

Lever-type dial test indicators



TESA
TECHNOLOGY

Lever-type dial test indicators

Lever indicators are essential instruments for both workshops and measurement laboratories. They are ideally suited for positioning/alignment in the adjustment of machine tools, for measuring axial or radial runout, or for comparative measurements on a calibration plate.

The bidirectional measurement and the lever system on a ball bearing with a tilt of 210° offer total freedom of measurement direction. The precision movement mounted on rubies minimizes wear and enhances the longevity of the instruments.

Our wide range of indicators each has its specific features to best meet user needs:

The TESATAST (metric) / BESTEST (imperial) range allows continuous clockwise pointer rotation providing error-free reading in every measuring directions. Its fully metallic construction, including three dovetail mountings, ensures robust build quality.

The RUBYTAST range uses a ruby ball insert for improved longevity. The contrast is enhanced with its circular segment dial.

The INTERAPID 312 range allows for easy attachment with a pivoting stem with a Ø 4 mm swivelling shank. These lever indicators are designed to read the measured value without correction when the probe is positioned at an angle α of 12° relative to the surface of the workpiece.

The P-LINE range reflects all the quality and high precision of the renowned COMPAC brand, with a long measuring range of up to 3 mm.



TESATAST	RUBYTAST	INTERAPID 312	P-LINE
Short travel	Short travel	Long travel	Long travel
0,2 ÷ 0,8 mm	0,2 ÷ 0,8 mm	0,4 ÷ 1,6 mm	0,6 ÷ 3,0 mm

Lever-type dial test indicators

The three types of TESA lever-type Dial Indicators

Standard model (left)

The dial is parallel to the axis of the measuring insert and mounted frontally on the casing.

Perpendicular model (center)

The dial is mounted perpendicularly to the axis of the measuring insert.

Lateral model (right)

The dial is parallel to the axis of the measuring insert and mounted laterally on the casing.



The importance of the measuring insert position

When using a lever-type dial indicator, if the position of the measuring insert is parallel to the surface of the workpiece (left figure), meaning that the measuring force is perpendicular to the surface (F), the 1.1 ratio is accurate. This means that the reading on the instrument is correct and does not require adjustment.

In the opposite case (right figure), the lever length is reduced (L), and the readings on the indicator dial must be corrected. The result given by the instrument should then be multiplied by a correction factor, which depends on the tilt angle α between the probe and the surface of the workpiece.

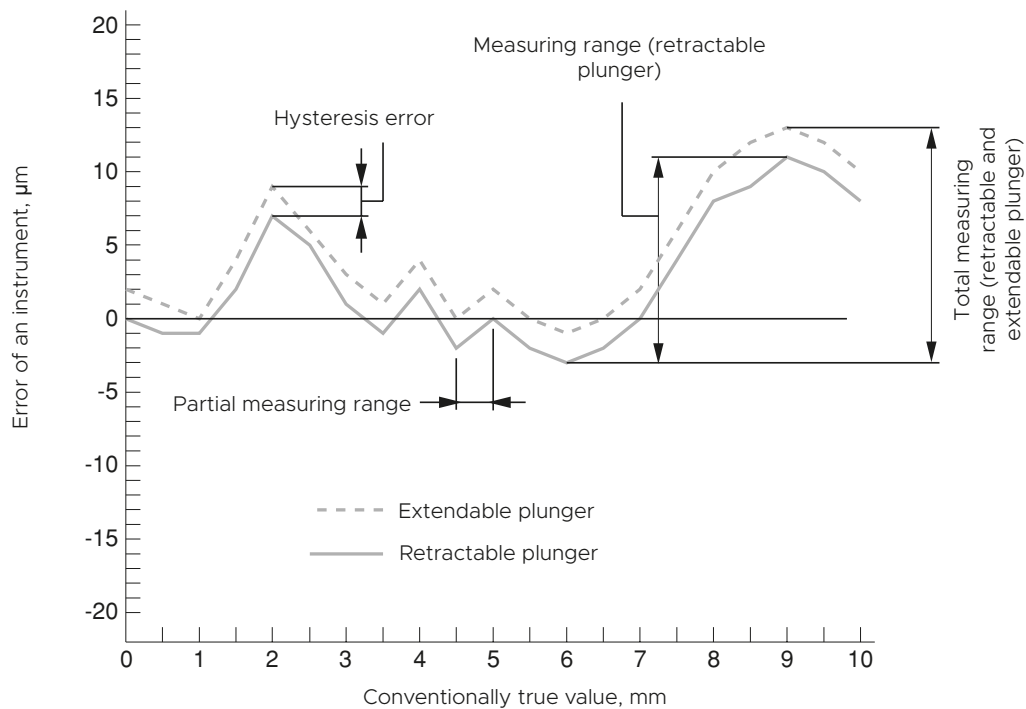


Metrological definitions

The international standard ISO 9493: 2011 is the main standard used for the metrological and dimensional characteristics of lever indicators.

Indication errors for:

- Total measuring range (retractable and extending stem): MPE_{tot}
- Measuring range (retractable stem): MPE_e
- Partial measuring range: MPE_p
 - over 1 full turn
 - over 1/2 turn
 - over 1/10 turn
 - over 10 divisions
- Hysteresis: MPE_h
- Repeatability: MPE_r

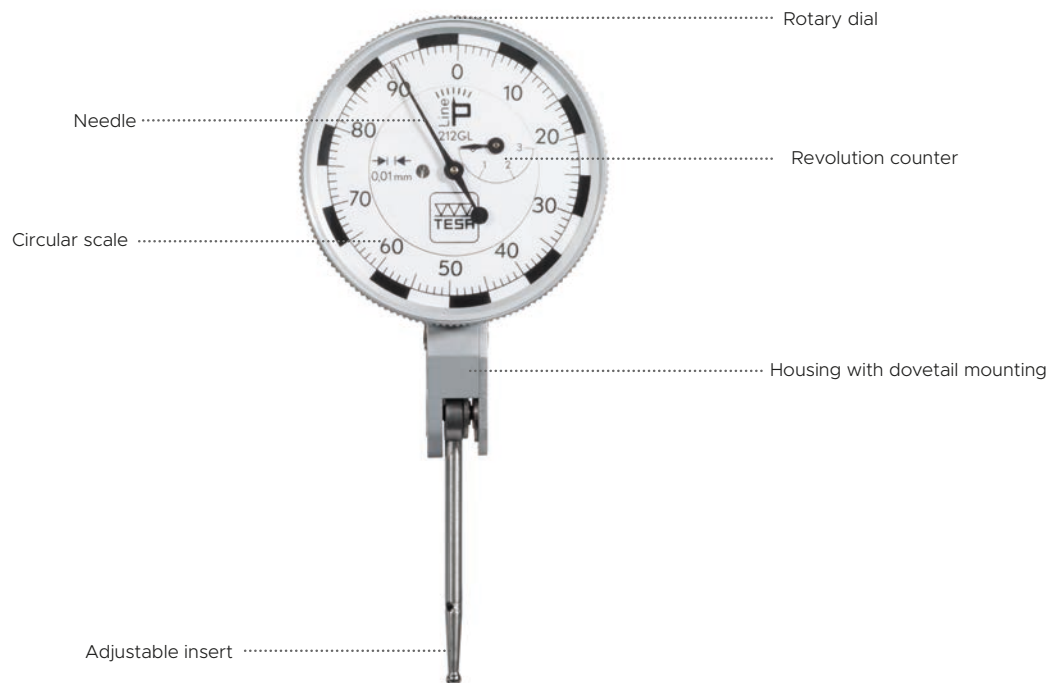


Lever-type dial test indicators

Digital lever-type dial test indicator



Analogue lever-type dial test indicator



Lever-type dial test indicators

Metric analogue lever-type dial test indicators, short travel

Model	Article number	Type	Resolution mm	Measuring range, mm	Dial, Ø mm	Circular scale	Probe length mm
TESATAST	01810007	Standard	0,01	0,5	28	0 ÷ 0,25 ÷ 0	36,53
TESATAST	01810008	Standard	0,01	0,5	38	0 ÷ 0,25 ÷ 0	36,53
TESATAST	01810005	Standard	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
TESATAST	01810006	Standard	0,01	0,8	38	0 ÷ 0,4 ÷ 0	12,53
TESATAST	01810009	Standard	0,002	0,2	28	0 ÷ 100 ÷ 0	12,53
TESATAST	01810010	Standard	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53
TESATAST	S18001695	Standard	0,001	0,2	38	0 ÷ 100 ÷ 0	12,53
RUBYTAST	01811000	Standard	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
RUBYTAST	01811001	Standard	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53
TESATAST	01810205	Perpendicular	0,01	0,5	28	0 ÷ 0,25 ÷ 0	36,53
TESATAST	01810204	Perpendicular	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
TESATAST	01810304	Perpendicular	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53
TESATAST	01810011	Lateral	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53
TESATAST	01810012	Lateral	0,02	2	38	0 ÷ 1 ÷ 0	36,53
TESATAST	01810013	Lateral	0,002	0,2	28	0 ÷ 100 ÷ 0	12,53

