

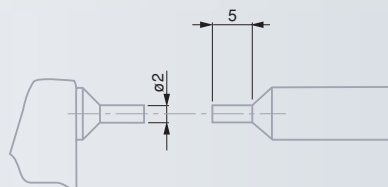
Micrometers with Small Measuring Faces

For measuring grooves, feather grooves, splines and other difficult to reach measuring points – Small measuring faces specially made to check precision workpieces.

Models MICROMASTER



No	mm	in
06030034	0 ÷ 30	0 ÷ 1.2
06030035	30 ÷ 60	1.2 ÷ 2.3
06030036	60 ÷ 90	2.3 ÷ 3.5
06030037	90 ÷ 120	3.5 ÷ 4.7
<i>Optional Accessory</i>		
01961000	1 Lithium battery - 3 V, 190 mAh, type CR 2032	
	For information on cables etc., see section N.	



DIN 863 T3
(Style D3)

0,001 mm
0.00005 in

Metric/Inch
conversion

Fixed measuring
faces:
tungsten carbide

Max. 10 N

RS 232:
interface,
opto-coupled

Degree of
protection
(IEC 60529):
IP54 or IP40 with use of
the digital output

For additional
technical data:
see page B-3

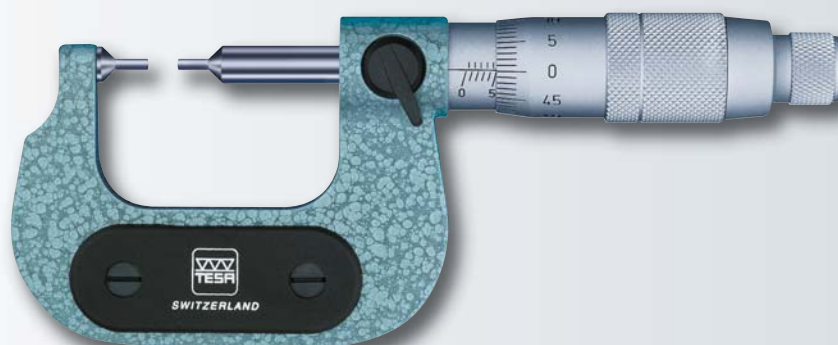
Plastic case

Identification
number

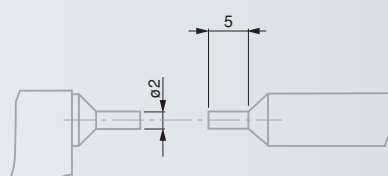
Measuring range
0 to 100: with
SCS calibration
certificate

Measuring range
> 100 mm:
inspection report
with a declaration of
conformity

Models ISOMASTER AD



No	mm	No	in
00210101	0 ÷ 25	00220101	0 ÷ 1
00210102	25 ÷ 50	00220102	1 ÷ 2



DIN 863 T3
(Style D3)
NF E 11-090

0,01 mm
0.0001 in

Fixed measuring
faces:
tungsten carbide

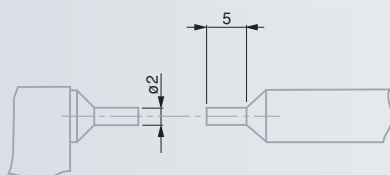
Max. 10 N

Plastic case

Identification
number

Inspection report
with a declaration of
conformity

Models TESAMASTER AD



Nº



mm

00311301

0 ÷ 25

00311302

25 ÷ 50



DIN 863 T3
(Style D3)
NF E 11-090



Vernier reading
to 0,001 mm



Scale division
0,1 mm



Fixed measuring
faces:
tungsten carbide



Max. 10 N



Plastic case

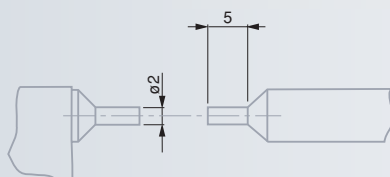


Identification
number



Inspection report
with a declaration
of conformity

Model MICRORAPID



Nº



mm

072116410

0 ÷ 20



DIN 863 T3
(Style D3)
NF E 11-090



0,001 mm.
Parallax-free
reading on vernier



100 divisions



Fixed measuring
faces:
tungsten carbide



1 mm



Max. 10 N



Plastic case



Identification
number



Inspection report
with a declaration
of conformity

Micrometers with One Spherical Measuring Face

Measure wall thickness of tubing.

