data Box

DIGI PLUS-LINE „Absolute“ Electr. Digital Dial Indicator • IP65

- water and coolant acc. to DIN 40050 / IEC 60529
- with **VOCOM-S** duo data output, top model (connectivity also for Digimatic measuring devices)
- mechanical parts in stainless steel, hardened, IP51 protected
- housing IP65 protected, front plate made of plastic, 330° swiveling
- large LCD display with clear reading, digit height 10 mm
- On/Off button, ABS/INC measuring system, with ORIGIN system
- min/max, tolerance, ± pre-select value, PRESET, zero setting at any position
- mm/inch switchable
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual

Options

- data box with USB port (art.-no.: 24 20194)
- foot switch for data box (art.-no.: 20 9010)
- lifting device as spare part (art.-no.: 24 9994)



ART No	mm / inch	mm / inch	mm	max. mm	A mm	B mm	D mm	L mm	KG	ART No CC
24 0250	12.7 / 0.5	0.01 / 0.0005	0.002	0.02	125	55	60	62	0.196	24 94200
24 0255	12.7 / 0.5	0.001 / 0.00005	0.002	0.003	125	55	60	62	0.196	24 94200
24 0251	25.4 / 1.0	0.01 / 0.0005	0.002	0.02	161	55	97	62	0.307	24 94201
24 0256	25.4 / 1.0	0.001 / 0.00005	0.002	0.003	161	55	97	62	0.307	24 94201
24 0252	50.8 / 2.0	0.01 / 0.0005	0.002	0.04	240	83	158	62	0.382	24 94202
24 0257	50.8 / 2.0	0.001 / 0.00005	0.002	0.005	240	83	158	62	0.382	24 94202

DIGI PLUS-LINE Data Transmission with Data Box

- with **VOCOM-S** duo data output
- connection via USB data cable
- also suitable for Digimatic connection
- connection socket for foot switch



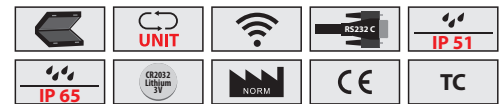
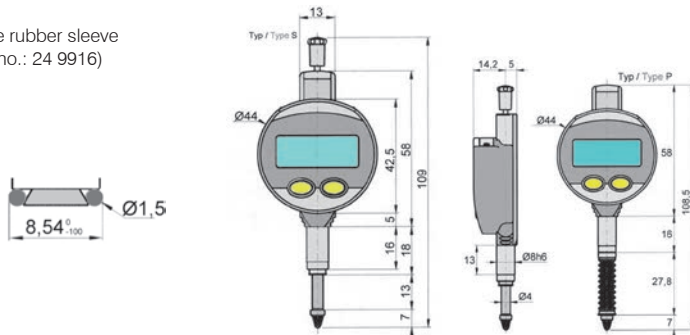
ART No	application example	article description	KG
24 20194		data box with USB port	0.060
20 9010		foot switch with port	0.170

★★★★★ DIGI PLUS-LINE® Electr. Digital Small Dial Indicator • IP65

- the measurement will not be influenced by the liquids on the scale or measuring sensor (IP51)
- dial indicators „type P“ water and coolant proof acc. to DIN 40050 / IEC 60529 (IP65)
- with Sylvac electronic
- with data output RS232 „Power“
- data output RS232 combined with external power supply
- data output S_Connect power USB / RS232 / wireless (optional choice)
- mechanical parts in stainless steel, hardened
- housing and front plate made of polyamide
- LCD display with clear reading, digit height 6 mm
- autom. On/Off switching, zero setting at any position
- hold function, absolute and relative mode, pre-select value
- mm/inch switchable, reversal of the measuring device
- with dovetail guide at the back
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual

Option

- spare rubber sleeve (art.-no.: 24 9916)



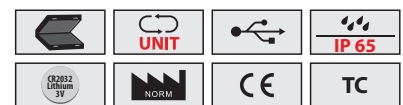
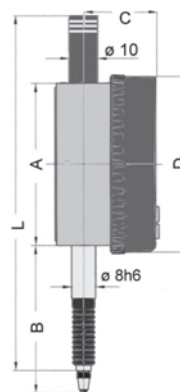
ART NO	mm / inch	mm / inch	mm	mm 1) 1 Digit	type P protected	type S standard	measuring force N	KG	ART NO CC
24 0230	0-12.7 / 0-0.5	0.01 / 0.0005	0.002	1) 0.010	✓	-	0.60 - 1.30	0.070	24 94230
24 0231	0-12.7 / 0-0.5	0.01 / 0.0005	0.002	1) 0.010	-	✓	0.50 - 0.90	0.070	24 94230
24 0232	0-12.7 / 0-0.5	0.001 / 0.00005	0.002	0.005	✓	-	0.60 - 1.30	0.070	24 94230
24 0233	0-12.7 / 0-0.5	0.001 / 0.00005	0.002	0.005	-	✓	0.50 - 0.90	0.070	24 94230

★★★★★ DIGI PLUS-LINE® Electr. Digital Dial Indicator • IP65

- water and coolant proof acc. to DIN 40050 / IEC 60529
- with mini USB data output
- mechanical parts in stainless steel, hardened
- housing made of aluminium, front plate made of plastic
- LCD display with clear reading, digit height 11 mm
- On/Off button, ABS/INC measurement system
- zero setting at any position, ± pre-select value, PRESET
- mm/inch switchable
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual

Option

- spare rubber sleeve (art.-no.: 24 9915)



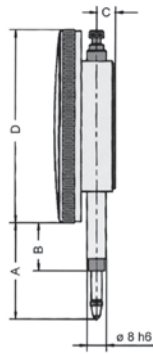
ART NO	mm / inch	mm / inch	mm	mm 1) 1 Digit	A mm	B mm	C mm	D mm	L mm	KG	ART NO CC
24 2140	12.5 / 0.5	0.01 / 0.0005	0.02	1) 0.010	59	65	30	59.5	145	0.095	24 94200
24 2150	12.5 / 0.5	0.001 / 0.00005	0.004	0.003	59	65	30	59.5	145	0.095	24 94200







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Precision Dial Indicators

★★★★★ BLUE-LINE® Small Dial Indicator workshop grade

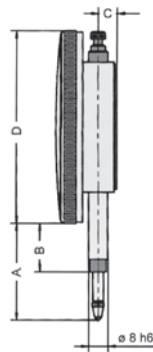
- standard quality
- e.g. for workshop use
- metal housing, matt chrome finish
- spindle and stem stainless and hardened
- with turnable scale by outer ring, for easy zero setting









ART No	 mm	 mm			 mm	A mm	B mm	C mm	D-ø mm	 KG	
			yes	no							
24 1001	0 - 3	0.01	-	X	0.5	28	14	8.2	45	0.095	24 94000
24 1002	0 - 5	0.01	-	X	0.5	28	14	8.2	45	0.095	24 94000

★★★★★ SILVER-LINE® Small Dial Indicator DIN 878

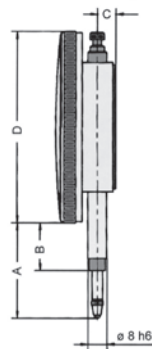
- top quality, for the workshop and inspection room
- metal housing, matt chrome finish
- spindle and stem stainless and hardened
- adjustable tolerance fingers
- with a flat cover and cover with lug
- with turnable scale by outer ring, for easy zero setting
- incl. calibration certificate



ART No	 mm	 mm			 mm	A mm	B mm	C mm	D-ø mm	 KG	
			yes	no							
24 1114	0 - 3	0.01	-	X	1	28.5	14	7.3	40	0.085	inclusive
24 1116	0 - 5	0.01	-	X	1	28.5	14	7.3	40	0.085	inclusive

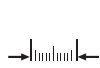





★★★★★ SILVER-LINE® Small Dial Indicator DIN 878 / workshop grade

- sturdy design, for workshop use and calibration purposes
- solid brass housing, matt chrome finish
- spindle and stem stainless, hardened and lapped
- adjustable tolerance fingers
- from up 0.001 mm reading in workshop grade
- with turnable scale by outer ring, for easy zero setting



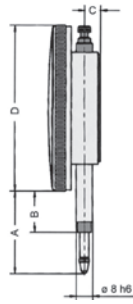
ART No 24 0001



ART No	 mm	 mm			 mm	A mm	B mm	C mm	D-ø mm	 KG	
			yes	no							
24 0001	0 - 3	0.01	-	X	0.5	28.5	14	7.3	40	0.110	24 94000
24 0002	0 - 5	0.01	-	X	0.5	28.5	14	7.3	40	0.110	24 94000
24 0003	0 - 1	0.001	-	X	0.2	28.5	14	7.3	40	0.110	24 94003
24 0121	0 - 3	0.01	✓	-	0.5	28.5	14	7.3	40	0.115	24 94000
24 0122	0 - 5	0.01	✓	-	0.5	28.5	14	7.3	40	0.115	24 94000
24 0123	0 - 1	0.001	✓	-	0.2	28.5	14	7.3	40	0.115	24 94003

★★★★★ BLUE-LINE® Dial Indicator workshop grade

- standard quality
- e.g. for workshop use
- solid brass housing, matt chrome finish, adjustable tolerance fingers
- spindle and stem stainless and hardened
- with turnable scale by outer ring, for easy zero setting



