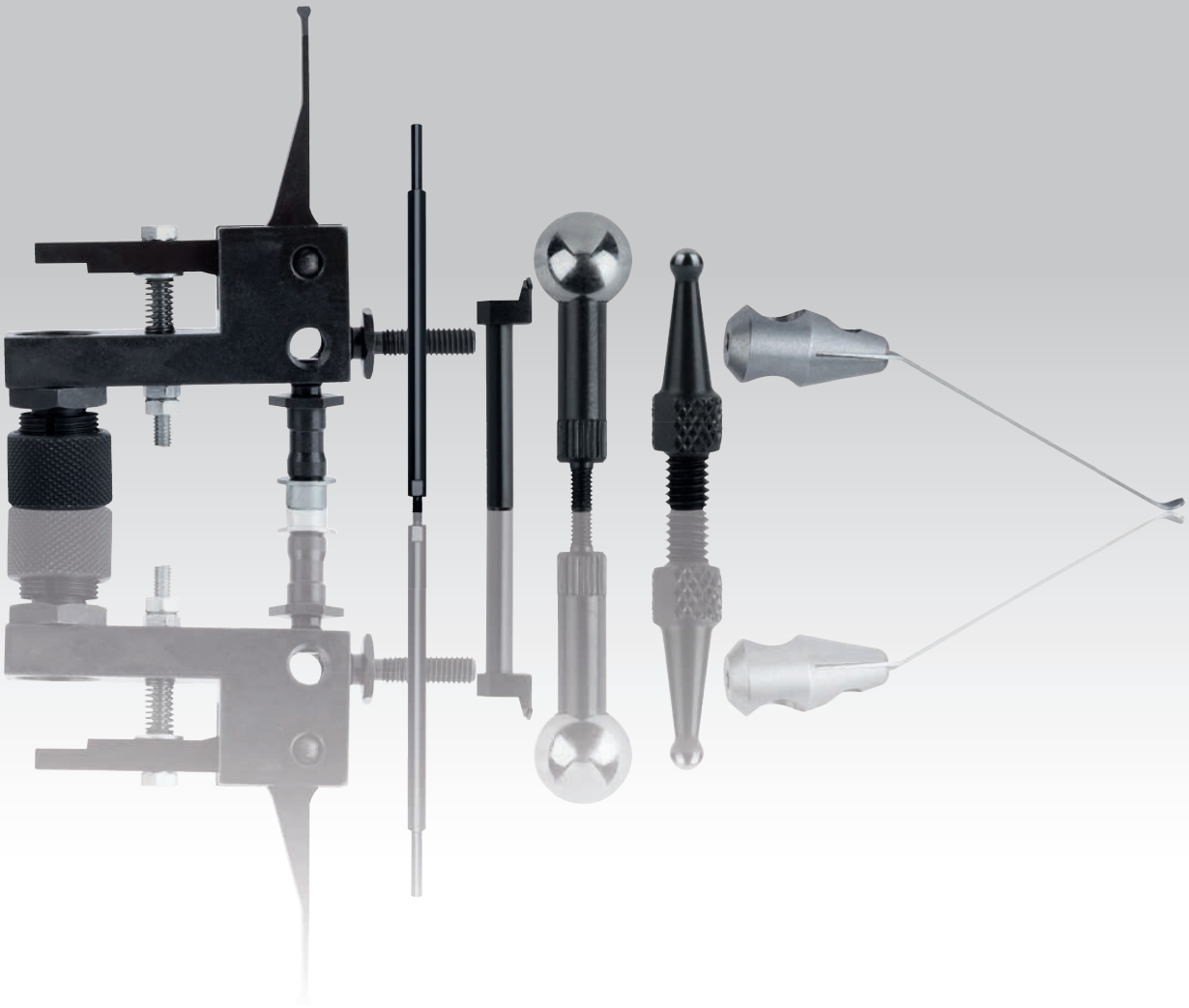
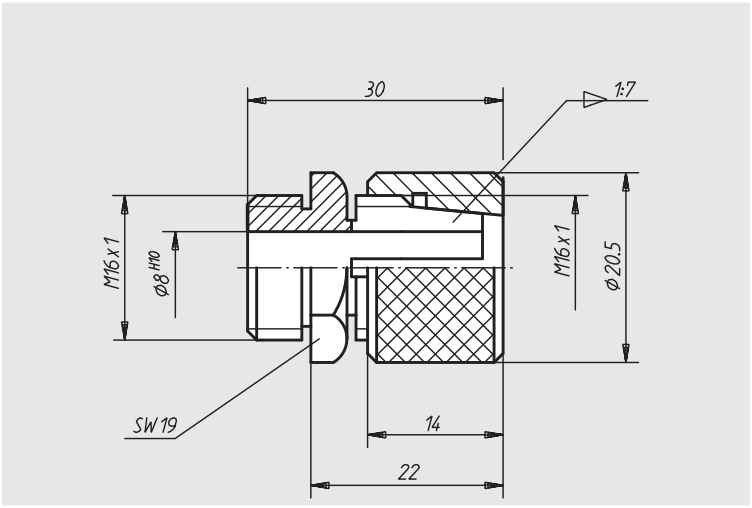
33000

Standard components for inspection and testing devices



Screw connection for dial gauges

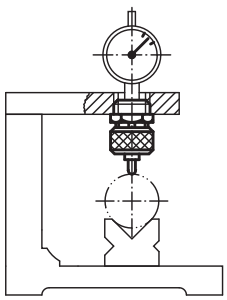
with clamping shaft Ø 8



Material:
Tempered steel

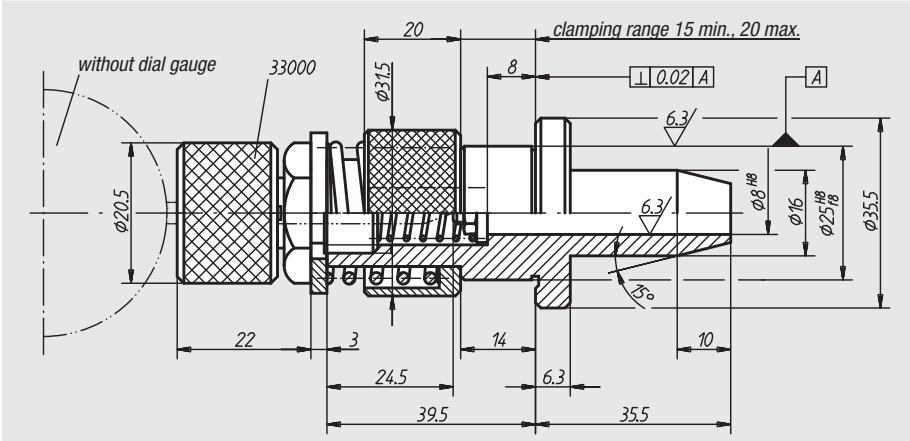
Version:
Black oxide finish,
collet tempered

Sample order:
nlm 33000-08



Order No.	Approx. weight kg
33000-08	0,042

Sliding holders for dial gauges



Material:
Tempered steel

Version:
Black oxide finish, collet chuck and body heat-treated

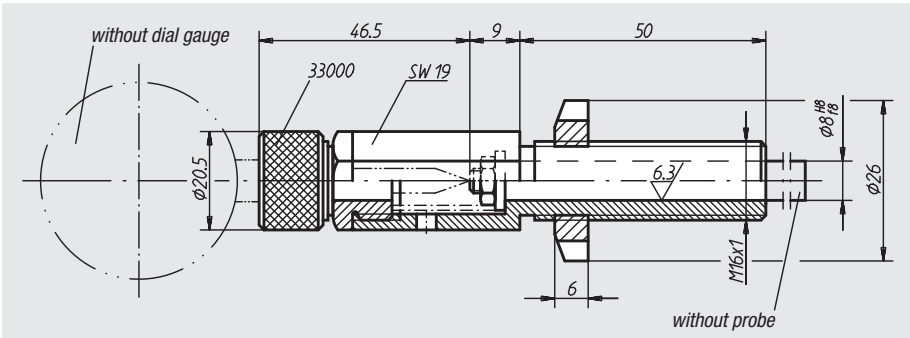
Sample order:
nlm 33010-08025

Note:
Dial gauge and probe are not included.
Dial gauges see 32540 and 32542.
Probes see 33020 up to 33026.

Order No.	Supplied for the tracer pin	Approx. weight kg
33010-08025	1 washer 5,3 x 14 x 1 1 hexagon nut M5 1 compression spring	0,240

Holder of dial gauges

short version with thread



Material:
Tempered steel

Version:
Black oxide finish, collet chuck and body heat-treated

Sample order:
nlm 33012-08050

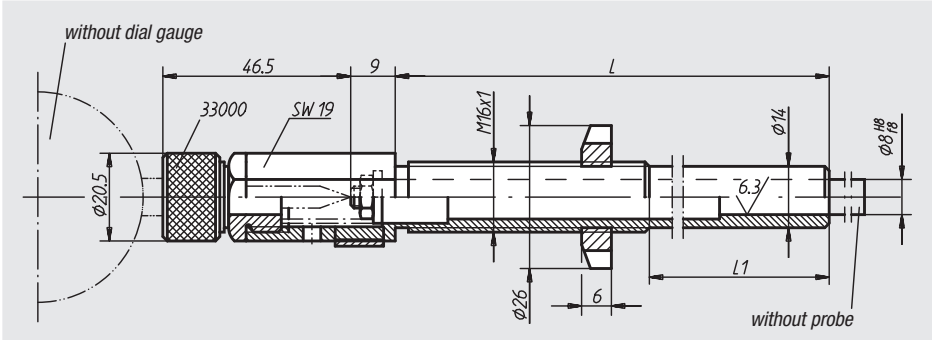
Note:
Dial gauge and probe are not included.
Dial gauges see 32540 and 32542.
Probes see 33020 up to 33026.

Order No.	Supplied for the tracer pin	Approx. weight kg
33012-08050	1 washer 5,3 x 14 x 1 1 hexagon nut M5 1 compression spring	0,140

33014

Holders of dial gauges

long version with thread



Material:
Tempered steel

Version:
Black oxide finish, collet chuck and body heat-treated

Sample order:
nlm 33014-08125

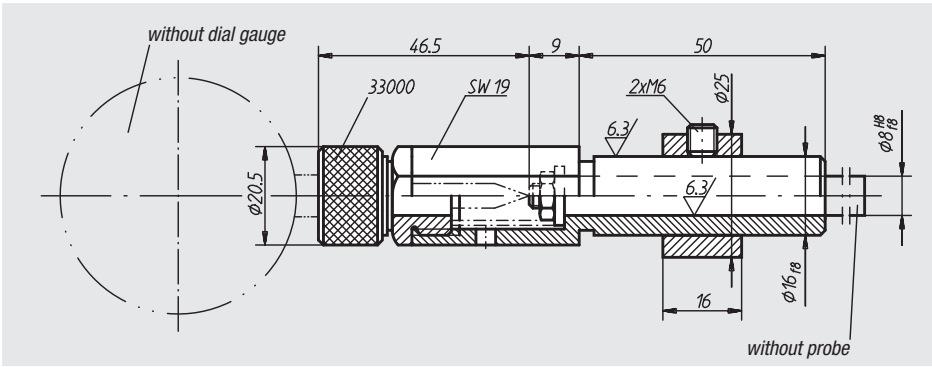
Note:
Dial gauges and probes are not included.
Dial gauges see 32540 and 32542.
Probes see 33020 up to 33026.

Order No.	L	L1	Supplied for the tracer pin	Approx. weight kg
33014-08125	125	75	1 washer 5,3 x 14 x 1 1 hexagon nut M5 1 compression spring	0,175
33014-08180	180	130	1 washer 5,3 x 14 x 1 1 hexagon nut M5 1 compression spring	0,185

33016

Holder for dial gauges

short version with smooth shaft



Material:
Tempered steel

Version:
Black oxide finish, collet chuck and body heat-treated

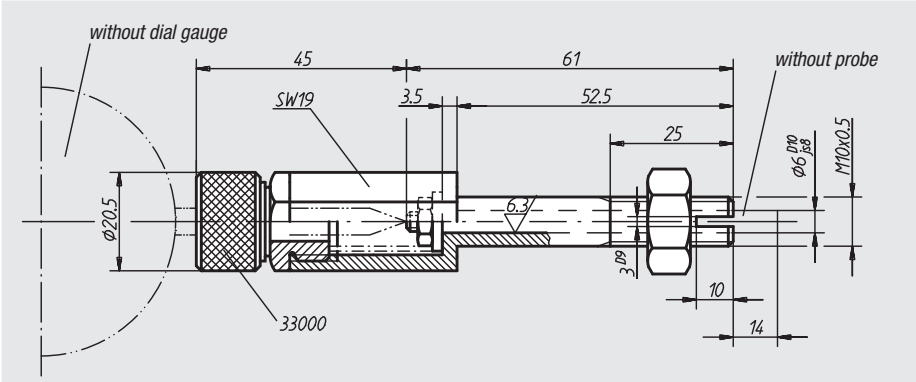
Sample order:
nlm 33016-08050

Note:
Dial gauge and probe are not included.
Dial gauges see 32540 and 32542.
Probes see 33020 up to 33026.