Models MICROMASTER



	mm	in
06030079	0 ÷ 30	0 ÷ 1.2
06030080	25 ÷ 50	1 ÷ 2

Model ETALON



	mm
071115940	0 ÷ 25

Micrometers with Two Spherical Measuring Faces

Rounded Measuring faces on anvil and spindle for measuring concave surfaces of workpieces, e.g. ball-bearing guides or walls of tubing.

Models MICROMASTER



	mm	in
06030081	0 ÷ 25	0 ÷ 1
06030082	20 ÷ 50	0.8 ÷ 1.9
06030083	45 ÷ 75	1.8 ÷ 2.9
06030084	70 ÷ 100	2.8 ÷ 3.9



DIN 863 T3
(Style D1)



MICROMASTER:
0.001 mm or
0.00005 in



ETALON:
0.002 mm



Anvil:
tungsten carbide
(MICROMASTER)
or titanium carbide hard-
coating (ETALON).
Tungsten carbide spindle



Anvil with a
3.5 mm
spherical face
(MICROMASTER) or a
3.25 mm one (ETALON).
Spindle with a flat measuring
face



Max. 10 N



RS 232 on
MICROMASTER



Other technical
data on
MICROMASTER:
see page B-3



Plastic case



Identification
number



Inspection report
with a declaration
of conformity



DIN 863 T3
(Style D1)



0.001 mm
0.00005 in



Tungsten
carbide



Spherical,
3.5 mm radius



Max. 10 N



Other technical
data:
see page B-3



Plastic case



Identification
number



Inspection report
with a declaration
of conformity



DIN 863 T3
(Style D1)
NF E 11-090

0,01 mm

Measuring
faces rounded
to 3,25 mm

Titanium
carbide coated
for both
models No. 00112106 and
00190003.
Hardened steel for other
models

0,5 mm

Max. 10 N

Plastic case

Identification
number

Inspection report
with a declaration
of conformity



Steel ball tip,
hardened and
lapped.
Dull-chrome brass retainer.

Series AAS ISOMASTER

Rounded measuring faces for measuring concave surfaces such as ball-bearing guides and tubing walls.



No

mm

00112106	0 ÷ 25 (TiC)
00190003	25 ÷ 50 (TiC)
00110901	0 ÷ 25
00110902	25 ÷ 50
00110903	50 ÷ 75
00110904	75 ÷ 100

Spherical Element for External Micrometers

Holder with a ball tip that fits on measuring faces having a 6,5 mm diameter – Serve to measure tubing wall thickness or workpieces with concave surfaces and the like.



No

Ball tip

072103522	5 mm
072103523	0.200 in

Micrometers for Soft Materials

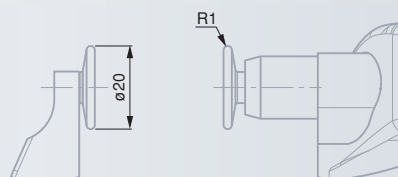
With two large, round-edge measuring faces – Measure the thickness of materials such as paper and plastic sheets, felt, cloth and other soft materials.

Models MICROMASTER

Non-rotating measuring spindle – Without spindle lock.



No	mm	in
06030085	0 ÷ 30	0 ÷ 1.2
06030086	25 ÷ 55	1 ÷ 2.1



Model ISOMASTER AF



No	mm
00210301	0 ÷ 25





DIN 863 T3
(Style D3)

0,001 mm
0.00005 in

Metric/Inch
conversion

Hardened
steel

Non-rotating
spindle ≤ 90 mm:
25 mm dia.
 $> 90 \leq 120$ mm: 30 mm dia.

Suitable from
module 0,5

Max. 10 N

RS 232

Other
technical data:
see page B-3

Plastic case

Identification
number

Inspection report
with a declaration
of conformity



DIN 863 T3
(Style D7)
NF E 11-090

0,01 mm

Hardened
steel

≤ 100 mm:
25 mm dia.
 $> 100 \leq 150$ mm:
32 mm dia.