ART No 24 1131



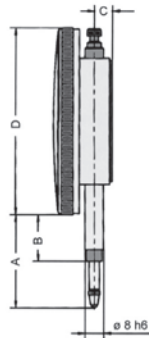
ART No 24 1101



ART No	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART No CC
			yes	no							
24 1101	0 - 10	0.01	-	X	1	43.0	22.0	8.2	57	0.190	24 94000
24 1103	0 - 1	0.001	-	X	0.2	33.5	22.0	8.0	57	0.190	24 94003
24 1131	0 - 10	0.01	✓	-	1	43.0	22.0	8.2	57	0.200	24 94000

★★★★★ SILVER-LINE® Dial Indicator DIN 878

- top quality, for the workshop and inspection room
- metal housing, matt chrome finish
- spindle and stem stainless and hardened
- adjustable tolerance fingers
- with a flat cover and cover with lug
- with turnable scale by outer ring, for easy zero setting
- incl. calibration certificate



ART No 24 1118



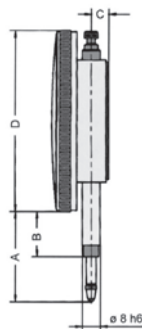
ART No 24 1119



ART No	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	CC
			yes	no							
24 1118	0 - 10	0.01	-	X	1	40	19.5	8	60	0.190	inclusive
24 1119	0 - 10	0.01	✓	-	1	40	19.5	8	60	0.190	inclusive

★★★★★ SILVER-LINE® Dial Indicator DIN 878 / workshop grade

- sturdy design, for workshop use and calibration purposes
- solid brass housing, matt chrome finish
- spindle and stem stainless, hardened and lapped
- adjustable tolerance fingers
- from up 0.001 mm reading in workshop grade
- with turnable scale by outer ring, for easy zero setting



ART No 24 0131



ART No	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART No CC
			yes	no							
24 0101	0 - 10	0.01	-	X	1	40	18.5	7.5	58	0.190	24 94000
24 0103	0 - 1	0.001	-	X	0.2	40	18.5	7.5	58	0.190	24 94003
24 0106	0 - 5	0.001	-	X	0.2	40	18.5	7.5	58	0.190	24 94003
24 0131	0 - 10	0.01	✓	-	1	40	18.5	7.5	58	0.200	24 94000
24 0133	0 - 1	0.001	✓	-	0.2	40	18.5	7.5	58	0.200	24 94003

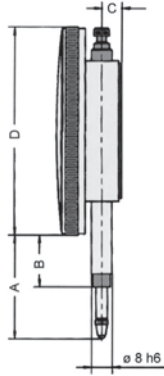
Precision Dial Indicators



Dial Indicator

DIN 878 / high workshop grade

- with comparator measuring
- for very accurate comparative measurements
- contrary to tooth wheel system, the spindle travel is expanded by a lever, due to the lever transmission the hysteresis can kept very small
- solid brass housing, matt chrome finish
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers
- with turnable scale by outer ring, for easy zero setting



ART N° 24 0004



ART N° 24 0005



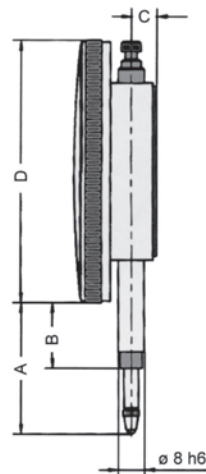
ART N°	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART N° CC
			yes	no							
24 0004	0 - 1.0	0.001	✓	-	0.1	28	14	7.5	40	0.190	24 94003
24 0005	0 - 1.0	0.001	✓	-	0.1	40	18.5	8.5	58	0.300	24 94003
24 0006	0 - 0.08	0.001	✓	-	-	28	14	7.5	40	0.190	24 94003
24 0007	0 - 0.08	0.001	✓	-	-	40	18.5	8.5	58	0.300	24 94003
24 0008	0 - 1.0	0.002	✓	-	0.1	28	14	7.5	40	0.190	24 94003
24 0009	0 - 1.0	0.002	✓	-	0.1	40	18.5	8.5	58	0.300	24 94003



Dial Indicator

high workshop grade

- top quality, for workshop and inspection laboratory
- metal housing, matt chrome finish, adjustable tolerance fingers
- stem and spindle stainless and hardened
- with turnable scale by outer ring, for easy zero setting
- shockproof version with 6 jewels
- with a flat cover and cover with lug
- incl. calibration certificate

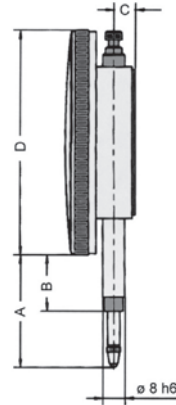


ART N°	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	CC
			yes	no							
24 1134	0 - 5.0	0.001	✓	-	0.1	31	20.5	8.5	60	0.190	inclusive

Accessories for the dial indicators
please find on pages 138-139

SILVER-LINE ^{★★★★★} **Dial Indicator**
high workshop grade

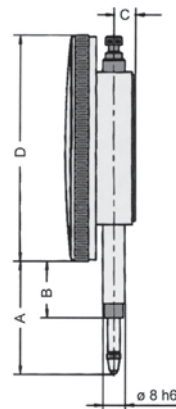
- for large measuring ranges
- concentric millimeter scale
- metal housing, matt chrome finish, adjustable tolerance fingers
- stem and spindle stainless and hardened
- with turnable scale by outer ring, for easy zero setting
- with a flat cover and cover with lug
- incl. calibration certificate



ART NO	mm	mm	mm		mm	A mm	B mm	C mm	D-ø mm	KG	CC
			yes	no							
24 1121	0 - 30	0.01	-	X	1	60	22.5	8	60	0.240	inclusive

SILVER-LINE ^{★★★★★} **Dial Indicator**
DIN 878 / workshop grade

- with left turning pointer, for depth measurement with measuring bridge
- solid brass housing, matt chrome finish
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers
- from up size 0-30 mm in workshop grade only
- with turnable scale by outer ring, for easy zero setting



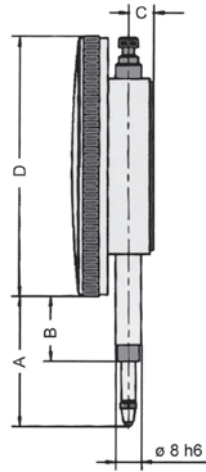
ART NO	mm	mm	mm		mm	A mm	B mm	C mm	D-ø mm	KG	ART NO CC
			yes	no							
24 0107	0 - 10	0.01	-	X	1	40	18.5	7.5	58	0.320	24 94001
24 0108	0 - 30	0.01	-	X	1	60	18.5	7.5	58	0.320	24 94001

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Precision Dial Indicators

★★★★★
SILVER-LINE® Dial Indicator
 high workshop grade

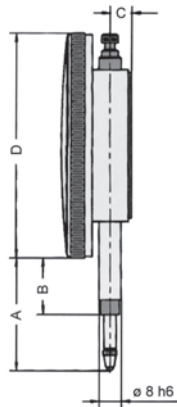
- instead of a revolution counter, this dial indicator has a linear scale
- the stem is fitted 3.5 mm out of the middle
- solid brass housing, matt chrome finish
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers
- with turnable scale by outer ring, for easy zero setting



ART NO	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART NO CC
			yes	no							
24 0030	0 - 30	0.1	-	X	10	60	18.5	7.5	58	0.320	24 94001
24 0031	0 - 50	0.1	-	X	10	60	18.5	7.5	58	0.320	24 94001

★★★★★
SILVER-LINE® Dial Indicator
 high workshop grade

- with concentric millimeter scale
- solid brass housing, matt chrome finish
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers
- with turnable scale by outer ring, for easy zero setting



ART NO 24 0102



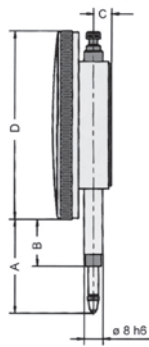
ART NO 24 0134



ART NO	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART NO CC
			yes	no							
24 0102	0 - 30	0.01	-	X	1	60	18.5	7.5	58	0.230	24 94001
24 0104	0 - 50	0.01	-	X	1	97.5	36.5	7.5	58	0.350	24 94001
24 0105	0 - 100	0.01	-	X	1	178	65.5	8.5	80	0.405	24 94002
24 0110	0 - 100	0.01	-	X	1	147.5	56.5	7.5	58	0.380	24 94002
24 0111	0 - 10	0.01	-	X	1	40	18.5	7.5	58	0.190	24 94000
24 0132	0 - 30	0.01	✓	-	1	60	18.5	7.5	58	0.235	24 94001
24 0134	0 - 50	0.01	✓	-	1	97.5	36.5	7.5	58	0.355	24 94001
24 0135	0 - 80	0.01	✓	-	1	147.5	56.5	7.5	58	0.380	24 94002

BLUE-LINE® Dial Indicator • IP54 DIN 878

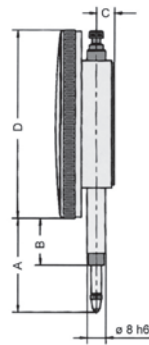
- splash water resistant acc. to DIN 40050 / IEC 60529
- metal housing, matt chrome finish
- stem and spindle stainless and hardened, with rubber sleeve
- with turnable scale by outer ring, for easy zero setting
- incl. calibration certificate



ART No	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART No CC
			yes	no							
★★★★☆ 24 1142	0 - 10	0.01	-	X	1	46	20	8	55.5	0.170	24 94011
★★★★★ 24 1143	0 - 10	0.01	-	X	1	46	19	8	61	0.210	24 94011