Order No.	Supplied for the tracer pin	Approx. weight kg
33016-08050	1 washer 5,3 x 14 x 1 1 hexagon nut M5 1 compression spring	0,170

Holder for dial gauges

for measuring yoke



Material:
Tempered steel

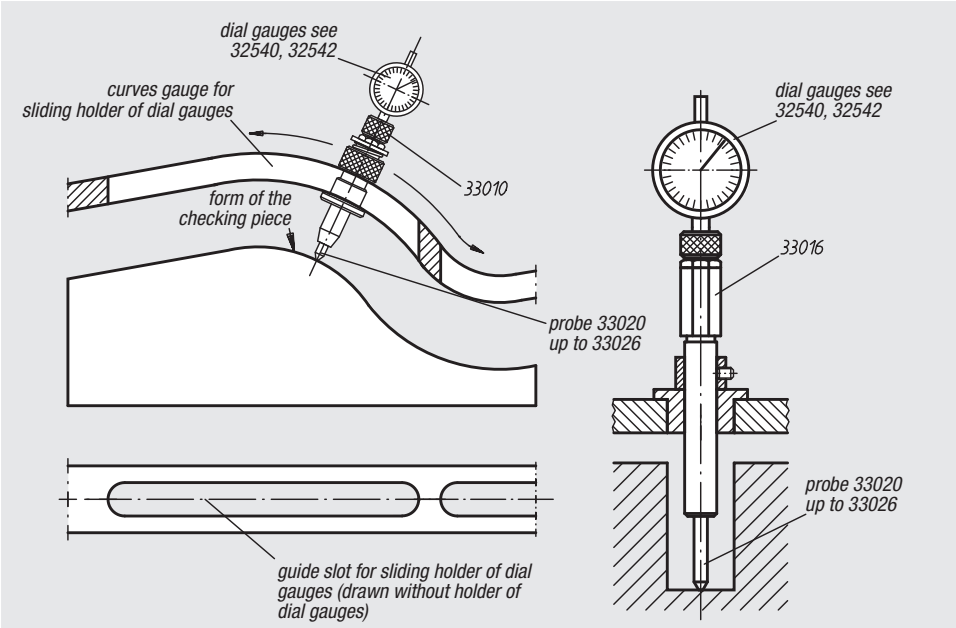
Version:
Black oxide finish, collet chuck and body heat-treated

Sample order:
nlm 33018-06053

Note:
Dial gauges and probes are not included.
Dial gauges see 32540 and 32542.
Probes see 33028 up to 33032.

Order No.	Supplied for the tracer pin	Approx. weight kg
33018-06053	1 washer 4,3 x 14 x 0,9 1 hexagon nut M4 1 compression spring	0,095

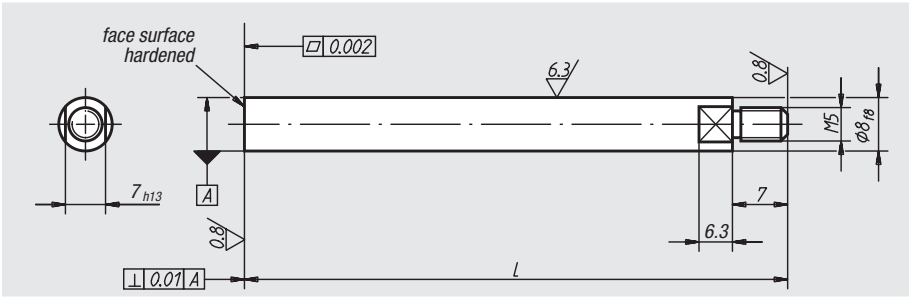
Application: holder of dial gauges



33020

Probe

with face surface



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33020-08100

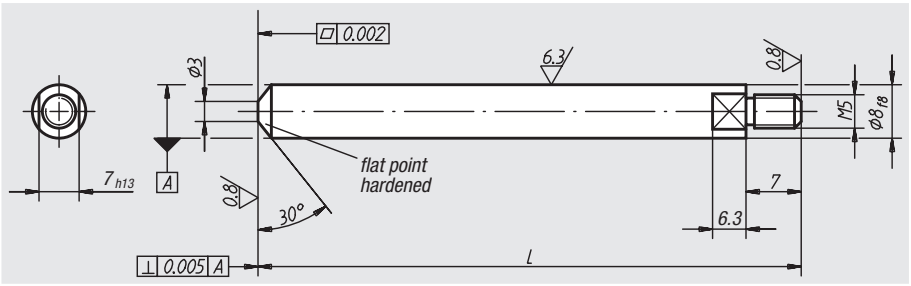
Note:
These probes are suitable for holders of dial gauges 33010 up to 33016.

Order No.	L	Approx. weight g
33020-08063	63	25
33020-08080	80	30
33020-08100	100	40
33020-08160	160	60
33020-08250	250	145

33022

Probe

with flat point



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33022-08063

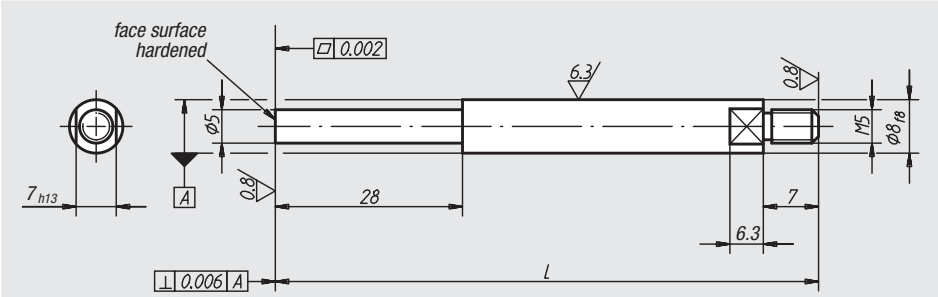
Note:
These probes are suitable for holders of dial gauges 33010 up to 33016.

Order No.	L	Approx. weight g
33022-08063	63	25
33022-08080	80	30
33022-08100	100	40

33024

Probe

with reduced face surface



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33024-08160

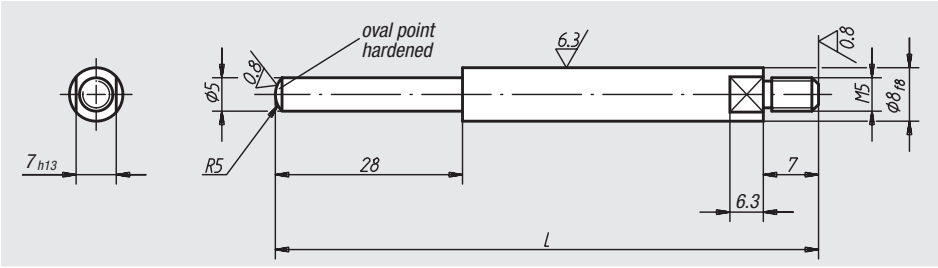
Note:
These probes are suitable for holders of dial gauges 33010 up to 33016.

Order No.	L	Approx. weight g
33024-08080	80	25
33024-08100	100	30
33024-08160	160	55
33024-08250	250	90

33026

Probe

with reduced oval point



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33026-08080

Note:
These probes are suitable for holders of dial gauges 33010 up to 33016.

Order No.	L	Approx. weight g
33026-08080	80	25
33026-08100	100	30
33026-08160	160	55

33028

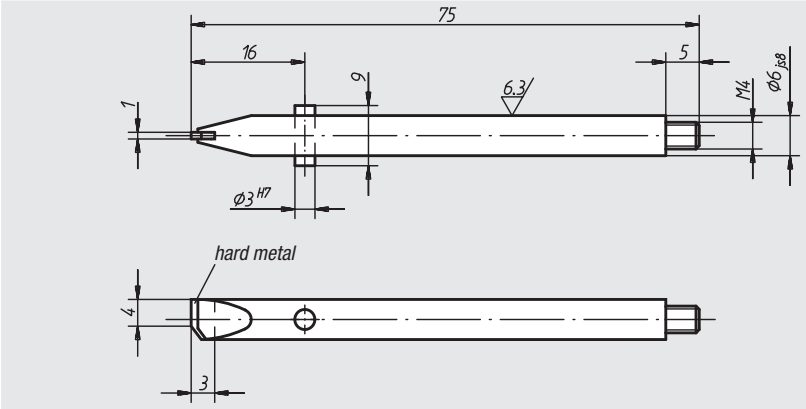
Flat probe

Material:
Tool steel; support surface in hard metal

Version:
Black oxide finish

Sample order:
nlm 33028-06075

Note:
This probe is suitable for holder of dial gauges 33018.



Order No.	Approx. weight g
33028-06075	16

33029

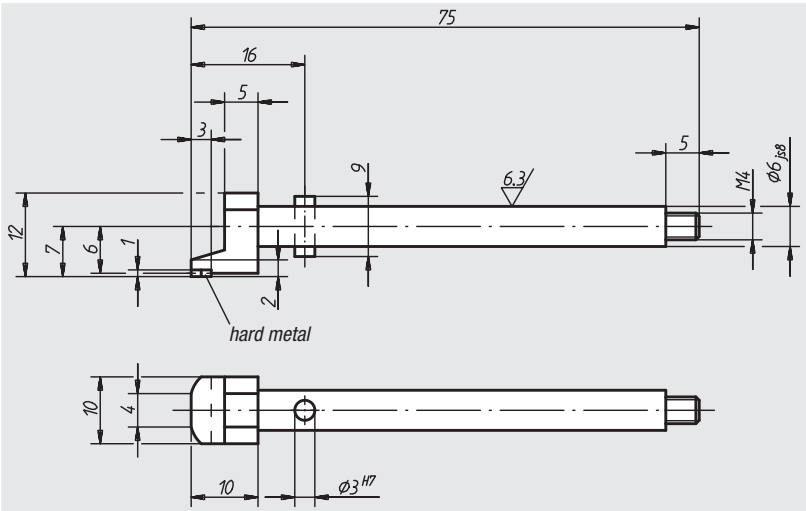
Flat stepped probe

Material:
Tool steel; support surface in hard metal

Version:
Black oxide finish

Sample order:
nlm 33029-06075

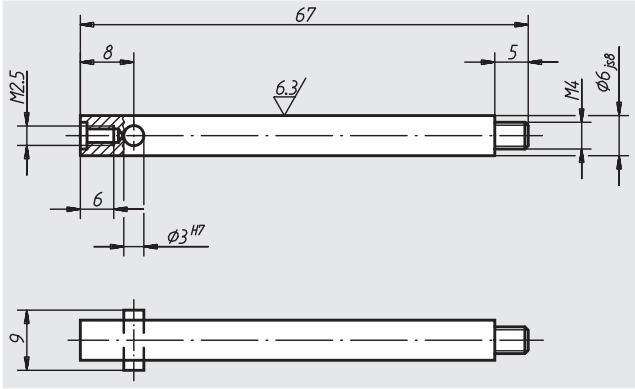
Note:
This probe is suitable for holder of dial gauges 33018.



Order No.	Approx. weight g
33029-06075	19

Extension

for measuring inserts



Material:
Tool steel

Version:
Black oxide finish

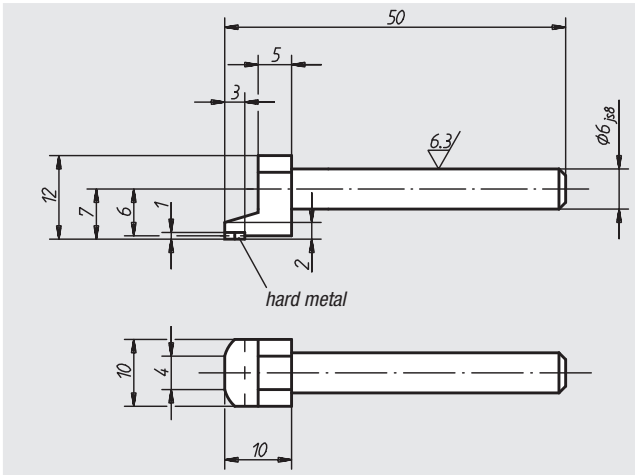
Sample order:
nlm 33032-06067

Note:
This extension is suitable for holder of dial gauges 33018.
Measuring inserts see 33040 up to 33052.

Order No.	Approx. weight g
33032-06067	14

Flat stepped probe

for fixed stop



Material:
Tool steel; support surface in hard metal

Version:
Black oxide finish

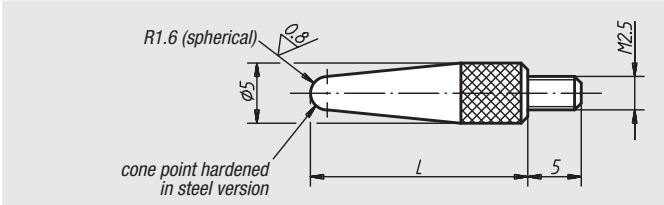
Sample order:
nlm 33035-06050

Order No.	Approx. weight g
33035-06050	14

33040

Measuring inserts

with rounded cone point



Material:
Steel or cone point in hard metal

Version:
Black oxide finish

Sample order:
nlm 33040-1025250

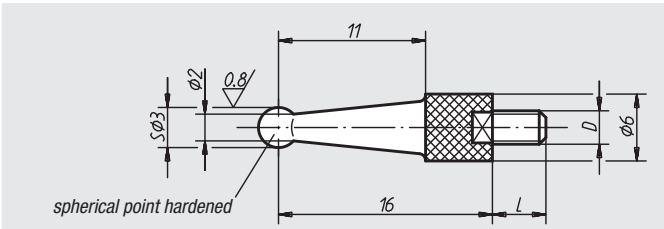
Note:
Dial gauges see 32540 and 32542.