Imperial analogue lever-type dial test indicators, short travel

Model	Article number	Type	Resolution in	Measuring range, in	Dial, Ø in	Circular scale	Probe length in
TESATAST	01820010	Standard	.001	.03	1.1	0 ÷ 15 ÷ 0	1/2
TESATAST	01820009	Standard	.0005	.02	1.5	0 ÷ 10 ÷ 0	1-7/16
TESATAST	01820006	Standard	.0005	.03	1.1	0 ÷ 15 ÷ 0	1/2
TESATAST	01820007	Standard	.0005	.03	1.5	0 ÷ 15 ÷ 0	1/2
TESATAST	01820011	Standard	.0001	.008	1.1	0 ÷ 4 ÷ 0	1/2
TESATAST	01820012	Standard	.0001	.008	1.5	0 ÷ 4 ÷ 0	1/2
TESATAST	01820013	Standard	.00005	.008	1.5	0 ÷ 4 ÷ 0	1/2
TESATAST	01820014	Lateral	.0005	.03	1.1	0 ÷ 15 ÷ 0	1/2

Metric analogue lever-type dial test indicators, long travel

Model	Article number	Type	Resolution mm	Measuring range, mm	Dial, Ø mm	Circular scale	Probe length mm
P-LINE	01810400	Standard	0,01	1,5	27	0 ÷ 25 ÷ 50	18
P-LINE	01810401	Standard	0,01	1,5	40	0 ÷ 25 ÷ 50	18
P-LINE	01810402	Standard	0,01	3	27	0 ÷ 50 ÷ 100	36
P-LINE	01810403	Standard	0,01	3	40	0 ÷ 50 ÷ 100	36
P-LINE	01810404	Standard	0,002	0,6	27	0 ÷ 5 ÷ 10	18
P-LINE	01810405	Standard	0,002	0,6	40	0 ÷ 5 ÷ 10	18
P-LINE	01810406	Standard	0,002	1,2	40	0 ÷ 10 ÷ 20	36
P-LINE	01810407	Standard	0,001	0,6	40	0 ÷ 5 ÷ 10	18
P-LINE	01810408	Perpendicular	0,01	3	40	0 ÷ 50 ÷ 100	36
P-LINE	01810409	Lateral	0,01	3	40	0 ÷ 50 ÷ 100	36

Lever-type dial test indicators

Metric analogue lever-type dial test indicators, robust construction

Model	Article number	Type	Resolution mm	Measuring range, mm	Dial, Ø mm	Circular scale	Probe length mm
INTERAPID 312	074111366	Standard	0.01	1,6	37,5	0 ÷ 40 ÷ 0	16,5
INTERAPID 312	074111367	Standard	0.01	1,6	30	0 ÷ 40 ÷ 0	16,5
INTERAPID 312	074111368	Standard	0.002	0,4	37,5	0 ÷ 10 ÷ 0	15,2
INTERAPID 312	074111369	Standard	0.002	0,4	30	0 ÷ 10 ÷ 0	15,2
INTERAPID 312	074111375	Perpendicular	0.01	1,6	37,5	0 ÷ 40 ÷ 0	16,5
INTERAPID 312	074111376	Perpendicular	0.01	1,6	30	0 ÷ 40 ÷ 0	16,5

Imperial analogue lever-type dial test indicators, robust construction

Model	Article number	Type	Resolution in	Measuring range	Dial, Ø in	Circular scale	Probe length in
INTERAPID 312	074111374	Standard	.001	.06	1-1/5	0 ÷ 15 ÷ 0	.65
INTERAPID 312	074111370	Standard	.0005	.06	1-1/2	0 ÷ 15 ÷ 0	.65
INTERAPID 312	074111371	Standard	.0005	.06	1-1/5	0 ÷ 15 ÷ 0	.65
INTERAPID 312	074111965	Standard	.0005	.06	1-1/2	0 ÷ 15 ÷ 0	2.675
INTERAPID 312	074111372	Standard	.0001	.016	1-1/2	0 ÷ 4 ÷ 0	.65
INTERAPID 312	074111373	Standard	.0001	.016	1-1/5	0 ÷ 4 ÷ 0	.65
INTERAPID 312	074111379	Perpendicular	.001	.06	1-1/5	0 ÷ 15 ÷ 0	.65
INTERAPID 312	074111377	Perpendicular	.0005	.06	1-1/2	0 ÷ 15 ÷ 0	.65
INTERAPID 312	074111378	Perpendicular	.0005	.06	1-1/5	0 ÷ 15 ÷ 0	.65
INTERAPID 312	074111958	Perpendicular	.0005	.06	1-1/2	0 ÷ 15 ÷ 0	2.77
INTERAPID 312	074111957	Perpendicular	.0001	.016	1-1/2	0 ÷ 4 ÷ 0	.65

Digital lever-type dial test indicator

Model	Article number	Type	Resolution mm	Measuring range, mm	Dial, Ø mm	Degree of protection	Number of buttons
DIALTRONIC BT	01830004	Standard	0,001	0,8	45	IP54	3

DIALTRONIC series

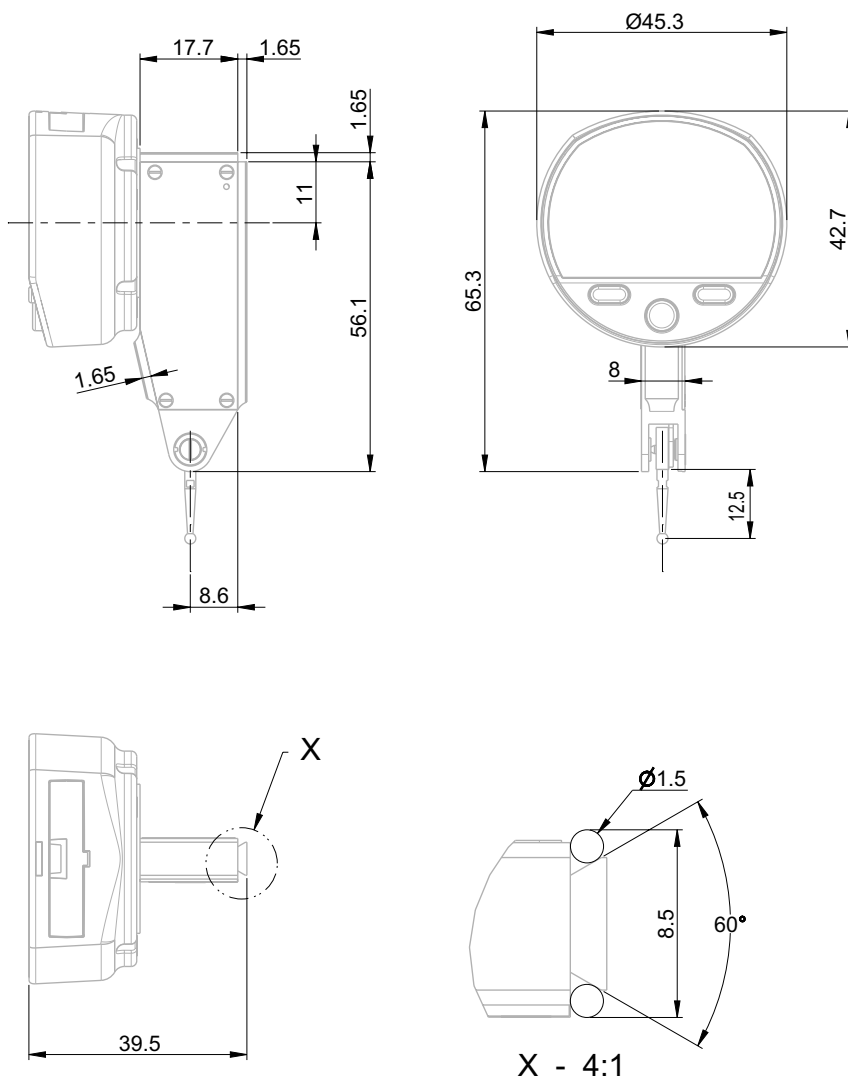


01830004

Standard	Dimensions: Factory standard Performances: Factory standard
Measuring range	0,8 mm
Units	mm / in
Resolution	0,001 mm / .00005 in
Material	Housing: Metal Inserts: Tungsten carbide
Dimensions	Insert thread: M1,4
Degree of protection	IP54
Data output(s)	Bluetooth®
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1:1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm Measurement report Quick start manual



Digital lever-type dial test indicators



01830004

Article number	Series	Resolution mm	Measuring range mm	Ø Dial mm	Degree of protection	Probe length mm	Measuring force N
01830004	DIALTRONIC	0,001	0,8	45	IP54	12,5	0,15

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger µm	MPE _h µm	MPE _r µm
01830004	4	3	2	1

MPE_e: Indication error on the measuring range (retractable plunger)
 MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)
 MPE_r: Repeatability of the indication error
 MPE_h: Hysteresis of indication error