SILVER-LINE® Dial Indicator • IP53 DIN 878 / high workshop grade

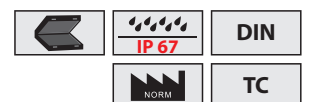
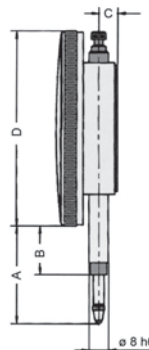
- drip water proof acc. to DIN 40050 / IEC 60529
- solid brass housing, matt chrome finish, stem with rubber sleeve
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers, shadowfree flat glass, perfect sealed by O-rings
- with turnable scale by outer ring, for easy zero setting
- version 0.001 mm reading is acc. to workshop grade



ART No	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART No CC
			yes	no							
24 0141	0 - 10	0.01	✓	-	1	47	18.5	8	58	0.220	24 94011
24 0142	0 - 3	0.01	✓	-	0.5	33	11.6	8	41	0.120	24 94011
24 0143	0 - 1	0.001	✓	-	0.2	47	18.5	8	58	0.220	24 94011
24 0144	0 - 1	0.001	✓	-	0.2	33	11.6	8	41	0.120	24 94011

SILVER-LINE® Dial Indicator • IP67 DIN 878 high workshop grade

- water-, coolant and oil tight acc. to DIN 40050 / IEC 60529
- solid brass housing, matt chrome finish, stem with rubber sleeve
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers, shadowfree flat glass, perfect sealed by O-rings
- with turnable scale by outer ring, for easy zero setting
- version with 0.001/0.002 mm reading is acc. to workshop grade



ART No	mm	mm			mm	A mm	B mm	C mm	D-ø mm	KG	ART No CC
			yes	no							
24 0151	0 - 10	0.01	✓	-	1	45.5	16.7	9.3	61.5	0.240	24 94000
24 0152	0 - 3	0.01	✓	-	0.5	33	11.6	9.3	44.5	0.140	24 94000
24 0153	0 - 1	0.001	✓	-	0.2	45.5	16.7	9.3	61.5	0.240	24 94003
24 0154	0 - 1	0.002	✓	-	0.2	33	11.6	9.3	44.5	0.140	24 94003

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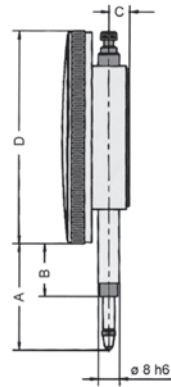
Precision Indicators



Small Dial Indicator

high workshop grade

- with inch reading
- top quality, for workshop and inspection laboratory
- aluminium housing, matt chrome finish
- stem and spindle stainless and hardened
- adjustable tolerance fingers
- with a flat cover and cover with lug
- with turnable scale by outer ring, for easy zero setting
- incl. calibration certificate



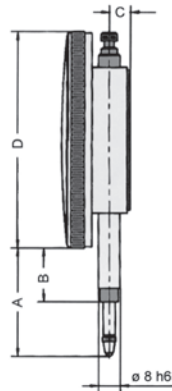
ART NO	inch	inch	yes	no	inch	A mm	B mm	C mm	D-ø mm	KG	CC
24 1115	0 - 0.25	0.001	-	X	0.025	34	15	8.5	40	0.085	inclusive



Dial Indicator

high workshop grade

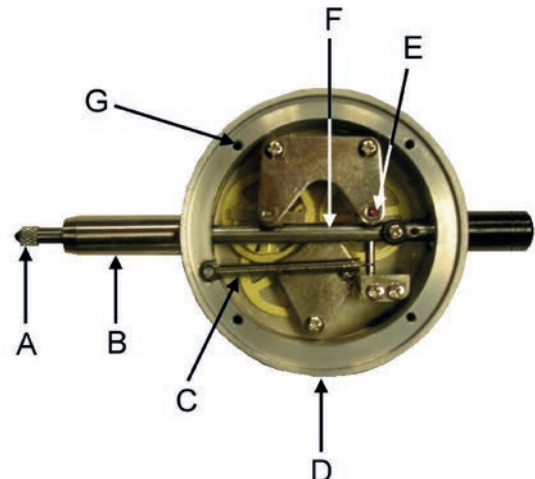
- with inch reading
- shockproof version with 6 jewels
- top quality, for workshop and inspection laboratory
- aluminium housing, matt chrome finish
- stem and spindle stainless and hardened
- adjustable tolerance fingers
- with a flat cover and cover with lug
- with turnable scale by outer ring, for easy zero setting
- incl. calibration certificate



ART NO	inch	inch	yes	no	inch	A mm	B mm	C mm	D-ø mm	KG	CC
24 1136	0 - 1.0	0.001	-	X	0.1	54	19	8.5	60	0.135	inclusive
24 1137	0 - 1.0	0.001	✓	-	0.1	54	19	8.5	60	0.135	inclusive

Dial Indicator Design Features

- A exchangeable contact point
- B hardened, stainless steel stem
- C tension spring, connected with the spindle
- D sturdy, matt chrome finish housing
- E bridge for rigid jewels bearing support (with shockproof only)
- F hardened and ground spindle
- G screw holes for fixing the back cover



Accessories for our dial indicators can be found on page 138-139

★★★★★
SILVER-LINE® Dial Indicator
 DIN 878

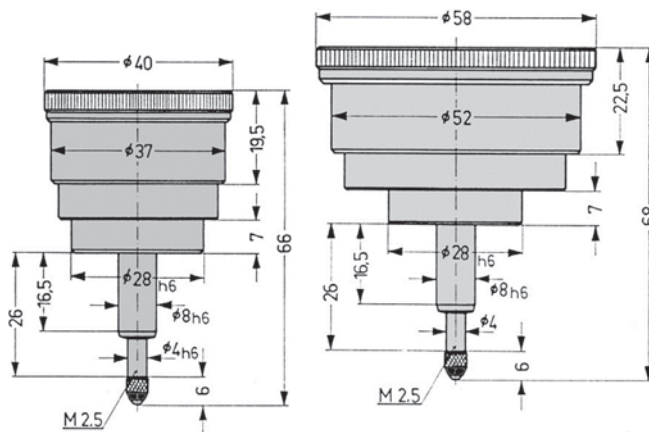
- with magnetic backside
- solid brass housing, matt chrome finish
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers
- with turnable scale by outer ring, for easy zero setting



ART NO	inch	inch	Dial Indicator		A mm	B mm	C mm	D-ø mm	KG	ART NO CC
			yes	no						
24 0001/1	0 - 3	0.01	-	X	28	14	25	40	0.280	24 94000
24 0101/1	0 - 10	0.01	-	X	40	18.5	25	58	0.380	24 94000
24 0121/1	0 - 3	0.01	✓	-	28	14	25	40	0.280	24 94000
24 0131/1	0 - 10	0.01	✓	-	40	18.5	25	58	0.380	24 94000

★★★★★
SILVER-LINE® Dial Indicator
 high workshop grade

- with probe in the center of the back plate
- especially for measuring in appliances and tool engineering
- solid brass housing, matt chrome finish
- stem and spindle stainless, hardened and lapped
- adjustable tolerance fingers
- with turnable scale by outer ring, for easy zero setting



ART NO	mm	mm	mm	number of pointers	housing-ø	KG	ART NO CC
24 0020	0 - 3	0.01	1.0	2	58	0.330	24 94000
24 0021	0 - 5	0.01	1.0	2	58	0.330	24 94001
24 0023	0 - 3	0.01	0.5	2	40	0.210	24 94001
24 0024	0 - 5	0.01	0.5	2	40	0.210	24 94002

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Precision Dial Indicators



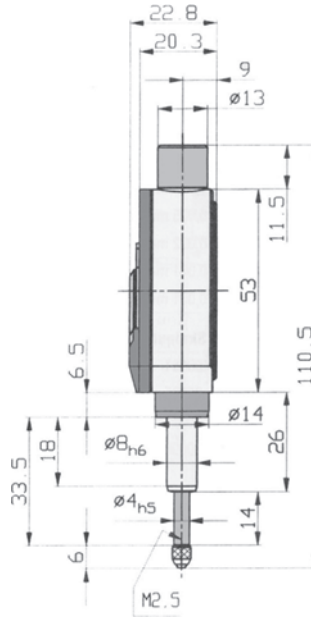
Comparator Gauge

DIN 879

- designed to check parallelism, smoothness and through running
- sturdy housing with stable plastic cover
- stem and spindle stainless, hardened and finely lapped
- shockproof version, stem- \varnothing 8 h6
- adjustable tolerance fingers
- exchangeable contact points, M 2.5

Option

- spindle lifting cable (art.-no.: 24 9996)



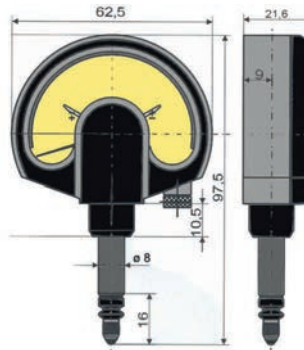
ART NO	mm	mm	range mm	free lift mm	housing- \varnothing mm	KG	ART NO CC
24 0800	± 0.25	0.01	0.5	2.5	62	0.300	24 94800
24 0803	± 0.05	0.001	0.1	3.0	62	0.300	24 94800



Comperator Gauge • IP53

- to check parallelism, smoothness and through running

- sturdy metal housing with sturdy plastic cover
- stem and spindle stainless, hardened and finely lapped
- shockproof version, stem- \varnothing 8 h6
- adjustable tolerance fingers
- exchangeable contact points, M 2.5