Order No. cone point in steel	Order No. cone point in hard metal	L	Approx. weight g
33040-1025080	**33040-2025080**	8	11
33040-1025125	**33040-2025125**	12,5	16
33040-1025160	**33040-2025160**	16	20
33040-1025200	**33040-2025200**	20	24
33040-1025250	**33040-2025250**	25	26
33040-1025280	**33040-2025280**	28	29
33040-1025355	**33040-2025355**	35,5	40

33042

Measuring inserts

with spherical point



Material:
Tool steel

Version:
Hardened and black oxide finish

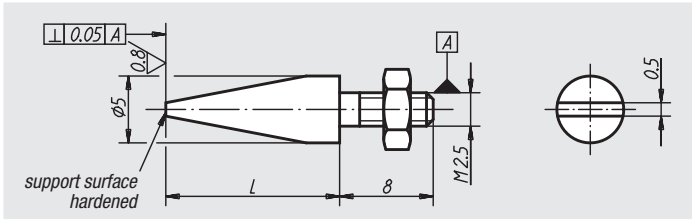
Sample order:
nlm 33042-040016

Note:
Dial gauges see 32540 and 32542.

Order No.	D	L	Approx. weight g
33042-025016	M2,5	5	2
33042-040016	M4	5	2

Measuring inserts

wedge-shaped



Material:
Steel

Version:
Black oxide finish. Support surface hardened

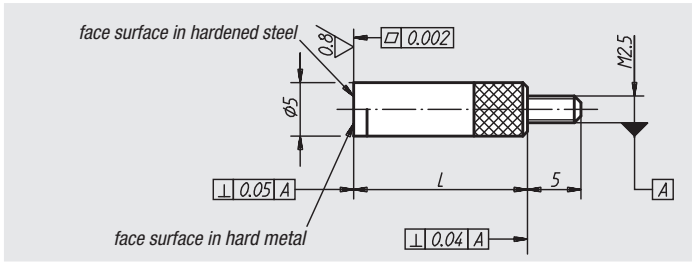
Sample order:
nlm 33044-025080

Note:
Dial gauges see 32540 and 32542.

Order No.	L	Approx. weight g
33044-025080	8	13
33044-025125	12,5	18
33044-025160	16	22
33044-025200	20	25
33044-025280	28	33

Measuring inserts

with face surface



Material:
Steel or face surface in hard metal

Version:
Black oxide finish

Sample order:
nlm 33046-2025160

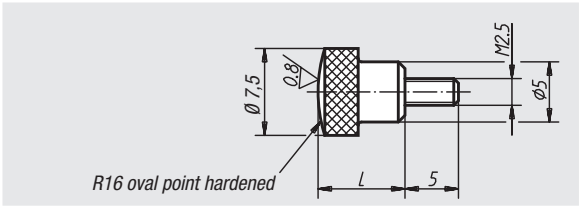
Note:
Dial gauges see 32540 and 32542.

Order No. support surface in steel	Order No. support surface in hard metal	L	Approx. weight g
33046-1025080	**33046-2025080**	8	16
33046-1025125	**33046-2025125**	12,5	20
33046-1025160	**33046-2025160**	16	25

33048

Measuring inserts

with oval point



Material:
Steel

Version:
Hardened and black oxide finish

Sample order:
nlm 33048-025080

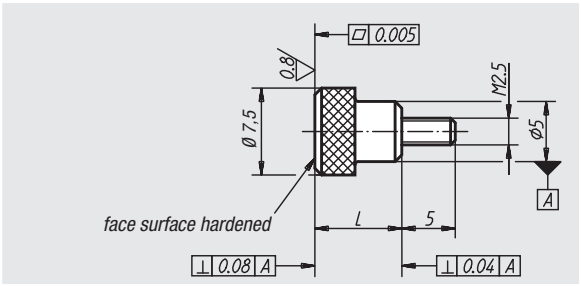
Note:
Dial gauges see 32540 and 32542.

Order No.	L	Approx. weight g
33048-025080	8	2

33050

Measuring inserts

with extended face surface



Material:
Steel

Version:
Hardened and black oxide finish

Sample order:
nlm 33050-025080

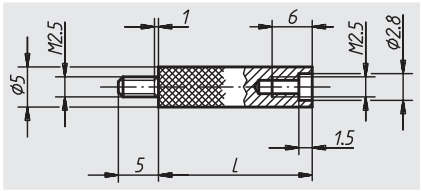
Note:
Dial gauges see 32540 and 32542.

Order No.	L	Approx. weight g
33050-025080	8	2

33052

Extensions

for measuring inserts



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33052-025120

Note:
Suitable for measuring inserts 33040 up to 33050 as well as measuring inserts set 33058. Dial gauges see 32540 and 32542.

Order No.	L	Approx. weight g
33052-025080	8	1,0
33052-025100	10	1,4
33052-025120	12	1,6
33052-025160	16	2,0
33052-025200	20	2,6
33052-025240	24	3,1
33052-025300	30	4,7
33052-025320	32	4,0
33052-025400	40	5,9
33052-025500	50	7,4
33052-025600	60	8,9
33052-025700	70	10,5
33052-025800	80	12,0
33052-025900	90	13,5

33058

Measuring inserts set

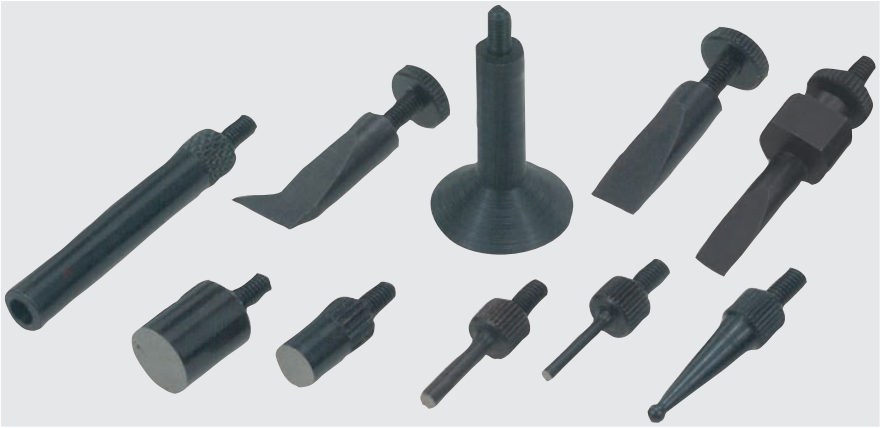
10-part

Material:
Measuring inserts in hardened steel; box in plastic

Version:
Black oxide finish

Sample order:
nlm 33058-01

Threaded version:
Thread M2.5.
Content:
9 inserts
1 extension
(length 30 mm).

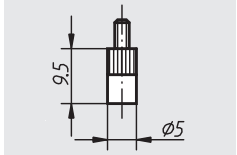


Order No.	Approx. weight g
33058-01	72

Measuring Inserts in hardened steel

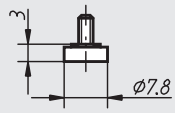
M 2.5 thread

Steel, hardened
flat Ø5



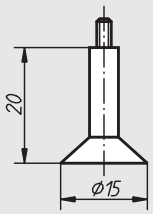
Order No.
33058-015

Steel, hardened
flat Ø7.5



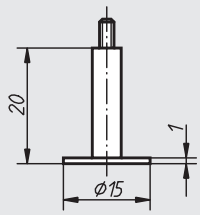
Order No.
33058-020

Steel, hardened
flat Ø15



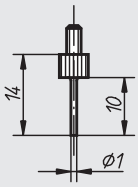
Order No.
33058-025

Steel, hardened
disc Ø15



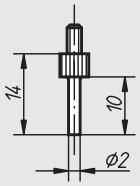
Order No.
33058-030

Steel, hardened
pin Ø1



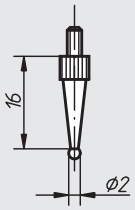
Order No.
33058-035

Steel, hardened
pin Ø2



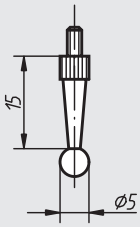
Order No.
33058-040

Steel, hardened
ball Ø2



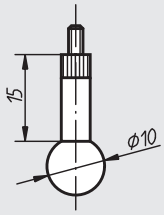
Order No.
33058-045

Steel, hardened
ball Ø5



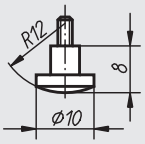
Order No.
33058-050

Steel, hardened
ball Ø10



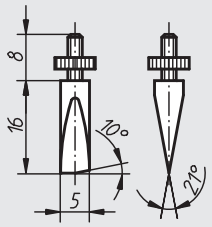
Order No.
33058-055

Steel, hardened
domed R12



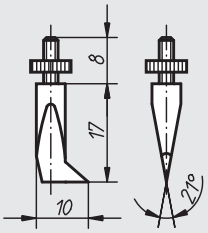
Order No.
33058-060

Steel, hardened
knife
angled 10°



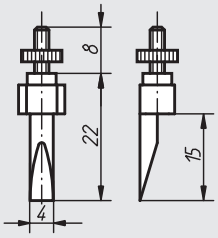
Order No.
33058-065

Steel, hardened
knife
laterally off-set



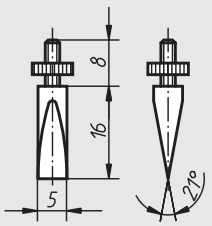
Order No.
33058-070

Steel, hardened
knife
one-sided



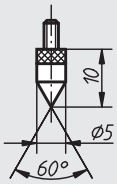
Order No.
33058-075

Steel, hardened
knife



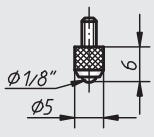
Order No.
33058-080

Steel, hardened
point 60°



Order No.
33058-085

Steel, hardened
standard inch
ball Ø 1/8“



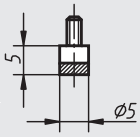
Order No.
33058-090

Measuring inserts in hard metal

M 2.5 thread

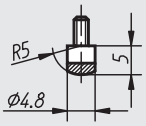
Carbide
plane Ø5

Order No.
33058-515



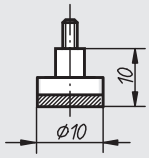
Carbide
domed R5

Order No.
33058-520



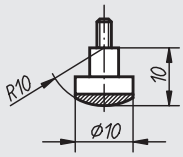
Carbide
flat Ø10

Order No.
33058-525



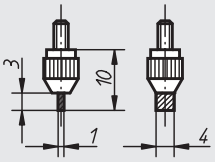
Carbidel
domed R10

Order No.
33058-530



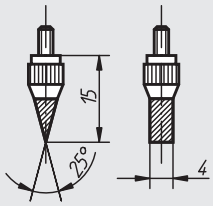
Carbide
blade 1x4

Order No.
33058-540



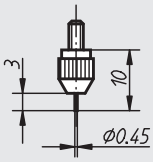
Carbide
knife 25°x4

Order No.
33058-545



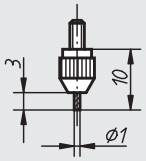
Carbide
pin Ø0,45

Order No.
33058-550



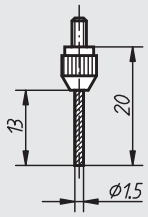
Carbide
pin Ø1.0

Order No.
33058-555



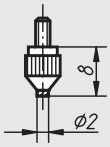
Carbide
pin Ø1.5

Order No.
33058-560



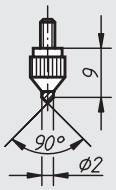
Carbide
flat Ø2

Order No.
33058-565



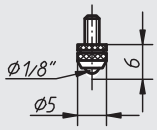
Carbide
point 90°x2

Order No.
33058-570



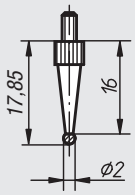
Carbide
standard inch
ball Ø1/8“

Order No.
33058-575



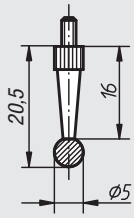
Carbide
ball Ø2

Order No.
33058-580



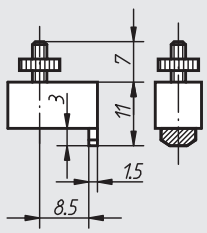
Carbide
ball Ø5

Order No.
33058-585



Carbide
off-set blade

Order No.
33058-590



Housing of protection

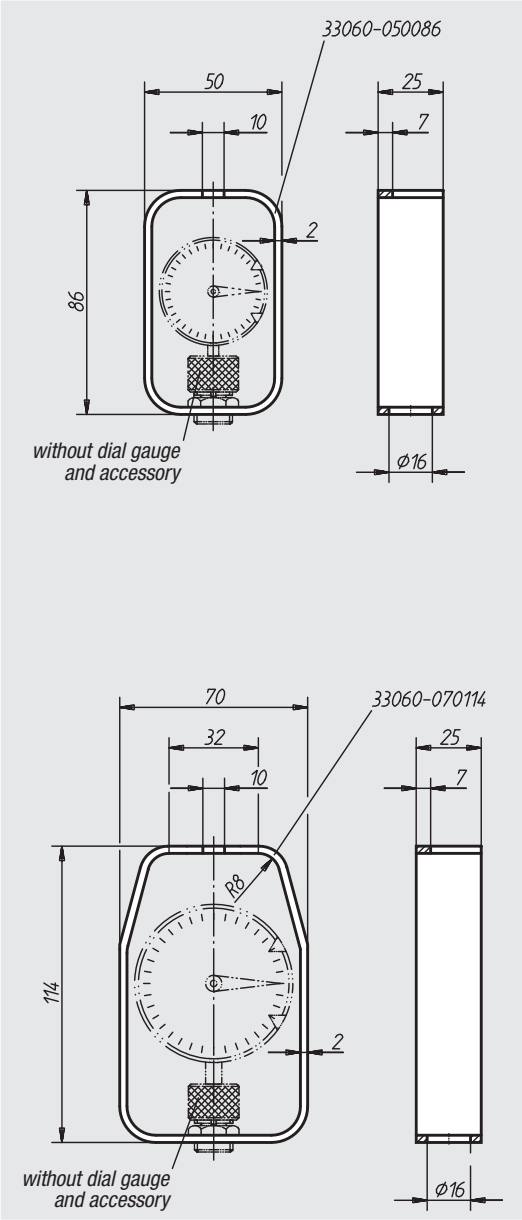
for dial gauges

Material:
Steel

Version:
Painted yellow

Sample order:
nlm 33060-050086

Note:
Dial gauges see 32540 and 32542.
Screw connections for dial gauges see 33000.
Holder of dial gauges see 33010 up to 33018.