TESATAST series, standard, metric

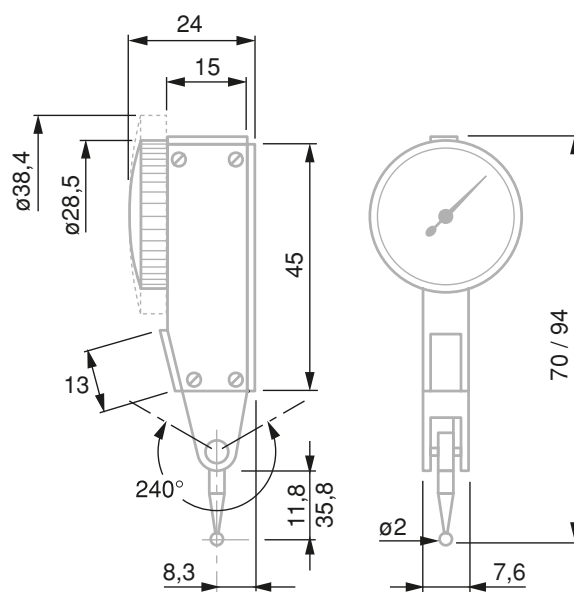


01810010

Standard	Dimensions : ISO 9493 Performances : DIN 2270
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,4
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Shockproof mechanism	With
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm User manual Declaration of conformity



Analogue lever-type dial test indicators, short travel



Article number	Series	Resolution mm	Measuring range mm	Ø Dial mm	Circular scale	Probe length mm	Measuring force N
01810005	TESATAST	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53	0,15
01810006	TESATAST	0,01	0,8	38	0 ÷ 0,4 ÷ 0	12,53	0,15
01810007	TESATAST	0,01	0,5	28	0 ÷ 0,25 ÷ 0	36,53	0,06
01810008	TESATAST	0,01	0,5	38	0 ÷ 0,25 ÷ 0	36,53	0,06
01810009	TESATAST	0,002	0,2	28	0 ÷ 100 ÷ 0	12,53	0,15
01810010	TESATAST	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53	0,15
S18001695	TESATAST	0,001	0,2	38	0 ÷ 100 ÷ 0	12,53	0,15

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p , 10 div µm	MPE _h µm	MPE _r µm
01810005	13	10	5	3	3
01810006	13	10	5	3	3
01810007	13	10	5	3	3
01810008	13	10	5	3	3
01810009	3,5	2	1	1,5	1
01810010	3,5	2	1	1,5	1
S18001695	3,5	2	1	1,5	1

MPE_e: Indication error on the measuring range (retractable plunger)

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 10 div: Deviation span within the local measuring span

MPE_r: Repeatability of the indication error

MPE_h: Hysteresis of indication error

TESATAST series, standard, imperial

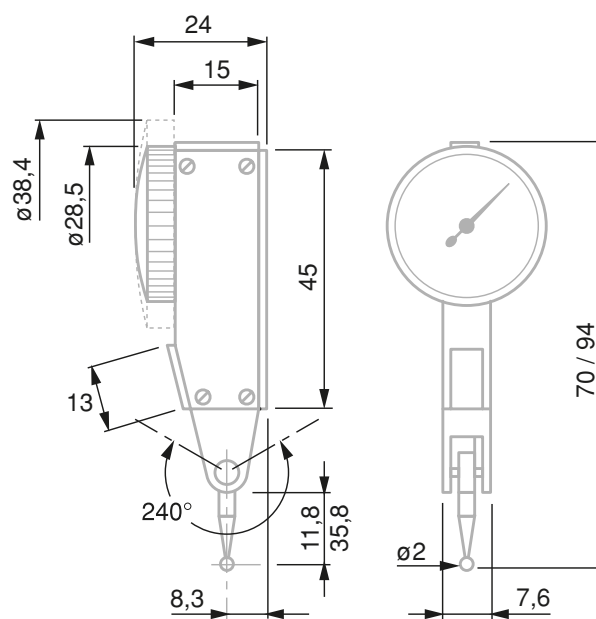


01820007

Standard	Dimensions : ISO 9493 Performances : DIN 2270
Units	in
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,4
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Shockproof mechanism	With
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm User manual Declaration of conformity



Analogue lever-type dial test indicators, short travel



Article number	Series	Resolution in	Measuring range in	Ø Dial in	Circular scale	Probe length in	Measuring force N
01820006	TESAST	.0005	.03	1.1	0 ÷ 15 ÷ 0	1/2	0,15
01820007	TESAST	.0005	.03	1.5	0 ÷ 15 ÷ 0	1/2	0,15
01820009	TESAST	.0005	.02	1.5	0 ÷ 10 ÷ 0	1-7/16	0,06
01820010	TESAST	.001	.03	1.1	0 ÷ 15 ÷ 0	1/2	0,15
01820011	TESAST	.0001	.008	1.1	0 ÷ 4 ÷ 0	1/2	0,15
01820012	TESAST	.0001	.008	1.5	0 ÷ 4 ÷ 0	1/2	0,15
01820013	TESAST	.00005	.008	1.5	0 ÷ 4 ÷ 0	1/2	0,15

Article number	MPEtot, retractable and extendable plunger, µ-in	MPEe, retractable plunger, µ-in	MPEp, 10 div µ-in	MPEh µ-in	MPEr µ-in
01820006	650	500	250	150	150
01820007	650	500	250	150	150
01820009	650	500	250	150	150
01820010	650	500	250	150	150
01820011	160	110	40	60	40
01820012	160	110	40	60	40
01820013	160	110	40	60	40

MPEe: Indication error on the measuring range (retractable plunger)

MPEtot: Indication error on the measuring range (retractable and extendable plunger)

MPEp 10 div: Deviation span within the local measuring span

MPEr: Repeatability of the indication error

MPEh: Hysteresis of indication error

TESATAST series, lateral, metric

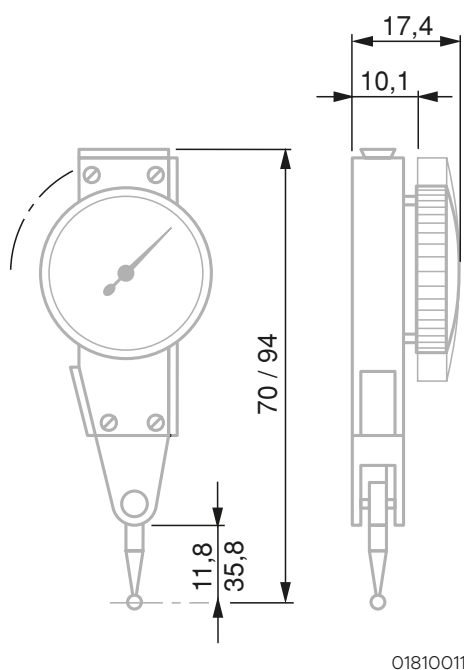


01810011

Standard	Dimensions : ISO 9493 Performances : DIN 2270
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,4
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Shockproof mechanism	With
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm User manual Declaration of conformity



Analogue lever-type dial test indicators, short travel



Article number	Series	Resolution mm	Measuring range mm	Ø Dial mm	Circular scale	Probe length mm	Measuring force N
01810011	TESATAST	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53	0,15
01810012	TESATAST	0,02	2	38	0 ÷ 1,0 ÷ 0	36,53	0,06
01810013	TESATAST	0,002	0,2	28	0 ÷ 100 ÷ 0	12,53	0,15

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p , 10 div µm	MPE _h µm	MPE _r µm
01810011	13	10	5	3	3
01810012	31	27	12	10	4
01810013	3,5	2	1	1,5	1

MPE_e: Indication error on the measuring range (retractable plunger)
 MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)
 MPE_p 10 div: Deviation span within the local measuring span
 MPE_r: Repeatability of the indication error
 MPE_h: Hysteresis of indication error

TESATAST series, lateral, imperial

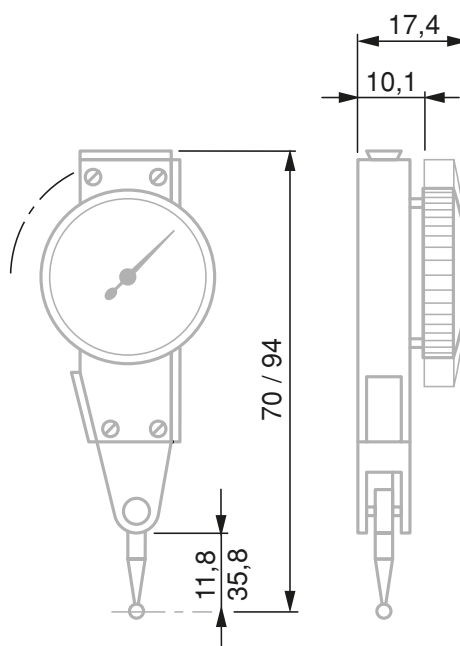


01820014

Standard	Dimensions : ISO 9493 Performances : DIN 2270
Units	in
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,4
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Shockproof mechanism	With
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1:1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Rigid stem Ø 8 mm User manual Declaration of conformity



Analogue lever-type dial test indicators, short travel



Article number	Series	Resolution in	Measuring range in	Ø Dial in	Circular scale	Probe length in	Measuring force N
01820014	TESATAST	.0005	.03	1.1	0 ÷ 15 ÷ 0	1/2	0,15