ART NO	mm	mm	range mm	free lift mm	mm	KG	ART NO CC
24 1804	± 0.05	0.001	0.5	2.5	0.002	0.090	23 94800

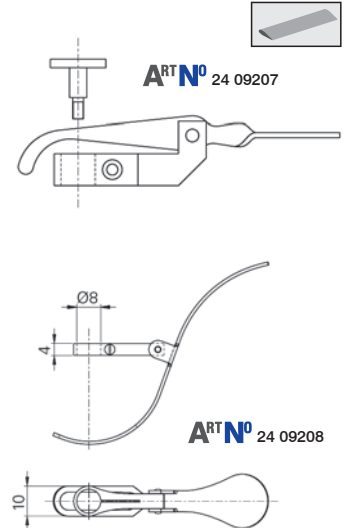
BLUE-LINE® Spindle Lifting Lever

- for our analogous and digital dial indicator
- please choose the suitable lever control according to the art.-no. of our dial indicators



ART N° 24 09207	ART N° 24 9997	ART N° 24 9998	ART N° 24 0998
Dial Indicator	Dial Indicator	Dial Indicator	Dial Indicator
24 0205 + 24 0215	24 0250 + 24 0255	24 1001 + 24 1002	24 0001 - 24 0003
-	-	24 1114 - 24 1116	24 0121 - 24 0123
-	-	-	24 0001/1 + 24 0121/1

ART N° 24 9992	ART N° 24 09208	ART N° 24 09209	ART N° 24 0992
Dial Indicator	Dial Indicator	Dial Indicator	Dial Indicator
24 1101 - 24 1103	24 0230 + 24 0232	24 0231 + 24 0233	24 0101 - 24 0103
24 1118 + 24 1119	-	-	24 0106 - 24 0108
24 1121 + 24 1131	-	-	24 0111 + 24 0131/1
24 1136 + 24 1137	-	-	-

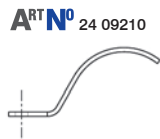


BLUE-LINE® Lifting Device

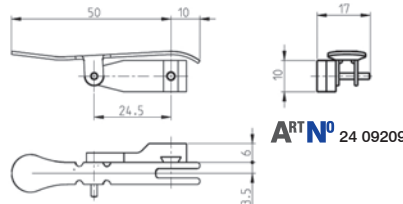
- for our analogous and digital dial indicators
- choose according to our dial indicator art. no. the right lifting device



ART N° 24 09205 + 24 09206



ART N° 24 09210



ART N° 24 09209



ART N° 24 9996



ART N° 24 9994

ART N° 24 09205	ART N° 24 09206	ART N° 24 09210	ART N° 24 9994	ART N° 24 9996
Dial Indicator	Dial Indicator	Dial Indicator	Dial Indicator	Dial Indicator
24 0205 + 24 0215	24 0206 + 24 0216	24 0230 + 24 0233	24 0251 + 24 0252	24 0800 + 24 0803
24 0260	24 0261	-	24 0256 + 24 0257	24 1804

BLUE-LINE® Backside Cover

- flat or with lug
- for our analogous and digital dial indicator
- please choose the suitable backside cover according to the art.-no. of our dial indicator

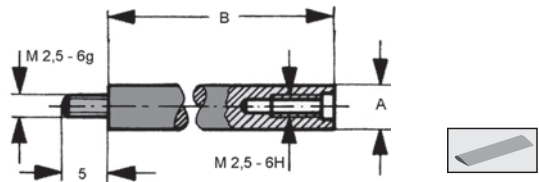


ART N° with lug	ART N° flat	suitable for dial indicator	ART N° with lug	ART N° flat	suitable for dial indicator
24 0980	24 0981	24 0005 • 24 0007 • 24 0009 • 24 0030 • 24 0031 24 0101 • 24 0102 • 24 0103 • 24 0104 • 24 0106 24 0107 • 24 0111 • 24 0131 • 24 0132 • 24 0133 24 0134 • 24 0135 • 24 0141 • 24 0143 • 24 0151 24 0153 • 24 0800 • 24 0803 • 24 0810 • 24 0813 24 0001 • 24 0002 • 24 0003 • 24 0004 • 24 0006 24 0008 • 24 0121 • 24 0122 • 24 0123 • 24 0142 24 0144 • 24 0152 • 24 0154	24 9900	24 9901	24 1101 24 1102 24 1103 24 1131 24 1001 24 1002 24 1143
24 0982	24 0983	24 0001 • 24 0002 • 24 0003 • 24 0004 • 24 0006 24 0008 • 24 0121 • 24 0122 • 24 0123 • 24 0142 24 0144 • 24 0152 • 24 0154	24 9902	24 9903	24 1001 24 1002
24 0984	24 0989	24 1118 • 24 1119 • 24 1121 • 24 1134 24 1136 • 24 1137 • 24 1142	24 9908	24 9909	24 1143
24 0987	24 0988	24 0230 • 24 0231 • 24 0232 • 24 0233	24 9990	24 9991	24 1114 • 24 1115 • 24 1116 24 2055 • 24 2056 • 24 2057 • 24 2060 24 2061 • 24 2062 • 24 2063 • 24 2160 24 2162 • 24 2163 • 24 2164 24 2140 • 24 2150 • 24 0250 • 24 0255
24 0990	24 0991	24 0260 • 24 0261 • 24 0205 - 24 0219	24 9910	24 9911	

Accessories for Dial Indicators

BLUE-LINE® Extensions

- for analogous and electr. digital dial indicators



ART NO	length B mm	ø A mm
24 095010	10	4
24 095020	20	4
24 095030	30	4
24 095040	40	4
24 095050	50	4
24 095060	60	4
24 095070	70	4
24 095080	80	4
24 095090	90	4
24 0950100	100	4

ART NO	length B mm	ø A mm
24 095110	10	5
24 095120	20	5
24 095130	30	5
24 095140	40	5
24 095150	50	5
24 095160	60	5
24 095170	70	5
24 095180	80	5
24 095190	90	5
24 0951100	100	5

★★★★★ BLUE-LINE® Measuring Bridge for Depth Measurements

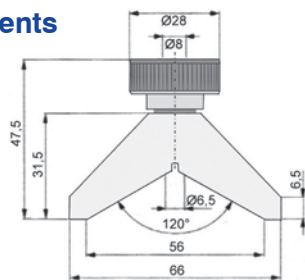
- with extensions rods, as set
- suitable for all analogous or digital dial indicators
- measuring bridge made of steel, hardened, chromed
- stainless steel extensions, with M2.5 inside/outside thread



ART NO	size of measuring bridge mm	sizes of extension rods mm	KG
24 0525	80 (art.-no. 24 0511)	10 / 20 / 30 / 40 / 50 / 60 / 70 / 80 / 90	0.415

★★★★★ BLUE-LINE® Measuring Bridge for Depth Measurements

- with prismatic base
- suitable for all analogous or digital dial indicators
- for measuring the depth of keyways in cylindrical shafts, etc.
- made of steel, hardened, matt chrome finish
- measuring surface lapped
- bore-ø 8 H7



ART NO	length of bridge mm	for shafts-ø mm	width mm	KG
24 0520	66 x 16	10 - 100	16	0.240

★★★★★ BLUE-LINE® Measuring Bridge for Depth Measurements

- suitable for all analogous or electr. digital dial indicators
- made of steel, hardened, matt chrome finish or burnished
- measuring surface lapped, bore-ø 8 H7



ART NO burnished	ART NO chromed	length of bridge mm	width mm	KG
24 0500	24 0510	50	16	0.180
24 0501	24 0511	80	16	0.200
24 0504	24 0514	100	16	0.230
24 0502	24 0512	120	20	0.250
24 0503	24 0513	150	20	0.280

BLUE-LINE® Inside Test Indicator

- without dial indicator
- designed to check small bore holes
- sturdy version, hammer blow lacquered
- suitable for all analogous and digital dial indicators
- bore- \varnothing 8 H7, shaft- \varnothing 8 h6



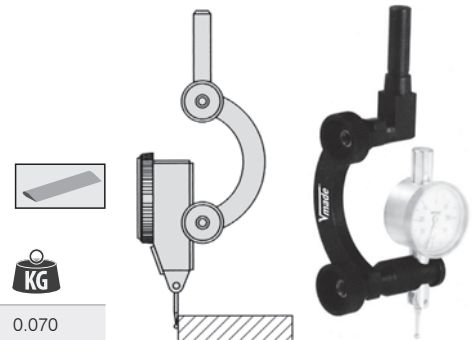
BLUE-LINE® Angle Test Indicator

- without dial indicator
- to controll small bores on lathes and various tool machines
- sturdy version, hammer blow lacquered
- suitable for all analogous and digital dial indicators
- bore- \varnothing 8 H7, shaft- \varnothing 8 h6

ART NO	measuring depth mm	smallest bore to be measured \varnothing mm	KG
24 0646	60	6	0.210
24 0647	30	6	0.200

BLUE-LINE® Centering Holder

- allows large cylinder diameters or holes to be centered
- suitable for all dial indicators and for dovetail guide
- made of steel, black burnished



ART NO	for bore- \varnothing mm	shaft- \varnothing mm	for dove tail guide	KG
24 0997	4 + 8	8	✓	0.070

BLUE-LINE® Clamp Holder

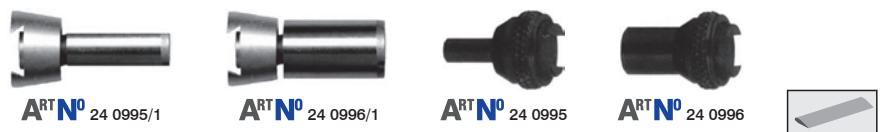
- suitable for all dial indicators and for dovetail guide
- made of steel, black burnished