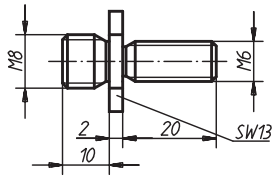
Order No.	Approx. weight kg
33060-050086	0,100
33060-070114	0,120

Technical information for holder of dial gauges

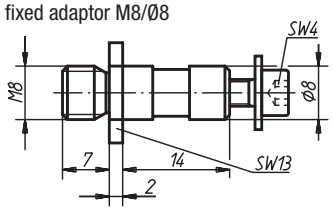
For alternative installation of the deflection dial gauge holder:
– fastening adapter M8/M6 (double thread)
– fastening adapter M8/Ø8
(thread and smooth pin)

Both fastening adapters are supplied with the deflection dial gauges holder.

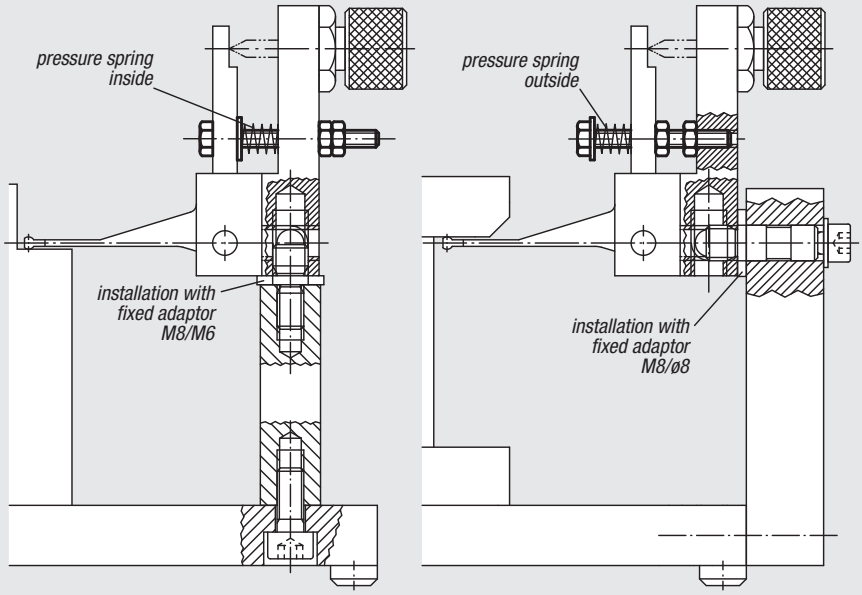
fixed adaptor M8/M6



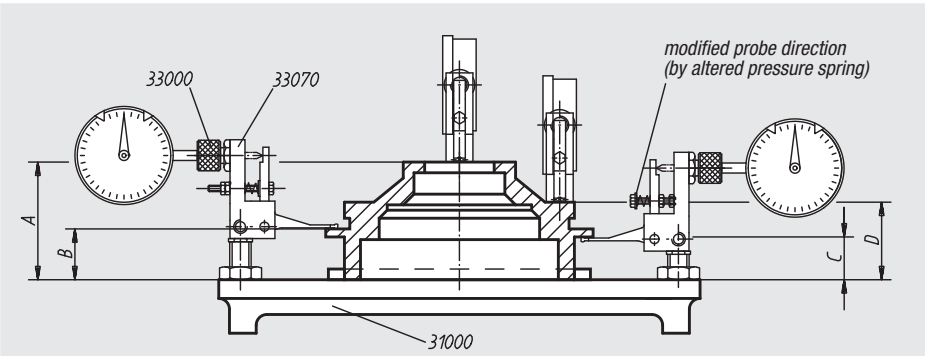
fixed adaptor M8/Ø8



Modification of the probe direction:
the probe direction can be trouble-free changed by easily alteration of the pressure spring (from inside to outside)

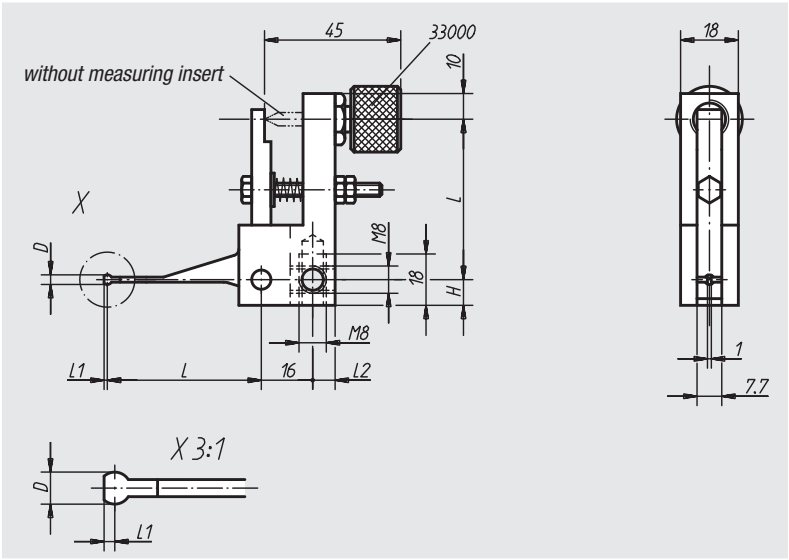


Application: for simultaneous control of 4 height dimensions with holder of dial gauges



33070

Holder of dial gauges with deflection by 90°



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33070-04803

Note:
Direction modification of the probe and mounting of the holder of dial gauges with deflection by means of fixed adaptors (they are supplied) see technical information.

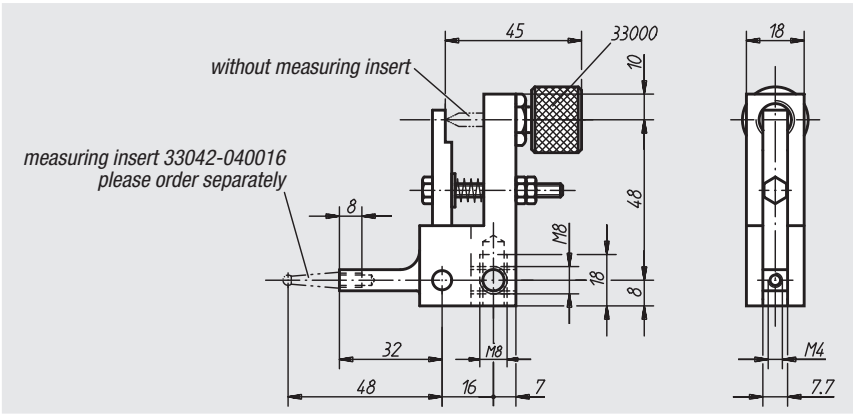
Accessory:
Dial gauges see 32540 and 32542.
Measuring inserts see 33040 up to 33052.

Order No.	L	D	L1	L2	H	Approx. weight kg
33070-04803	48	3	1	7	8	0,185
33070-07008	70	8	1,5	6	10	0,265

33072

Holder of dial gauges with deflection by 90°

probe with thread



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33072-048

Note:
Direction modification of the probe and mounting of the holder of dial gauges with deflection by means of fixed adaptors (they are supplied) see technical information.

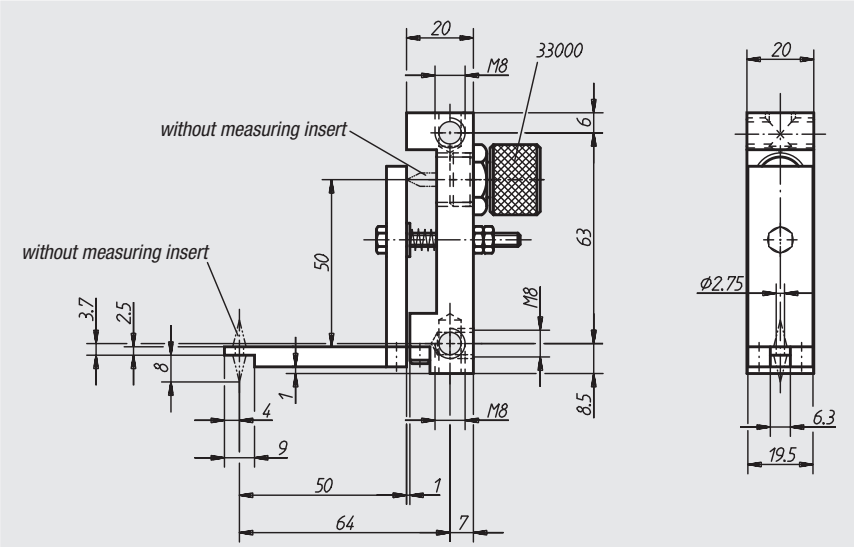
Accessory:
Dial gauges see 32540 and 32542.
Gauge inserts see 33042-040016.

Order No.	Approx. weight kg
33072-048	0,195

33074

Holder of dial gauges with deflection by 90°

probe with borehole



Material, version:
Base body in aluminium, black anodized; probe in steel precision casting, black oxide finish

Sample order:
nlm 33074-050

Note:
Direction modification of the probe and mounting of the holder of dial gauges with deflection by means of fixed adaptors (they are supplied) see technical information.

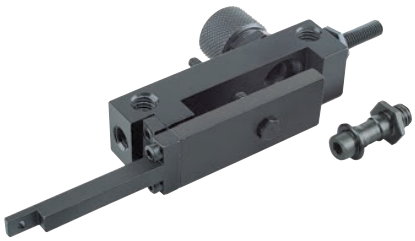
Accessory:
Dial gauges see 32540 and 32542.
Measuring inserts see 33040 up to 33052.

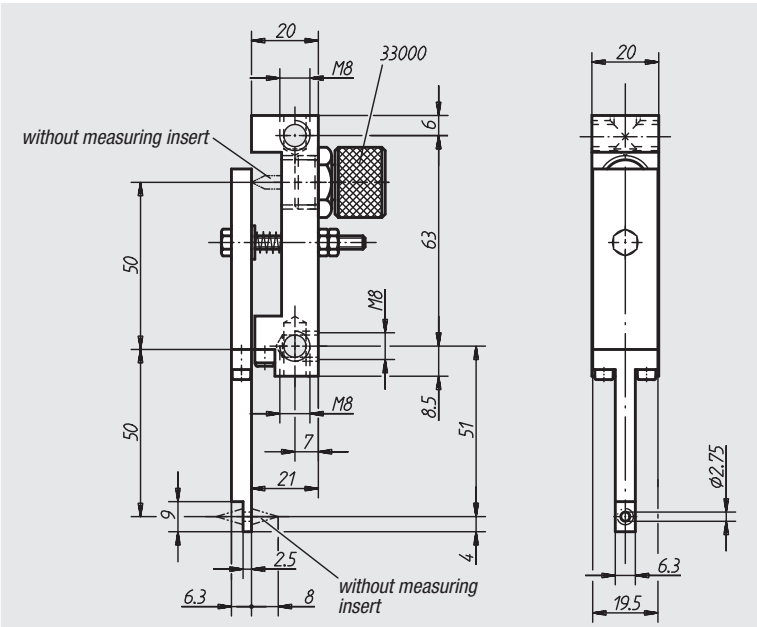
Order No.	Approx. weight kg
33074-050	0,155

33076

Holder of dial gauges with deflection by 180°

probe with borehole





Material, version:
Base body in aluminium, black anodized; probe in steel precision casting, black oxide finish

Sample order:
nlm 33076-050

Note:
Direction modification of the probe and mounting of the holder of dial gauges with deflection by means of fixed adaptors (they are supplied) see technical information.

Accessory:
Dial gauges see 32540 and 32542.
Measuring inserts see 33040 up to 33052.

Order No.	Approx. weight kg
33076-050	0,155

33078

Holder of dial gauges with deflection by 90°

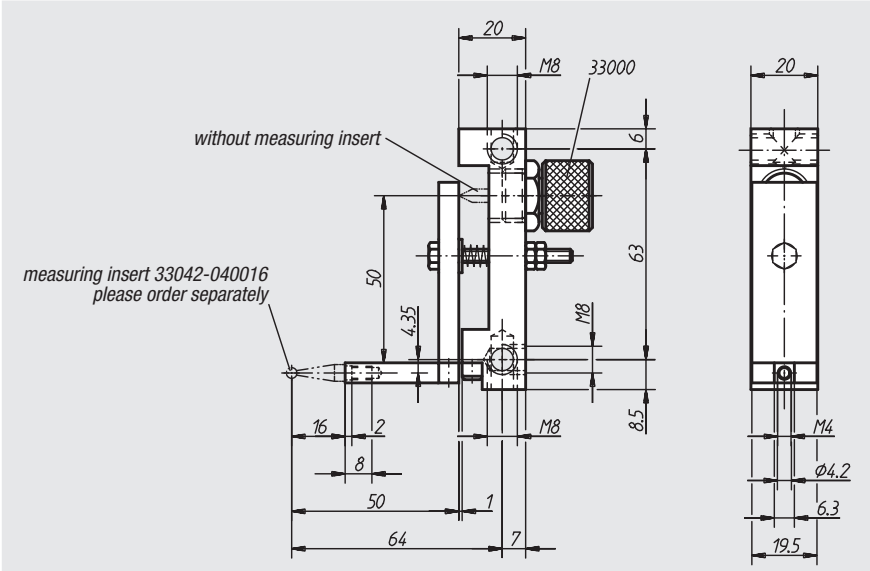
probe with thread

Material, version:
Base body in aluminium, black anodized; probe in steel precision casting, black oxide finish

Sample order:
nlm 33078-050

Note:
Direction modification of the probe and mounting of the holder of dial gauges with deflection by means of fixed adaptors (they are supplied) see technical information.