Article number	MPE _{tot} , retractable and extendable plunger, µ-in	MPE _e , retractable plunger, µ-in	MPE _p , 10 div µ-in	MPE _h µ-in	MPE _r µ-in
01820014	650	500	250	150	150

MPE_e: Indication error on the measuring range (retractable plunger)

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 10 div: Deviation span within the local measuring span

MPE_r: Repeatability of the indication error

MPE_h: Hysteresis of indication error

TESATAST series, perpendicular, metric

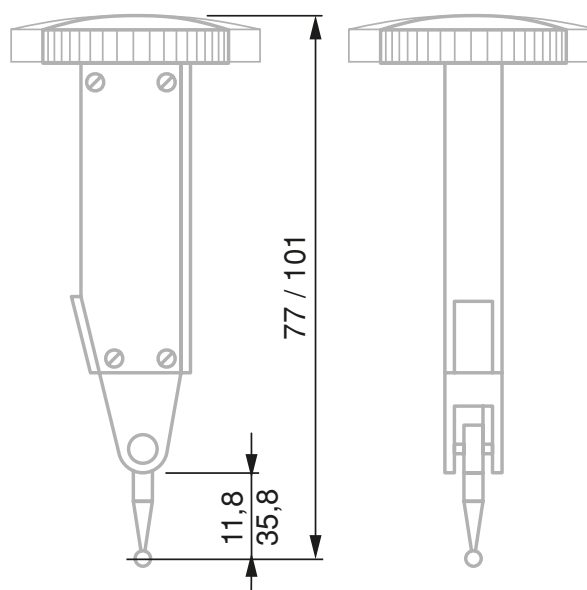


01810204

Standard	Dimensions : ISO 9493 Performances : DIN 2270
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,4
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Shockproof mechanism	With
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1:1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Rigid stem Ø 8 mm User manual Declaration of conformity



Analogue lever-type dial test indicators, short travel



Article number	Series	Resolution mm	Measuring range mm	Ø Dial mm	Circular scale	Probe length mm	Measuring force N
01810204	TESATAST	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53	0,15
01810205	TESATAST	0,01	0,5	28	0 ÷ 0,25 ÷ 0	36,53	0,06
01810304	TESATAST	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53	0,15

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p , 10 div µm	MPE _h µm	MPE _r µm
01810204	13	10	5	3	3
01810205	13	10	5	3	3
01810304	3,5	2	1	1,5	1

MPE_e: Indication error on the measuring range (retractable plunger)

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 10 div: Deviation span within the local measuring span

MPE_r: Repeatability of the indication error

MPE_h: Hysteresis of indication error

RUBYTAST series, standard, metric

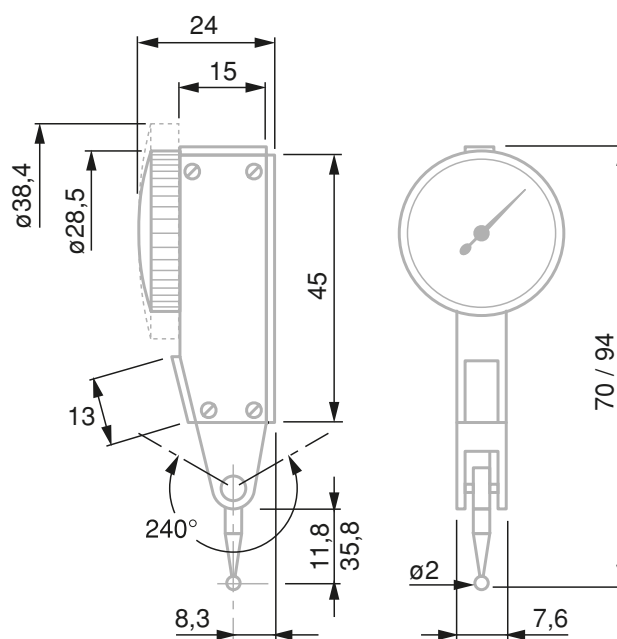


01811001

Standard	Dimensions : ISO 9493 Performances : DIN 2270
Units	mm
Material	Housing: Metal Ball inserts: Ruby
Dimensions	Insert thread: M1,4
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Shockproof mechanism	With
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Rigid stem Ø 8 mm User manual Declaration of conformity



Analogue lever-type dial test indicators, short travel



Article number	Series	Resolution mm	Measuring range mm	Ø Dial mm	Circular scale	Probe length mm	Measuring force N
01811000	RUBYTAST	0,01	0,8	28	0 ÷ 0,4 ÷ 0	12,53	0,15
01811001	RUBYTAST	0,002	0,2	38	0 ÷ 100 ÷ 0	12,53	0,15

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p , 10 div µm	MPE _h µm	MPE _r µm
01811000	13	10	5	3	3
01811001	3,5	2	1	1,5	1

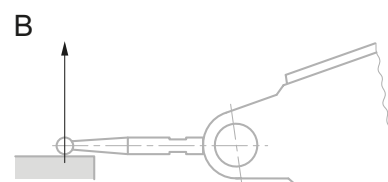
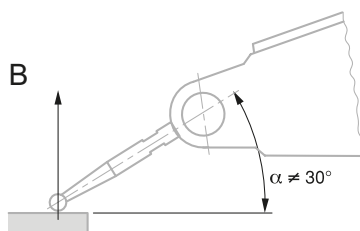
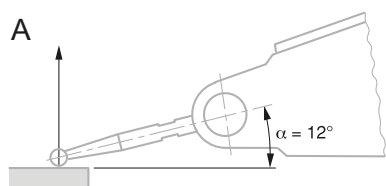
MPE_e: Indication error on the measuring range (retractable plunger)
 MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)
 MPE_p 10 div: Deviation span within the local measuring span
 MPE_r: Repeatability of the indication error
 MPE_h: Hysteresis of indication error

INTERAPID 312 series, standard, metric

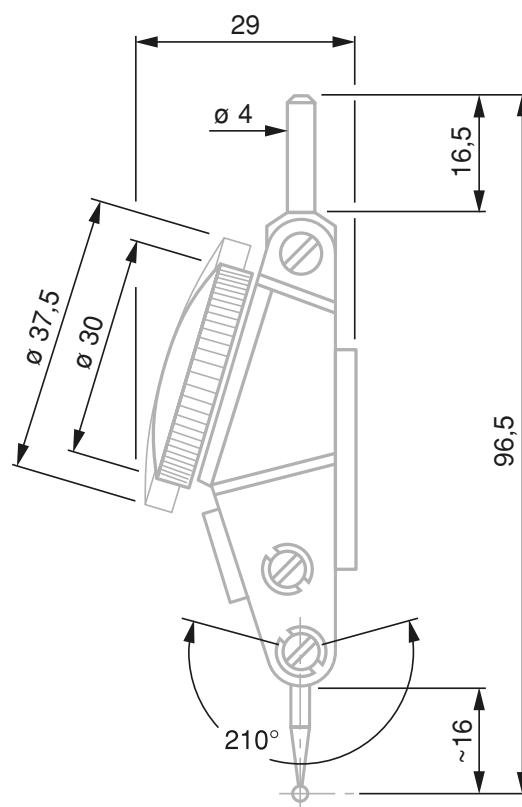


074111366

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Remark(s)	The INTERAPID 312 indicators are designed to read the measured value without correction when the probe is positioned at an angle α of 12° relative to the surface of the workpiece (Fig. A). For any other angle, including the parallel position of the insert, the readings require correction (Fig. B). Please refer to the user manual on this subject. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert $\varnothing 2$ mm Wrench for insert mounting Measurement report Declaration of conformity



Analogue lever-type dial test indicators, robust construction



Article number	Series	Resolution mm	Measuring range mm	Ø Dial mm	Travel / revolution, mm	Circular scale	Probe length mm	Measuring force, N
074111366	INTERAPID 312-1	0,01	1,6	37,5	0,8	0 ÷ 40 ÷ 0	16,5	0,12
074111367	INTERAPID 312-2	0,01	1,6	30	0,8	0 ÷ 40 ÷ 0	16,5	0,12
074111368	INTERAPID 312-3	0,002	0,4	37,5	0,2	0 ÷ 10 ÷ 0	15,2	0,25
074111369	INTERAPID 312-4	0,002	0,4	30	0,2	0 ÷ 10 ÷ 0	15,2	0,25

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _p 2 µm	MPE _p 1 µm	MPE _h µm	MPE _r µm
074111366	23	20	10	3	3
074111367	23	20	10	3	3
074111368	10	8	4	2	1
074111369	10	8	4	2	1

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 1: Indication error on 1 rotation