ART NO	mm	for bore- \varnothing mm	for dovetail guide	KG
24 9993	72 x 12 x 6	4 + 8	✓	0.070
24 9924	72 x 12 x 6	6 + 8	✓	0.070
24 9920	\varnothing 6 x 70	-	✓	0.060
24 9921	\varnothing 8 x 70	-	✓	0.060
24 9922	76 x 9 x 9	6 + 8	✓	0,070
24 9923	76 x 9 x 9	4 + 8	✓	0,070

BLUE-LINE® Clamping Shaft

- made of steel, black burnished or stainless steel, polished



ART NO	shaft- \varnothing mm	KG	ART NO	shaft- \varnothing mm	KG
24 0995	4 h6	0.015	24 0996	8 h6	0.015
24 0995/1	6 h6	0.015	24 0996/1	8 h6	0.015
24 0995/2	4 h6	0.015	-	-	-

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Accessories for Dial Indicators

BLUE-LINE® SILVER-LINE® DIGI PLUS-LINE® Contact Points

• for analogous and electr. digital dial indicators



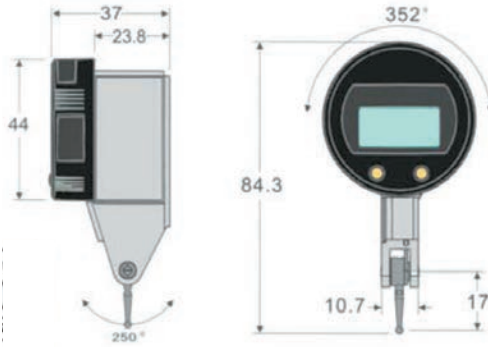
ART NO steel	ART NO steel	ART NO steel	ART NO steel	ART NO steel	ART NO steel	ART NO steel
24 0952	24 0953	24 0954	24 0955	24 0956	24 0957	24 0958
	ART NO carbide	ART NO carbide	ART NO carbide	ART NO carbide		ART NO carbide
	24 09531	24 09541	24 09551	24 09561		24 09581
						ART NO ruby
						24 09582
ART NO steel	ART NO steel	ART NO steel	ART NO steel	ART NO steel	ART NO steel	ART NO steel
24 0959	24 0960	24 0961	24 0962	24 0963	24 0964	24 0965
			ART NO carbide	ART NO carbide	ART NO carbide	
			24 09621	24 09631	24 09641	
ART NO ruby						
24 09592						
ART NO steel	ART NO steel	ART NO carbide	ART NO ruby	carbide	ruby	
24 0966	24 0967	24 09671	24 09672			

★★★★★ DIGI PLUS-LINE® Electr. Digital Test Indicator

- with USB data output
- stainless, hardened, matt chrome finish, with rugged plastic housing
- 352° rotating housing
- large LCD display with clear reading, digit height 7 mm
- display with additional bar graph (art.-no. 24 2605)
- contact point-ø 2 mm
- housing with 3 dovetail guides
- On/Off button, Min/Max, Min/Max memory and Hold function
- mm/inch switchable, ABS/INC measuring system
- zero setting at any position
- incl. 1x 1.5 V battery (type LR44, art.-no.: 20 20192/B), with operation manual



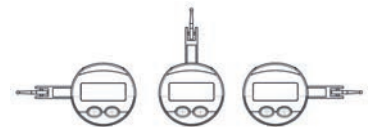
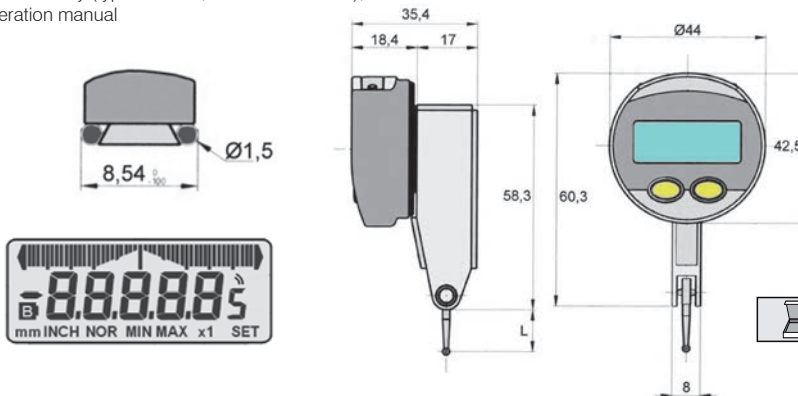
art.-no. 24 2605 with bar graph



ART NO	mm / inch	mm / inch	measuring range mm / inch	mm	max. mm	KG
24 2605	0 - 1 - 0 / 0.04	0.01 / 0.0005	± 0.5 / 0.02	1	3	0.085
24 2606	0 - 1 - 0 / 0.04	0.01 / 0.0005	± 0.5 / 0.02	1	3	0.085

★★★★★ DIGI PLUS-LINE® Electr. Digital Test Indicator • IP65

- water- a. coolant proof acc. to DIN 40050 / IEC 60529 (IP65)
- with Sylvac electronic
- with data output RS232 „Power“
- data output RS232 combined with external power supply
- connection S_Connect Power USB / RS232 / (optional choice)
- mechanical parts in stainless, hardened, matt chrome finish
- housing and front panel made of polyamide
- LCD display with clear reading, digit height 6 mm, over 360° revolving
- autom. power off, zero setting at any position
- hold function, absolute and relative mode, input of preset value
- mm/inch switchable, selection of measuring direction
- housing with 3 dovetail guides
- incl. 1x 3 V battery (type CR2032, art.-no.: 20 02093), with operation manual



ART NO	mm	mm / inch	measuring range mm / inch	mm	max. mm	measuring force N	L mm	KG	ART NO CC
24 0680	0 - 1.6	0.001 / 0.0001	±0.8 / ±0.03	0.001	0.01	0.13 ±15%	12.5	0.073	24 94200
24 0681	0 - 1	0.001 / 0.0001	±0.5 / ±0.02	0.001	0.01	0.07 ±15%	36.5	0.075	24 94200

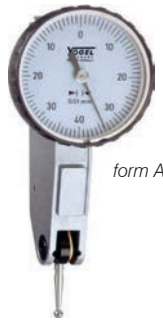
Accessories for our test indicators can be found on page 145

Precision Dial Test Indicators

SILVER-LINE® Dial Test Indicator DIN 2270

- for toolmakers, for checking of difference measurement
- to check the parallelism, smoothness and trough running
- solid brass housing, matt chrome finish
- with friction clutch, means shock proof
- housing with dovetail guide
- important bearings machined in ceramic stones
- carbide measuring ball- \varnothing 2 mm, exchangeable
- contact points reverses, always maintaining clockwise
- scale mounted in turnable knurled grip ring

ART N° 24 0600



form A

ART N° 24 0601



form B

ART N° 24 0602



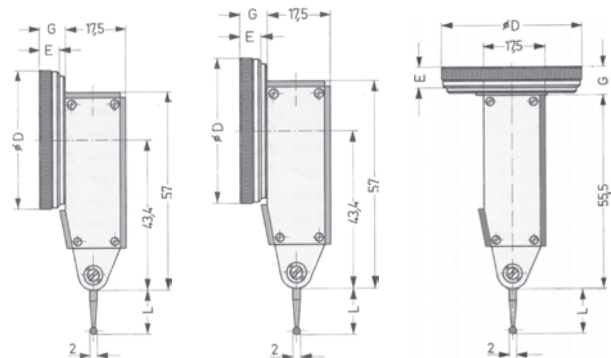
form C



ART N° form A	ART N° form B	ART N° form C	mm	measuring range mm	mm	L mm	\varnothing D mm	quantity of dovetail guides		KG	ART N° CC
								form A+B	form C		
24 0600	24 0601	24 0602	0 - 40 - 0	0.8	0.01	12	32	3	2	0.070	24 94600
24 0610	24 0611	24 0612	0 - 100 - 0	0.2	0.002	12	32	3	2	0.070	24 94610
24 0630	24 0631	24 0632	0 - 25 - 0	0.5	0.01	35	32	3	2	0.070	24 94630
24 0640	24 0641	24 0642	0 - 40 - 0	0.8	0.01	12	40	3	2	0.080	24 94640
24 0650	24 0651	24 0652	0 - 25 - 0	0.5	0.01	35	40	3	2	0.080	24 94650
24 0660	24 0661	24 0662	0 - 100 - 0	0.2	0.002	12	40	3	2	0.080	24 94660

Dimensions of Dial Test Indicators DIN 2270

article-type	D mm	E mm	G mm	H mm
24 0600 + 24 0610	32	5.6	7.1	-
24 0601 + 24 0611	32	5.6	7.7	69.5
24 0602 + 24 0612	32	5.6	7.5	-
24 0630	32	5.6	7.1	-
24 0631	32	5.6	7.7	69.5
24 0632	32	5.6	7.5	-
24 0640 + 24 0660	40	6.0	7.5	-
24 0641 + 24 0661	40	6.0	8.1	73.5
24 0642 + 24 0662	40	6.0	7.9	-
24 0650	40	6.0	7.5	-
24 0651	40	6.0	8.1	73.5
24 0652	40	6.0	7.9	-