Suitable from
module 0,6

Max. 10 N

Plastic case

Identification
number

Inspection report
with a declaration
of conformity

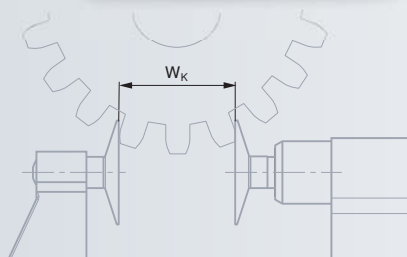
Micrometers for Gear Pitch Measurement

Flanges with ring-shaped measuring faces for root tangent lengths W_k on gear pitches, distance between grooves and slots as well as other hard-to-reach locations.



Models MICROMASTER

Non-rotating measuring spindle – Without spindle lock.



No

mm

in

06030041	0 ÷ 30	0 ÷ 1.2
06030042	25 ÷ 55	1 ÷ 2.1
06030043	55 ÷ 85	2.1 ÷ 3.35
06030044	85 ÷ 115	3.35 ÷ 4.5

Models ISOMASTER AE



No

mm

00210201	0 ÷ 25
00210202	25 ÷ 50
00210203	50 ÷ 75
00210204	75 ÷ 100
00210205	100 ÷ 125
00210206	125 ÷ 150

Micrometers for Gear Tooth Measurement



	Max. perm. error* with partial contact of the measuring face μm	Max. perm. error with full contact of the meas- uring face (DIN 863-T1) μm	Flatness μm	Parallelism μm	Max. flexure of the frame μm
0 ÷ 30	10	4	2	5	2
25 ÷ 55	10	4	2	5	2
55 ÷ 85	11	5	2	5	3
85 ÷ 115	12	5	2	6	4

* Disregarding a rim of 1 mm as the measuring faces are being inspected.
For enhanced accuracy, the micrometer should be calibrated in the position of use.

MICROMASTER with 7 Pairs of Interchangeable Measuring Inserts

Non-rotating spindle – Without spindle lock.



		
06030045	0 ÷ 30	0 ÷ 1.2
06030046	25 ÷ 55	1.0 ÷ 2.1



0,001 mm
0.00005 in



Metric/Inch
conversion



Micrometer
element with a
max. perm. error
of 4 µm



7,5 mm dia.,
non-rotating
spindle.

With a fixing bore for a meas-
uring insert.

Adjustable attachment on
anvil for a measuring insert,
with lock.



Hardened
steel



Max. 10 N



RS 232



Other
technical data
on page B-3



Plastic case



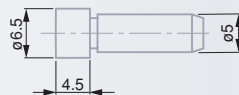
Identification
number



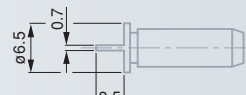
Inspection report
with a declaration
of conformity

Components of the Full Micrometers

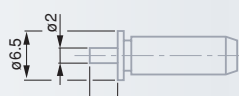
		
Single Micrometers		
06030099	0 ÷ 30	0 ÷ 1.2
06030100	25 ÷ 55	1.0 ÷ 2.1
Full set of measuring inserts		
00269027		
Includes one pair of the following inserts		
		
00269020	flat	Ø 6,5
00269021	small, flat	Ø 2
00269022	spherical	R = 5
00269023	large, flat	Ø 12
00269024	narrow, flat	0,7
00269025	cone-shaped	Ø 0,3/60°
00269026	knife-edged	0,3/60°
Specially designed measuring faces also available upon request.		



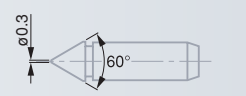
00269020



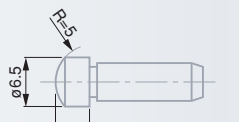
00269024



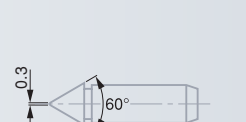
00269021



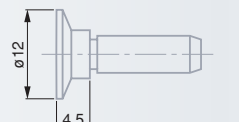
00269025



00269022



00269026



00269023

ETALON Basic with 7 Pairs of Interchangeable Inserts



0,01 mm

0,5 mm

Micrometer
element with
max. perm.
error of 4 µm

8,0 mm dia.,
non-rotating
spindle.

With a fixing bore for
the measuring insert.
Adjustable attachment
on anvil for the insert,
also with lock.