MPE_p 2: Indication error on 2 rotations

MPE_r: Repeatability of the indication error

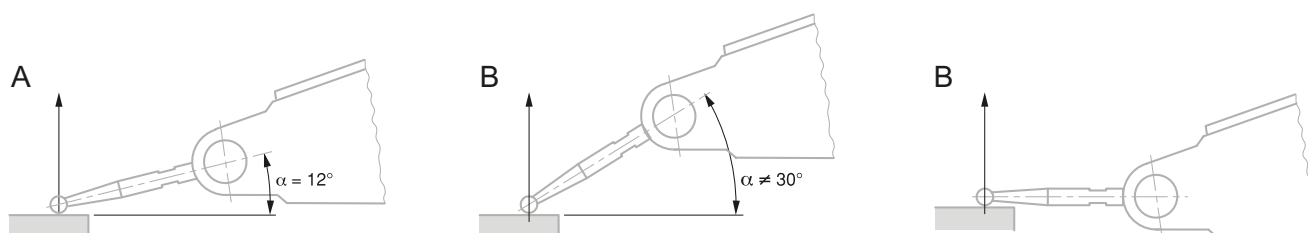
MPE_h: Hysteresis of indication error

INTERAPID 312 series, standard, imperial

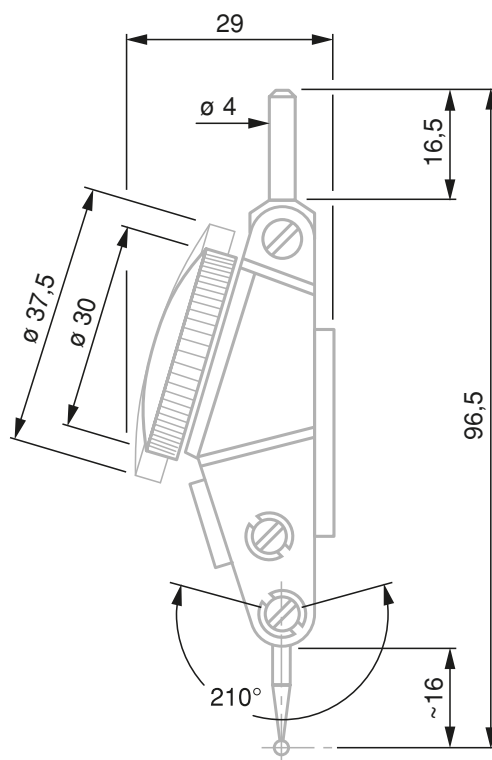


074111370

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	in
Material	Housing: Metal Ball inserts: Tungsten carbide
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Remark(s)	The INTERAPID 312 indicators are designed to read the measured value without correction when the probe is positioned at an angle α of 12° relative to the surface of the workpiece (Fig. A). For any other angle, including the parallel position of the insert, the readings require correction (Fig. B). Please refer to the user manual regarding this. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert $\varnothing 2$ mm Wrench for insert mounting Measurement report Declaration of conformity



Analogue lever-type dial test indicators, robust construction



Article number	Series	Resolution in	Measuring range in	Ø Dial in	Travel / revolution, in	Circular scale	Probe length, in	Measuring force, N
074111370	INTERAPID 312 B-1	.0005	.06	1-1/2	.03	0 ÷ 15 ÷ 0	.65	0,12
074111371	INTERAPID 312 B-2	.0005	.06	1-1/5	.03	0 ÷ 15 ÷ 0	.65	0,12
074111965	INTERAPID 312 B-15	.0005	.06	1-1/2	.03	0 ÷ 15 ÷ 0	2.675	0,12
074111374	INTERAPID 312 B-20	.001	.06	1-1/5	.03	0 ÷ 15 ÷ 0	.65	0,12
074111372	INTERAPID 312 B-3	.0001	.016	1-1/2	.008	0 ÷ 4 ÷ 0	.65	0,25
074111373	INTERAPID 312 B-4	.0001	.016	1-1/5	.008	0 ÷ 4 ÷ 0	.65	0,25

Article number	MPE _{tot} , retractable and extendable plunger, µ-in	MPE _p 2 µ-in	MPE _p 1 µ-in	MPE _h µ-in	MPE _r µ-in
074111370	920	800	400	120	120
074111371	920	800	400	120	120
074111965	1600	800	600	800	120
074111374	920	800	400	120	120
074111372	400	320	160	80	40
074111373	400	320	160	80	40

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 1: Indication error on 1 rotation

MPE_p 2: Indication error on 2 rotations

MPE_r: Repeatability of the indication error

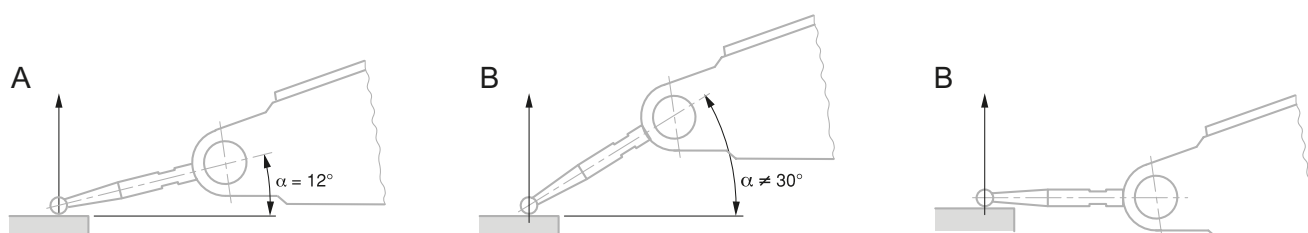
MPE_h: Hysteresis of indication error

INTERAPID 312 series, perpendicular, metric

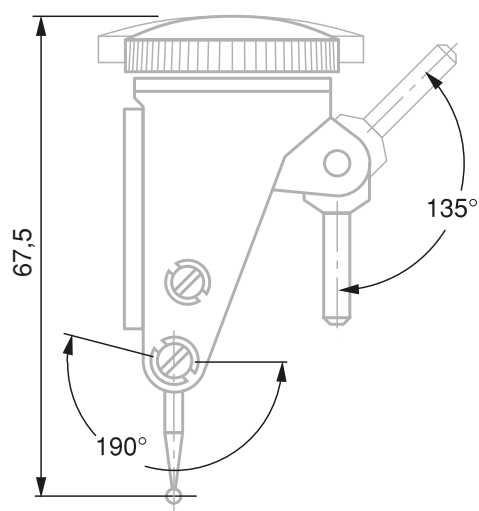


074111375

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Remark(s)	The INTERAPID 312 indicators are designed to read the measured value without correction when the probe is positioned at an angle α of 12° relative to the surface of the workpiece (Fig. A). For any other angle, including the parallel position of the insert, the readings require correction (Fig. B). Please refer to the user manual on this subject. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert $\varnothing 2$ mm Wrench for insert mounting Measurement report Declaration of conformity



Analogue lever-type dial test indicators, robust construction



074111375

Article number	Series	Resolution mm	Measuring range, mm	Ø Dial mm	Travel / revolution, mm	Circular scale	Probe length, mm	Measuring force, N
074111375	INTERAPID 312-1V	0,01	1,6	37,5	0,8	0 ÷ 40 ÷ 0	16,5	0,12
074111376	INTERAPID 312-2V	0,01	1,6	30	0,8	0 ÷ 40 ÷ 0	16,5	0,12

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _p 2 µm	MPE _p 1 µm	MPE _h µm	MPE _r µm
074111375	23	20	10	3	3
074111376	23	20	10	3	3

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 1: Indication error on 1 rotation

MPE_p 2: Indication error on 2 rotations

MPE_r: Repeatability of the indication error

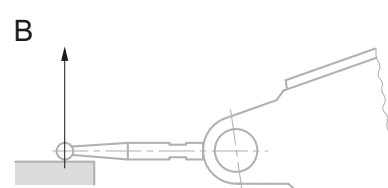
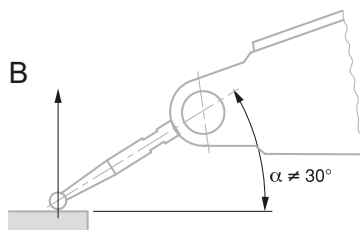
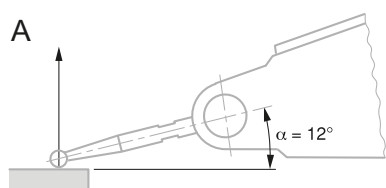
MPE_h: Hysteresis of indication error

INTERAPID 312 serie, perpendicular, imperial

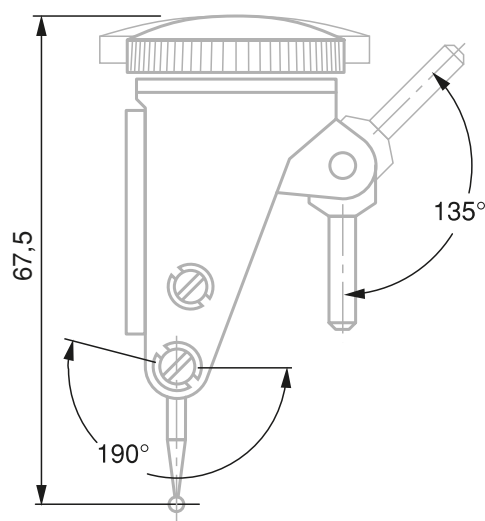


074111377

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	in
Material	Housing: Metal Ball inserts: Tungsten carbide
Reading direction	Clockwise and anti-clockwise
Dial	Rotating dial
Remark(s)	The INTERAPID 312 indicators are designed so that the measured value can be read without correction when the insert is positioned at an angle of 12° relative to the surface of the workpiece (Fig. A). For any other angle, including the parallel position of the insert, the readings require correction (Fig. B). Please refer to the user manual regarding this. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert $\varnothing 2$ mm Wrench for insert mounting Measurement report Declaration of conformity