BLUE-LINE® Dial Test Indicator

NEW

- standard quality
- solid brass housing, matt chrome finish
- carbide measuring ball \varnothing 2,5 mm, exchangeable
- contact points reverses, always maintaining clockwise
- scale mounted in turnable knurled grip ring
- incl. clamp holder \varnothing 6 mm + \varnothing 8 mm at art.-no. 24 6600 until 24 6660

ART N° 24 6641



form A

ART N° 24 6600



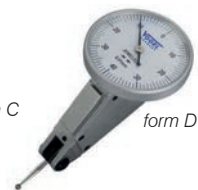
form A

ART N° 24 6693



form C

ART N° 24 6690



form D

Accessories for test indicators
can be found on page 145



ART N°	form	mm	measuring range mm	mm	L mm	\varnothing D mm	quantity of dovetail guides	KG	ART N° CC
24 6600	A	0 - 40 - 0	0.8	0.01	13.5	30.0	3	0.065	24 94600
24 6610	A	0 - 100 - 0	0.2	0.002	13.5	30.0	3	0.065	24 94610
24 6640	A	0 - 40 - 0	0.8	0.01	16.5	37.5	3	0.075	24 94640
24 6641	A	0 - 40 - 0	0.8	0.01	43.4	30.0	3	0.090	24 94640
24 6660	A	0 - 100 - 0	0.2	0.002	13.5	37.5	3	0.076	24 94660
24 6661	A	0 - 40 - 0	0.8	0.01	43.4	37.5	3	0.090	24 94660
24 6690	D	0 - 40 - 0	0.8	0.01	13.5	37.5	3	0.095	24 94640
24 6691	D	0 - 40 - 0	0.8	0.01	13.5	30.0	3	0.085	24 94640
24 6692	C	0 - 40 - 0	0.8	0.01	13.5	37.5	3	0.095	24 94640
24 6693	C	0 - 40 - 0	0.8	0.01	13.5	30.0	3	0.085	24 94640

Accessories for Precision Dial Test Indicators

DIGI-PLUS-LINE® Probes for Dial Test Indicators

- suitable for electr. digital dial test indicators art.-no. 24 0680 + 24 0681
- with carbide ball, length 12.5 + 36.5 mm



SILVER-LINE® Probes for Dial Test Indicators

- suitable for dial test indicators art.-no. 24 0600 - 24 0662
- with carbide or ruby ball, length 12 + 35 mm



BLUE-LINE® Probes for Dial Test Indicators

- suitable for dial test indicators art.-no. 24 6600 - 24 6690
- with carbide ball, length 13.5 mm + 16.5 mm



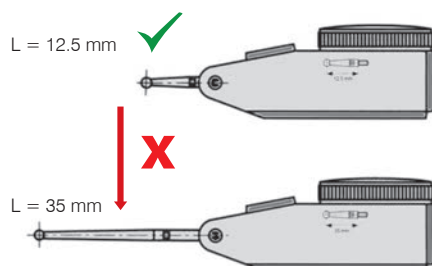
BLUE-LINE® Spanner for Probes



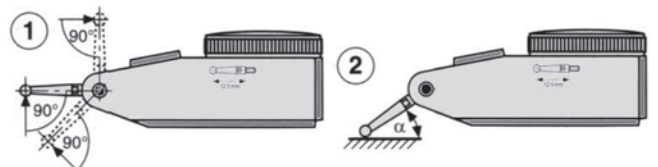
ART N ^o	KG
24 0999	0.010

Reference to application of dial test indicators

For accurate measurements the axis of the contact point must be perpendicular to the measuring direction (fig.1). If this is not possible, it is necessary to multiply the reading on the dial with a correction factor, which depends on an angle α (fig. 2). The correction factor is negligible for angles below 15°.



Use only the probe whose length is engraved on the housing, please!

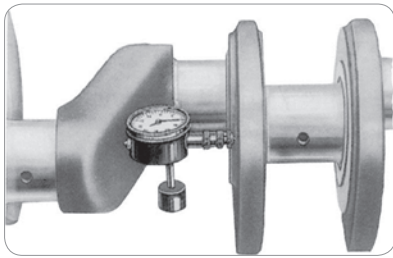


angle α	15°	30°	45°	60°
corr.-faktor	0.96	0.87	0.70	0.50
example:				
angle α :	30° (estimated)			
reading on dial:	0.38 mm			
measuring result:	0.38 x 0.87 = 0.33 mm			

Crankshaft Testing Instruments, Precision Thickness Dial Indicators

★★★★★ SILVER-LINE® Crankshaft Testing Instruments

- for testing crankshaft deflections and for the alignment of crankshaft bearings during engine assembly
- used in ship engines, car engines, compressors, etc.



example of application



ART NO	mm	mm	housing- \varnothing of dial indicator mm	KG	ART NO CC
24 0160	45 - 150	0.01	28	0.400	24 94000
24 0161	60 - 300	0.01	40	1.100	24 94000
24 0162	60 - 500	0.01	40	1.200	24 94000

★★★★★ BLUE-LINE® Saw Teeth Setting Dial Indicator

- designed to check the right setting of the saw teeth
- sturdy housing made of light metal, hammer blow lacquered
- dial on both sides, for right and left hand use
- with tolerance fingers and rotatable scale
- 4 bearing points for exact measurements
- spring loaded measuring plate, measuring plate- \varnothing 10 mm



front

back



ART NO	mm	mm	graduation mm	mm	outer ring- \varnothing mm	KG	ART NO CC
24 0370	0 - 2	0.1	0.05	1	40	0.170	24 94370

★★★★★ SILVER-LINE® Thickness Gauge

- with adjustable scale
- measuring surfaces hardend, ground and lapped
- spindle and probe made of stainless steel, measuring pressure approx. 1 N
- zero setting of the display by rotating the knurled outer ring
- different **but not** exchangeable probes are available

The probe type "F" is delivered as standard!
In case of order indicate the probe type, please!



ART NO	mm	mm	thread depth mm	mm	available probes	KG
24 0401	0 - 10	0.1	15	10	F G H K	0.070
24 0402	0 - 20	0.1	15	10	F G H K	0.070

★★★★★ SILVER-LINE® Prec. Thickness Gauge, with ceramic measuring surface

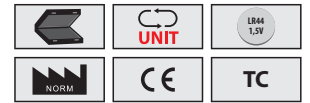
- very helpful for measurements on hot materials or electronic parts because of ceramic measuring surfaces etc.
- sturdy light metal frame, lacquered, with spindle lifting lever
- ceramic measuring surfaces, non conducting
- stainless spindle, hardened and fine ground
- zero setting by rotating the knurled outer ring
- incl. calibration certificate



ART No	mm	mm	thread depth mm	probe-ø mm	mm	KG	CC
24 0480	0 - 10	0.01	30	9	1	0.160	inclusive

★★★★★ DIGI PLUS-LINE® Electr. Digital Thickness Gauge

- pocket size, with spindle lifting knob
- stainless, hardened measuring surfaces, rugged plastic cover
- large LCD display with clear reading, digit height 10 mm
- On/Off button, mm/inch switchable
- zero setting at any position
- incl. 1x 1.5 V battery (type LR44, art.-no.: 20 20192/B), with operation manual



ART No	mm / inch	mm / inch	mm	mm	thread depth mm	KG
24 0408	0 - 10 / 0 - 0.4	0.01 / 0.0005	0.01	0.02	11	0.065

★★★★★ SILVER-LINE® Thickness Gauge DIN 878

- without fu check
- pocket size, with spindle lifting wheel
- measuring surfaces hardened, ground and lapped
- spindle and probe made of stainless steel, measuring pressure approx. 1 N
- reading by concentrically mm pointer
- zero setting by rotating the knurled outer ring
- different **but not** exchangeable probes are available

The probe type "F" is delivered as standard!
In case of order indicate the probe type, please!



ART No	mm	mm	thread depth mm	available probes	mm	KG
24 0403	0 - 8	0.01	12	F H	1	0.070
24 0404	0 - 10	0.01	18	F G H K	1	0.130
24 0405	0 - 10	0.01	45	F G H K	1	0.150

standard version 6.35 mm ø, flat form F	arched form G	ball shaped form H	10 mm ø, flat form K

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Thickness Gauges

SILVER-LINE® Thickness Gauge
DIN 878

- without fu check
- for measuring the thickness of leather, paper, felt, rubber etc.
- frame made of light metal, hammer blow lacquered
- measuring faces hardened, ground and lapped
- spindle and probe made of stainless steel
- zero-setting of the display by rotating the knurled outer ring
- different **but not** exchangeable probes are available

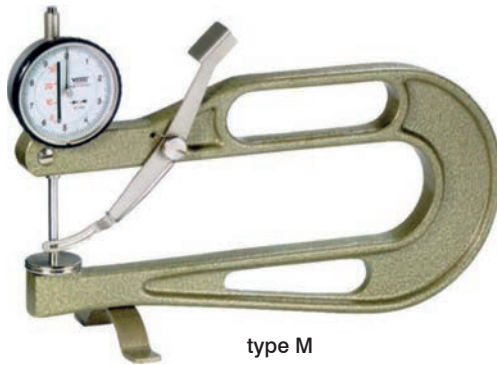
*The probe type "C" is delivered as standard!
In case of order indicate the probe type, please!*



type P



type L



type M



type N



rubber, felt, soft materials	rubber, felt, soft materials	soft leather, cardboard, paper, foils	hard leather, plywood etc.	sheet metals, etc.
form A	form B	form C (standard)	form D	form E