Without
spindle lock

Max. 10 N

Plastic case

Identification
number

Inspection report
with a declaration
of conformity

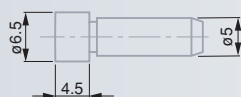
No



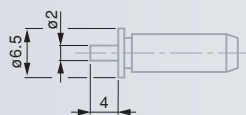
mm

00219056	0 ÷ 25
00219058	25 ÷ 50
00219060	50 ÷ 75
00219062	75 ÷ 100

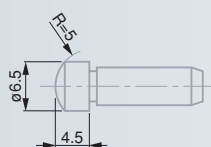
Components of the Full Micrometers



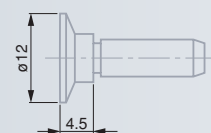
00269020



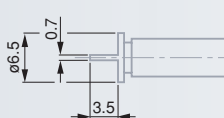
00269021



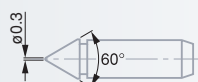
00269022



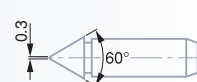
00269023



00269024



00269025



00269026

No



mm

Single micrometers

00219057	0 ÷ 25
00219059	25 ÷ 50
00219061	50 ÷ 75
00219063	75 ÷ 100

Full set of measuring inserts

00269027

Includes one pair of the following inserts

No



mm

µm

00269020	flat	Ø 6,5	0,6
00269021	small, flat	Ø 2	0,6
00269022	spherical	R = 5	
00269023	large, flat	Ø 12	1,2
00269024	narrow, flat	0,7	
00269025	cone-shaped	Ø 0,3 / 60°	
00269026	knife-edged	0,3 / 60°	

Series AT ISOMASTER with Large Measuring Face on Anvil

Micrometers with a flat, rectangular measuring face that serves for inspecting the width of milling cutters with staggered teeth.



No	mm
00211301	0 ÷ 25
00211302	25 ÷ 50



DIN 863 T3
(style D11)



0,01 mm



Titanium carbide
measuring face
on anvil.



Tungsten carbide
spindle



Anvil with a
50 x 9 mm
flat face for
measuring range 0 to 25 mm
or 60 x 10 mm for range
from 25 up to 50 mm.
Spindle with a 6,5 mm dia.
measuring face.



Anvil with
a flatness
tolerance of 2 µm



0,5 mm



Max. 10 N



Plastic case



Identification
number



Inspection report
with a declaration
of conformity

Series AN ISOMASTER with Small Frame

Measures wire thickness and ball diameters up to 10 mm. Small frame with 2 resting surfaces for wires.



No	mm
00210901	0 ÷ 10



DIN 863 T3
(Style D2)
NF E 11-090



0,01 mm



Tungsten carbide
tipped



6,5 mm dia.



0,5 mm



Max. 10 N



Plastic case



Identification
number



Inspection report
with a declaration
of conformity



DIN 863 T3
(Style D12)
NF E 11-090

0,01 mm

Hardened steel
anvil.
Tungsten carbide
spindle

5 mm dia.
on anvil.
6,5 mm dia.
on spindle

0,5 mm

Max. 10 N

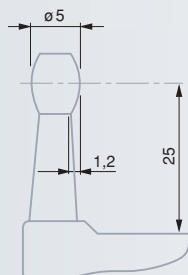
Plastic case

Identification
number

Inspection report
with a declaration
of conformity

ETALON Basic for Tube Wall Thickness Measurement

Barrel-shaped anvil for measuring the tube wall thickness and other curved workpieces.



No



00219066

mm
0 ÷ 25



Vernier reading
to 0,002 mm

Hardened steel
anvils.
Tungsten carbide
spindle

Anvils:
see drawing.
Spindle:
6,5 mm dia.

0,5 mm

Max. 10 N

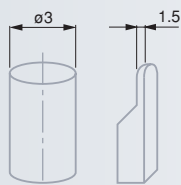
Plastic case

Identification
number

Inspection report
with a declaration
of conformity

ETALON Basic with Two Interchangeable Anvils

Universal micrometers for assembly – Anvils have either a flat or a cylindrical measuring face.



No



00219067

00219068

mm
0 ÷ 25
25 ÷ 50

Micrometers with Prismatic Measuring Faces

Measure test pieces with an uneven number of grooves such as milling cutters, taps, drills and spline shafts as well as odd polygons. Determine roundness errors on cylindrical surfaces. Angle of the prism aperture is designed for workpieces having a number of 3 or 5 flutes.