Analogue lever-type dial test indicators, robust construction



074111375

Article number	Series	Resolution in	Measuring range, in	Ø Dial in	Travel / revolution, in	Circular scale	Probe lengthn, in	Measuring force, N
074111377	INTERAPID 312 B-1V	.0005	.06	1-1/2	.03	0 ÷ 15 ÷ 0	.65	0,12
074111378	INTERAPID 312 B-2V	.0005	.06	1-1/5	.03	0 ÷ 15 ÷ 0	.65	0,12
074111958	INTERAPID 312 B-15V	.0005	.06	1-1/2	.03	0 ÷ 15 ÷ 0	2.77	0,12
074111379	INTERAPID 312 B-20V	.001	.06	1-1/5	.03	0 ÷ 15 ÷ 0	.65	0,12
074111957	INTERAPID 312 B-3V	.0001	.016	1-1/2	.008	0 ÷ 4 ÷ 0	.65	0,25

Article number	MPE _{tot} , retractable and extendable plunger, μ-in	MPE _p 2 μ-in	MPE _p 1 μ-in	MPE _h μ-in	MPE _r μ-in
074111377	920	800	400	120	120
074111378	920	800	400	120	120
074111958	1600	800	600	800	120
074111379	920	800	400	120	120
074111957	400	320	160	80	400

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 1: Indication error on 1 rotation

MPE_p 2: Indication error on 2 rotations

MPE_r: Repeatability of the indication error

MPE_h: Hysteresis of indication error

P-LINE series, standard, metric

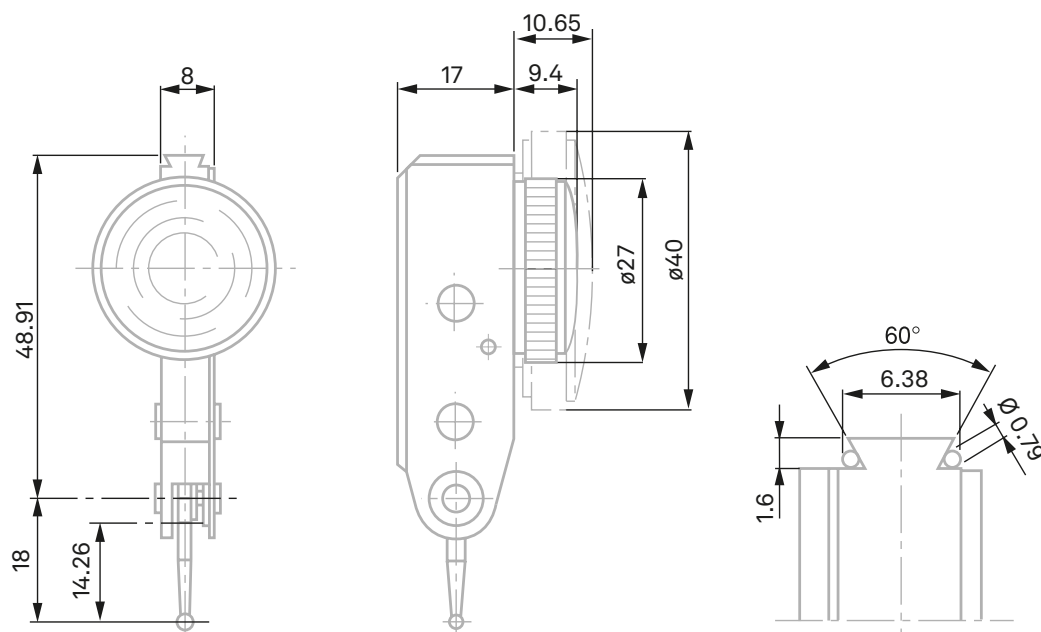


01810400

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,6
Reading direction	Clockwise
Dial	Rotating dial
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm Rigid stem Ø 4 mm User manual Measurement report Declaration of conformity



Analogue lever-type dial test indicators, long travel



Article number	Series	Resolution mm	Measuring range, mm	Ø Dial mm	Travel / revolution, mm	Circular scale	Probe length, mm	Measuring force, N
01810400	P-LINE 213	0,01	1,5	27	0,5	0 ÷ 25 ÷ 50	18	0,35
01810401	P-LINE 213G	0,01	1,5	40	0,5	0 ÷ 25 ÷ 50	18	0,35
01810402	P-LINE 212L	0,01	3	27	1	0 ÷ 50 ÷ 100	36	0,2
01810403	P-LINE 212GL	0,01	3	40	1	0 ÷ 50 ÷ 100	36	0,2
01810404	P-LINE 215	0,002	0,6	27	0,1	0 ÷ 5 ÷ 10	18	0,3
01810405	P-LINE 215G	0,002	0,6	40	0,1	0 ÷ 5 ÷ 10	18	0,3
01810406	P-LINE 215GL	0,002	1,2	40	0,2	0 ÷ 10 ÷ 20	36	0,2
01810407	P-LINE 216G	0,001	0,6	40	0,1	0 ÷ 5 ÷ 10	18	0,3

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p 1 µm	MPE _p 1/2 µm	MPE _p 1/10 µm	MPE _h µm	MPE _r µm
01810400	13	10	6	5	3	3	3
01810401	13	10	6	5	3	3	3
01810402	26	20	12	10	6	7	3
01810403	26	20	12	10	6	7	3
01810404	13	10	5	3	1	4,5	1,5
01810405	13	10	5	3	1	4,5	1,5
01810406	26	20	10	6	2	8	1,5
01810407	13	10	5	3	1	4,5	1,5

MPE_e: Indication error on the measuring range (retractable plunger)

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 1/10: Indication error on 1/10 rotation

MPE_p 1/2: Indication error on 1/2 rotation

MPE_p 1: Indication error on 1 rotation

MPE_r: Repeatability of the indication error

MPE_h: Hysteresis of indication error

P-LINE series, perpendicular, metric

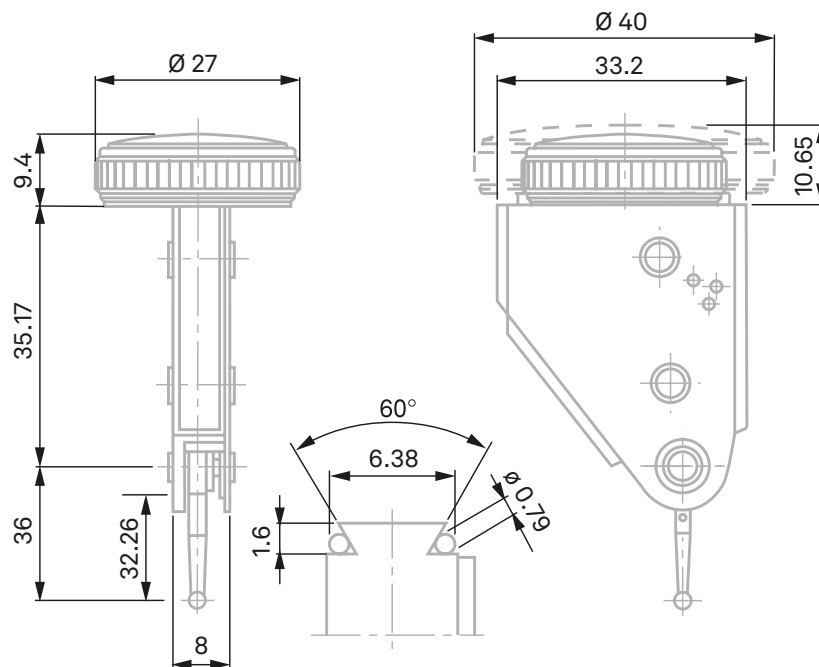


01810408

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,6
Reading direction	Clockwise
Dial	Rotating dial
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual.
Included in delivery	The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained. Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm Rigid stem Ø 4 mm User manual Measurement report Declaration of conformity



Analogue lever-type dial test indicators, long travel



Article number	Series	Resolution mm	Measuring range, mm	Ø Dial mm	Travel / revolution, mm	Circular scale	Probe length mm	Measuring force, N
01810408	P-LINE 222GL	0,01	3	40	1	0 ÷ 50 ÷ 100	36	0,2

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p 1 µm	MPE _p 1/2 µm	MPE _p 1/10 µm	MPE _h µm	MPE _r µm
01810408	26	20	12	10	3	7	3

MPE_e: Indication error on the measuring range (retractable plunger)

MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)