ART No	mm	mm	type	throat depth mm	available probes	mm	KG	ART No CC
24 0410	0 - 10	0.01	P	50	A B C D E	1	0.250	24 94410
24 0411	0 - 10	0.01	L	50	A B C D E	1	0.250	24 94410
24 0412	0 - 10	0.01	L	100	A B C D E	1	0.400	24 94410
24 0413	0 - 10	0.01	M	200	A B C D E	1	0.900	24 94410
24 0414	0 - 10	0.1	P	50	A B C D E	10	0.200	24 94410
24 0415	0 - 10	0.1	L	50	A B C D E	10	0.200	24 94410
24 0416	0 - 20	0.1	P	50	A B C D E	10	0.250	24 94411
24 0417	0 - 30	0.1	N	50	A B C D E	10	0.300	24 94411
24 0420	0 - 30	0.1	M	200	A B C D E	10	0.600	24 94411
24 0421	0 - 30	0.1	M	300	A B C D E	10	0.900	24 94411
24 0422	0 - 30	0.1	M	400	A B C D E	10	1.200	24 94411
24 0423	0 - 30	0.01	M	200	A B C D E	1	0.900	24 94411

SILVER-LINE® Foil Thickness Gauge

- exclusively to use to measure the thickness of thin foils
- frame made of solid cast iron, hammer blow lacquered
- with isolation handle
- measuring surfaces hardened, ground and lapped, probe- \varnothing 6.35 mm
- dial indicator in a dustproof housing, housing- \varnothing 58 mm
- measuring pressure approx. 2 N, shockproof version

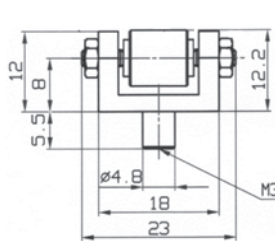
The probe type "F" is delivered as standard!
In case of order indicate the probe type, please!



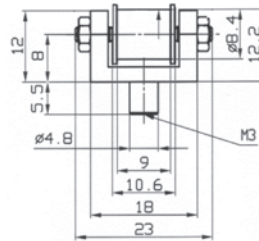
ART N°	mm	mm	graduation mm	throat depth mm	available probes	mm	KG
24 0400	0 - 1	0.001	0 - 100	30	F G H K	0.1	0.400

SILVER-LINE® Thickness Gauge with wheels

- designed for the measuring of threads, wires, strings, foils, etc.
- as special version with side discs on the lower wheel available
- frame made of solid cast iron, hammer blow lacquered
- measuring wheels hardened and ground
- scale rotateable by a knurled outer ring
- dial indicator with spindle lifting lever
- measuring pressure approx. 1.2 N



24 0425 without discs



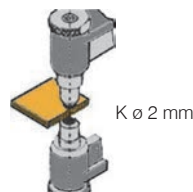
24 0426 with side discs



ART N°	mm	mm	size of wheels length x \varnothing mm	throat depth mm	side discs		mm	KG
					yes	no		
24 0425	0 - 5	0.01	8.7 x 8.4	50	-	X	1	0.400
24 0426	0 - 5	0.01	8.7 x 8.4	50	✓	-	1	0.400

BLUE-LINE® Quicktest "Pocotest" NEW

- universal and handy pocket measuring instrument
- tungsten carbide measuring contact points
- with moveable contact arm
- incl. operation manual



K \varnothing 2 mm



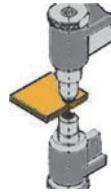
ART N°	mm	mm	L mm	Hb mm	Hf mm	F min. N	F max. N	mm	KG	ART N° CC
24 1420	0 - 10	0.1	36	5	5	0.3	1.3	0.1	0.290	24 94430

Dial Caliper Gauges

★★★★★ SILVER-LINE® Quicktest "Pocotest"

- universal and handy pocket measuring instrument
- tungsten carbide measuring contact points
- with moveable contact arm
- incl. operation manual

measuring contact points can be changed against additional charge



ART No	mm	mm	L mm	Hb mm	Hf mm	F min. N	F max. N	max. mm	KG	ART No CC
24 0430	0 - 10	0.1	36	5	5	0.3	1.3	0.1	0.290	24 94430

★★★★★ SILVER-LINE® Quicktest Gauge "Oditest" • IP65

- for measuring of external grooves, bars and flats etc.
- water proof
- tungsten carbide measuring contact points
- with moveable arm, with tolerance fingers
- zero setting by rotating the knurled outer ring
- incl. operation manual

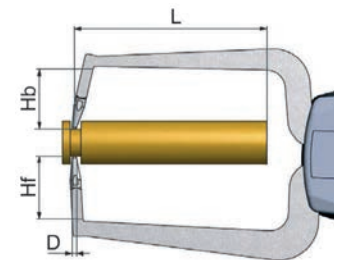


measuring contact points can be changed against additional charge



D = form of measuring contact points

form 6 disc ø 6/10 mm	form 7 S R 0.4 mm	form 8 carbide ball ø 1.5 mm	form 14 carbide ball ø 2.0 mm	form 18 carbide ball ø 1.5 mm



ART No	mm	mm	form D	L mm	Hb mm	Hf mm	F min. N	F max. N	max. mm	KG	ART No CC
¹⁾ 24 0435	0 - 10	0.005	6 / ø6	35	21.7	14.8	0.8	1.2	0.02	0.320	24 94431
¹⁾ 24 0435/1	0 - 20	0.01	6 / ø10	85	28.2	20.7	1.1	1.6	0.04	0.340	24 94431
¹⁾ 24 0436	0 - 20	0.01	7	85	24.6	24.6	1.1	1.6	0.03	0.370	24 94431
¹⁾ 24 0437	0 - 20	0.01	8	85	24.6	24.6	1.1	1.6	0.03	0.400	24 94431
²⁾ 24 0438	0 - 50	0.05	14	170	32	32	1.2	1.8	0.05	0.430	24 94431
²⁾ 24 0439	0 - 50	0.05	18	170	32	1	1.2	1.8	0.05	0.430	24 94431
²⁾ 24 0440	50 - 100	0.05	14	170	32	32	1.2	1.8	0.075	0.450	24 94431
²⁾ 24 0441	100 - 150	0.05	14	170	32	32	1.2	1.8	0.075	0.480	24 94431

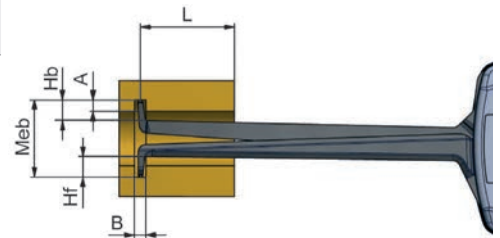
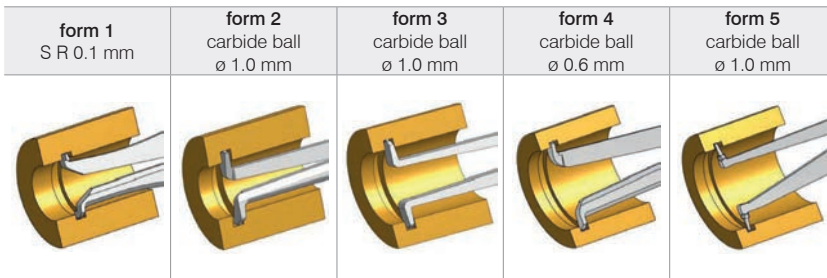
★★★★★
SILVER-LINE® Quicktest Gauge "Interrest" • IP65

- for measuring of internal grooves, bore etc.
- water and colant proof acc. to DIN 40050 / IEC 60529
- tungsten carbide measuring contact points
- with rack gear
- with moveable contact arm
- with tolerance fingers
- incl. operation manual



ART No 24 0530

D = form of measuring contact points



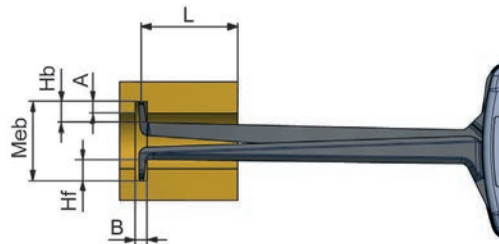
ART No	mm	mm	form	L mm	A mm	B mm	Hb mm	Hf mm	F min. N	F max. N	mm	KG	ART No CC
24 0530	2.5 - 12.5	0.005	1	35	0.7	0.4	0.9	0.9	0.8	1.2	0.015	0.320	24 94530
24 0532	5.0 - 15.0	0.005	4	35	2.3	0.8	2.5	2.5	0.8	1.2	0.015	0.320	24 94530

★★★★★
SILVER-LINE® Quicktest Gauge "Interrest" • IP65

- for measuring of internal grooves, bore etc.
- water and colant proof acc. to DIN 40050 / IEC 60529
- tungsten carbide measuring contact points
- with steel filament drive
- with moveable contact arm
- with tolerance fingers
- incl. operation manual



ART No 24 0539



ART No	mm	mm	form	L mm	A mm	B mm	Hb mm	Hf mm	F min. N	F max. N	mm	KG	ART No CC
24 0539	10 - 30	0.01	2	85	5.2	1.2	5.4	5.4	1.1	1.6	0.03	0.450	24 94530
24 0540	20 - 40	0.01	3	85	7.0	1.2	7.3	7.3	1.1	1.6	0.03	0.460	24 94530
24 0541	30 - 50	0.01	3	85	7.0	1.2	7.3	7.3	1.1	1.6	0.03	0.460	24 94530
24 0542	40 - 60	0.01	5	85	8.3	1.2	12.2	12.2	1.1	1.6	0.03	0.470	24 94530
24 0543	50 - 70	0.01	5	85	8.3	1.2	12.2	12.2	1.1	1.6	0.03	0.480	24 94530
24 0544	60 - 80	0.01	5	85	8.3	1.2	12.2	12.2	1.1	1.6	0.03	0.490	24 94530
24 0545	70 - 90	0.01	5	85	8.3	1.2	12.2	12.2	1.1	1.6	0.03	0.500	24 94530
24 0546	80 - 100	0.01	5	85	8.3	1.2	12.2	12.2	1.1	1.6	0.03	0.510	24 94530