Accessory:
Dial gauges see 32540 and 32542.
Gauge inserts see 33042-040016.

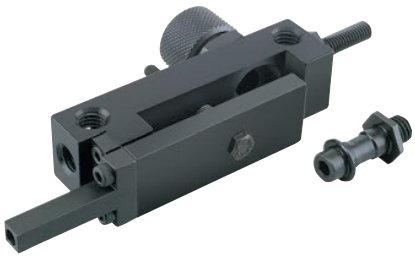


Order No.	Approx. weight kg
33078-050	0,150

33080

Holder of dial gauges with deflection by 180°

probe with thread

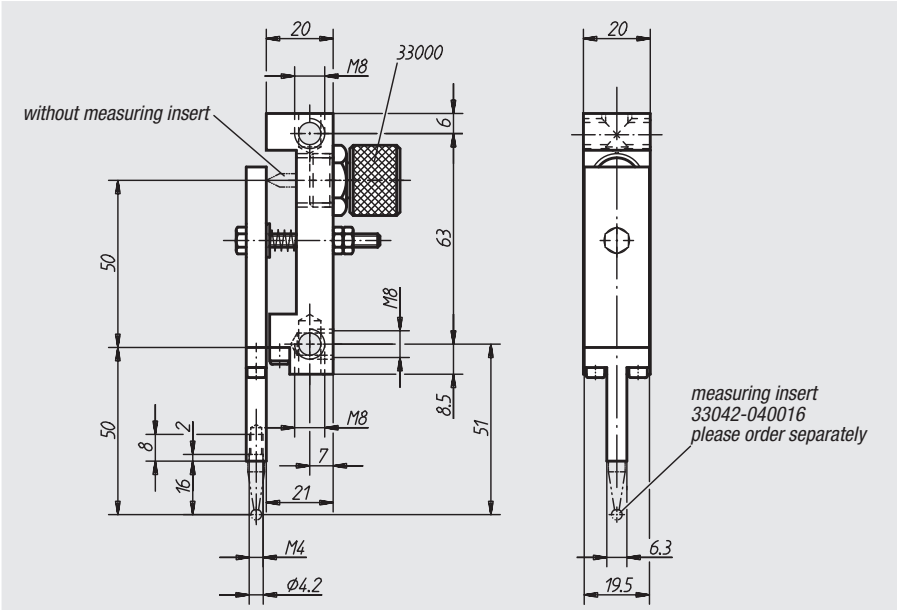


Material, version:
Base body in aluminium, black anodized; probe in steel precision casting, black oxide finish

Sample order:
nlm 33080-050

Note:
Direction modification of the probe and mounting of the holder of dial gauges with deflection by means of fixed adaptors (they are supplied) see technical information.

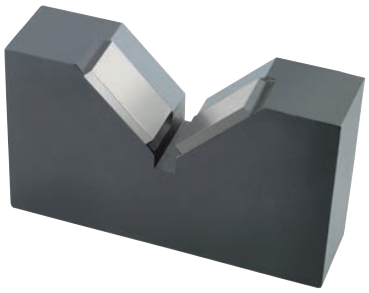
Accessory:
Dial gauges see 32540 and 32542.
Gauge inserts see 33042-040016.



Order No.	Approx. weight kg
33080-050	0,150

33090

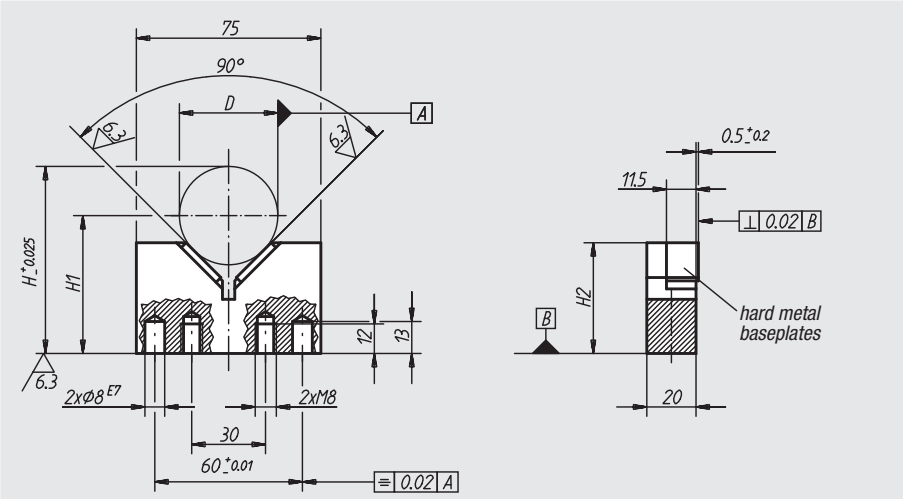
Prism attachments



Material:
Tempered steel; support in hard metal

Version:
Black oxide finish; support surface ground, natural finish

Sample order:
nlm 33090-010020



Order No.	D min.	D max.	D Test-Ø	H	H1	H2	Approx. weight kg
33090-010020	10	20	20	66	D/2 x √2 + 41,857	53	0,550
33090-020040	20	40	40	76	D/2 x √2 + 27,716	45	0,440

33092

Spacers

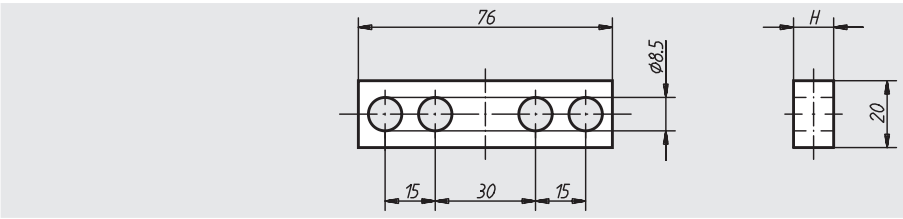
for prisms attachments

Material:
Tempered steel

Version:
Black oxide finish

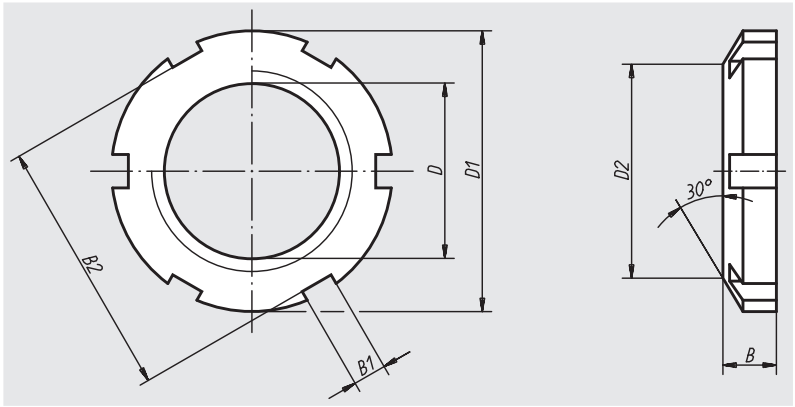
Sample order:
nlm 33092-012

Note:
Spacers are used as height elements for prisms attachments 33090.



Order No.	H	Approx. weight kg
33092-005	5	0,050
33092-008	8	0,080
33092-012	12	0,120
33092-015	15	0,150
33092-020	20	0,200

Slotted round nuts



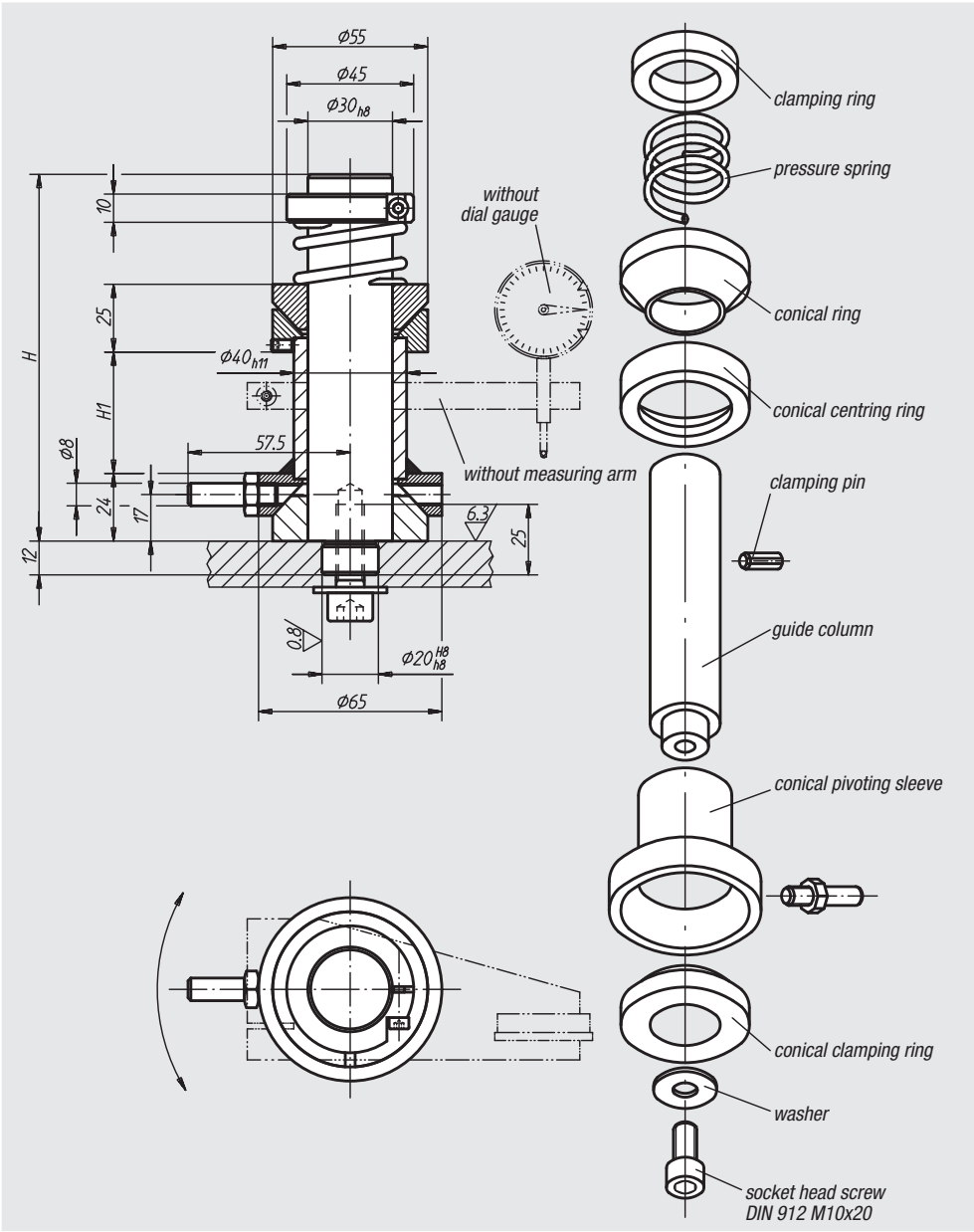
Material:
Tempered steel

Version:
Black oxide finish

Sample order:
nlm 33105-16

Order No.	D	D1	D2	B	B1	B2	Number of slots	Approx. weight g
33105-16	M16x1	26	21	6	4	22	4	13
33105-36	M36x1,5	52	44	9	6	46	6	65

Pivoting columns



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33110-200

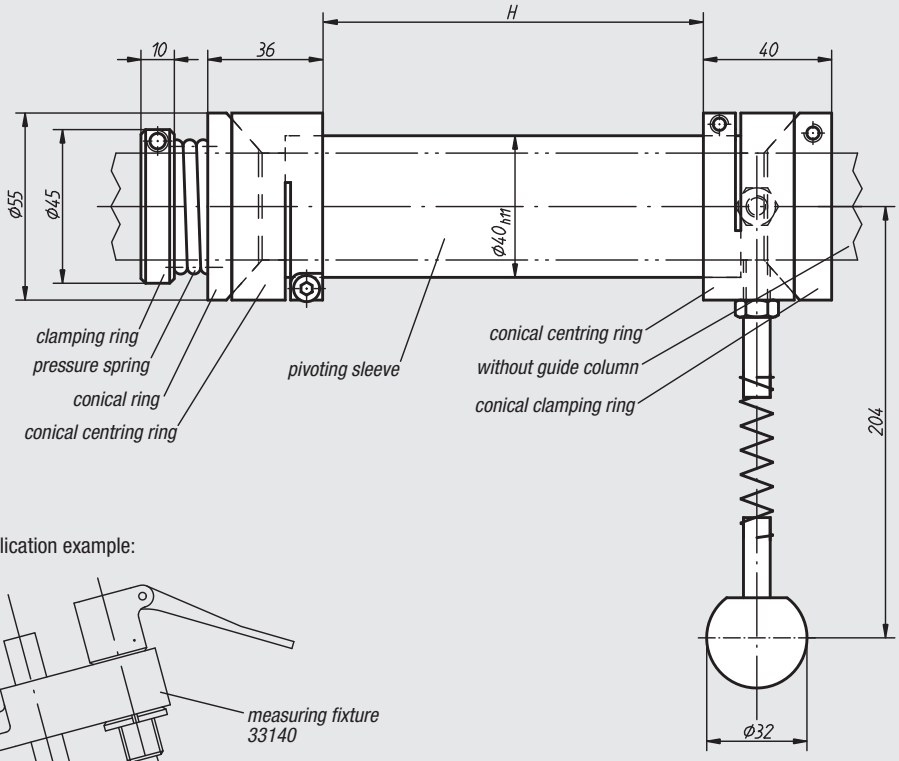
Note:
Dial gauges see 32540 and 32542.
Measuring arms see 33150.