MPE_p 1/10: Indication error on 1/10 rotation

MPE_p 1/2: Indication error on 1/2 rotation

MPE_p 1: Indication error on 1 rotation

MPE_r: Repeatability of the indication error

MPE_h: Hysteresis of indication error

P-LINE series, lateral, metric

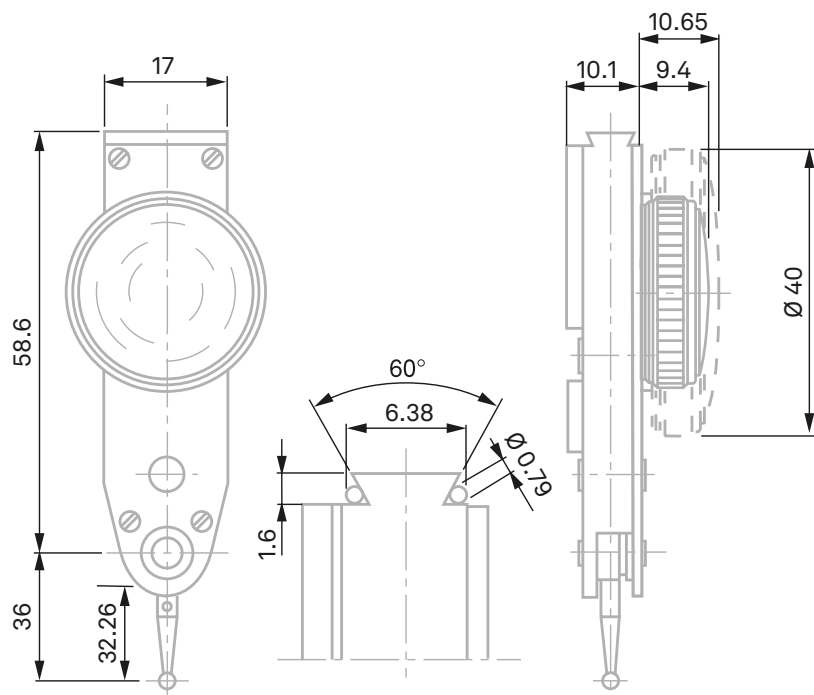


01810409

Standard	Dimensions : ISO 9493 Performances : Factory standard
Units	mm
Material	Housing: Metal Ball inserts: Tungsten carbide
Dimensions	Insert thread: M1,6
Reading direction	Clockwise
Dial	Rotating dial
Remark(s)	If the position of the insert is parallel to the surface of the workpiece (left figure), the 1.1 ratio is accurate. Therefore, the reading does not require any correction. In the opposite case (right figure), the effective length of the lever changes. The readings must then be corrected. In this regard, please refer to the user manual. The original inserts mounted on the instrument can be replaced with inserts that have either the same or a different ball diameter, provided that the nominal length of the insert is maintained.
Included in delivery	Lever-type dial test indicator with mounted ball insert Ø 2 mm Wrench for insert mounting Rigid stem Ø 8 mm Rigid stem Ø 4 mm User manual Measurement report Declaration of conformity



Analogue lever-type dial test indicators, long travel



Article number	Series	Resolution mm	Measuring range, mm	Ø Dial mm	Travel / revolution, mm	Circular scale	Probe length mm	Measuring force, N
01810409	P-LINE 232GL	0,01	3	40	1	0 ÷ 50 ÷ 100	36	0,2

Article number	MPE _{tot} , retractable and extendable plunger, µm	MPE _e , retractable plunger, µm	MPE _p 1 µm	MPE _p 1/2 µm	MPE _p 1/10 µm	MPE _h µm	MPE _r µm
01810409	26	20	12	10	3	7	3

MPE_e: Indication error on the measuring range (retractable plunger)
 MPE_{tot}: Indication error on the measuring range (retractable and extendable plunger)
 MPE_p 1/10: Indication error on 1/10 rotation
 MPE_p 1/2: Indication error on 1/2 rotation
 MPE_p 1: Indication error on 1 rotation
 MPE_r: Repeatability of the indication error
 MPE_h: Hysteresis of indication error

Ball tip inserts for TESATAST and RUBYTAST indicators



01860203

Article number	Material	Fixing mm	Diameter mm	Probe length mm
01860704	Tungsten carbide	M1,4	0,5	12,53
01860201	Tungsten carbide	M1,4	1	12,53
01860202	Tungsten carbide	M1,4	2	12,53
01860203	Tungsten carbide	M1,4	3	12,53
01860211	Tungsten carbide	M1,4	1	36,53
01860212	Tungsten carbide	M1,4	2	36,53
01860213	Tungsten carbide	M1,4	3	36,53
01860301	Ruby	M1,4	1	12,53
01860302	Ruby	M1,4	2	12,53
01860303	Ruby	M1,4	3	12,53
01860304	Ruby	M1,4	1	36,53
01860305	Ruby	M1,4	2	36,53

The original inserts mounted on TESATAST and RUBYTAST indicators can be replaced without issue by inserts with either the same or different ball diameter, provided that the nominal length is respected.

Accessories

Article number	Designation
01860307	Key for lever-type indicator

Inserts

Ball tip inserts for metric INTERAPID 312 indicators



074107893

Article number	Material	Fixing mm	Diameter mm	Probe length mm	Compatibility
074107897	Steel	M1,7	0,8	16,5	INTERAPID 312, resolution 0,01 mm
074107895	Steel	M1,7	1,5	16,5	INTERAPID 312, resolution 0,01 mm
074107893	Steel	M1,7	2	16,5	INTERAPID 312, resolution 0,01 mm
074110493	Steel	M1,7	0,8	15,2	INTERAPID 312, resolution 0,002 mm
074105995	Tungsten carbide	M1,7	0,8	16,5	INTERAPID 312, resolution 0,01 mm
074105994	Tungsten carbide	M1,7	1,5	16,5	INTERAPID 312, resolution 0,01 mm
074105993	Tungsten carbide	M1,7	2	16,5	INTERAPID 312, resolution 0,01 mm
074106360	Tungsten carbide	M1,7	0,8	36,6	INTERAPID 312, resolution 0,01 mm
074106358	Tungsten carbide	M1,7	2	36,6	INTERAPID 312, resolution 0,01 mm
074110507	Tungsten carbide	M1,7	0,8	15,2	INTERAPID 312, resolution 0,002 mm
074110491	Tungsten carbide	M1,7	1,5	15,2	INTERAPID 312, resolution 0,002 mm
074110482	Tungsten carbide	M1,7	2	15,2	INTERAPID 312, resolution 0,002 mm
074110508	Tungsten carbide	M1,7	0,8	34	INTERAPID 312, resolution 0,002 mm
074110494	Tungsten carbide	M1,7	2	34	INTERAPID 312, resolution 0,002 mm

The original inserts mounted on INTERAPID 312 indicators can be replaced without issue by inserts with either the same or different ball diameter, provided that the nominal length is respected.

The length of inserts 074106358, 074106360, 074110494 and 074110508 modifies the amplification factor of the lever system. Therefore, the read values must be doubled.

Accessories

Article number	Designation
01860307	Key for lever-type indicator

Ball tip inserts for imperial INTERAPID 312 indicators



074107899

Article number	Material	Fixing mm	Compatibility
074116284	Tungsten carbide	M1,7	All INTERAPID 312 indicators
074107903	Steel	M1,7	All INTERAPID 312 indicators
074107901	Steel	M1,7	All INTERAPID 312 indicators
074107899	Steel	M1,7	All INTERAPID 312 indicators
074105998	Tungsten carbide	M1,7	All INTERAPID 312 indicators
074105997	Tungsten carbide	M1,7	All INTERAPID 312 indicators
074105996	Tungsten carbide	M1,7	All INTERAPID 312 indicators
074106363	Tungsten carbide	M1,7	All INTERAPID 312 indicators
074106361	Tungsten carbide	M1,7	All INTERAPID 312 indicators
074111913	Tungsten carbide	M1,7	Indicator 074111965
074111912	Tungsten carbide	M1,7	Indicator 074111958

The original inserts mounted on INTERAPID 312 can be replaced without issue by inserts with either the same or different ball diameter, provided that the nominal length is respected.

The length of inserts 074106361 and 074106363 modifies the amplification factor of the lever system. Therefore, the read values must be doubled.

Accessories

Article number	Designation
01860307	Key for lever-type indicator

Inserts

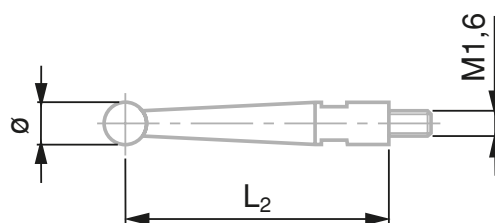
Ball tip inserts for metric P-LINE indicators



01866014

Article number	Material	Fixing mm	Diameter mm	L1 mm	L2 mm
01866014	Tungsten carbide	M1,6	0,8	18	14,26
01866003	Tungsten carbide	M1,6	2	18	14,26
01866021	Tungsten carbide	M1,6	3	18	14,26
01866016	Tungsten carbide	M1,6	0,8	36	32,26
01866004	Tungsten carbide	M1,6	2	36	32,26
01866023	Tungsten carbide	M1,6	3	36	32,26
01866015	Tungsten carbide	M1,6	0,8	45	41,26
01866006	Tungsten carbide	M1,6	2	45	41,26
01866026	Tungsten carbide	M1,6	2	18	14,26
01866027	Ruby	M1,6	2	36	32,26

The original insert mounted on P-LINE indicators can be replaced without issue by inserts with either the same or different ball diameter, provided that the nominal length is respected.