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Digital Caliper Gauges



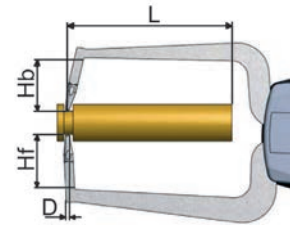
Electr. Digital External Quicktest Gauge Electr. Digital Internal Quicktest Gauge IP67

- with analog and digital display
- with USB interface and with Mitutoyo interface (as accessories available)
- robust, rugged plastic housing, LCD-Display with clear digits
- housing ¹⁾ oiltight, ²⁾ water proof
- ABS and REL measuring system, red/green display for tolerance measurement
- with tungsten carbide measuring contact points, one movable contact arm
- reading in mm/inch, numeric interval switch
- incl. 1x 1.5 V Battery (type AA, art.-no.: 60 9282), and operation manual



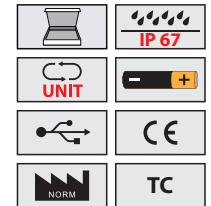
D = form of measuring contact points **external**

form A carbide ball ø 1.5 mm / ø 3.0 mm	form B S / R 0.4 mm	form C disc ø 6 / 10 mm	form D disc ø 50 mm	form E carbide ball ø 1.5 mm / ø 3.0 mm



D = form of measuring contact points **inside**

form F S / R 0.4 mm	form G S / R 0.1 mm	form H carbide ball ø 0.6 mm	form K carbide ball ø 1.0 mm	form L carbide ball ø 1.0 mm



ART No	mm	mm	form D	L mm	Hb mm	Hf mm	F min. N	F max. N	mm	KG	ART No CC
external quicktest gauge											
¹⁾ 24 0300	0 - 10	0.005	E / ø 1.5	35	19.1	18.6	0.8	1.2	0.005	0.270	24 94551
¹⁾ 24 0301	0 - 10	0.005	C / ø 6.0	35	21.7	14.8	0.8	1.2	0.005	0.270	24 94551
¹⁾ 24 0302	0 - 20	0.01	E / ø 1.5	85	24.6	24.6	1.1	1.6	0.01	0.290	24 94551
¹⁾ 24 0303	0 - 20	0.01	F	85	24.6	2.5	1.1	1.6	0.01	0.290	24 94551
¹⁾ 24 0307	0 - 20	0.01	D	85	28.2	20.7	1.1	1.6	0.01	0.300	24 94551
²⁾ 24 0304	0 - 40	0.02	E / ø 3.0	115	22	22	1.0	1.5	0.02	0.380	24 94551
²⁾ 24 0305	0 - 40	0.02	A / ø 3.0	115	22	1	1.0	1.5	0.02	0.380	24 94551
²⁾ 24 0306	0 - 40	0.02	D	115	22	18	1.0	1.5	0.02	0.380	24 94551
internal quicktest gauge											
¹⁾ 24 0310	2.5 - 12.5	0.005	G	35	0.9	0.9	0.8	1.2	0.005	0.270	24 94432
¹⁾ 24 0311	5 - 15	0.005	H	35	2.5	2.5	0.8	1.2	0.005	0.290	24 94452
¹⁾ 24 0312	10 - 30	0.01	K	85	5.4	5.4	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0313	20 - 40	0.01	K	85	7.3	7.3	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0314	30 - 50	0.01	K	85	7.3	7.3	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0315	40 - 60	0.01	L	85	12.2	12.2	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0316	50 - 70	0.01	L	85	12.2	12.2	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0317	60 - 80	0.01	L	85	12.2	12.2	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0318	70 - 90	0.01	L	85	12.2	12.2	1.1	1.6	0.01	0.290	24 94452
¹⁾ 24 0324	80 - 100	0.01	L	85	12.2	12.2	1.1	1.6	0.01	0.330	24 94452
²⁾ 24 0319	15 - 55	0.02	L / ø 1.5	114	4.5	2.5	1.2	1.7	0.02	0.360	24 94452
²⁾ 24 0320	35 - 75	0.02	L / ø 2.0	114	8.0	4.0	1.3	1.87	0.02	0.380	24 94452
²⁾ 24 0321	55 - 95	0.02	L / ø 2.0	114	8.0	4.0	1.3	1.87	0.02	0.380	24 94452
²⁾ 24 0322	75 - 115	0.02	L / ø 2.0	114	8.0	4.0	1.3	1.87	0.02	0.380	24 94452
²⁾ 24 0323	95 - 135	0.02	L / ø 2.0	114	8.0	4.0	1.3	1.87	0.02	0.380	24 94452



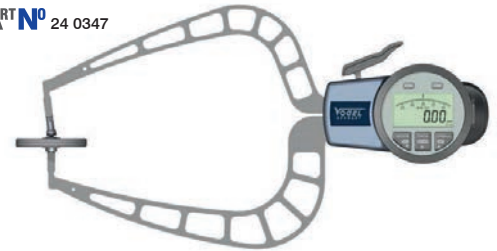
Electr. Digital External Quicktest Gauge • IP67 Electr. Digital Internal Quicktest Gauge • IP67

- with extra long contact arms
- with analogous and digital display
- with USB interface and with Mitutoyo interface (as accessories available)
- robust, rugged plastic housing
- LCD-Display with clear digits
- ABS and REL measuring system
- red/green display for tolerance measurement
- with tungsten carbide measuring contact points
- one movable contact arm
- reading in mm/inch
- numeric interval switch, repeatability ± 0.04 mm
- incl. 1x 1.5 V Battery (type AA, art.-no.: 60 9282), and operation manual

ARTN^o 24 0345



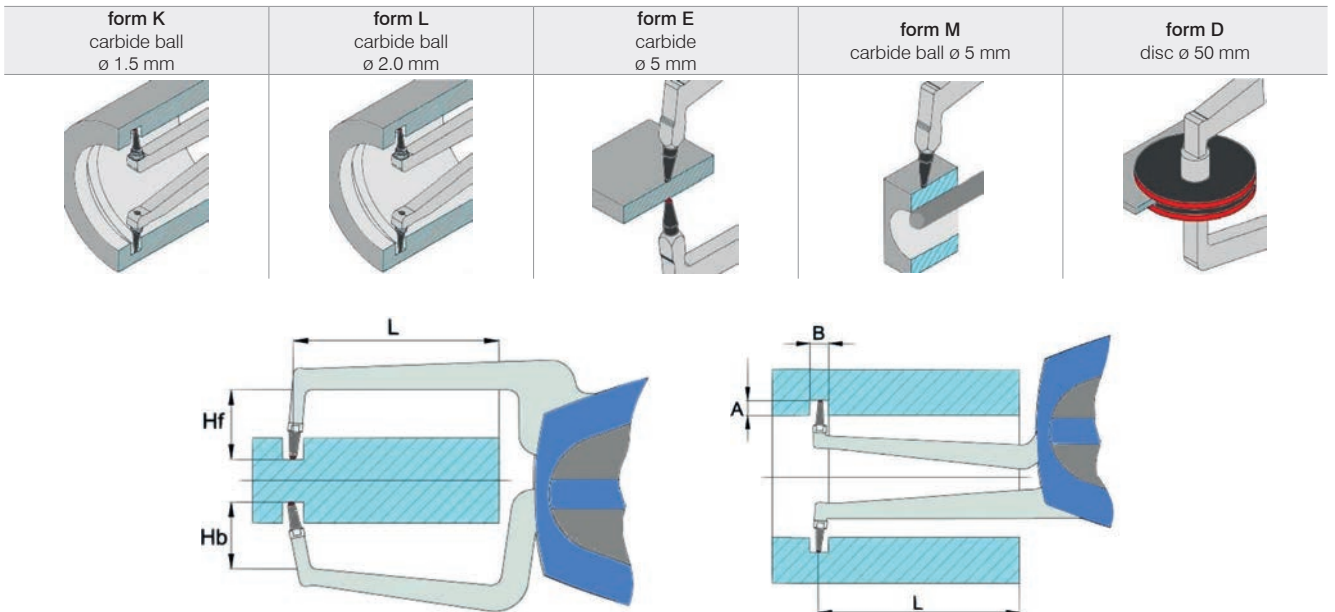
ARTN^o 24 0347



ARTN^o 24 0337



form of measuring contact points **internal / external**



ARTN ^o	mm	mm	form	L mm	Hb mm	Hf mm	F min. N	F max. N	mm		ARTN ^o CC
external quicktest gauge											
24 0345	0 - 60	0.02	E	180	25.3	25.3	0.9	1.2	0.06	0.470	24 94451
24 0347	0 - 60	0.02	D	180	27.2	19.5	0.6	1.0	0.08	0.470	24 94451
internal quicktest gauge											
24 0336	15 - 75	0.02	K	175	4.5	2.5	1.0	1.2	0.06	0.440	24 94451
24 0337	40 - 100	0.02	L	195	8.0	4.0	1.0	1.2	0.06	0.440	24 94452

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