Application:
For height measurements.

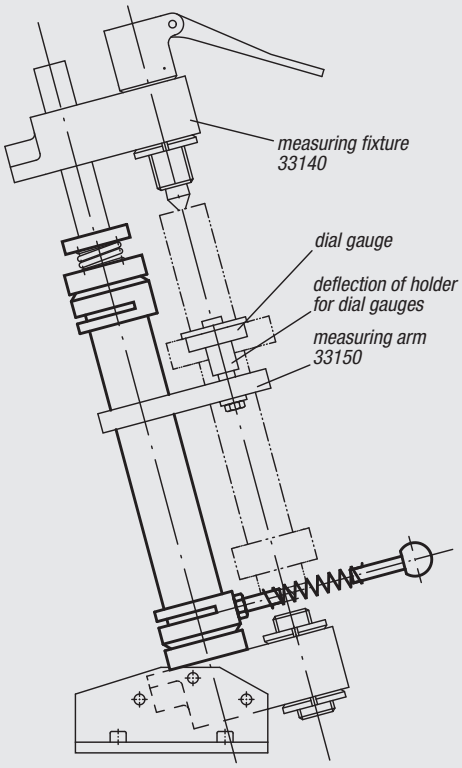
Assembly:
- Fully dismantle the pivoting column.
- Fix guide column to the measuring table with washer and socket head screw.
- Place the conical clamping ring in position and press on the seat-engaging surface during the clamping procedure.
- Insert the conical pivoting sleeve.
- Fix the measuring arm onto the conical pivoting sleeve.
- Fix the conical centring ring onto the conical pivoting sleeve with two threaded bolts.
- Insert the clamping pin into the guide column.
- Push the conical ring onto the guide column such that the clamping pin engages in the slot on the conical ring. Ensure that the seat of the conical ring has no play in it.
- Mount the pressure spring on the block with the clamping ring to prevent axial play.
- As a basic principle: Lubricate all running surfaces.

Order No.	H	H1	Approx. weight kg
33110-130	130	43	1,650
33110-160	160	73	1,920
33110-200	200	113	2,280
33110-250	250	163	2,750

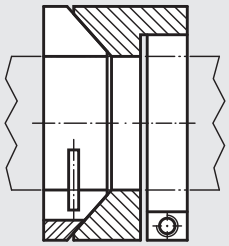
Pivoting systems



application example:



Cutting view through conical ring and conical centring ring



Material:
Steel

Version:
Black oxide finish

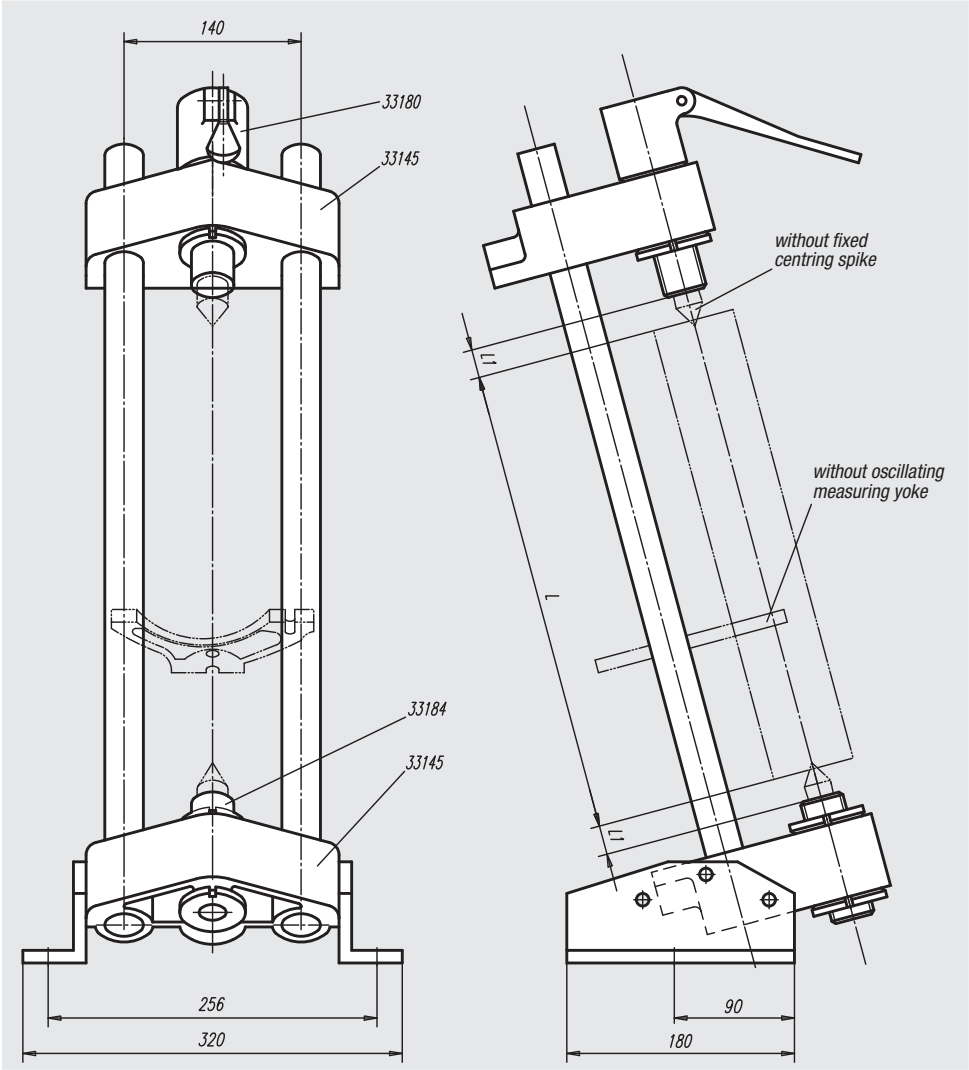
Sample order:
nlm 33115-426

Note:
The pivoting systems are adapted to measuring fixtures 33140.
Measuring arms see 33150.

Assembly:
- Place the conical clamping ring on the guide column and clamp in the desired position.
- Fix the conical centring ring to the pivoting sleeve and insert it such that the conical centring ring lies on top of the conical clamping ring.
- Fix the measuring arm onto the pivoting sleeve.
- Fix the second conical centring ring onto the pivoting sleeve.
- Insert the conical ring and pressure spring.
- Mount the pressure spring on the block with the clamping ring to prevent axial play.
- As a basic principle: Lubricate all running surfaces.

Order No.	H	Approx. weight kg
33115-200	200	1,845
33115-276	276	2,125
33115-426	426	2,665
33115-536	536	3,040

Measuring fixtures



Material:
Steel; shaft bearing GJL 200

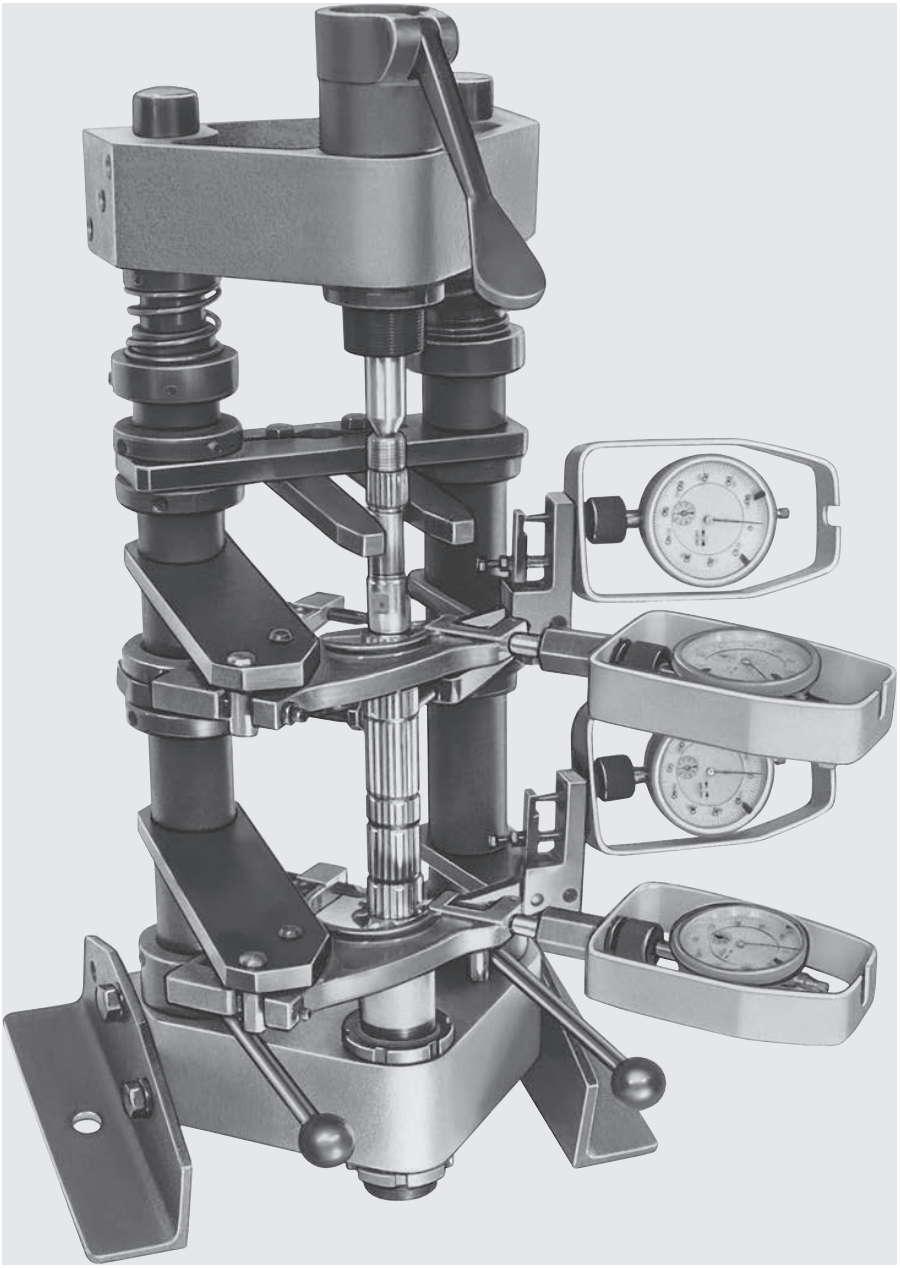
Version:
Steel parts black oxide finish, shaft bearing painted

Sample order:
nlm 33140-240444

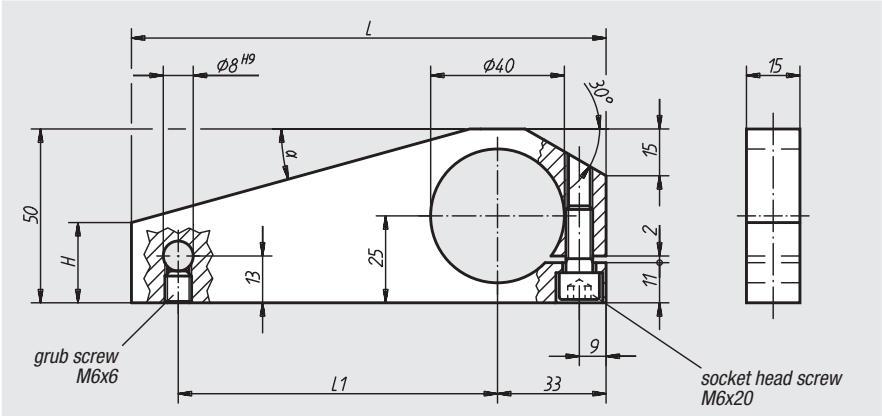
Note:
See application example.

Order No.	L for L1 = 32 (with fixed centering point 33190-02096)	L for L1 = 49 (with fixed centering point 33190-02113)	Approx. weight kg
33140-240444	274 up to 444	240 up to 410	14,600
33140-410524	444 up to 524	410 up to 490	15,400

Application example: measuring fixture



Measuring arms



Material:
Steel

Version:
Black oxide finish

Sample order:
nlm 33150-095

Note:
The measuring arms are suitable for pivoting columns 33110 and pivoting systems 33115.