L1 = axial length from ball to pivot

TESATAST indicator, standard, metric + magnetic support


01639055

Article number	Designation	Composed of
01639055	Set with magnetic support + TESATAST	01810005 TESATAST analogue lever-type dial test indicator, standard, 0,8 mm, 0,01 mm, Ø 28 mm 01639010 Support with magnetic base, articulated arm

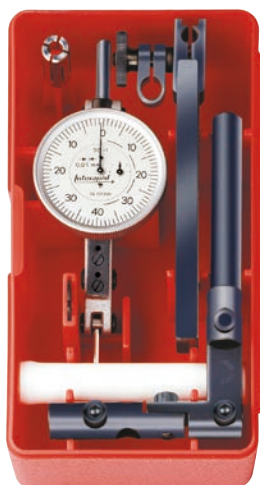
RUBYTAST indicator, standard, metric + magnetic support


01639056

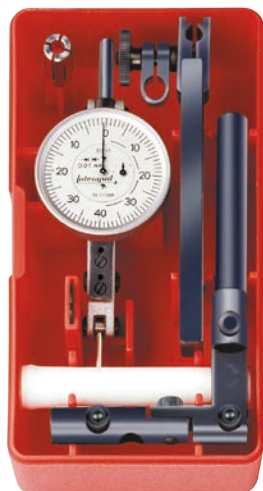
Article number	Designation	Composed of
01639056	Set with magnetic support + RUBYTAST	01811001 RUBYTAST analogue lever-type dial test indicator, standard, 0,2 mm, 0,002 mm, Ø 38 mm 01639010 Support with magnetic base, articulated arm

Sets of lever-type test indicator + accessories

Sets with *INTERAPID 312* and accessories, imperial



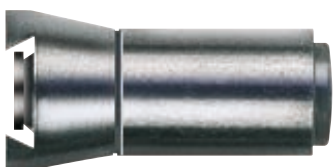
			With standard indicator				With perpendicular indicator	
Family	Part number	Description	07411508	07411509	07411510	07411511	07411513	07411514
Lever-type dial test indicator	07411370	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 1-1/2 in Application range: .06 in Resolution: .0005 in	•					
	07411371	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 1-1/5 in Application range: .06 in Resolution: .0005 in		•				
	07411372	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 1-1/2 in Application range: .016 in Resolution: .0001 in			•			
	07411373	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 1-1/5 in Application range: .016 in Resolution: .0001 in				•		
	07411377	INTERAPID 312, perpendicular, with ball insert Ø 2 mm Dial, Ø: 1-1/2 in Application range: .06 in Resolution: .0005 in					•	
	07411378	INTERAPID 312, perpendicular, with ball insert Ø 2 mm Dial, Ø: 1-1/5 in Application range: .06 in Resolution: .0005 in						•
Accessories	074106331	Swivel holder with dovetail grip, Ø 4 and Ø 5,5 mm, bar = 6 x 12,6 x 76 mm	•	•	•	•	•	•
	074106931	Swivel holder with dovetail grip, Ø 4 and Ø 7 mm, shaft = Ø 3/8 x 5-1/4 in	•	•	•	•	•	•
	074108943	Reducing sleeve, Ø 3/8 in - Ø 5/32 in	•	•	•	•	•	•
	074111474	Case for measuring inserts	•	•	•	•	•	•
	01860307	Key for inserts	•	•	•	•	•	•

Sets with INTERAPID 312 and accessories, metric


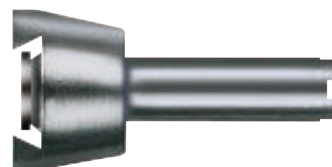
			With standard indicator			
Family	Part number	Description	074111502	074111503	074111504	074111505
Lever-type dial test indicator	074111366	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 37,5 mm Application range: 1,6 mm Resolution: 0,01 mm	•			
	074111367	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 30 mm Application range: 1,6 mm Resolution: 0,01 mm		•		
	074111368	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 37,5 mm Application range: 0,4 mm Resolution: 0,002 mm			•	
	074111369	INTERAPID 312, standard, with ball insert Ø 2 mm Dial, Ø: 30 mm Application range: 0,4 mm Resolution: 0,002 mm				•
Accessories	074106331	Swivel holder with dovetail grip, Ø 4 and Ø 5,5 mm, bar = 6 x 12,6 x 76 mm	•	•	•	•
	074106026	Swivel holder with dovetail grip, Ø 4 and Ø 7 mm, shaft = Ø 8 x 133 mm	•	•	•	•
	074108942	Reducing sleeve, Ø 8 mm - Ø 4 mm	•	•	•	•
	074111474	Case for measuring inserts	•	•	•	•
	01860307	Key for inserts	•	•	•	•

Fixing accessories

Rigid fixing rods with dovetail attachment



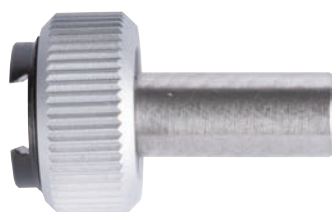
01840105



01840104

Article number	Designation
01840104	Mounting rod with dovetail clamp, shaft = Ø 4 x 13 mm
01840105	Mounting rod with dovetail clamp, shaft = Ø 8 x 13 mm
01850104	Mounting rod with dovetail clamp, shaft = Ø 5,55 x 13 mm
01850105	Mounting rod with dovetail clamp, shaft = Ø 6,35 x 13 mm
01860008	Mounting rod with dovetail clamp, shaft = Ø 6 x 13 mm

Rigid fixing rods with dovetail attachment



01850107

Article number	Designation
01840107	Knurled mounting rod with dovetail clamp, shaft = Ø 8 x 16,5 mm
01840109	Knurled mounting rod with dovetail clamp, shaft = Ø 4 x 16,4 mm

Swivelling fixing rods with dovetail attachment



01840408

Article number	Designation
01840408	Mounting rod with dovetail clamp, swivelling, shaft = Ø 4 x 64,35 mm
01840409	Mounting rod with dovetail clamp, swivelling, shaft = Ø 8 x 64,35 mm

Swivel holders



01840404



01840407



01850404

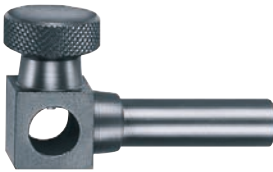


01840405

Article number	Designation
01840404	Swivel holder with dovetail grip, shaft = Ø 8 x 25 mm
01850404	Swivel holder with dovetail grip, shaft = Ø 3/8 x 1 in
01840405	Swivel holder with dovetail grip, shaft = Ø 8 x 90 mm
01850405	Swivel holder with dovetail grip, shaft = Ø 3/8 x 3-5/8 in
01840407	Swivel holder with dovetail grip, fine adjustment device, shaft = Ø 8 x 125 mm
074106026	Swivel holder with dovetail grip, Ø 4 and Ø 7 mm, shaft = Ø 8 x 133 mm
074106931	Swivel holder with dovetail grip, Ø 4 and Ø 7 mm, shaft = Ø 3/8 x 5-1/4 in
074106331	Swivel holder with dovetail grip, Ø 4 and Ø 5,5 mm, bar = 6 x 12,6 x 76 mm

Fixing accessories

Squares holders



01840406



01850406

Article number	Designation
01840406	Angular swivel holder, shaft = Ø 8 x 25 mm, clamping Ø 8 mm
01850406	Angle holder with cylindrical shank, Ø 3/8 in, shaft = Ø 3/8 x 3.5 in

Fixing rod with pin



01840202



01850203



074111481

Article number	Designation
01840202	Mounting rod, pin = Ø 5,6 mm, shaft = 8 x 80 mm
01850202	Fixing shank, pin Ø 7/32 in, shank = Ø 3/8 x 3.5 in
01850203	Fixing shank, pin Ø .22 in, bar = 1/4 x 1/2 x 3 in
074111481	Fixing shank, pin Ø 5/32 in, bar = 3/16 x 5/16 in

Clamps



01860401

Article number	Designation
01860401	Dovetail clamp with dovetail clamp, clamping = Ø 5,6 and Ø 9,5 mm
01860402	Dovetail clamp with dovetail clamp, clamping = Ø 7 and 9,5 mm
074108603	Dovetail clamp with dovetail clamp, clamping = Ø 7/32 and 5/32 in

Rotating holder



SPT

Article number	Designation
SPT	Swivel clamp, Ø 4,1 mm, axis = Ø 8 x 25 mm

Fixing accessories

Centring holder



01840501

Article number	Designation
01840501	Centering holder, Ø 4 mm, shaft = Ø 4 x 25 mm

Mounting backs for lever-type test indicators



03238013

Article number	Designation
03238013	Mounting lug

Reducing sleeves



074108942

Article number	Designation
074108942	Reducing sleeve, Ø 8 mm - Ø 4 mm
074108943	Reducing sleeve, Ø 3/8 in - Ø 5/32 in
03560101	Reducing sleeve, Ø .375 in - Ø 8 mm