Models MICROMASTER



mm

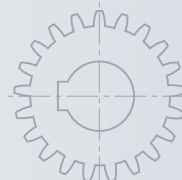
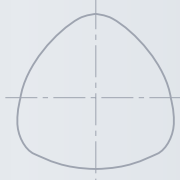
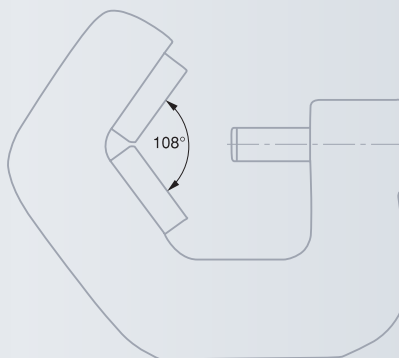
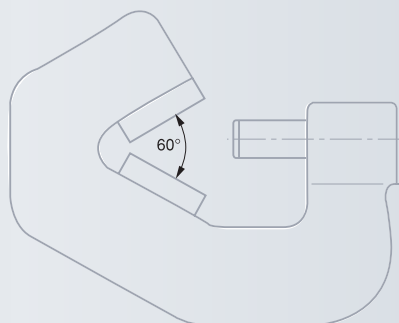
in

3-flute test pieces (60°)

06030087	1 ÷ 7	0.04 ÷ 0.27
06030088	5 ÷ 20	0.20 ÷ 0.80
06030089	20 ÷ 35	0.80 ÷ 1.38
06030090	35 ÷ 50	1.38 ÷ 1.97
06030091	50 ÷ 65	1.97 ÷ 2.56
06030092	65 ÷ 80	2.56 ÷ 3.15

5-flute test pieces (108°)

06030093	1 ÷ 7	0.04 ÷ 0.27
06030094	5 ÷ 25	0.20 ÷ 0.98
06030095	25 ÷ 45	0.98 ÷ 1.77
06030096	45 ÷ 65	1.77 ÷ 2.56
06030097	65 ÷ 85	2.56 ÷ 3.35
06030098	85 ÷ 105	3.35 ÷ 4.13



DIN 863 T3
(Style D 10)



0,001 mm
0.00005 in



Metric/Inch
conversion



Tungsten carbide
tipped



Angle of the
prism aperture:
60° for 3-flute test
pieces or 108° for 5-flute test
pieces



0,75 mm for
3-flute test pieces
or 0,559 mm for
5-flute test pieces



Max. 10 N



RS 232



Other
technical data
on page B-3



Plastic case



Identification
number



Inspection report
with a declaration
of conformity

Models ISOMASTER AS



DIN 863 T3
(Style D 10)
NF E 11-090

0,01 mm

Tungsten carbide
tipped

Angle of the
prism aperture:
60° for 3-flute test
pieces or 108° for 5-flute test
pieces

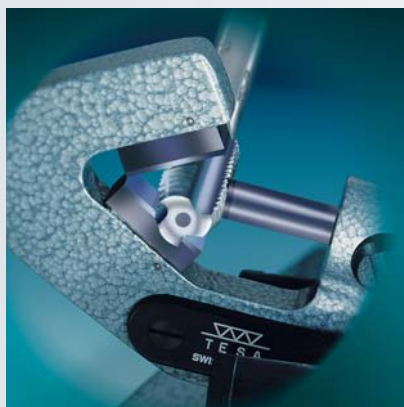
0,75 mm for
3-flute test pieces
or 0,559 mm for
5-flute test pieces

Max. 10 N

Plastic case

Identification
number

Declaration
of conformity



No

mm

3-flute test pieces (60°)

00410001	1 ÷ 7
00410002	5 ÷ 20
00410003	20 ÷ 35
00410004	35 ÷ 50
00410005	50 ÷ 65
00410006	65 ÷ 80

5-flute test pieces (108°)

00410101	1 ÷ 7
00410102	5 ÷ 25
00410103	25 ÷ 45
00410104	45 ÷ 65
00410105	65 ÷ 85
00410106	85 ÷ 105



Hardened steel

Fitted with plastic
guard plates from
nominal dimension
of 20 mm.
Actual size engraved
on the top face

Identification
number

Declaration
of conformity

Cylindrical Setting Standards



No

mm

μm

μm

00440001	5	0,5	—
00440002	20	0,7	1
00440003	25	0,7	1
00440004	35	1	1
00440005	45	1,2	1,5
00440006	50	1,2	1,5
00440007	65	1,5	1,5
00440008	85	2	2