Order No.	L	L1	H	α	Approx. weight kg
33150-095	95	50	18	30°	0,275
33150-140	140	95	23	15°	0,280

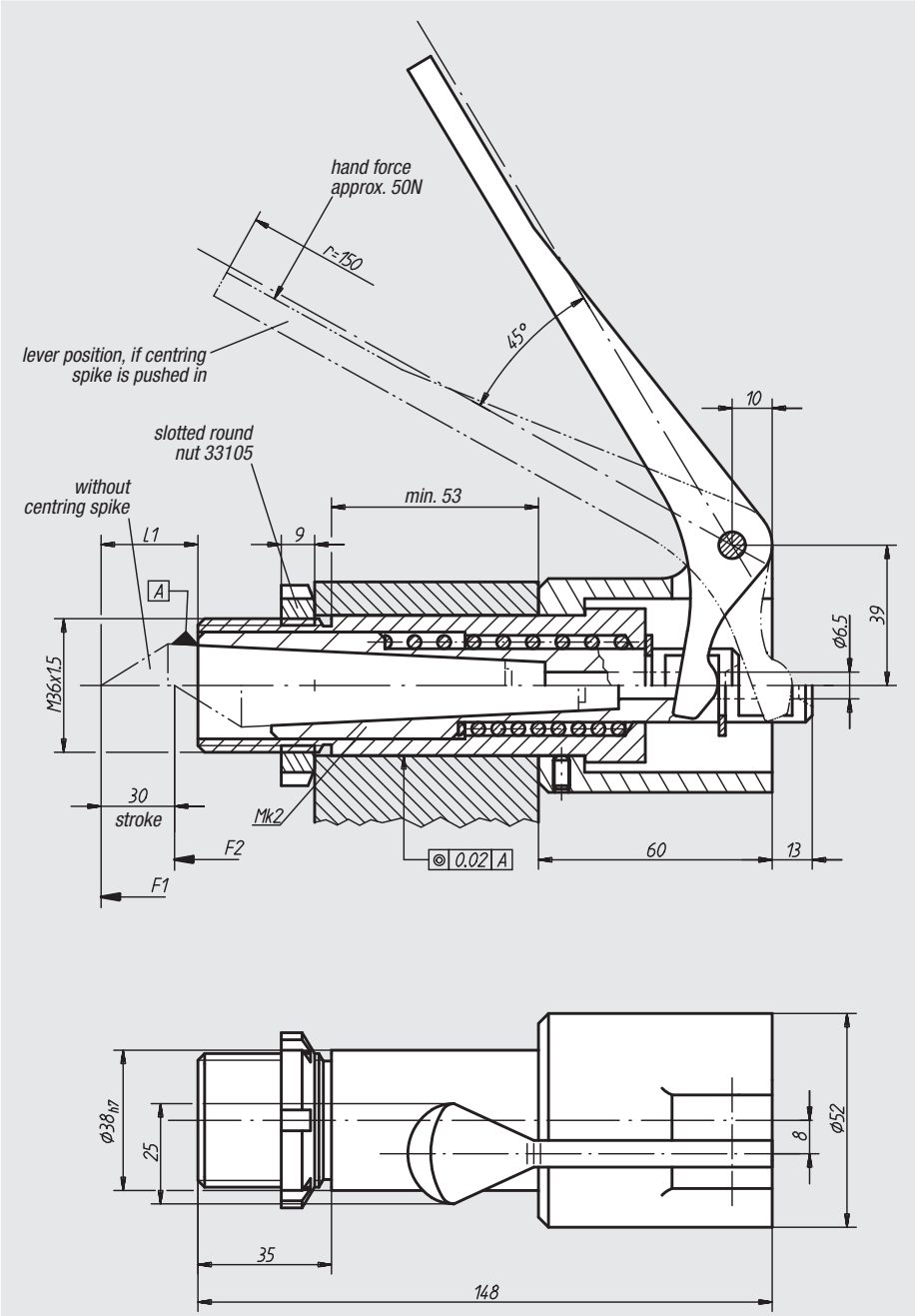
Spring mounted centre sleeves

with tension lever

Material:
Steel

Version:
Black oxide finish

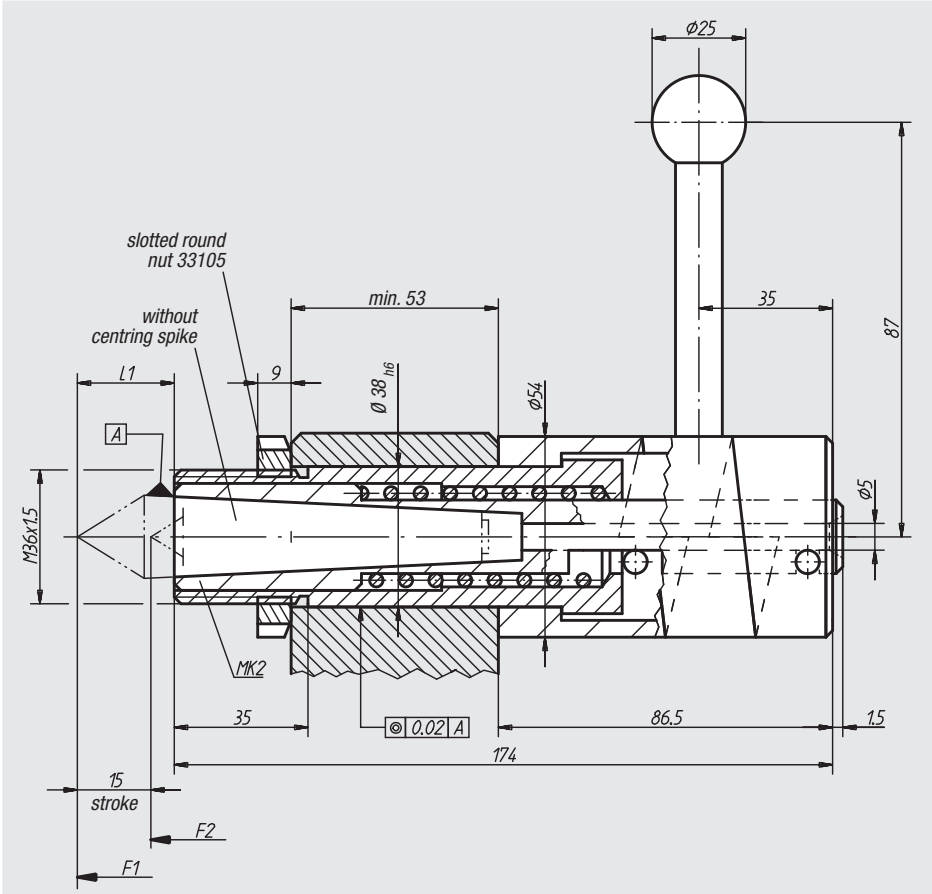
Sample order:
nlm 33180-02



Order No.	L1	suitable centering point	Spring force initial pressure F1 approx. N	Final pressure F2 approx. N	Approx. weight kg
33180-02	32	33190-02096	100	150	1,045
	41	33190-02105			
	49	33190-02113			

Spring mounted centre sleeves

with lifting curve



Material:
Steel; ball in black duroplastic PF 31

Version:
Black oxide finish

Sample order:
nlm 33182-02

Note:
The max. course of 15 mm can be reached by rotation of lifting curve by 180°.

Order No.	L1	suitable centering point	Spring force initial pressure F1 approx. N	Final pressure F2 approx. N	Approx. weight kg
33182-02	32	33190-02096	100	137	1,900
	41	33190-02105			
	49	33190-02113			

33184

Adjustable collet

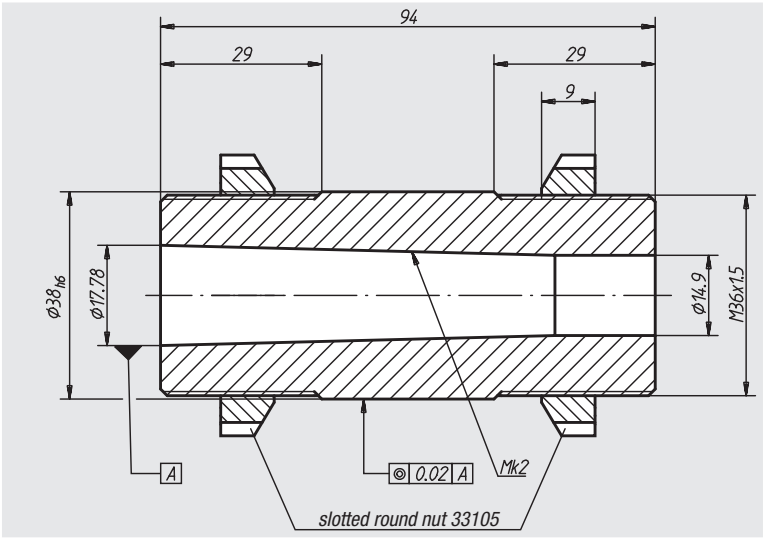
for centring spikes

Material:
Body 1.7220

Version:
Black oxide finish

Sample order:
nlm 33184-02

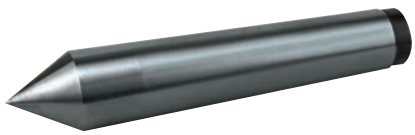
Note:
Suitable centring spikes see 33190.



Order No.	Approx. weight kg
33184-02	0,750

33190

Fixed centring spikes

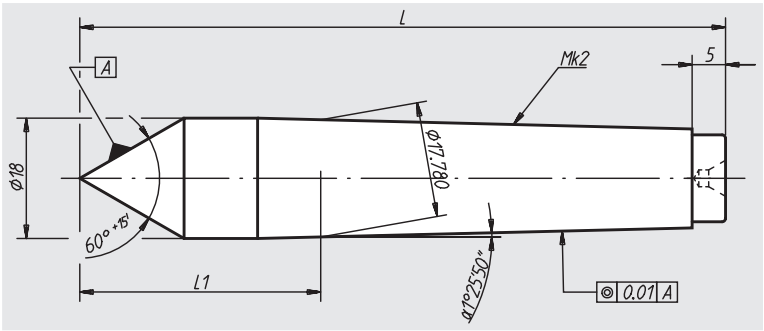


Material:
1.2067

Version:
Hardened and ground, natural finish

Sample order:
nlm 33190-02105

Note:
The fixed centring spikes are suitable for:
33180, 33182 and 33184.



Order No.	L	L1	Approx. weight kg
33190-02096	96	32	0,145
33190-02105	105	41	0,170
33190-02113	113	49	0,180

Notes

Measuring element

for toothed wheels

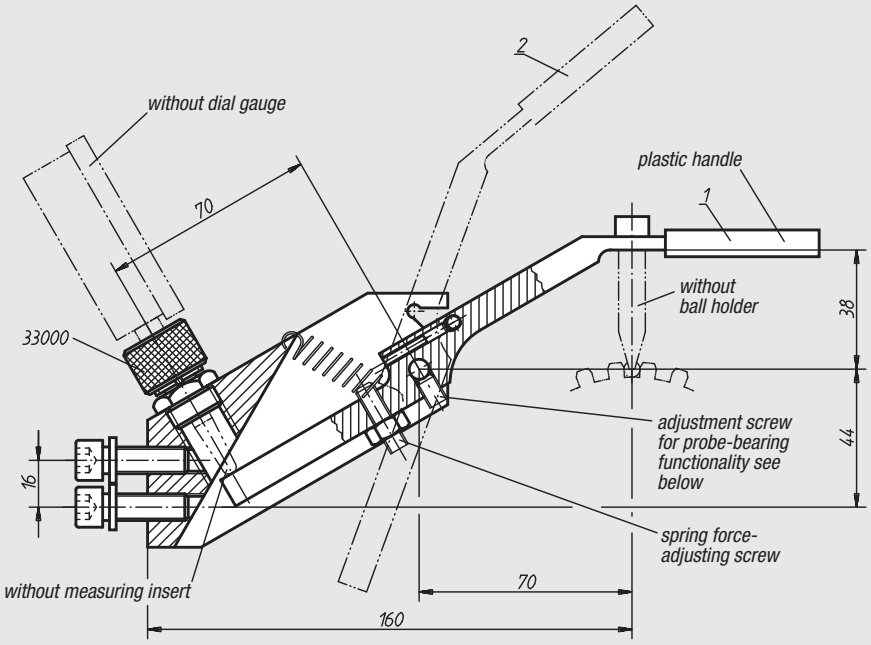
Material:
Steel

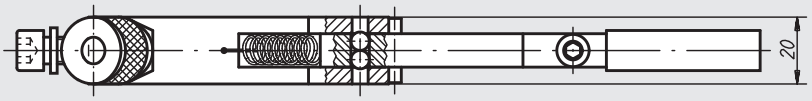
Version:
Black oxide finish

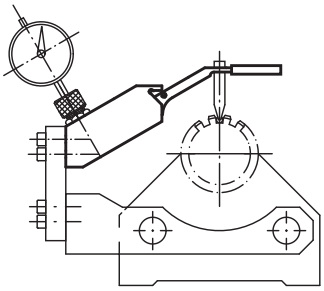
Sample order:
nlm 33202-070

Note:
1 = Probe in tactile position
2 = Probe in resting position, engaged.

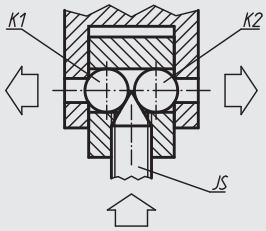
For suitable ball holder see 32205.
Dial gauges see 32540 and 32542.
Measuring inserts see 33040 up to 33052.







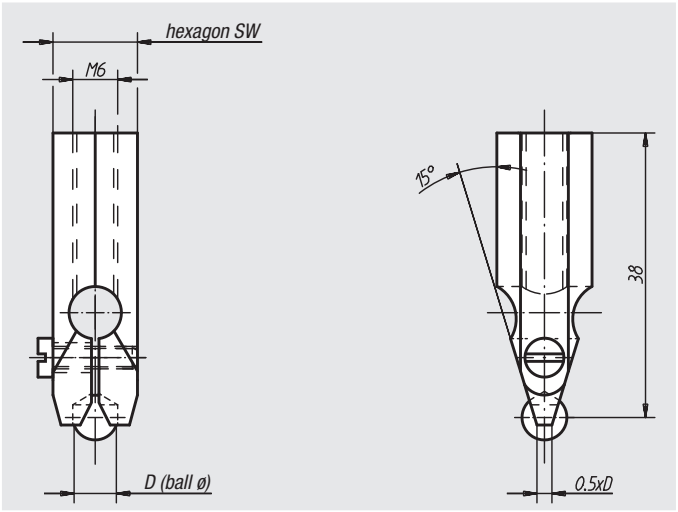
Functionality of probe bearing



Both balls K1 and K2 are moved apart and pressed against the wall by turning the adjustment screw (JS). This allows for play-free adjustment.

Order No.	Approx. weight kg
33202-070	0,640

Ball holders



Material:
Spring steel

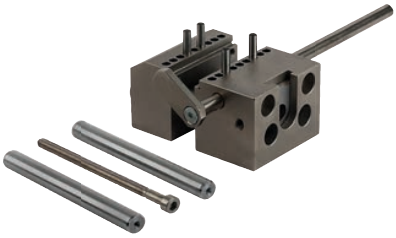
Version:
Black oxide finish

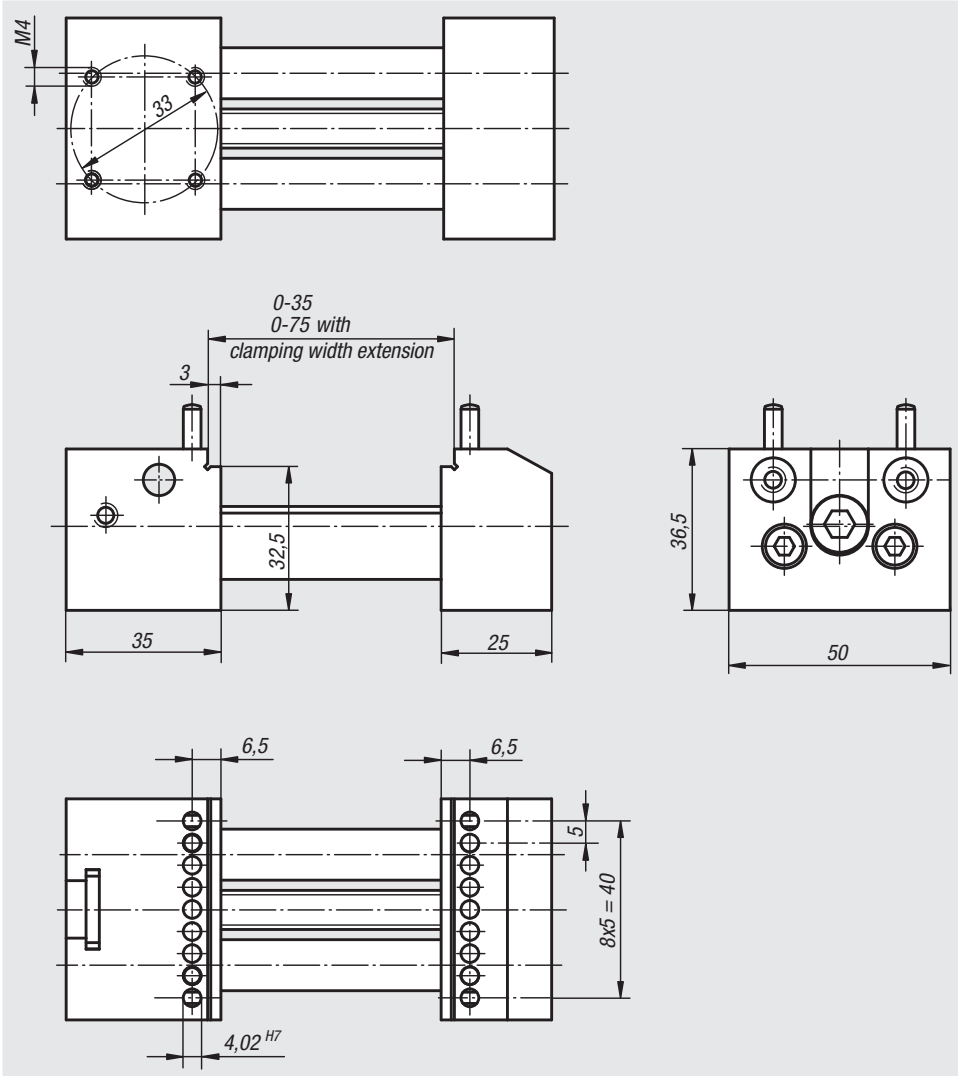
Sample order:
nlm 33205-03500

Note:
Balls in hard metal available on request.
The ball holders are suitable for measuring element for toothed wheels 33202.

Order No.	D	SW	Approx. weight g
33205-02000	2	10	14
33205-02380	2,38	10	14
33205-02500	2,5	10	14
33205-03000	3	10	15
33205-03500	3,5	10	15
33205-03960	3,96	10	15
33205-04000	4	10	15
33205-04500	4,5	10	16
33205-04760	4,76	10	16
33205-05000	5	10	16
33205-05560	5,56	10	16
33205-06000	6	10	16
33205-06500	6,5	13	28
33205-07000	7	13	28
33205-07540	7,54	13	29
33205-07938	7,938	13	29
33205-08500	8,5	13	30
33205-09520	9,52	13	32
33205-10000	10	13	32

Precision vice





Material, version:
Steel, surface-hardened and precision-ground.

Sample order:
nlm 33225-500351

Note:
The precision vice is a flexible solution for positioning and securing workpieces quickly and easily for measurement on measuring machines. Clamping is achieved by means of the stepped jaws or pins that can be inserted into the jaws. This allows even workpieces with holes inside to be clamped. Thanks to the interchangeable guiding columns, the clamping width can be increased from 35 mm to as high as 75 mm. The vice can be placed on the measuring table in 4 orientations, each at a right angle to one another.

The scope of delivery includes an adjustable stop, a set of columns for increasing the clamping width
up to 75 mm and a spindle extension as well as 4 pins and operating tool.

On request:
Set of columns for clamping width 100 mm or 150 mm.

Order No.	Approx. weight kg
33225-500351	1,430

Accessories for precision vice

33225-01
Stepped cylindrical pins
for increased part clamping

33225-03
Stepped cylindrical pins
for increased part clamping
with vee block 120°

33225-05
Jaws for narrow parts

33225-06
V-groove jaws

33225-07
V-groove jaws
with two-point contact

33225-08
V-groove jaws
with three-point contact

Order No.	Article description	Material	Clamping range	Scope of delivery	Approx. weight kg
33225-01	CYLINDRICAL PIN STEPPED FOR PRECISION VICE	Steel	-	4-piece set	0,004
33225-03	CYLINDRICAL PIN STEPPED FOR PRECISION VICE	Steel	-	4-piece set	0,003
33225-05	JAW FOR PRECISION VICE	Stainless steel	<3	Individual pieces with fastening screws	0,032
33225-06	V-GROOVE JAW FOR PRECISION VICE	Aluminium	Ø2 - Ø10	In pairs with fastening screws	0,01
33225-07	V-GROOVE JAW FOR PRECISION VICE	Aluminium	Ø5 - Ø20	In pairs with fastening screws	0,065
33225-08	V-GROOVE JAW FOR PRECISION VICE	Aluminium	bis Ø30	In pairs with fastening screws	0,1

Clamping component set

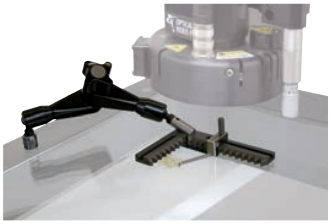
Sample order:
nlm 33250-12

Note:
Clamping component set for measuring microscopes and optical measurement devices for fast and flexible clamping of small parts. A wide variety of work-pieces such as plastic, punched or lathe-cut parts can be precisely positioned and securely clamped. Clamping of parts, a frequent problem in measurement tasks, is thus largely solved.

The basis of the clamping system is a high-quality clamping joint that is fixed to the measuring table. Clamping elements such as chucks or clamping clips are easily mounted on the clamping joint by means of the integrated quick-change interface.

Delivered in a wooden chest.

Application:
– chuck and vee-block for fixation of rotationally symmetrical parts
– stop angle, clamping clip and small parts clamping devices for clamping sheet metal and bent parts, for example



small parts clamp "screw clamping"

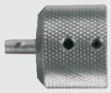
precision chuck

spring clamp for horizontal clamping right/left

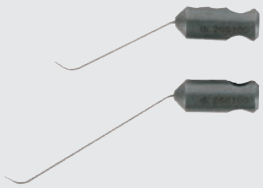
small parts clamp

clamping clip

rotational unit 90° pitch

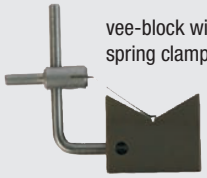


spring clamp 34/50 mm

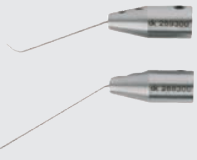


clamping joint

vee-block with spring clamp

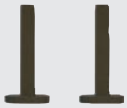


spring clamp 34/50 for vertical clamping



clamping joint holder, vertical

column



universal hex socket key

stop angle

Clamping joint with precision small chuck

Clamping joint with small parts clamp

Clamping joint with vee-block and spring clamp

Order No.	Version	Content
33250-12	12 parts	clamping joint, stop angle, rotational unit 90° pitch, spring clamp for horizontal clamping right, spring clamp for horizontal clamping left, spring clamp 34 mm, spring clamp 50 mm, small parts clamp, vee-block with spring clamp, column, clamping clip, universal hex socket key
33250-18	18 parts	clamping joint, clamping joint holder - horizontal, stop angle, rotational unit 90° pitch, spring clamp for horizontal clamping right, spring clamp for horizontal clamping left, spring clamp 34 mm, spring clamp 50 mm, spring clamp 34 mm for vertical clamping, spring clamp 50 mm for vertical clamping, small parts clamp, small parts clamp „screw clamping“, vee-block with spring clamp, precision chuck, 2 columns, clamping clip, universal hex socket key

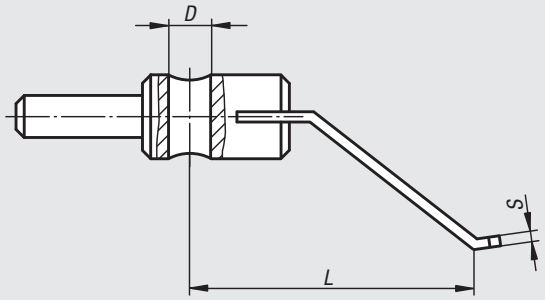
Spring clamp

Material, version:
Stainless steel, natural finish

Sample order:
nlm 33260-10605010

Note:
For fixation of small parts on measurement and monitoring plates.

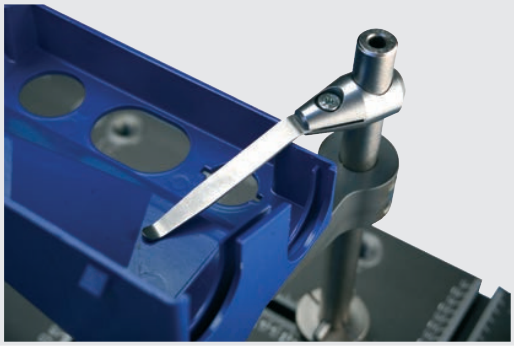
Accessory:
Columns for spring clamp 33262.



Spring clamp, flat

Spring clamp with fork

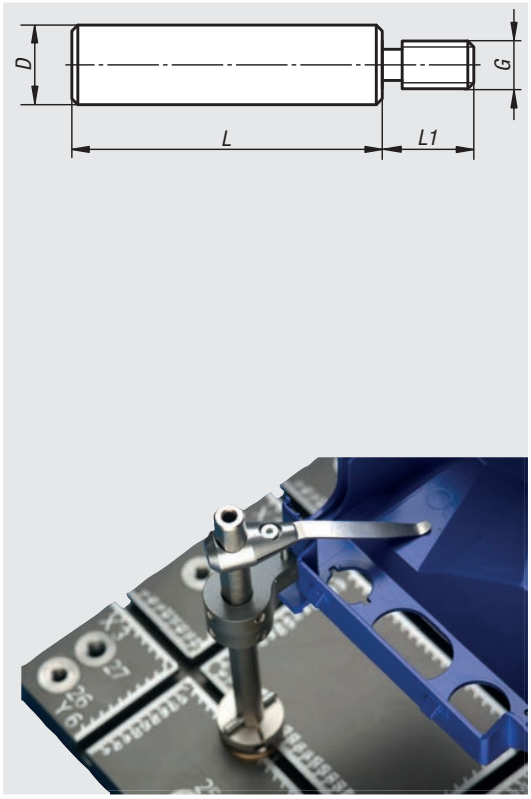
Spring clamp round



Order No.	Version	D	L	S	Approx. weight kg
33260-10403004	flat	4	30	0,4	0,007
33260-10403008	flat	4	30	0,8	0,007
33260-10605010	flat	6	50	1	0,020
33260-10607510	flat	6	75	1	0,022
33260-11207510	flat	12	75	1	0,030
33260-11209510	flat	12	95	1	0,031
33260-21207515	fork	12	75	1,5	0,033
33260-21209515	fork	12	95	1,5	0,036
33260-30404011	round	4	40	1,1	0,005
33260-30406011	round	4	60	1,1	0,006
33260-31208025	round	12	80	2,5	0,032
33260-31208030	round	12	80	3	0,032

Columns

for spring clamps



Material, version:
Stainless steel 1.4301, natural finish

Sample order:
nlm 33262-0606X030 (please also indicate dimension L)

Note:
Columns for holding spring clamps.

Accessory:
Spring clamp 33260.

Order No.	D	G	L	L1
33262-0404X	4	M4	30/50	5
33262-0606X	6	M6	30/50	8
33262-0608X	6	M8	30/50	10
33262-1206X	12	M6	50/100	8
33262-1208X	12	M8	50/100	11,5
33262-1210X	12	M10	50/100/150	11,5